County of Los Angeles

Draft
Environmental Impact Report
SCH No. 2005051143
Volume XVIII
Appendix 4.19 (continued) –
Appendix 4.21

MISSION VILLAGE

Prepared for:

Los Angeles County
Department of Regional Planning
320 West Temple Street
Los Angeles, California 90012

Prepared by:

IMPACT SCIENCES, INC.
803 Camarillo Springs Road, Suite A
Camarillo, California 93012
Phone: (805) 437-1900

NEWHALL RANCH
Newhall Ranch Company

OCTOBER 2010

County of Los Angeles

Draft Environmental Impact Report
SCH No. 2005051143
Volume XVIII
Appendix 4.19 (continued) – Appendix 4.21

MISSION VILLAGE

Project No.	04-181
Vesting Tentative Tract Map No.	61105
SEA Conditional Use Permit No.	RCUP200500080
Oak Tree Permit No.	ROAK200500032
Oak Tree Permit No.	T200500043
Conditional Use Permit (Off-Site Improvements)	RCUP200500081

Substantial Conformance Determinations for
Grading and Hillside Management Guidelines

NEWHALL RANCH
Newhall Ranch Company

Prepared for:

Los Angeles County
Department of Regional Planning
320 West Temple Street
Los Angeles, California 90012

Prepared by:

IMPACT SCIENCES, INC.
803 Camarillo Springs Road, Suite A
Camarillo, California 93012
Phone: (805) 437-1900

OCTOBER 2010

DRAFT
ENVIRONMENTAL IMPACT REPORT
for
MISSION VILLAGE

SCH No. 2005051143

County Project No. 04-181
Vesting Tentative Tract Map No. 61105
SEA Conditional Use Permit No. RCUP200500080
Oak Tree Permit No. ROAK200500032

Oak Tree Permit No. T200500043
Conditional Use Permit RCUP200500081
(Off-Site Improvements)

Volume XVIII
Appendix 4.19 (continued)–Appendix 4.21

Prepared for:

Los Angeles County
Department of Regional Planning
320 West Temple Street
Los Angeles, California 90012

Prepared by:

Impact Sciences, Inc.
803 Camarillo Springs Road, Suite A
Camarillo, California 93012
Phone: (805) 437-1900

October 2010

TABLE OF CONTENTS

Volume I

Section			Page
Introduction			I-1
Executive Summary			ES-1
1.0	Project Description		1.0-1
2.0	Environmental and Regulatory Setting		2.0-1
3.0	Cumulative Impact Analysis Methodology		3.0-1
4.0	Environmental Impact Analysis		4.0-1
	4.1	Geotechnical and Soil Resources	4.1-1
	4.2	Hydrology	4.2-1
	4.3	Biota	4.3-1
	4.4	Visual Qualities	4.4-1

Volume II

	4.5	Traffic/Access	4.5-1
	4.6	Noise	4.6-1
	4.7	Air Quality	4.7-1
	4.8	Water Service	4.8-1
	4.9	Wastewater Disposal	4.9-1
	4.10	Solid Waste Services	4.10-1
	4.11	Sheriff Services	4.11-1
	4.12	Fire Protection Services	4.12-1
	4.13	Education	4.13-1
	4.14	Parks and Recreation	4.14-1
	4.15	Library Services	4.15-1
	4.16	Agricultural Resources	4.16-1
	4.17	Utilities	4.17-1
	4.18	Mineral Resources	4.18-1
	4.19	Environmental Safety	4.19-1
	4.20	Cultural/Paleontological Resources	4.20-1
	4.21	Floodplain Modifications	4.21-1
	4.22	Water Quality	4.22-1
	4.23	Global Climate Change	4.23-1
5.0	Project Alternatives		5.0-1
6.0	Significant Irreversible Environmental Changes		6.0-1
7.0	Growth-Inducing Impacts		7.0-1
8.0	List of EIR Preparers, and Organizations/Persons Consulted		9.0-1
9.0	References		10.0-1

LIST OF APPENDICES

Volume III

Appendix I Initial Study/Notice of Preparation (NOP), and NOP Comment Letters
Initial Study/Notice of Preparation (NOP)
NOP Comment Letters

Appendix 1.0 Project Description Documentation
Vesting Tentative Tract Map No. 61105
Newhall Ranch Fiscal Impact Analysis, September 2006
Selected Exhibits and Tables from the Newhall Ranch Specific Plan

Appendix 2.0 Specific Plan Consistency Analysis, September 20, 2010

Appendix 3.0 Cumulative Impact Analysis Methodology
Development Monitoring System Database

Appendix 4.1 Geologic Reports
Geologic Report – Fault Investigation for Airport Mesa Area, Portion of Mesas East VTTM 61105, Newhall Ranch
Geologic and Geotechnical Report, Review of Vesting Tentative Tract Map 61105

Volume IV

Appendix 4.1 Geologic Reports (continued)
Geologic and Geotechnical Report, Review of Vesting Tentative Tract Map 61105 (continued)
Geologic and Geotechnical Report – Addendum No. 1, Response to Los Angeles County Geologic Review Sheet
Geologic and Geotechnical Report – Addendum No. 2, Response to Los Angeles County Geologic Review Sheet, January 26, 2005
Preliminary Geologic/Geotechnical Report, Review of Utility Corridor Plans (30% Submittal), Utility Corridor Along Highway 126, Newhall Ranch WRP Site to Travel Village, Castaic, May 25, 2007
Geologic and Geotechnical Report – Addendum No. 3, Response to Los Angeles County Geologic Review Sheet, September 17, 2007
Geologic and Geotechnical Report – Addendum No. 4, Response to Los Angeles County Geologic Review Sheet date January 16, 2008; March 13, 2008
Geologic and Geotechnical Report, Review Revised Vesting Tentative Tract Map 53108, December 21, 2009

Volume V

Appendix 4.1 Geologic Reports (continued)
Leighton and Associates, Inc., Geotechnical Report, Off-Site Grading for Proposed Southern California Edison Substation Alternatives, Responses to County of Los Angeles, Department of Public Works Geologic and Soils Engineering Review Sheets for TTM No. 61105 (Mission Village Project), November 26, 2007

LIST OF APPENDICES (continued)

Volume V (continued)

Appendix 4.1 Geologic Reports (continued)

Leighton and Associates, Inc., Responses to County of Los Angeles, Department of Public Works Geologic and Soils Engineering Review Sheets for Leighton's Geotechnical Report Off-Site Grading for Proposed Southern California Edison Substation Alternatives, March 11, 2008

Leighton and Associates, Inc., 100-Scale Grading Plan Review of Offsite Grading for Proposed Southern California Edison Substation Alternatives 1 and 2 March 2010, Vesting Tentative Tract Map 61105, County of Los Angeles March 16, 2010

R.T. Frankian & Associates, Evaluation of Building Setbacks, Airport Mesa (Area E1), Vesting Tentative Tract 61105, Newhall Ranch, Los Angeles County, California. October 14, 2009

R.T. Frankian & Associates, 100-Scale Plan Review, Revised Vesting Tentative Tract Map No. 61105, Mission Village, Newhall Ranch, December 21, 2009

R.T. Frankian & Associates, Response to County of Los Angeles Review Sheets and Geotechnical Plan Review, Revised Vesting Tentative Tract Map No. 61105, Mission Village, Newhall Ranch. March 30, 2010

Geologic/Geotechnical Report – EIR-Level Review of Preliminary Grading Study for Western Access Roads to Proposed Mission Village Development (VTTM 61105)

Geologic and Geotechnical Report – Review of Revised VTTM 61105 (Dated 12/21/05) for Screencheck Purposes

Geologic/Geotechnical Evaluation for Environmental Impact Report, Vesting Tentative Tracted Map No. 61105, March 31, 2010

R.T. Frankian & Associates, *Response to County of Los Angeles Review Sheets and Geotechnical Plan Review, Revised Tentative Tract Map No. 61105,* Mission Village, Newhall Ranch. April 29, 2010

Appendix 4.2 Hydrological Reports

Drainage Concept for Mesas VTTM 61105

Flood Technical Report – Santa Clara River, February 2007

Drainage Concept Report for Mission Village Santa Clara River Bank Protection, July 2007

Volume VI

Appendix 4.2 Hydrological Reports (continued)

California Regional Water Quality Control Board, Los Angeles Region, Review of Newhall Ranch Specific Plan Subregional Stormwater Mitigation Plan Letter, May 2008

Request for Conditional Letter of Map Revision, July 2007

Balance Hydrologics, Inc., "Assessment of Potential Impacts Resulting From Cumulative Hydromodification Effects, Selected Reaches of the Santa Clara River, Los Angeles County, California," (October 2005)

Newhall Ranch Santa Clara River Phase I River Fluvial Study, March 2006

LIST OF APPENDICES (continued)

Volume VI (continued)

Appendix 4.3 Biological Reports
California Native Plant Society, Inventory of Rare and Endangered Plants
California Natural Diversity Data Base
Compliance Biology, Inc., "Results of the Focused Western Spadefoot Toad Surveys on the Mission Village Project Site" (2006)
Entrix, Inc., "Focused Special-Status Aquatic Species Assessment – Santa Clara River, Mission Village Project, Newhall Ranch, California" (2006)
Impact Sciences, Inc., "Oak Tree Report: Mission Village VTTM 61105 Los Angeles County, California, March 2010 update" (2010)
Impact Sciences, Inc., "Mission Village VTTM 61105 Project Oak Tree Report, Los Angeles County, California" (2006)
Lemons, P., "Focused California Gnatcatcher Surveys for Mission Village, Los Angeles County, California" (January 26, 2008)
Dudek, "2007 Sensitive Plant Survey Results for the Newhall Ranch Specific Plan Area, Los Angeles County, California" (December 2007)

Appendix 4.5 Traffic Analysis
Mission Village Revised Traffic Impact Analysis, Austin-Foust Associates, Inc., October 2010
Westside Roadway Santa Clarita Valley Phasing Analysis, Austin-Foust Associates, Inc., November 2006
Westside Santa Clarita Valley Phasing Analysis for the City of Santa Clarita, Austin-Foust Associates, Inc., July 2006

Volume VII

Appendix 4.5 Traffic Analysis (continued)
Caltrans EIR/EIS Excerpts
City of Santa Clarita Department of Public Works and Los Angeles County Department of Public Works, Valencia B&T District Report Update, March 2008
City of Santa Clarita Transportation and Engineering Services, Via Princessa Bridge and Major Thoroughfare Construction Fee District Update Report, March 2002

Appendix 4.6 Noise Calculations
Noise Measurement Output Data and Analysis

Appendix 4.7 Air Quality Calculations
SCAQMD Santa Clarita Subregional Analysis, November 2004
Grading, Trenching, and Paving Emissions
Building Construction Emissions
Operational Emissions
CO Hotspots

LIST OF APPENDICES (continued)

Volume VII (continued)

Appendix 4.7 Air Quality Calculations (continued)
Localized Significance Thresholds Analysis
Health Risk Assessment

Appendix 4.8 Water Service Reports
SB 610 Water Supply Assessment
Water Supply Assessment Mission Village Vesting Tentative Tract Map No. 061105, April 2010
2005 Urban Water Management Plan
Los Angeles Superior Court Decision on Riverpark
Santa Barbara Superior Court Decision on West Creek
Newhall Ranch Revised Additional Analysis, Vol VIII

Volume VIII

Appendix 4.8 Water Service Reports (continued)
Nickel Water Contract Documentation
Nickel Environmental Documentation
The State Water Project Deliverability Reliability Report, Public Review Draft, November 16, 2005
The State Water Project Deliverability Reliability Report 2005, Final April 2006
Water Supply Contracts Between the State of California Department of Water Resources and CLWA including Amendment No. 18 (41,000 Acre-Feet Water Transfer)
Valencia Water Company Water Management Program Approved November 29, 2001, and Related CPUC Decisions
2002 Point of Delivery Agreement (Semitropic Groundwater Banking Program), February 13, 2004
California's Groundwater Bulletin 118, Update 2003, October 2003
CLWA Data Document Providing Economic Justification for Proposed Facility Capacity Fees, April 19, 2003
2004 Santa Clarita Valley Water Report, Dated May 2005
2005 Santa Clarita Valley Water Report, Dated April 2006
Results of Laboratory Testing of Valencia Water Company Wells
CH2MHill Memorandum, Effect of Urbanization on Aquifer Recharge in the Santa Clarita Valley, February 22, 2004
CH2MHill Final Report, Regional Groundwater Flow Model for the Santa Clarita Valley (Model Development and Calibration), April 2004
CH2MHill, Calibration Update of the Regional Groundwater Flow Model for the Santa Clarita Valley, Santa Clarita, California, August 2005
CH2MHill Final Report, Analysis of Perchlorate Containment in Groundwater Near the Whittaker-Bermite Property, December 2004
CH2MHill Memorandum, Analysis of Near-Term Groundwater Capture Areas for Production Wells Located near the Whittaker-Bermite Property, December 21, 2004

LIST OF APPENDICES (continued)

Volume IX

Appendix 4.8 Water Service Reports (continued)

Analysis of Groundwater Basin Yield, Upper Santa Clara River Groundwater Basin, East Subbasin, Dated August 2005

Analysis of Groundwater Supplies and Groundwater Basin Yield Upper Santa Clara River Groundwater Basin, East Subbasin (2009 Basin Yield Update)

Draft EIR – Supplemental Water Project Transfer of 41,000 Acre-Feet of State Water Project Table A Amount, Dated June 2004

CLWA Draft Report, Recycled Water Master Plan, May 2002 and CLWA Resolution Regarding Availability of Recycled Water, Approved May 28, 2003

Impact and Response to Perchlorate Contamination, Valencia Water Company Well Q2, Dated April 2005

Groundwater Management Plan, Santa Clara River Valley Groundwater Basin, Dated December 2003

Memorandum of Understanding Between the Santa Clara River Valley Upper Basin Water Purveyors and United Water Conservation District, August 2001

Newhall Ranch Litigation, Statement of Decision, August 1, 2000

Volume X

Appendix 4.8 Water Service Reports (continued)

Slade, 2001 Update Report Hydrogeologic Conditions in the Alluvial and Saugus Formation Aquifer Systems, Dated July 2002

Interim Remedial Action plan, Dated December 2005

Valencia Water Company Letter to Impact Sciences, March 8, 2006

Luhdorf & Scalmanini Technical Memorandum: Evaluation of Groundwater Recharge Methods for the Saugus Formation in the Newhall Ranch Specific Plan Area, March 8, 2006

Luhdorf & Scalmanini Technical Memorandum: Potential Capture of Perchlorate Contamination, Valencia Water Company Wells E14-E17, April 26, 2006

Final Report, Reclaimed Water System Master Plan, CLWA, September 1993

CPUC Decision Dated November 29, 2001

CPUC Decision Dated October 16, 2003

CPUC Decision Dated August 24, 2006

2003 Point of Delivery Agreement (Semitropic Groundwater Banking Program), February 13, 2004

CLWA Resolution Regarding Availability of Recycled Water, Approved May 28, 2003

CLWA Memorandum to Board of Directors, June 1, 2007

Monterey Settlement Agreement

Friends of the Santa Clara River v. Castaic Lake Water Agency, 2003 WL 22839353 (*Friends II*)

DWR "News for Immediate Release," April 18, 2006

DWR Notice to SWP Contractors, May 23, 2007

DWR Bulletin 132-04, *Management of the California State Water Project,* September 2005

DWR Bulletin 132-03, *Management of the California State Water Project,* December 2004

DWR Bulletin 132-02, *Management of the California State Water Project,* January 2004

LIST OF APPENDICES (continued)

Volume X (continued)

Appendix 4.8 Water Service Reports (continued)

DWR Bulletin 132-01, *Management of the California State Water Project,* December 2002
DWR Bulletin 132-06, *Management of the California State Water Project*, December 2007
DWR's "Notices to State Water Project Contractors" 2000 to 2006
Sacramento County Trial Court's Order (re: Monterey Settlement Agreement)
Judgment Granting Peremptory Writ of Mandate, October 25, 2002
DWR Brief in the 41K litigation
California Water Impact Network, et al. v. Castaic Lake Water Agency, Appellate Court 2d Civil No. B177978 (Second District Court of Appeal's unpublished decision)
CalSim II: Simulation of Historical SWP-CVP Operations, Technical Memorandum, DWR Bay-Delta Office, November 2003
CalSimII Benchmark Studies
Musings On A Model: CalSim II In California's Water Community, San Francisco Estuary and Watershed Science, Vol. 3, Issue 1 (March 2005), Article 1, by Inês C. Ferreira, *et al*
DWR letter to Mindy McIntyre, Planning and Conservation League, April 20, 2006
Order Granting Plaintiff's Application for Temporary Restraining Order, February 3, 2006
Order Granting Plaintiff's Motion for Preliminary Injunction, February 15, 2006
Governor Schwarzenegger's release issued July 17, 2007

Volume XI

Appendix 4.8 Water Service Reports (continued)

2006 Santa Clarita Valley Water Report, May 2007
2008 Santa Clarita Valley Water Report, April 2009
Statement of Decision, *California Water Network v. Castaic Lake Water Agency*, Los Angeles County Superior Court No. BS098724, filed April 2, 2007 ("Chalfant Decision")
California Water Impact Network, Inc. v. Castaic Lake Water Agency, Second Appellate District, Division Five, Appellate Case No. B205622
Castaic Lake Water Agency Litigation Settlement Agreement
Order Granting Joint Motion for Court Approval, Good Faith Settlement Determination and Entry of Consent Order, July 13, 2007
Stipulation to Dismiss Plaintiffs' Claims and Defendants' Counterclaim, August 20, 2007
Carollo Engineers, Treatment of Perchlorate Contaminated Groundwater from the Saugus Aquifer, TM 3 Bench and Pilot Test Results, February 2004
DWR's 2009 Comprehensive Water Package, Special Session Policy Bills and Bond Summary, November 2009
DWR's Progress on Incorporating Climate Change into Management of California's Water Resources, July 2006
Emissions Pathways, Climate Change, Impacts on California, Katharine Hayhoe, et al., August 24, 2004
Pondering a Climate Conundrum in Antarctic, *Nature,* January 13, 2002

LIST OF APPENDICES (continued)

Volume XI (continued)

Appendix 4.8 Water Service Reports (continued)
Buried Soil Cement Evaluation after 2004/05 Winter Storm, PACE, May 8, 2007
In Hot Water: Water Management Strategies to Weather the Effects of Global Warming, NRDC, July 2007
Minute Order and Statement of Decision for the 2005 UWMP
Janavs Decision
Retired Irrigated Farmland, Tentative Tract Map No. TR61105, 2008
Valencia Water Company, Well E-15 Water Quality Compliance Monitoring Results – 2006 to 2009
Progress Letter Report from Hassan Amini, Ph.D., Project Coordinator for AMEC Geomatrix, to DTSC, September 15, 2009
Letter from Hassan Amini, Ph.D., Project Coordinator for AMEC Geomatrix, to DTSC, June 8, 2009
CLWA News Release, September 14, 2009
CLWA Memorandum from Brian J. Folsom to CLWA Board of Directors, October 1, 2009
U.S. EPA, Perchlorate, and Region 9 Perchlorate Update
Biological Opinion for Delta smelt, 2008

Volume XII

Appendix 4.8 Water Service Reports (continued)
Biological Opinion for Chinook salmon/sturgeon
Natural Resources Defense Council v. Kempthorne, 506 F.Supp.2d 322 (E.D. Cal. 2007) ("2007 Wanger decision")
Pacific Coast Federation of Fishermen's Associations, et al. v. Gutierrez, et al., No. 06-CV-00245-OWW-GSA (E.D. Cal. 2008) ("2008 Wanger decision")
NOAA/NMFS release summarizing the 2009 Biological Opinion, June 4, 2009
DWR release responding to the 2009 Biological Opinion, June 4, 2009
SWP Contractors release concerning litigation filed challenging the 2009 Biological Opinion, August 6, 2009
Coalition for a Sustainable Delta/Kern County Water Agency release concerning the litigation filed challenging the 2009 BO, August 28, 2009

Appendix 4.9 Wastewater Disposal
Wastewater Data

Appendix 4.10 Solid Waste Services
Calculations Details

Appendix 4.11 Sherriff Services
Written correspondence from Captain Patti A. Minutello, Los Angeles County Sheriff's Department, Santa Clarita Valley Station, November 3, 2004
Written communication from E. Conley, Captain, Commander, Newhall Area Station, California Highway Patrol, November 14, 2004

LIST OF APPENDICES (continued)

Volume XII (continued)

Appendix 4.12 Fire Protection Services
- Written correspondence, David R. Leininger, Chief, Forestry Division, Prevention Bureau, County of Los Angeles Fire Department, December 22, 2004

Appendix 4.13 Education
- School Facilities Funding Agreement entered into between the Newhall District and Newhall on October 17, 1995
- School Facilities Funding Agreement Between the Saugus Union School District and Newhall Land and Farming Company, Effective February 18, 1997
- School Facilities Funding Agreement Between the William S. Hart Union High School District and The Newhall Land and Farming Company, Effective October 1998
- Facilities Mitigation and Funding Agreement By and Between Newhall Land Development, LLC, and the Newhall School District, December 1, 2009
- Agreement for the Advancement of School Facilities Funds to the Saugus Union School District by the Newhall Land and Farming Company, Effective October 17, 2000
- School Facilities Funding Agreement entered into between the Newhall District and Newhall Land and Farming Company (Newhall School Funding Agreement), Effective January 22, 2010
- Student Generation Calculations

Appendix 4.15 Library Services
- Written correspondence from Malou Rubio, Head, Staff Services, County of Los Angeles Public Library, Library Headquarters, August 11, 2004
- Written correspondence from Malou Rubio, Head, Staff Services, County of Los Angeles Public Library, Library Headquarters, June 28, 2004
- E-mail correspondence from Malaisha Hughes, County of Los Angeles Public Library, Library Headquarters, January 21, 2005
- Library Calculations

Volume XIII

Appendix 4.19 Environmental Safety
- Phase I Environmental Site Assessment of Proposed The Mesas East, Valencia, California
- Phase I Environmental Site Assessment of Entrada Development Tract Map No. 53295, Henry Mayo Drive and The Old Road, Valencia, California, March 2007 (part 1)

Volume XIV

Appendix 4.19 Environmental Safety (continued)
- Phase I Environmental Site Assessment of Entrada Development Tract Map No. 53295, Henry Mayo Drive and The Old Road, Valencia, California, March 2007 (part 2)
- Phase I Environmental Site Assessment of Entrada Development Tract Map No. 53295, Henry Mayo Drive and The Old Road, Valencia, California, March 2007 (part 3)

LIST OF APPENDICES (continued)

Volume XV

Appendix 4.19 Environmental Safety (continued)
Phase I Environmental Site Assessment of Entrada Development Tract Map No. 53295, Henry Mayo Drive and The Old Road, Valencia, California, March 2007 (part 4)
Phase I Environmental Site Assessment of Parcel Map No. 060678, Highway 126, Valencia, California, September 2005 (part 1)

Volume XVI

Appendix 4.19 Environmental Safety (continued)
Phase I Environmental Site Assessment of Parcel Map No. 060678, Highway 126, Valencia, California, September 2005 (part 2)
Phase I Environmental Site Assessment of Parcel Map No. 060678, Highway 126, Valencia, California, September 2005 (part 3)

Volume XVII

Appendix 4.19 Environmental Safety (continued)
Phase I Environmental Site Assessment of Legacy Village Development Tract Map VTTM 061996, Valencia, California, March 2007

Volume XVIII

Appendix 4.19 Environmental Safety (continued)
Phase II Subsurface Investigation of Water Quality Basins, Entrada ME073-02 Basins, Valencia, California, September 2006
BA Environmental, *Phase I Environmental Site Assessment of River Village Tentative Tract Map No. 53108, Highway 126, Newhall Ranch, California*, September 27, 2004
BA Environmental, *Phase I Environmental Site Assessment Addendum Letter of Proposed Water Tank Locations and Utility Corridor Easements Associated with the proposed River Village Development, Tentative Tract Map No. 53108, Highway 126, Newhall Ranch, California*, September 28, 2004
BA Environmental, Phase I Environmental Site Assessment of Proposed SCE Substation Site and Soil Disposal Site, Valencia, California, May 2010

Appendix 4.20 Cultural Resources
Phase I Archaeological Survey of the West Ranch Area
Backhoe Testing Near the Asistencia de San Francisco

Appendix 4.21 Floodplain Modifications
PACE, Mission Village Flood Technical Report
ENTRIX, Focused Special-Status Aquatic Species Assessment

LIST OF APPENDICES (continued)

Volume XIX

Appendix 4.21 Floodplain Modifications (continued)
Geosyntec Consultants, "Newhall Ranch Specific Plan Sub-Regional Stormwater Mitigation Plan" (April 2008)
Pacific Advanced Civil Engineering, Inc., "Newhall Ranch River Fluvial Study Phase 1, Final Draft" (March 2006; 2006a)
Pacific Advanced Civil Engineering, Inc., "Newhall Ranch River Fluvial Study Phase 2" (January 2008)
Philip Williams and Associates, Ltd., "Newhall Ranch Tributary Channel Design Guidelines" (November 20, 2008)

Volume XX

Appendix 4.22 Water Quality
Mission Village Water Quality Technical Report, March 2010
Geosyntec, Newhall Ranch Specific Plan Sub-Regional Stormwater Mitigation Plan, April 2008

Appendix 4.23 Global Climate Change
ENVIRON, Climate Change Technical Report: Mission Village, August 2010
GSI Water Solutions, Inc., "Technical Memorandum Regarding Potential Effects of Climate Change on Groundwater Supplies for Newhall Ranch Specific Plan, Santa Clarita Valley, California," March 18, 2008
Mission Village Sustainability Overview, 2010
Global Climate Change and Its Effects on Sensitive Biological Resources, July 2010
Global Climate Change and Its Effects on California Water Supplies, July 2010

Appendix 5.0 Project Alternatives
Emissions Calculations

PHASE II SUBSURFACE INVESTIGATION

OF

WATER QUALITY BASINS
ENTRADA ME073-02 BASINS
VALENCIA, CALIFORNIA

FOR

GATZKE DILLON & BALANCE LLP

BA ENVIRONMENTAL
A Division of Building Analytics

File No. 106167
September 2006

BA ENVIRONMENTAL
A Division of Building Analytics
www.BAEnvironmental.com

CORPORATE OFFICE
502 S. VERDUGO DRIVE, SUITE 200
BURBANK, CALIFORNIA 91502
TOLL FREE 1-888-440-7225
818-841-2575
818-841-2576 FAX

September 6, 2006

File No.: 106167

Ms. Rachel Cook
Gatzke Dillon & Balance LLP
1525 Faraday Avenue, Suite 150
Carlsbad, California 92008

Reference: Water Quality Basins
Entrada ME073-02 Basins
Valencia, California

Subject: Report
Phase II Subsurface Investigation

Dear Ms. Cook:

BA Environmental is pleased to submit this report summarizing the Phase II Subsurface Investigation activities to **Gatzke Dillion & Balance LLP**. This report is regarding two parcels of land, one 5-acre parcel and one 6.5-acre parcel. The Phase II Subsurface Investigation was performed in general accordance with the scope of service outlined in BA Environmental's proposal and contract dated July 25, 2006.

If you have questions regarding this project or report, please contact us at (818) 841-2575.

Respectfully submitted,
BA ENVIRONMENTAL

Russell M. Cote, M.Sc., R.G. No. 7139
Manager, Environmental Services

TABLE OF CONTENTS

Page

LETTER OF TRANSMITTAL

INTRODUCTION 1

BACKGROUND 1

SITE LOCATION AND IMPROVEMENTS 1

GEOLOGY AND HYDROGEOLOGY 1

OBJECTIVE AND SCOPE OF WORK 2

SOIL INVESTIGATION 4

DECONTAMINATION 5

SAMPLE HANDLING AND TRANSPORT 5

QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) 5

LABORATORY RESULTS 5

DISCUSSION 8

REPORT AUTHORS 9

REFERENCES 10

ATTACHMENTS

TABLES

FIGURES

Figure 1: **Site Vicinity**
Figure 2: **Site Map**

APPENDICES

Appendix A: **Laboratory Reports and Chain of Custody Documentation**

PHASE II SUBSURFACE INVESTIGATION
Water Quality Basins
Entrada ME073-02 Basins
Valencia, California

INTRODUCTION

BA Environmental is pleased to submit this report summarizing the Phase II Subsurface Investigation activities to **Gatzke Dillion & Balance LLP**. This report is regarding two parcels of land, one 5-acre parcel and one 6.5-acre parcel. The Phase II Subsurface Investigation was performed in general accordance with the scope of service outlined in BA Environmental's proposal and contract dated July 25, 2006.

BACKGROUND

The subject site consists of 2 parcels of land, which includes one 5-acre parcel and one 6.5-acre parcel. One of the 2 parcels has been proposed for use as a water quality basin. As it has not been determined which parcel will be used, both will be assessed. Information provided to BA Environmental revealed that the subject property has been historically used as a feed lot for cattle, and then later as agricultural land. Presently the land has been left to fallow.

SITE LOCATION AND IMPROVEMENTS

The subject parcels are located just north and adjacent to Magic Mountain amusement park in the City of Valencia. The subject property may be reached from Interstate 5 Freeway (San Diego Freeway), exit onto Magic Mountain Parkway. Turn west onto Magic Mountain Parkway and proceed for approximately 0.25 miles to The Old Road. Turn north (right) onto The Old Road and proceed for approximately 0.25 miles to Feedmill Road. Turn west (left) onto Feedmill Road and proceed for approximately 2.0 miles. Turn right after approximately 2.0 miles and proceed another 200 feet to the subject parcels.

The subject site is presently occupied by two parcels, which includes one 5-acre parcel and one 6.5-acre parcel. For the purposes of this report, the parcels will be referred to as the 5-acre parcel and the 6.5-acre parcel. The subject parcels are adjacent to one another. Information provided to BA Environmental revealed that the subject property has been historically used as a feed lot for cattle, and then later as agricultural land. Presently the land has been left to fallow.

GEOLOGY AND HYDROGEOLOGY

The subject site is located predominantly in the Santa Susana Mountains, with a small amount in the northern portion occupying the Santa Clara River channel. Underlying sediments consist of alluvial and flood plain deposits of silt, sands and gravels. Sand is medium to coarse grained, and cobbles are found to increase in size with depth. The Plio-Pleistocene Saugus Formation, a thin to moderately thick bedded non-marine deposit, ranging from reddish-brown siltstones, silty sandstones to conglomerates, underlies the Quaternary alluvial sediments and outcrops in the northern and southern portion of the subject property. The Newhall Segment of the San Gabriel Fault, which is

classified as a late Quaternary fault which cuts strata of Pleistocene age, is located within 500 feet of the subject site.

According to the County of Los Angeles, Department of Public Works, Hydraulic Conservation Division, which maintains information on groundwater depth from the county-owned wells, the closest well to the subject property, listed with their department, is located approximately 1,500 feet west of the confluence of the Santa Clara River and Castaic Creek. This well is identified as #6967, and was last measured on June 19, 2003. The data indicates that, from the ground surface, depth to groundwater surface was 24.3 feet, and that the ground surface elevation at the well head was 949.7 feet above mean sea level (msl). Six groundwater monitoring wells are located in the northern portion of the proposed Mission Village development, located to the west and south of the subject site. Approximate depth to water in these wells ranged from 7.5 feet below ground surface (bgs) in the northeastern-most wells (near the Santa Clara River) to approximately 36 feet bgs in the northwestern-most wells. No monitoring wells were observed on the subject property; however, based on its proximity to the river and its topographic elevation, depth to first significant groundwater is estimated to be approximately 30 to 50 feet bgs. During the drilling activities, shallow groundwater was encountered at approximately 2 feet bgs beneath the 5-acre parcel. It is believed that this groundwater was due to recent irrigation of this parcel. Groundwater flow direction is expected to flow to the north-northwest following topography.

OBJECTIVE AND SCOPE OF WORK

The purpose of this Phase II Subsurface Investigation was to assess whether past agricultural or cattle ranching activities at the subject site have impacted subsurface soil conditions beneath the subject property. As the subject site consists of 2 separate parcels of land, both parcels will be independently sampled. For the purpose of this report, the parcels will be identified as the 5-acre parcel and the 6.5-acre parcel. BA Environmental proposed to install a maximum of 20 shallow soil borings on the 5-acre parcel and a maximum of 24 shallow soil borings on the 6.5-acre parcel. All soil borings were to be advanced to a maximum depth of approximately 2 to 3 feet bgs. Additionally, two off-site samples were to be collected from adjacent sites without a history of agricultural usage and with similar soil types. These samples were to be collected at a depth of 0.5 feet bgs and used as background samples for metals.

To accomplish the objectives, BA Environmental performed the following tasks:

a. Obtained all required permits prior to start of work;

b. Prepared a site-specific health and safety plan prior to initiating the field work;

c. Visited the subject property and mark the proposed probe boring locations. Subsequently, the regional utility locating center was contacted to clear the proposed boring locations for utilities;

d. Advanced soil borings to a maximum depth of 2 feet bgs as follows:

   - On the 5-acre parcel, 20 hand auger borings were advanced to a depth of 2 feet bgs.
   - On the 6.5-acre parcel, 24 hand auger borings were advanced to a depth of 2 feet bgs.

e. Soil samples were collected at approximately 0.5 feet bgs and 2 feet bgs in each shallow soil boring. In addition, 2 off-site samples were collected from adjacent sites without a history of agricultural usage (if possible) and with similar soil types. The samples from the 2 off-site locations were also collected at a depth of 0.5 feet bgs and 2 feet bgs and used for background samples for metals;

f. The 20 surface soil samples from the 5-acre parcel were composited into a total of 5 composite soil samples (4 samples per composite) in the laboratory. The 24 surface soil samples from the 6.5-acre parcel were composited into a total of 6 composite soil samples (4 samples per composite) in the laboratory. Only adjacent samples were composited. Only samples from areas of like crops were composited. The composited samples collected at 0.5 feet bgs were analyzed, while the 2-foot-deep samples were placed on "hold;"

g. Submitted 5 composited soil samples from the 5-acre parcel and 6 composited soil samples from the 6.5-acre parcel to a State of California, Department of Health Services (DHS)-certified laboratory to be analyzed for Organo Chlorine Pesticides (OCPs) using Environmental Protection Agency (EPA) Method No. 8081A.;

h. Submitted 5 composited soil samples from the 5-acre parcel and 6 composited soil samples from the 6.5-acre parcel to a State of California, DHS-certified laboratory to be analyzed for Organo Phosphorus Pesticides (OPPs) using EPA Method No. 8041;

i. Submitted 5 composited soil samples from the 5-acre parcel and 6 composited soil samples from the 6.5-acre parcel to a State of California, DHS-certified laboratory to be analyzed for Paraquat using Chevron RM 8-10 method;

j. Submitted 5 composited soil samples from the 5-acre parcel and 6 composited soil samples from the 6.5-acre parcel to a State of California, DHS-certified laboratory to be analyzed for Chlorinated Herbicides (CHs) using EPA Method No. 8151;

k. Submitted 5 discrete soil samples from the 5-acre parcel and 6 discrete soil samples from the 6.5-acre parcel to a State of California, DHS-certified laboratory to be analyzed for Arsenic using EPA Method No. 6010;

l. Submitted 3 discrete soil samples from the 5-acre parcel and 3 discrete soil samples from the 6.5-acre parcel to a State of California, DHS-certified laboratory to be analyzed for CAM-17 Metals using EPA Method Nos. 6000/7000 series;

m. Submitted 2 discrete background soil samples to a State of California, DHS-certified laboratory to be analyzed for CAM-17 Metals using EPA Method Nos. 6000/7000 series;

n. Submitted 5 composited soil samples from the 5-acre parcel, and 6 composited and 2 discrete soil samples from the 6.5-acre parcel to a State of California, DHS-certified laboratory to be analyzed for Nitrate/Nitrite and Ammonia using EPA Method No. 353.3M and 350.3M, respectively;

o. Submitted 1 discrete soil sample to a State of California, DHS-certified laboratory to be analyzed for Total Petroleum Hydrocarbons, carbon chain range (TPH-cc) using EPA Method No. 8015M;

p. Submitted the remaining discrete deep soil samples to the laboratory, to be placed on hold pending the results of the initial soil analyses;

q. Provided all of the necessary equipment and materials to perform the required services. This equipment will include hand auger, soil sampling equipment, etc.;

r. Backfilled borings with soil cuttings in the order in which they were removed.

SOIL INVESTIGATION

Utility Clearance

Prior to drilling, BA Environmental personnel visited the site, grided off the subject site, and marked the boring locations. The local utility companies cleared the underground utilities at each boring location prior to initiation of drilling activities.

Drilling and Sampling

On August 02, 2006, BA Environmental conducted a Subsurface Investigation using 4-inch o.d. hand auger equipment. Coordination and supervision of drilling and soil sampling activities were performed by a Registered Geologist from BA Environmental.

A total of 44 shallow hand auger borings were advanced on-site. Twenty of the borings were advanced on the 5-acre parcel and 24 advanced on the 6.5-acre parcel. The shallow soil borings were advanced to a maximum depth of 2 feet bgs. Soil samples were collected from the shallow soil borings at 0.5 feet bgs and 2 feet bgs. The locations of the shallow soil borings are provide in Figure 2. Global Positioning System (GPS) coordinates for the shallow soil borings are provided in Table 1.

Upon reaching the desired depth, soil samples were collected, labeled with the sample number, collection date and project number, placed in a cooler chilled to approximately 4° C (40° F), and retained for laboratory analyses.

Upon reaching the desired depth, soil samples were collected in 4-oz. glass jars with Teflon® lined lids. Subsequent to the collection of the samples, the sample jars were labeled with the sample number, collection date and project number, placed in a cooler chilled to approximately 4° C (40° F), and retained for laboratory analyses.

Field observations of soil samples collected from all of the soil borings at the 5-acre parcel revealed no unusual discoloration or odors. Field observations of soil samples collected from all of the soil borings at the 6.5-acre parcel revealed no unusual discoloration or odors, except in the shallow soil borings EB2-1B, -4B, -5C and -5D. The 2 foot deep samples from each of these four shallow soil borings were observed to have a dark gray discoloration. The soil sample EB2-1B-2 was noted to have an unusual odor. Soils beneath the two parcels were observed to consist of silts, silty sands, sands and gravelly sands to a depth of 2 feet bgs. Groundwater was not encountered in any of the shallow soil borings within the 6.5-acre parcel. During the drilling activities, shallow groundwater was encountered at approximately 2 feet bgs beneath portions of the 5-acre parcel. It is believed that this shallow groundwater was due to recent irrigation of this parcel.

Boring Backfill

Subsequent to the collection of soil samples from the soil borings, the borings were backfilled. The borings were backfilled with cuttings generally in the order in which they were removed. After the borings were backfilled, the surface was restored to match the surrounding surface.

DECONTAMINATION

Quality assurance/quality control (QA/QC) and decontamination procedures were performed to prevent cross contamination between the samples. Only clean sampling equipment was used for this drilling project. The soil sampling and hand auger equipment were decontaminated between sampling intervals, using a bristle brush, with Liquinox™ (an inorganic detergent) solution; this was followed by a tapwater rinse, and rinsed in a final De-ionized water rinse. The sampling and auger equipment were then dried by air prior to use. Sterilized nitrile gloves were used while obtaining the samples. The soil samples were collected in new 4-oz. glass jars supplied by the laboratory.

SAMPLE HANDLING AND TRANSPORT

All soil samples from the soil borings were placed in a cooler, chilled to approximately 4° C (40° F), and transported to Enviro-Chem Inc. of Pomona, California, a State of California DHS-certified laboratory under a strict chain-of-custody which was prepared at the time of sampling.

QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

To increase the confidence levels in the data obtained, a QA/QC program was implemented. QA refers to management of actions designed to maintain precision, accuracy and completeness of the data developed from the project. QC refers to accepted formal procedures and activities specifically designed for the purpose of collecting data that are intended to be reliable and consistent for the site conditions.

The program includes formal procedures for all field activities, soil and groundwater sampling, decontamination, instrument calibration, documentation of activities and calculations, and peer review. Routine QC procedures were performed by the laboratory, and included daily calibration of instruments, percent surrogate recoveries and analyses of matrix spikes and matrix spike duplicates (laboratory reports). The laboratory reported the results to be within acceptable percent recoveries with no results exceeding the laboratory established control limits.

LABORATORY RESULTS

All soil samples were submitted to Enviro-Chem Inc. of Pomona, California, a State of California, DHS certified laboratory. The 20 surface soil samples from the 5-acre parcel were composited into a total of 5 composite soil samples (4 samples per composite) in the laboratory. The 24 surface soil samples from the 6.5-acre parcel were composited into a total of 6 composite soil samples (4 samples per composite) in the laboratory. The remaining deeper soil samples were placed on “hold” pending the results of the shallower composited samples. The composited samples were analyzed for OCPs, OPPs, CHs, Paraquat, ammonia, nitrate and nitrite in general accordance with EPA Method Nos.

8081, 8041 and 8151, Chevron RM8-10 method, 350.3 and 353.3 (nitrate and nitrite). In addition, selected discrete soil samples were analyzed for arsenic and CAM-17 metals in general accordance with EPA Method No. 6000/7000 series. In addition, two deep (2 feet bgs) discrete soil samples were analyzed for ammonia, nitrate and nitrite in general accordance with EPA Method Nos. 350.3 and 353.3 (nitrate and nitrite), while one discrete deep soil sample (2 feet bgs) was analyzed for TPH-cc in general accordance with EPA Method Nos. 8015M.

OCP in Soil

All 5 of the composited soil samples from the 5-acre parcel and all 6 of the composited soil samples from the 6.5-acre parcel were analyzed for OCP and the data is presented in Table 2, which is included as an attachment to this report. In summary, all of the composite soil samples from the 5-acre and 6.5-acre parcels were reported not to contain detectable concentrations of OCPs. The laboratory report is included in Appendix A.

OPP in Soil

All 5 of the composited soil samples from the 5-acre parcel and all 6 of the composited soil samples from the 6.5-acre parcel were analyzed for OPP and the data is presented in Table 2, which is included as an attachment to this report. In summary, all of the composite soil samples from the 5-acre and 6.5-acre parcels were reported not to contain detectable concentrations of OPPs. The laboratory report is included in Appendix A.

CH in Soil

All 5 of the composited soil samples from the 5-acre parcel and all 6 of the composited soil samples from the 6.5-acre parcel were analyzed for CHs and the data is presented in Table 2, which is included as an attachment to this report. In summary, all of the composite soil samples from the 5-acre and 6.5-acre parcels were reported not to contain detectable concentrations of CHs. The laboratory report is included in Appendix A.

Paraquat in Soil

All 5 of the composited soil samples from the 5-acre parcel and all 6 of the composited soil samples from the 6.5-acre parcel were analyzed for Paraquat and the data is presented in Table 2, which is included as an attachment to this report. In summary, all of the composite soil samples from the 5-acre and 6.5-acre parcels were reported not to contain detectable concentrations of Paraquat. The laboratory report is included in Appendix A.

Arsenic in Soil

Random discrete soil samples were analyzed for arsenic. Arsenic is a metallic element which has been historically used in some pesticides. The laboratory results for arsenic are summarized in Table 3. California Code of Regulations (CCR) Title 22 has established threshold limits for various heavy metal compounds; both for the total concentrations of the metals as well as for the soluble concentration of metals. These threshold limits are known as the Total Threshold Limit Concentrations (TTLCs) and the Soluble Threshold Limit Concentrations (STLCs). A substance is considered to be

hazardous if it contains a total concentration of a metal greater than the TTLC limit for that metal, or if it contains a soluble concentration of a metal greater than the STLC limit for that metal. As a rule of thumb, generally if the concentration of a metal in the soil exceeds 10 times the STLC limit for that metal, an STLC analysis is run for that metal.

Analyses of soil samples revealed no detectable concentrations of arsenic in the shallow soils beneath the subject site. Laboratory reports and chain-of-custody forms are included as Appendix A.

Metals in Soil

Historically, various metals have been used in some pesticides and fertilizers. Random discrete soil samples were analyzed for CAM-17 metals. In addition, four discrete background soil samples were collected from off-site locations for comparison. The laboratory results are summarized in Table 3. California Code of Regulations (CCR) Title 22 has established threshold limits for various heavy metal compounds; both for the total concentrations of the metals as well as for the soluble concentration of metals. These threshold limits are known as the Total Threshold Limit Concentrations (TTLCs) and the Soluble Threshold Limit Concentrations (STLCs). A substance is considered to be hazardous if it contains a total concentration of a metal greater than the TTLC limit for that metal, or if it contains a soluble concentration of a metal greater than the STLC limit for that metal. As a rule of thumb, generally if the concentration of a metal in the soil exceeds 10 times the STLC limit for that metal, an STLC analysis is run for that metal.

Analyses of samples revealed no metals which exceeded the TTLC for those metals, or which exceeded 10 times the STLC for those metals. A comparison of the results of the discrete soil samples collected on-site with those collected from off-site indicated that the metal concentrations detected appear to be within the normal background range of metals in soils within the region.

Laboratory reports and chain-of-custody forms are included as Appendix A.

Ammonia, Nitrate and Nitrite in Soil

Ammonia, nitrate and nitrite are common components of natural and artificial fertilizers. These compounds are also natural wastes present in animal excrement. All 5 of the composited soil samples from the 5-acre parcel and all 6 of the composited soil samples from the 6.5-acre parcel were analyzed for ammonia, nitrate and nitrite and the data is presented in Table 2, which is included as an attachment to this report. In summary, concentrations of ammonia were detected in only one of the composite samples from the 5-acre parcel (EB1-3) at a concentration of 8.08 milligrams per kilogram (mg.kg). Three composite samples collected from the 6.5-acre parcel (BB2-3, -5 and -6) were reported to contain detectable concentrations of ammonia ranging from 0.858 mg/kg to 3.78 mg/kg. Nitrate concentrations were detected in three of the composite samples collected from the 5-acre parcel (EB1-1, -2 and -3) ranging in concentrations from 0.612 mg/kg to 2.79 mg/kg. All 6 of the composite samples and one of the discrete 2-foot-deep samples collected from the 6.5-acre parcel were reported to contain detectable concentrations of nitrate at concentrations ranging from 1.45 mg/kg to 7.05 mg/kg. Nitrite concentrations were detected in only one composite sample collected from the 5-acre parcel (EB1-3) at a concentration of 0.187 mg/kg. Nitrite was not detected in any of the composite samples collected from the 6.5 acre parcel of land. The laboratory report is included in Appendix A.

TPH-cc in the Soil

During drilling activities, an unusual odor was detected in the 2 foot sample collected from EB2-1B (Sample No. EB2-1B-2), which was also noted to have a dark gray discoloration. This sample was analyzed for TPH-cc and the data is presented in Table 2, which is included as an attachment to this report. In summary, the sample EB2-1B-2 was reported not to contain detectable concentrations of TPH-cc. The laboratory report is included in Appendix A.

DISCUSSION

The planned use for the subject site will be the conversion of one of the vacant parcels into a water quality control basin. According to Newhall Land, this basin will be unlined. Historically, the subject site has been used as a cattle feed yard and for agricultural purposes. This investigation was conducted to assess the possible presence of pesticides on-site from past agricultural activities, as well as the ammonia, nitrate and nitrite concentrations remaining in the soils from the sites past usage as a cattle feed yard and from fertilization of the crops. The subject site is presently occupied by two parcels, one 5-acre parcel and one 6.5-acre parcel. For this report, the parcels have been referred to as the 5-acre parcel and the 6.5-acre parcel.

The investigation consisted of drilling of 20 shallow soil borings on the 5-acre parcel and a maximum of 24 shallow soil borings on the 6.5-acre parcel. All of the shallow soil borings were advanced to a depth of 2 feet bgs. Soil samples were collected at 0.5 feet bgs and 2 feet bgs. In addition, 2 shallow soil borings were drilled off-site in order to collect background samples for metals. The 20 surface soil samples from the 5-acre parcel were composited into a total of 5 composite soil samples (4 samples per composite) in the laboratory. The 24 surface soil samples from the 6.5-acre parcel were composited into a total of 6 composite soil samples (4 samples per composite) in the laboratory. Only adjacent soil sample locations were composited. The composited soil samples were analyzed for OPPs, OCPs, CHs, Paraquat ammonia, nitrate and nitrite. Random surface discrete soil samples were analyzed for arsenic and CAM-17 metals.

Analyses of the composited soil samples revealed no detectable concentrations of OCPs, OPPS, CHs or Paraquat. Analytical results of the discrete soil samples revealed no detectable concentrations of arsenic, indicating that there appear to be no arsenopesticides present on the subject site. Various heavy metals have been historically used in pesticides and fertilizers. Analytical results of shallow discrete soil samples for CAM-17 metals revealed no elevated concentrations of heavy metals. In addition, a comparison of the results of the discrete soil samples collected on-site with those collected from off-site indicated that the metal concentrations detected appear to be within the normal background range of metals in soils within the region.

Historically the subject parcels have been used as a cattle feed yard and for agricultural purposes. Ammonia, nitrate and nitrite are common components of natural and artificial fertilizers. These compounds are also natural wastes present in animal excrement. Detectable concentrations of ammonia and nitrate were detected in composite samples collected from both the 5-acre parcel and the 6.5-acre parcel. Nitrite was detected in only one composite sample collected from the 5-acre parcel. Currently, no regulatory action levels exist for ammonia, nitrate or nitrite in soils. Action levels do exist for California Drinking Water Standards; however, the shallow groundwater beneath the subject site is not likely potable.

A discolored layer of soil was observed at approximately 2 feet bgs in several of the shallow soil borings in the 6.5-acre parcel. The source of the discoloration is unknown; however, it could be due to decaying organics.

As one of these two parcels is planned for the construction of an unlined Water Quality Control Basin, it is recommended that the soils excavated for the basin not be used for the construction of the basin. Further, if discolored soil is encountered, it too should be excavated and not used in the construction of the basin. As these soils do not pose a direct significant threat to human health, the soil excavated during the construction of the Water Quality Control Basin may be used for grading material elsewhere, as long as it is mixed with soils not from agricultural areas.

REPORT AUTHORS

BA Environmental
528 State Street
Glendale, California 91203

Prepared by: _____
Russell M. Cote, M. Sc., R.G. No. 7139
Manager, Environmental Services

Reviewed by: _____
Richard O'Neil
Project Manager

REFERENCES

California Department of Conservation, Division of Mines and Geology (CDMG), 1994 Fault Activity Map of California and Adjacent Areas (1:750,000 scale),

County of Los Angeles Department of Public Works, Hydrologic Records, records request October 14, 2003.

ATTACHMENTS

TABLES

Table 1
Sample Location Coordinates
Entrada Water Quality Basins
Valencia, California

Sample Number	Date	Elevation*	GPS Coordinates**
EB1-1A	8/2/06	1,010’	N34^{o} 25.972’ W118^{o} 36.198’
EB1-1B	8/2/06	1.014’	N34^{o} 25.963’ W118^{o} 36.181’
EB1-1C	8/2/06	1,008’	N34^{o} 25.950’ W118^{o} 36.194’
EB1-1D	8/2/06	1,003’	N34^{o} 25.960’ W118^{o} 36.209’
EB1-2A	8/2/06	1,003’	N34^{o} 25.977’ W118^{o} 36.245
EB1-2B	8/2/06	1,006’	N34^{o} 25.969’ W118^{o} 36.227’
EB1-2C	8/2/06	1,012’	N34^{o} 25.955’ W118^{o} 36.238’
EB1-2D	8/2/06	1,009’	N34^{o} 25.965’ W118^{o} 36.255’
EB1-3A	8/2/06	1,014’	N34^{o} 25.944’ W118^{o} 36.219’
EB1-3B	8/2/06	1,012’	N34^{o} 25.934’ W118^{o} 36.202’
EB1-3C	8/2/06	1,009’	N34^{o} 25.919’ W118^{o} 36.215’
EB1-3D	8/2/06	1,014’	N34^{o} 25.930’ W118^{o} 36.232’
EB1-4A	8/2/06	1,014’	N34^{o} 25.949’ W118^{o} 36.270’
EB1-4B	8/2/06	1,015’	N34^{o} 25.940’ W118^{o} 36.215’
EB1-4C	8/2/06	1,021’	N34^{o} 25.927’ W118^{o} 36.262’
EB1-4D	8/2/06	1,015’	N34^{o} 25.939’ W118^{o} 36.276’
EB1-5A	8/2/06	1,025’	N34^{o} 25.916’ W118^{o} 36.245’
EB1-5B	8/2/06	1,017’	N34^{o} 25.906’ W118^{o} 36.228’
EB1-5C	8/2/06	1,018’	N34^{o} 25.892’ W118^{o} 36.240’
EB1-5D	8/2/06	1,020’	N34^{o} 25.907’ W118^{o} 36.254’

EB2-1A	8/2/06	1,010’	N34^{o} 25.978’ W118^{o} 36.371’
EB2-1B	8/2/06	1.003’	N34^{o} 25.980’ W118^{o} 36.357’
EB2-1C	8/2/06	1,006’	N34^{o} 25.970’ W118^{o} 36.349’
EB2-1D	8/2/06	1,006’	N34^{o} 25.958’ W118^{o} 36.362’
EB2-2A	8/2/06	1,015’	N34^{o} 25.944’ W118^{o} 36.347’
EB2-2B	8/2/06	1,016’	N34^{o} 25.955’ W118^{o} 36.328’
EB2-2C	8/2/06	1,025’	N34^{o} 25.938’ W118^{o} 36.319’
EB2-2D	8/2/06	1,031’	N34^{o} 25.927’ W118^{o} 36.336’
EB2-3A	8/2/06	1,014’	N34^{o} 25.958’ W118^{o} 36.325’
EB2-3B	8/2/06	1,014’	N34^{o} 25.962’ W118^{o} 36.304’
EB2-3C	8/2/06	1,009’	N34^{o} 25.958’ W118^{o} 36.290’
EB2-3D	8/2/06	1,020’	N34^{o} 25.948’ W118^{o} 36.304’
EB2-4A	8/2/06	1,027’	N34^{o} 25.913’ W118^{o} 36.324’
EB2-4B	8/2/06	1,021’	N34^{o} 25.925’ W118^{o} 36.306’
EB2-4C	8/2/06	1,026’	N34^{o} 25.908’ W118^{o} 36.298’
EB2-4D	8/2/06	1,034’	N34^{o} 25.898’ W118^{o} 36.314’
EB2-5A	8/2/06	1,015’	N34^{o} 25.937’ W118^{o} 36.290’
EB2-5B	8/2/06	1,016’	N34^{o} 25.940’ W118^{o} 36.284’
EB2-5C	8/2/06	1,024’	N34^{o} 25.924’ W118^{o} 36.276’
EB2-5D	8/2/06	1,027’	N34^{o} 25.919’ W118^{o} 36.283’
EB2-6A	8/2/06	1,028’	N34^{o} 25.893’ W118^{o} 36.286’
EB2-6B	8/2/06	1,027’	N34^{o} 25.904’ W118^{o} 36.271’
EB2-6C	8/2/06	1,027’	N34^{o} 25.889’ W118^{o} 36.255’

EB2-6D	8/2/06	1,028’	N34^{o} 25.879’ W118^{o} 36.278’
BG-1	8/206	1,032’	N34^{o} 25.968’ W118^{o} 36.164’
BG-2	8/206	1,044	N34^{o} 25.886’ W118^{o} 36.322’

Notes:
GPS coordinates were collected using hand held equipment. This equipment was accurate to between 15 and 45 feet.

GPS = Global Positioning System
* = Elevations based on hand held GPS equipment
** = GPS coordinates based on hand held GPS equipment

Table 2
Soil Sample Analytical Results
OCP, OPP, CH, TPH, Cam-17 metals, Arsenic,
Ammonia, Nitrate, Nitrite, and Paraquat
Entrada Water Quality Basins
Valencia, California

Sample No.	Date	Depth bgs	OPPs (mg/kg)	CH (mg/kg)	OCP (mg/kg)	Paraquat (mg/kg)	Ammonia (mg/kg)	Nitrate (mg/kg)	Nitrite (mg/kg)	TPH (C_4-C_{12}) (mg/kg)	TPH (C_{11}-C_{22}) (mg/kg)	TPH (C_{23}-C_{35}) (mg/kg)
EB1-1A,1B,1C,1D-0.5	08/02/06	0.5	ND	ND	ND	ND	ND	**0.612**	ND	NA	NA	NA
EB1-2A,2B,2C,2D-0.5	08/02/06	0.5	ND	ND	ND	ND	ND	**2.79**	ND	NA	NA	NA
EB1-3A,3B,3C,3D-0.5	08/02/06	0.5	ND	ND	ND	ND	**8.08**	**2.39**	**0.187**	NA	NA	NA
EB1-4A,4B,4C,4D-0.5	08/02/06	0.5	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
EB1-5A,5B,5C,5D-0.5	08/02/06	0.5	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
EB2-1A,1B,1C,1D-0.5	08/02/06	0.5	ND	ND	ND	ND	**1.31**	**5.50**	ND	NA	NA	NA
EB2-2A,2B,2C,2D-0.5	08/02/06	0.5	ND	ND	ND	ND	ND	**1.45**	ND	NA	NA	NA
EB2-3A,3B,3C,3D-0.5	08/02/06	0.5	ND	ND	ND	ND	**0.858**	**2.34**	ND	NA	NA	NA
EB2-4A,4B,4C,4D-0.5	08/02/06	0.5	ND	ND	ND	ND	ND	**3.77**	ND	NA	NA	NA
EB2-5A,5B,5C,5D-0.5	08/02/06	0.5	ND	ND	ND	ND	**0.933**	**4.51**	ND	NA	NA	NA
EB2-6A,6B,6C,6D-0.5	08/02/06	0.5	ND	ND	ND	ND	**3.78**	**5.38**	ND	NA	NA	NA
EB2-4B-2	08/02/06	2	NA	NA	NA	NA	ND	ND	ND	NA	NA	NA
EB2-5C-2	08/02/06	2	NA	NA	NA	NA	ND	**7.05**	ND	NA	NA	NA
EB2-1B-2	08/02/06	2	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND
PRGs Residential			---	---	---	---	---	---	---	---	---	---
PRGs Industrial			---	---	---	---	---	---	---	---	---	---
Detection Limits (mg/kg)			**0.05-0.10**	**0.02-20.0**	**0.001-0.20**	**1.0**	**0.50**	**0.50**	**0.10**	**10.0**	**10.0**	**50.0**

Notes:

CH – Chlorinated Herbicides
OCP - Organochlorine Pesticides
OPP - Organophosphorous Pesticides
ND – None detected above detection limits.
NA - Not applicable
bgs - below ground surface

- Concentrations are reported in milligrams per kilogram (mg/kg) which is equivalent to parts per million (ppm).
- Analyses for OCP were performed in accordance with the Environmental Protection Agency (EPA) Method No. 8081A.
- Analyses for OPP were performed in accordance with the EPA Method No. 8141A.
- Analyses for CH were performed in accordance with the EPA Method No. 8151A.
- Analyses for TPH were performed in accordance with the EPA Method No. 8015B
- Analyses for Ammonia were performed in accordance with the EPA Method No. 350.3M
- Analyses for Nitrate were performed in accordance with the EPA Method No. 353.3M
- Analyses for Nitrite were performed in accordance with the EPA Method No. 353.3M
- Analyses for Paraquat were performed in accordance with the EPA Method No. Chevron RM8-10

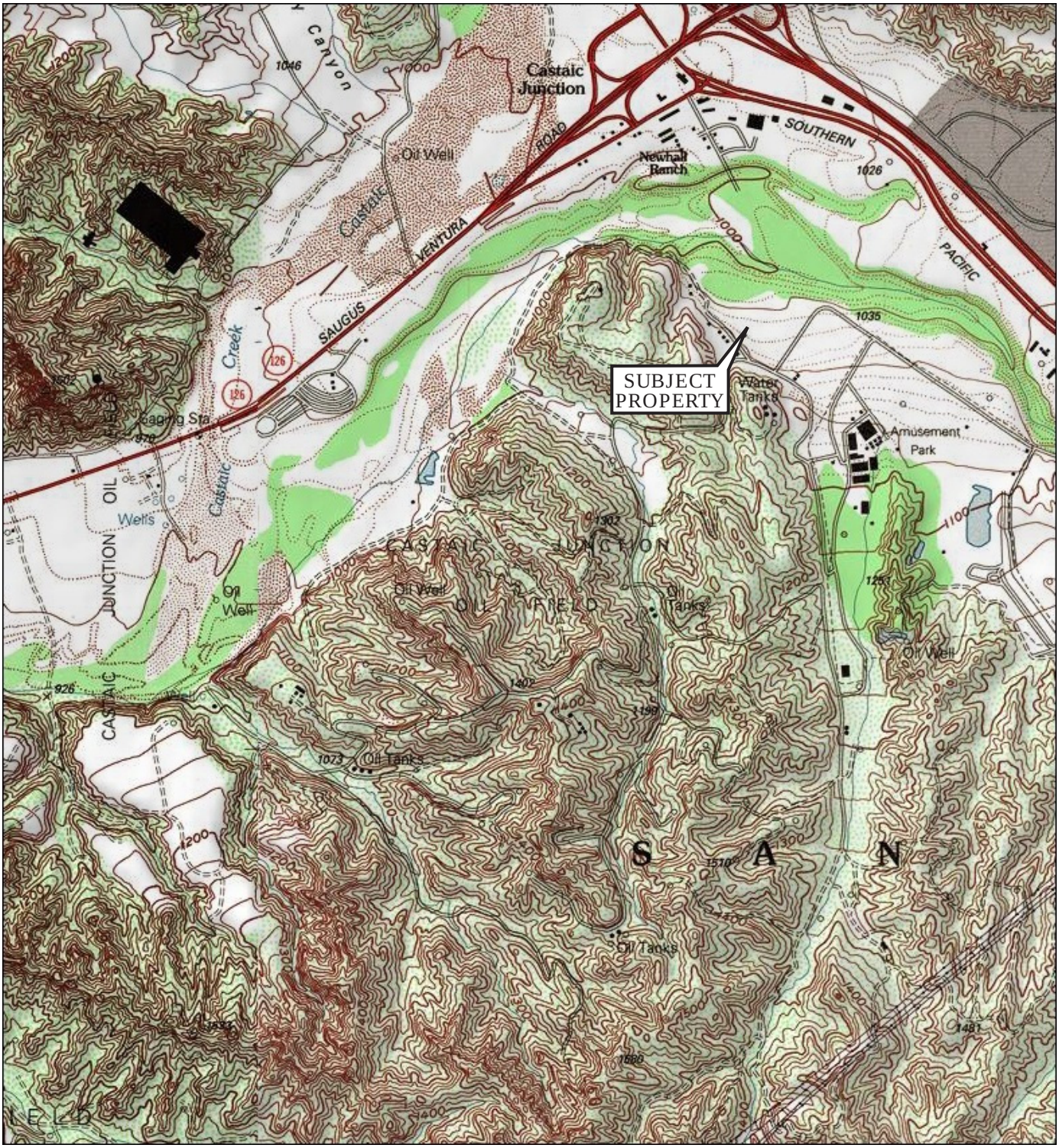
Table 3
Soil Sample Analytical Results
Cam-17 Metals and Arsenic,
Entrada Water Quality Basins
Valencia, California

Sample No.	Date	Depth bgs	Arsenic (mg/kg)	Cam-17 (mg/kg)
EB1-1D-0.5	08/02/06	0.5	ND	NA
EB1-2A-0.5	08/02/06	0.5	ND	Below 10x STLC
EB1-2C-0.5	08/02/06	0.5	ND	NA
EB1-3B-0.5	08/02/06	0.5	ND	Below 10x STLC
EB1-3D-0.5	08/02/06	0.5	ND	NA
EB1-4C-0.5	08/02/06	0.5	ND	NA
EB1-5C-0.5	08/02/06	0.5	ND	Below 10x STLC
EB1-5A-0.5	08/02/06	0.5	ND	NA
EB2-1B-0.5	08/02/06	0.5	ND	Below 10x STLC
EB2-1D-0.5	08/02/06	0.5	ND	NA
EB2-2C-0.5	08/02/06	0.5	ND	NA
EB2-3A-0.5	08/02/06	0.5	ND	NA
EB2-4A-0.5	08/02/06	0.5	ND	Below 10x STLC
EB2-4C-0.5	08/02/06	0.5	ND	NA
EB2-5A-0.5	08/02/06	0.5	ND	NA
EB2-6B-0.5	08/02/06	0.5	ND	NA
EB2-6C-0.5	08/02/06	0.5	ND	Below 10x STLC
BG1 -0.5	08/02/06	0.5	ND	Below 10x STLC
BG2-0.5	08/02/06	0.5	ND	Below 10x STLC
Detection Limits (mg/kg)			**0.30**	**0.19-5.0**

Notes:
ND = None detected above detection limits.
NA = Not applicable
bgs = below ground surface

- Concentrations are reported in milligrams per kilogram (mg/kg) which is equivalent to parts per million (ppm).
- Analyses for CAM-17 Metals were performed in accordance with the EPA Method No. 6000/7000 series
- Analyses for Arsenic were performed in accordance with the EPA Method No. 6010B

FIGURES



NORTH

Reference: USGS Newhall and Val Verde Quadrangles, California
7.5 Minute Series

SITE VICINITY

SCALE - 1:24,000

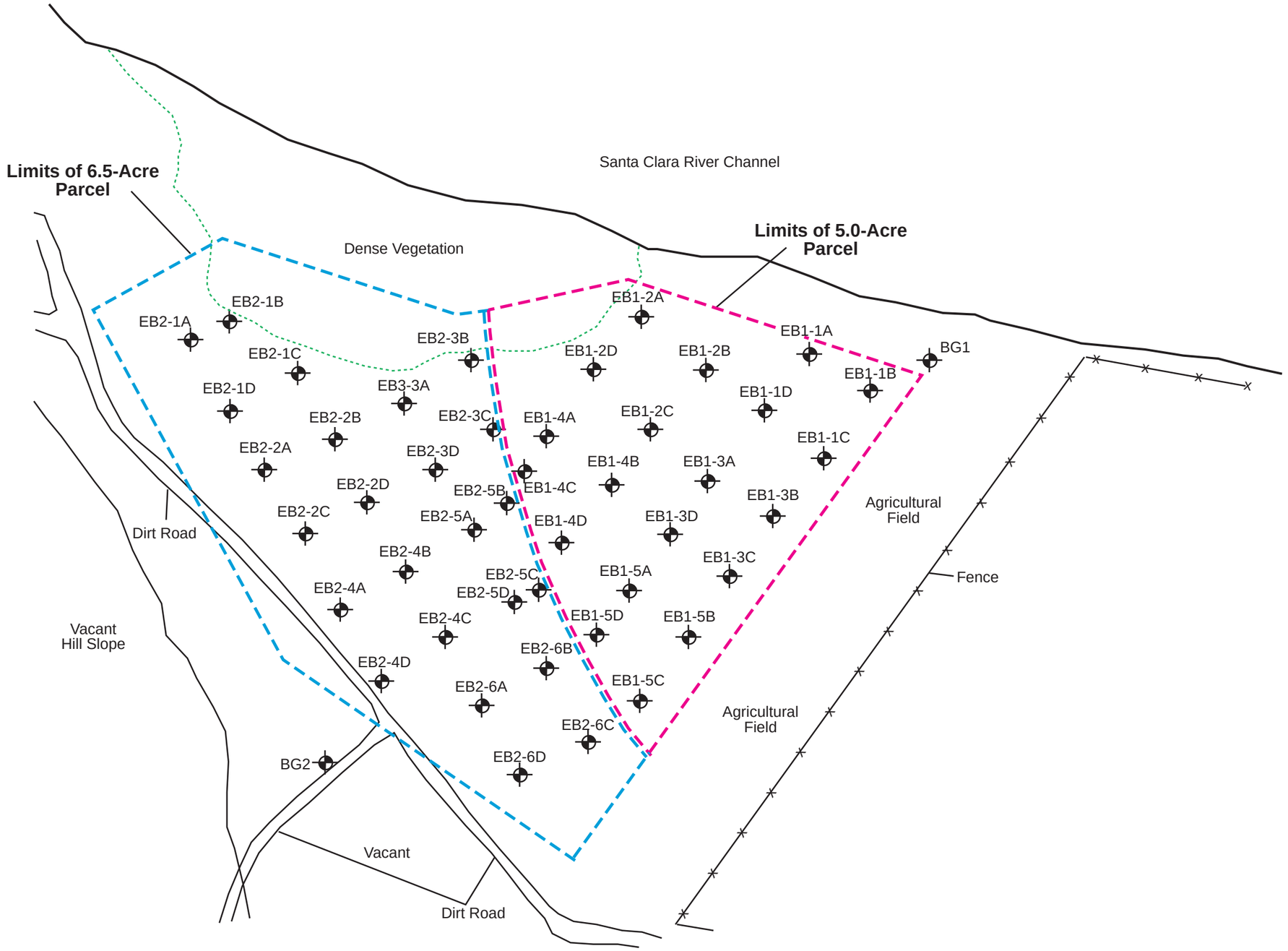
BA ENVIRONMENTAL

PHASE II SUBSURFACE INVESTIGATION

PROJECT: **Water Qaulity Basins**
Entrada ME073-02 Basins
Valencia, California

PROJECT NO.
106167

FIGURE
1



BA ENVIRONMENTAL

NORTH

0 75 150

Approximate Scale, feet

LEGEND

EB1-1A = Soil Boring Location and Designation

PHASE II SUBSURFACE INVESTIGATION

PROJECT: **Water Qaulity Basins**
Entrada ME073-02 Basins
Valencia, California

PROJECT NO.
106167

FIGURE
2

APPENDICES

APPENDIX A:

Lab Reports and Chain of Custody Documentation

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: August 30, 2006

Mr. Russell Cote
BA Environmental
502 South Verdugo Drive,
Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

Project: **106167 / Entrada Water Basins**
Lab I.D.: **060803-1 through -92**

Dear Mr. Cote:

The **Paraquat results** for the soil samples, received by our laboratory on August 3, 2006, are attached. The samples were received chilled, intact and accompanying chain of custody record.

The samples were received at four degrees Celsius

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,

Curtis Desilets
Vice President/Program Manager

Jesse Tu, Ph.D.
Laboratory Manager

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: BA Environmental
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: 106167 / Entrada Water Basins
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/15-16/06
DATE ANALYZED: 08/29/06
DATE REPORTED: 08/30/06

PARAQUAT ANALYSIS
METHOD: CHEVRON RM8-10
UNIT: uG/G = MICROGRAM PER GRAM

SAMPLE I.D.	LAB I.D.		RESULT	DF
EB1-1A-0.5,EB1-1B-0.5,EB1-1C-0.5, EB1-1D-0.5 (COMPOSITE)	060803-1 To -4	(Composite)	ND	1
EB1-2A-0.5,EB1-2B-0.5,EB1-2C-0.5, EB1-2D-0.5 (COMPOSITE)	060803-9 To -12	(Composite)	ND	1
EB1-3A-0.5,EB1-3B-0.5, EB1-3C-0.5, EB1-3D-0.5 (COMPOSITE)	060803-17 To -20	(Composite)	ND	1
EB1-4A-0.5,EB1-4B-0.5,EB1-4C-0.5, EB1-4D-0.5 (COMPOSITE)	060803-25 To -28	(Composite)	ND	1
EB1-5A-0.5,EB1-5B-0.5,EB1-5C-0.5, EB1-5D-0.5 (COMPOSITE)	060803-33 To -36	(Composite)	ND	1
EB2-1A-0.5,EB2-1B-0.5,EB2-1C-0.5, EB2-1D-0.5 (COMPOSITE)	060803-45 To -48	(Composite)	ND	1
EB2-2A-0.5,EB2-2B-0.5,EB2-2C-0.5, EB2-2D-0.5 (COMPOSITE)	060803-53 To -56	(Composite)	ND	1
EB2-3A-0.5,EB2-3B-0.5,EB2-3C-0.5, EB2-3D-0.5 (COMPOSITE)	060803-61 To -64	(Composite)	ND	1
EB2-4A-0.5,EB2-4B-0.5,EB2-4C-0.5, EB2-4D-0.5 (COMPOSITE)	060803-69 To -72	(Composite)	ND	1
EB2-5A-0.5,EB2-5B-0.5,EB2-5C-0.5, EB2-5D-0.5 (COMPOSITE)	060803-77 To -80	(Composite)	ND	1
EB2-6A-0.5,EB2-6B-0.5,EB2-6C-0.5, EB2-6D-0.5 (COMPOSITE)	060803-85 To -88	(Composite)	ND	1
METHOD BLANK	---		ND	1
	PQL		1.0	

COMMENTS
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

SEP 07 2006

NORTH COAST LABORATORIES LTD.

August 29, 2006

Enviro-Chem, Inc.
1214 E. Lexington Ave.
Pomona, CA 91766

Attn: Curt Desilets

RE: 060803-1 to -88

Order No.: 0608322
Invoice No.: 60565
PO No.: REQUIRED
ELAP No. 1247-Expires July 2006

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	060803-1~4 comp
02A	060803-9~12 comp
03A	060803-17~20 comp
04A	060803-25~28 comp
05A	060803-33~36 comp
06A	060803-45~48 comp
07A	060803-53~56 comp
08A	060803-61~64 comp
09A	060803-69~72 comp
10A	060803-77~80 comp
11A	060803-85~88 comp

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

All solid results are expressed on a wet-weight basis unless otherwise noted.

REPORT CERTIFIED BY

Laboratory Supervisor(s) | QA Unit | Jesse G. Chaney, Jr. (FOR JGC)
Laboratory Director

CLIENT: Enviro-Chem, Inc.
Project: 060803-1 to -88
Lab Order: 0608322

CASE NARRATIVE

Paraquat:
The matrix spike recovery was below the lower acceptance limit. The recoveries of the laboratory control sample/laboratory control sample duplicate (LCS/LCSD) were within the acceptance limits indicating that the low recovery may be due to matrix effects.

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831
Printed on Recycled Paper

Date: 29-Aug-2006
WorkOrder: 0608322

ANALYTICAL REPORT

Client Sample ID: 060803-1~4 comp **Received:** 8/11/06 **Collected:** 8/2/06 0:00
Lab ID: 0608322-01A

Test Name: Paraquat **Reference:** Chevron RM8-10

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Paraquat	ND	1.0	µg/g	1.0	8/15/06	8/29/06

Client Sample ID: 060803-9~12 comp **Received:** 8/11/06 **Collected:** 8/2/06 0:00
Lab ID: 0608322-02A

Test Name: Paraquat **Reference:** Chevron RM8-10

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Paraquat	ND	1.0	µg/g	1.0	8/15/06	8/29/06

Client Sample ID: 060803-17~20 comp **Received:** 8/11/06 **Collected:** 8/2/06 0:00
Lab ID: 0608322-03A

Test Name: Paraquat **Reference:** Chevron RM8-10

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Paraquat	ND	1.0	µg/g	1.0	8/15/06	8/29/06

Client Sample ID: 060803-25~28 comp **Received:** 8/11/06 **Collected:** 8/2/06 0:00
Lab ID: 0608322-04A

Test Name: Paraquat **Reference:** Chevron RM8-10

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Paraquat	ND	1.0	µg/g	1.0	8/15/06	8/29/06

Client Sample ID: 060803-33~36 comp **Received:** 8/11/06 **Collected:** 8/2/06 0:00
Lab ID: 0608322-05A

Test Name: Paraquat **Reference:** Chevron RM8-10

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Paraquat	ND	1.0	µg/g	1.0	8/15/06	8/29/06

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831
Printed on Recycled Paper

Date: 29-Aug-2006
WorkOrder: 0608322

ANALYTICAL REPORT

Client Sample ID: 060803-45~48 comp **Received:** 8/11/06 **Collected:** 8/2/06 0:00
Lab ID: 0608322-06A

Test Name: Paraquat **Reference:** Chevron RM8-10

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Paraquat	ND	1.0	µg/g	1.0	8/15/06	8/29/06

Client Sample ID: 060803-53~56 comp **Received:** 8/11/06 **Collected:** 8/2/06 0:00
Lab ID: 0608322-07A

Test Name: Paraquat **Reference:** Chevron RM8-10

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Paraquat	ND	1.0	µg/g	1.0	8/16/06	8/29/06

Client Sample ID: 060803-61~64 comp **Received:** 8/11/06 **Collected:** 8/2/06 0:00
Lab ID: 0608322-08A

Test Name: Paraquat **Reference:** Chevron RM8-10

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Paraquat	ND	1.0	µg/g	1.0	8/16/06	8/29/06

Client Sample ID: 060803-69~72 comp **Received:** 8/11/06 **Collected:** 8/2/06 0:00
Lab ID: 0608322-09A

Test Name: Paraquat **Reference:** Chevron RM8-10

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Paraquat	ND	1.0	µg/g	1.0	8/16/06	8/29/06

Client Sample ID: 060803-77~80 comp **Received:** 8/11/06 **Collected:** 8/2/06 0:00
Lab ID: 0608322-10A

Test Name: Paraquat **Reference:** Chevron RM8-10

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Paraquat	ND	1.0	µg/g	1.0	8/16/06	8/29/06

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831
Printed on Recycled Paper

Date: 29-Aug-2006
WorkOrder: 0608322

ANALYTICAL REPORT

Client Sample ID: 060803-85~88 comp **Received:** 8/11/06 **Collected:** 8/2/06 0:00
Lab ID: 0608322-11A

Test Name: Paraquat **Reference:** Chevron RM8-10

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Paraquat	ND	1.0	µg/g	1.0	8/16/06	8/29/06

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831
Printed on Recycled Paper

CLIENT: Enviro-Chem, Inc.
Work Order: 0608322
Project: 060803-1 to -88

QC SUMMARY REPORT

Method Blank

Sample ID: **MB-16282** Batch ID: **16282** Test Code: **PARAQS** Units: **µg/g** Analysis Date: **8/29/06** Prep Date: **8/15/06**
Client ID: Run ID: **OLSPEC_060829A** SeqNo: **617254**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Paraquat	ND	1.0									

Sample ID: **MB-16289** Batch ID: **16289** Test Code: **PARAQS** Units: **µg/g** Analysis Date: **8/29/06** Prep Date: **8/16/06**
Client ID: Run ID: **OLSPEC_060829A** SeqNo: **617280**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Paraquat	ND	1.0									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 29-Aug-2006

CLIENT: Enviro-Chem, Inc.
Work Order: 0608322
Project: 060803-1 to -88

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: **0608322-04AMS** Batch ID: **16282** Test Code: **PARAQS** Units: **µg/g** Analysis Date: **8/29/06** Prep Date: **8/15/06**

Client ID: **060803-25~28 comp** Run ID: **OLSPEC_060829A** SeqNo: **617249**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Paraquat	0.2799	1.0	0.500	0	56.0%	59	101	0			JS

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 29-Aug-2006

CLIENT: Enviro-Chem, Inc.
Work Order: 0608322
Project: 060803-1 to -88

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: **LCS-16282** Batch ID: **16282** Test Code: **PARAQS** Units: **µg/g** Analysis Date: **8/29/06** Prep Date: **8/15/06**
Client ID: Run ID: **OLSPEC_060829A** SeqNo: **617252**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Paraquat	0.3194	1.0	0.500	0	63.9%	59	101	0			J

Sample ID: **LCSD-16282** Batch ID: **16282** Test Code: **PARAQS** Units: **µg/g** Analysis Date: **8/29/06** Prep Date: **8/15/06**
Client ID: Run ID: **OLSPEC_060829A** SeqNo: **617253**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Paraquat	0.3180	1.0	0.500	0	63.6%	59	101	0.319	0%	20	J

Sample ID: **LCS-16289** Batch ID: **16289** Test Code: **PARAQS** Units: **µg/g** Analysis Date: **8/29/06** Prep Date: **8/16/06**
Client ID: Run ID: **OLSPEC_060829A** SeqNo: **617278**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Paraquat	4.186	1.0	5.00	0	83.7%	59	101	0			

Sample ID: **LCSD-16289** Batch ID: **16289** Test Code: **PARAQS** Units: **µg/g** Analysis Date: **8/29/06** Prep Date: **8/16/06**
Client ID: Run ID: **OLSPEC_060829A** SeqNo: **617279**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Paraquat	4.336	1.0	5.00	0	86.7%	59	101	4.19	3.53%	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE # 1555

Turnaround Time
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
0 1 Week (Standard)
Other:

Misc.
Reference Quote # 878

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required: PARAQUAT	COMMENTS
060803-1~4 Comp		8/2		Soil	1		None	X	
-9~12 "								X	
-17~20 "								X	
-25~28 "								X	
-33~36 "								X	
-45~48 "								X	
-53~56 "								X	
-61~64 "								X	
-69~72 "								X	
-77~80 "								X	
-85~88 "								X	

Company Name: Enviro-Chem, Inc
Address: 1214 E Lexington Ave
City/State/Zip: Pomona, CA 91766

Project Contact: Curtis Desilets
Tel: 909-590-5905
Fax: 909-590-5907

Sampler's Signature: N/A
Project Name/ID: 060803-1 to -88

Relinquished by:	Received by:	8/11/04	1130
Relinquished by:	Received by:	rec'd temp 10.0°C	
Relinquished by:	Received by:		

Date & Time:

Instructions for Sample Storage After Analysis:
O Dispose of O Return to Client ● Store (30 Days)
O Other:

CHAIN OF CUSTODY RECORD

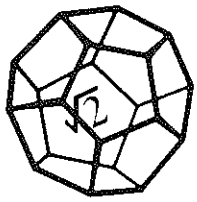
Date: 8/10/04

WHITE WITH SAMPLE - YELLOW TO CLIENT

INVOICE

DATE: August 29, 2006

Remit To: North Coast Laboratories, Ltd.
5680 West End Road
Arcata, CA 95521-9202
Attn: Accounts Receivable



NORTH COAST
LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Invoice To: Enviro-Chem, Inc.
1214 E. Lexington Ave
Pomona, CA 91766

Attn: Ammy Chang / Accts Payable
Phone: (909) 590-5905

Work Order: 0608322
PO Number: required
Project Name: 060803-1 to -88

Date Received: 8/11/06

Invoice Number: 60565

Payment Due Date: 9/28/06
Payment Terms: Net 30 Days

Item	Matrix	Code	Qty	List Price	Test Total
Paraquat	Soil	5021.21	11	$165.00	$1,815.00

Order TOTAL: $1,815.00

Discount: 0.00%
Surcharge: 0.00%
Misc Charges: $0.00

Comments:

Subtotal: $1,815.00
Payment Received: $0.00
INVOICE Total $1,815.00

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: August 11, 2006

Mr. Russell Cote
BA Environmental
502 South Verdugo Drive,
Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

Project: **106167 / Entrada Water Basins**
Lab I.D.: **060803-1 through -44**

Dear Mr. Cote:

The **analytical results (except Paraquat)** for the soil samples, received by our laboratory on August 3, 2006, are attached. The samples were received chilled, intact and accompanying chain of custody record.

The samples were received at four degrees Celsius

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,

Curtis Desilets
Vice President/Program Manager

Jesse Tu, Ph.D.
Laboratory Manager

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: August 11, 2006

Mr. Russell Cote
BA Environmental
502 South Verdugo Drive,
Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

Project: **106167 / Entrada Water Basins**
Lab I.D.: **060803-1 through -44**

Dear Mr. Cote:

The **analytical results (except Paraquat)** for the soil samples, received by our laboratory on August 3, 2006, are attached. The samples were received chilled, intact and accompanying chain of custody record.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,

Curtis Desilets
Vice President/Program Manager

Jesse Tu, Ph.D.
Laboratory Manager

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/04/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-1A-0.5, EB1-1B-0.5, EB1-1C-0.5, EB1-1D-0.5 (Composite)**
LAB I.D.: 060803-1 through -4 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Azinphos Methyl	ND	0.05	1
Bolstar (Sulprofos)	ND	0.05	1
Chlorpyrifos	ND	0.05	1
Coumaphos	ND	0.05	1
Demeton-O	ND	0.05	1
Demeton-S	ND	0.05	1
Diazinon	ND	0.05	1
Dichlorvos	ND	0.05	1
Disulfoton	ND	0.05	1
Ethoprop	ND	0.05	1
Fenchlorphos (Ronnel)	ND	0.05	1
Fensulfothion	ND	0.05	1
Fenthion	ND	0.05	1
Merphos	ND	0.05	1
Methyl Parathion	ND	0.05	1
Mevinphos	ND	0.10	1
Naled	ND	0.10	1
Phorate	ND	0.05	1
Ronnel	ND	0.05	1
Tetrachlorvinphos (Stirophos)	ND	0.05	1
Tokuthion (Prothiofos)	ND	0.05	1
Trichloronate	ND	0.05	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/04/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-2A-0.5, EB1-2B-0.5, EB1-2C-0.5, EB1-2D-0.5 (Composite)**
LAB I.D.: 060803-9 through -12 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Azinphos Methyl	ND	0.05	1
Bolstar (Sulprofos)	ND	0.05	1
Chlorpyrifos	ND	0.05	1
Coumaphos	ND	0.05	1
Demeton-O	ND	0.05	1
Demeton-S	ND	0.05	1
Diazinon	ND	0.05	1
Dichlorvos	ND	0.05	1
Disulfoton	ND	0.05	1
Ethoprop	ND	0.05	1
Fenchlorphos (Ronnel)	ND	0.05	1
Fensulfothion	ND	0.05	1
Fenthion	ND	0.05	1
Merphos	ND	0.05	1
Methyl Parathion	ND	0.05	1
Mevinphos	ND	0.10	1
Naled	ND	0.10	1
Phorate	ND	0.05	1
Ronnel	ND	0.05	1
Tetrachlorvinphos (Stirophos)	ND	0.05	1
Tokuthion (Prothiofos)	ND	0.05	1
Trichloronate	ND	0.05	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/04/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-3A-0.5, EB1-3B-0.5, EB1-3C-0.5, EB1-3D-0.5 (Composite)**
LAB I.D.: 060803-17 through -20 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Azinphos Methyl	ND	0.05	1
Bolstar (Sulprofos)	ND	0.05	1
Chlorpyrifos	ND	0.05	1
Coumaphos	ND	0.05	1
Demeton-O	ND	0.05	1
Demeton-S	ND	0.05	1
Diazinon	ND	0.05	1
Dichlorvos	ND	0.05	1
Disulfoton	ND	0.05	1
Ethoprop	ND	0.05	1
Fenchlorphos (Ronnel)	ND	0.05	1
Fensulfothion	ND	0.05	1
Fenthion	ND	0.05	1
Merphos	ND	0.05	1
Methyl Parathion	ND	0.05	1
Mevinphos	ND	0.10	1
Naled	ND	0.10	1
Phorate	ND	0.05	1
Ronnel	ND	0.05	1
Tetrachlorvinphos (Stirophos)	ND	0.05	1
Tokuthion (Prothiofos)	ND	0.05	1
Trichloronate	ND	0.05	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/04/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-4A-0.5, EB1-4B-0.5, EB1-4C-0.5, EB1-4D-0.5 (Composite)**
LAB I.D.: 060803-25 through -28 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Azinphos Methyl	ND	0.05	1
Bolstar (Sulprofos)	ND	0.05	1
Chlorpyrifos	ND	0.05	1
Coumaphos	ND	0.05	1
Demeton-O	ND	0.05	1
Demeton-S	ND	0.05	1
Diazinon	ND	0.05	1
Dichlorvos	ND	0.05	1
Disulfoton	ND	0.05	1
Ethoprop	ND	0.05	1
Fenchlorphos (Ronnel)	ND	0.05	1
Fensulfothion	ND	0.05	1
Fenthion	ND	0.05	1
Merphos	ND	0.05	1
Methyl Parathion	ND	0.05	1
Mevinphos	ND	0.10	1
Naled	ND	0.10	1
Phorate	ND	0.05	1
Ronnel	ND	0.05	1
Tetrachlorvinphos (Stirophos)	ND	0.05	1
Tokuthion (Prothiofos)	ND	0.05	1
Trichloronate	ND	0.05	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/04/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-5A-0.5, EB1-5B-0.5, EB1-5C-0.5, EB1-5D-0.5 (Composite)**
LAB I.D.: 060803-33 through -36 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Azinphos Methyl	ND	0.05	1
Bolstar (Sulprofos)	ND	0.05	1
Chlorpyrifos	ND	0.05	1
Coumaphos	ND	0.05	1
Demeton-O	ND	0.05	1
Demeton-S	ND	0.05	1
Diazinon	ND	0.05	1
Dichlorvos	ND	0.05	1
Disulfoton	ND	0.05	1
Ethoprop	ND	0.05	1
Fenchlorphos (Ronnel)	ND	0.05	1
Fensulfothion	ND	0.05	1
Fenthion	ND	0.05	1
Merphos	ND	0.05	1
Methyl Parathion	ND	0.05	1
Mevinphos	ND	0.10	1
Naled	ND	0.10	1
Phorate	ND	0.05	1
Ronnel	ND	0.05	1
Tetrachlorvinphos (Stirophos)	ND	0.05	1
Tokuthion (Prothiofos)	ND	0.05	1
Trichloronate	ND	0.05	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/04/06
DATE REPORTED: 08/11/06

METHOD BLANK FOR LAB I.D.: 060803-1 THROUGH -4 (COMPOSITE), 060803-9 THROUGH -12 (COMPOSITE), 060803-17 THROUGH -20 (COMPOSITE), 060803-25 THROUGH -28 (COMPOSITE), 060803-33 THROUGH -36 (COMPOSITE)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Azinphos Methyl	ND	0.05	1
Bolstar (Sulprofos)	ND	0.05	1
Chlorpyrifos	ND	0.05	1
Coumaphos	ND	0.05	1
Demeton-O	ND	0.05	1
Demeton-S	ND	0.05	1
Diazinon	ND	0.05	1
Dichlorvos	ND	0.05	1
Disulfoton	ND	0.05	1
Ethoprop	ND	0.05	1
Fenchlorphos (Ronnel)	ND	0.05	1
Fensulfothion	ND	0.05	1
Fenthion	ND	0.05	1
Merphos	ND	0.05	1
Methyl Parathion	ND	0.05	1
Mevinphos	ND	0.10	1
Naled	ND	0.10	1
Phorate	ND	0.05	1
Ronnel	ND	0.05	1
Tetrachlorvinphos (Stirophos)	ND	0.05	1
Tokuthion (Prothiofos)	ND	0.05	1
Trichloronate	ND	0.05	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro-Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

EPA 8141A QA/QC Report

Matrix: **Soil** Date Analyzed: **8/4-5/2006**

Unit: **mg/Kg (PPM)**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 060803-1~3

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Bolstar	0.00	1.00	0.984	**98%**	0.973	**97%**	**1%**	**0-30%**	**40-140**
Ethoprop	0.00	1.00	0.941	**94%**	0.941	**94%**	**0%**	**0-30%**	**40-140**
Ronnel	0.00	1.00	1.01	**101%**	1.01	**101%**	**0%**	**0-30%**	**40-140**
Phorate	0.00	1.00	0.934	**93%**	0.926	**93%**	**1%**	**0-30%**	**40-140**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Bolstar	0.100	0.100	**100%**	**40-140**
Ethoprop	0.100	0.097	**97%**	**40-140**
Ronnel	0.100	0.102	**102%**	**40-140**
Phorate	0.100	0.096	**96%**	**40-140**

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	0801-24~27	0803-1~4	0803-9~12	0803-17~20	0803-25~28	0803-33~36
Tributyl Phosphate	40-140	90%	114%	92%	88%	88%	87%	88%
Triphenyl Phosphate	40-140	87%	90%	92%	87%	88%	86%	87%

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.	0803-45~48	0803-53~56	0803-61~64	0803-69~72	0803-77~80	0803-85~88	060804-16	060804-17
Tributyl Phosphate	86%	89%	89%	89%	91%	89%	90%	90%
Triphenyl Phosphate	86%	89%	88%	90%	91%	88%	91%	90%

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.	060804-18					
Tributyl Phosphate	87%					
Triphenyl Phosphate	88%					

S.R. = Sample Result

spk conc = Spike Concentration

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

** = Surrogate fail due to matrix interference (If Marked)*

Note: *LCS, MS, MSD are in control therefore results are in control.*

Analyzed and Reviewed By: _____

Final Reviewer: _____

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04-05/06
DATE ANALYZED: 08/06/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-1A-0.5, EB1-1B-0.5, EB1-1C-0.5, EB1-1D-0.5 (Composite)**
LAB I.D.: 060803-1 through -4 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
2,4,5-T	ND	0.020	1
2,4,5-TP (Silvex)	ND	0.020	1
2,4-D	ND	0.200	1
2,4-DB	ND	0.200	1
Dalapon (Dichloroacetic Acid)	ND	0.500	1
Dicamba	ND	0.020	1
Dichloroprop	ND	0.200	1
Dinoseb (DNBP)	ND	0.100	1
MCPA	ND	20.0	1
MCPP	ND	20.0	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04-05/06
DATE ANALYZED: 08/06/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-2A-0.5, EB1-2B-0.5, EB1-2C-0.5, EB1-2D-0.5 (Composite)**
LAB I.D.: 060803-9 through -12 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
2,4,5-T	ND	0.020	1
2,4,5-TP (Silvex)	ND	0.020	1
2,4-D	ND	0.200	1
2,4-DB	ND	0.200	1
Dalapon (Dichloroacetic Acid)	ND	0.500	1
Dicamba	ND	0.020	1
Dichloroprop	ND	0.200	1
Dinoseb (DNBP)	ND	0.100	1
MCPA	ND	20.0	1
MCPP	ND	20.0	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04-05/06
DATE ANALYZED: 08/06/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-3A-0.5, EB1-3B-0.5, EB1-3C-0.5, EB1-3D-0.5 (Composite)**
LAB I.D.: 060803-17 through -20 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
2,4,5-T	ND	0.020	1
2,4,5-TP (Silvex)	ND	0.020	1
2,4-D	ND	0.200	1
2,4-DB	ND	0.200	1
Dalapon (Dichloroacetic Acid)	ND	0.500	1
Dicamba	ND	0.020	1
Dichloroprop	ND	0.200	1
Dinoseb (DNBP)	ND	0.100	1
MCPA	ND	20.0	1
MCPP	ND	20.0	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04-05/06
DATE ANALYZED: 08/06/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-4A-0.5, EB1-4B-0.5, EB1-4C-0.5, EB1-4D-0.5 (Composite)**
LAB I.D.: 060803-25 through -28 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
2,4,5-T	ND	0.020	1
2,4,5-TP (Silvex)	ND	0.020	1
2,4-D	ND	0.200	1
2,4-DB	ND	0.200	1
Dalapon (Dichloroacetic Acid)	ND	0.500	1
Dicamba	ND	0.020	1
Dichloroprop	ND	0.200	1
Dinoseb (DNBP)	ND	0.100	1
MCPA	ND	20.0	1
MCPP	ND	20.0	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04-05/06
DATE ANALYZED: 08/06/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-5A-0.5, EB1-5B-0.5, EB1-5C-0.5, EB1-5D-0.5 (Composite)**
LAB I.D.: 060803-33 through -36 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
2,4,5-T	ND	0.020	1
2,4,5-TP (Silvex)	ND	0.020	1
2,4-D	ND	0.200	1
2,4-DB	ND	0.200	1
Dalapon (Dichloroacetic Acid)	ND	0.500	1
Dicamba	ND	0.020	1
Dichloroprop	ND	0.200	1
Dinoseb (DNBP)	ND	0.100	1
MCPA	ND	20.0	1
MCPP	ND	20.0	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04-05/06
DATE ANALYZED: 08/06/06
DATE REPORTED: 08/11/06

METHOD BLANK FOR LAB I.D.: 060803-1 THROUGH -4 (COMPOSITE), 060803-9 THROUGH -12 (COMPOSITE), 060803-17 THROUGH -20 (COMPOSITE), 060803-25 THROUGH -28 (COMPOSITE), 060803-33 THROUGH -36 (COMPOSITE)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
2,4,5-T	ND	0.020	1
2,4,5-TP (Silvex)	ND	0.020	1
2,4-D	ND	0.200	1
2,4-DB	ND	0.200	1
Dalapon (Dichloroacetic Acid)	ND	0.500	1
Dicamba	ND	0.020	1
Dichloroprop	ND	0.200	1
Dinoseb (DNBP)	ND	0.100	1
MCPA	ND	20.0	1
MCPP	ND	20.0	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro-Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

QA/QC Report

Analysis: EPA 8151A

Matrix: **Soil/Solid** Date Analyzed: **8/6/2006**

Unit: **mg/Kg (PPM)**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 060804-18

Analyte	S.R.	spk conc	MS	% REC	MSD	% REC	%RPD	ACP %RPD	ACP %REC
2,4,5-T	0	0.5000	0.611	**122%**	0.592	**118%**	**3%**	**0-20%**	**50-150**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
2,4,5-T	0.0500	0.0522	104%	**70-130**
2,4,5-TP	0.0500	0.0447	89%	**70-130**
2,4-DB	0.500	0.589	118%	**70-130**

Surrogate Recovery:

Analyte	ACP %	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample ID:		M-BLK	0801-24~27	0803-1~4	0803-9~12	0803-17~20	0803-25~28	0803-33~36	0803-45~48
DCAA	50-150	128%	129%	133%	123%	126%	117%	125%	124%

Analyte	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample ID:	0803-53~56	0803-61~64	0803-69~72	0803-77~80	0803-85~88	060804-16	060804-17	060804-18	
DCAA	123%	125%	116%	124%	125%	129%	114%	127%	

Analyte	%REC	%REC	%REC	%REC					
Sample ID:									
DCAA									

S.R. = Sample Result

spk conc = Spike Concentration

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

Analyzed and Reviewed By: _____

Final Reviewer: _____

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/05/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-1A-0.5, EB1-1B-0.5, EB1-1C-0.5, EB1-1D-0.5 (Composite)**
LAB I.D.: 060803-1 through -4 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxyclor	ND	0.001	1
Toxaphene	ND	0.200	1
Chloroneb	ND	0.010	1
1,2-Dibromo-3-Chloropropane(DBCP)	ND	0.001	1
Hexachlorobenzene	ND	0.001	1
Mirex	ND	0.002	1
Trifluralin	ND	0.002	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/05/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-2A-0.5, EB1-2B-0.5, EB1-2C-0.5, EB1-2D-0.5 (Composite)**
LAB I.D.: 060803-9 through -12 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxyclor	ND	0.001	1
Toxaphene	ND	0.200	1
Chloroneb	ND	0.010	1
1,2-Dibromo-3-Chloropropane(DBCP)	ND	0.001	1
Hexachlorobenzene	ND	0.001	1
Mirex	ND	0.002	1
Trifluralin	ND	0.002	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/05/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-3A-0.5, EB1-3B-0.5, EB1-3C-0.5, EB1-3D-0.5 (Composite)**
LAB I.D.: 060803-17 through -20 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxyclor	ND	0.001	1
Toxaphene	ND	0.200	1
Chloroneb	ND	0.010	1
1,2-Dibromo-3-Chloropropane(DBCP)	ND	0.001	1
Hexachlorobenzene	ND	0.001	1
Mirex	ND	0.002	1
Trifluralin	ND	0.002	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/05/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-4A-0.5, EB1-4B-0.5, EB1-4C-0.5, EB1-4D-0.5 (Composite)**
LAB I.D.: 060803-25 through -28 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxyclor	ND	0.001	1
Toxaphene	ND	0.200	1
Chloroneb	ND	0.010	1
1,2-Dibromo-3-Chloropropane(DBCP)	ND	0.001	1
Hexachlorobenzene	ND	0.001	1
Mirex	ND	0.002	1
Trifluralin	ND	0.002	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/05/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-5A-0.5, EB1-5B-0.5, EB1-5C-0.5, EB1-5D-0.5 (Composite)**
LAB I.D.: 060803-33 through -36 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxyclor	ND	0.001	1
Toxaphene	ND	0.200	1
Chloroneb	ND	0.010	1
1,2-Dibromo-3-Chloropropane(DBCP)	ND	0.001	1
Hexachlorobenzene	ND	0.001	1
Mirex	ND	0.002	1
Trifluralin	ND	0.002	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/05/06
DATE REPORTED: 08/11/06

METHOD BLANK FOR LAB I.D.: 060803-1 THROUGH -4 (COMPOSITE), 060803-9 THROUGH -12 (COMPOSITE), 060803-17 THROUGH -20 (COMPOSITE), 060803-25 THROUGH -28 (COMPOSITE), 060803-33 THROUGH -36 (COMPOSITE)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxyclor	ND	0.001	1
Toxaphene	ND	0.200	1
Chloroneb	ND	0.010	1
1,2-Dibromo-3-Chloropropane(DBCP)	ND	0.001	1
Hexachlorobenzene	ND	0.001	1
Mirex	ND	0.002	1
Trifluralin	ND	0.002	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro-Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

EPA 8081 QA/QC Report

Matrix: **Soil** Date Analyzed: **8/5-6/2006**

Unit: **mg/Kg (PPM)**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 060803-1~4

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.050	0.0478	**96%**	0.0484	**97%**	**1%**	**0-20%**	**70-130**
Aldrin	0.000	0.050	0.0466	**93%**	0.0468	**94%**	**0%**	**0-20%**	**70-130**
4,4-DDE	0.002	0.050	0.0439	**84%**	0.0444	**85%**	**1%**	**0-20%**	**70-130**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.0050	0.00524	**105%**	**75-125**
Aldrin	0.0050	0.00523	**105%**	**75-125**
4,4-DDE	0.0050	0.00482	**96%**	**75-125**
Dieldrin	0.0050	0.00507	**101%**	**75-125**

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	0801-24~27	0803-1~4	0803-9~12	0803-17~20	0803-25~28	0803-33~36
Tetra-chloro-meta-xylene	50-150	111%	99%	109%	113%	110%	113%	113%
Decachlorobiphenyl	50-150	108%	97%	103%	110%	107%	107%	103%

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.	0803-45~48	0803-53~56	0803-61~64	0803-69~72	0803-77~80	0803-85~88		
Tetra-chloro-meta-xylene	109%	109%	112%	107%	101%	118%		
Decachlorobiphenyl	91%	100%	100%	102%	92%	106%		

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.						
Tetra-chloro-meta-xylene						
Decachlorobiphenyl						

S.R. = Sample Result

spk conc = Spike Concentration

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

** = Surrogate fail due to matrix interference (If Marked)*

Note: *LCS, MS, MSD are in control therefore results are in control.*

Analyzed and Reviewed By: _____

Final Reviewer: _____

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

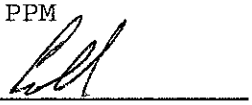
CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06
DATE ANALYZED: 08/06-08/06
REPORT TO: MR. RUSSELL COTE
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-1A-0.5, EB1-1B-0.5, EB1-1C-0.5, EB1-1D-0.5 (Composite)**
LAB I.D.: 060803-1 through -4 (Composite)

PARAMETER	UNIT	SAMPLE RESULT	PQL	DF	EPA METHOD
AMMONIA AS N	MG/KG	ND	0.5	1	350.3M
NITRATE AS N	MG/KG	0.612	0.50	1	353.3M
NITRITE AS N	MG/KG	ND	0.10	1	353.3M

COMMENTS:
M = MODIFIED
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
MG/KG = MILLIGRAM PER KILOGRAM = PPM

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

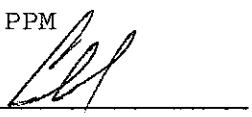
PROJECT: **106167 / Entrada Water Basins**

MATRIX: SOIL
DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06
DATE ANALYZED: 08/06-08/06
REPORT TO: MR. RUSSELL COTE
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-2A-0.5, EB1-2B-0.5, EB1-2C-0.5, EB1-2D-0.5 (Composite)**
LAB I.D.: 060803-9 through -12 (Composite)

PARAMETER	UNIT	SAMPLE RESULT	PQL	DF	EPA METHOD
AMMONIA AS N	MG/KG	ND	0.50	1	350.3M
NITRATE AS N	MG/KG	2.79	0.50	1	353.3M
NITRITE AS N	MG/KG	ND	0.10	1	353.3M

COMMENTS:
M = MODIFIED
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
MG/KG = MILLIGRAM PER KILOGRAM = PPM

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

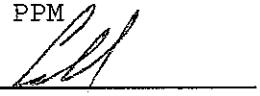
PROJECT: **106167 / Entrada Water Basins**

MATRIX: SOIL
DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06
DATE ANALYZED: 08/06-08/06
REPORT TO: MR. RUSSELL COTE
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-3A-0.5, EB1-3B-0.5, EB1-3C-0.5, EB1-3D-0.5 (Composite)**
LAB I.D.: 060803-17 through -20 (Composite)

PARAMETER	UNIT	SAMPLE RESULT	PQL	DF	EPA METHOD
AMMONIA AS N	MG/KG	8.08	0.50	1	350.3M
NITRATE AS N	MG/KG	2.39	0.50	1	353.3M
NITRITE AS N	MG/KG	0.187	0.10	1	353.3M

COMMENTS:
M = MODIFIED
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
MG/KG = MILLIGRAM PER KILOGRAM = PPM

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**

MATRIX: SOIL
DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06
DATE ANALYZED: 08/06-08/06
REPORT TO: MR. RUSSELL COTE
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-4A-0.5, EB1-4B-0.5, EB1-4C-0.5, EB1-4D-0.5 (Composite)**
LAB I.D.: 060803-25 through -28 (Composite)

PARAMETER	UNIT	SAMPLE RESULT	PQL	DF	EPA METHOD
AMMONIA AS N	MG/KG	ND	0.50	1	350.3M
NITRATE AS N	MG/KG	ND	0.50	1	353.3M
NITRITE AS N	MG/KG	ND	0.10	1	353.3M

COMMENTS:
M = MODIFIED
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
MG/KG = MILLIGRAM PER KILOGRAM = PPM

DATA REVIEWED AND APPROVED BY:
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

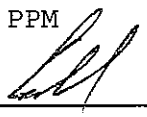
PROJECT: **106167 / Entrada Water Basins**

MATRIX: SOIL
DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06
DATE ANALYZED: 08/06-08/06
REPORT TO: MR. RUSSELL COTE
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-5A-0.5, EB1-5B-0.5, EB1-5C-0.5, EB1-5D-0.5 (Composite)**
LAB I.D.: 060803-33 through -36 (Composite)

PARAMETER	UNIT	SAMPLE RESULT	PQL	DF	EPA METHOD
AMMONIA AS N	MG/KG	ND	0.50	1	350.3M
NITRATE AS N	MG/KG	ND	0.50	1	353.3M
NITRITE AS N	MG/KG	ND	0.10	1	353.3M

COMMENTS:
M = MODIFIED
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
MG/KG = MILLIGRAM PER KILOGRAM = PPM

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

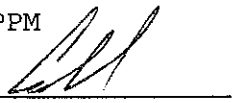
PROJECT: **106167 Entrada Water Basins**

MATRIX: SOIL
DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06
DATE ANALYZED: 08/06-08/06
REPORT TO: MR. RUSSELL COTE
DATE REPORTED: 08/11/06

METHOD BLANK FOR LAB I.D.: 060803-1 THROUGH -4 (COMPOSITE), 060803-9 THROUGH -12 (COMPOSITE), 060803-17 THROUGH -20 (COMPOSITE), 060803-25 THROUGH -28 (COMPOSITE), 060803-33 THROUGH -36 (COMPOSITE)

PARAMETER	UNIT	SAMPLE RESULT	PQL	DF	EPA METHOD
AMMONIA AS N	MG/KG	ND	0.50	1	350.3M
NITRATE AS N	MG/KG	ND	0.50	1	353.3M
NITRITE AS N	MG/KG	ND	0.10	1	353.3M

COMMENTS:
M = MODIFIED
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
MG/KG = MILLIGRAM PER KILOGRAM = PPM

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro-Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766
Tel (909)590-5905 Fax (909)590-5907

Matrix: SOLID

QA/QC Report

Analysis	Units	Date Analyzed	Sample I.D.	S.R.	Duplicate	% RPD	ACP %RPD
Alkalinity	mg/L					0.0%	0-20
Residual Chlorine	mg/Kg					0.0%	0-20
EPA 1664A	mg/Kg					0.0%	0-20
EC	umhos/cm	7/27/2006	060726-41	2120	2123	0.1%	0-20
pH	pH units	8/1/2006	060720-92	7.41	7.45	0.5%	0-20
TDS	mg/L					#VALUE!	0-20
TSS	mg/Kg	7/7/2006	060607-3	8.00	8.00	0.0%	0-20
Resistivity	ohms	8/1/2006	060731-28	8795	9099	3.4%	0-20
% Moisture	%	8/3/2006	060720-32	20.3	20.1	1.0%	0-20
BTU	BTU/lb					0.0%	0-20
Salinity	S					0.0%	0-20

%RPD = Relative Percent Difference **ACP %RPD** = Acceptable Relative Percent Difference

Analysis	Units	Date Analyzed	Sample I.D.	Spk Conc	S.R.	ACP %RPD	ACP %RC	MS	MS %RC	MSD	MSD %RC	% RPD
Acidity	mg/Kg					0-20	80-120					#VALUE!
Ammonia as N	mg/Kg	8/6/2006	LCS 1/2	50.0	0.0	0-20	80-120	43.2	86%	45.0	90%	3.6%
MBAS	mg/Kg			12.0		0-20	80-120					#VALUE!
Chloride	mg/Kg	8/2/2006	LCS1/2	200	15.7	0-20	80-120	182	83%	187	86%	2.5%
COD	mg/Kg					0-20	80-120					#VALUE!
Cr VI	mg/Kg	8/7/2006	LCS1/2	4.0	0.000	0-20	80-120	4.11	103%	4.18	105%	1.7%
Cyanide	mg/Kg	8/2/2006	060731-15	10.0	0.000	0-20	80-120	9.10	91%	8.80	88%	3.0%
Fluoride	mg/Kg			10.0		0-20	80-120					#VALUE!
Nitrate as N	mg/Kg	8/8/2006	060803-33~36	4.0	0.0	0-20	80-120	3.83	96%	3.81	95%	0.5%
Nitrite as N	mg/Kg	8/8/2006	060803-33~36	4.0	0.0	0-20	80-120	3.84	96%	3.82	96%	0.5%
Oil and Grease	mg/Kg	7/19/2006	LCS 1/2	667	0	0-20	80-120	577	87%	578	87%	0.1%
Phenolics	mg/Kg					0-20	80-120					#VALUE!
Sulfate	mg/Kg	8/2/2006	LCS1/2	200	0.0	0-20	80-120	175	88%	171	86%	2.0%
Sulfide	mg/Kg	7/12/2006	LCS1/2	3.00	0.0	0-20	80-120	2.92	97%	2.94	97%	0.7%
TRPH	mg/Kg	7/31/2006	060727-27	667	34.0	0-20	80-120	631	90%	634	90%	0.4%
Formaldehyde	mg/Kg			50.0		0-20	80-120					#VALUE!
Sulfide, Reactive	mg/Kg			0.3		0-20	80-120					#VALUE!

S.R. = Sample Results **%RC** = Percent Recovery **ACP %RC** = Accepted Percent Recovery **Spk Conc** = Spike Concentration

Analyst Signature: _____

Final Reviewer: _____

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**

MATRIX: SOIL — DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06 — DATE ANALYZED: 08/07/06
REPORT TO: MR. RUSSELL COTE — DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-1D-0.5** — LAB I.D.: 060803-4

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Arsenic(As)	ND	0.3	1	500	5.0	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
* = STLC analysis for the metal is recommended (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

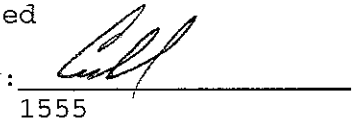
CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576
PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL — DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06 — DATE ANALYZED: 08/07/06
REPORT TO: MR. RUSSELL COTE — DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-2A-0.5** — LAB I.D.: 060803-9

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony(Sb)	ND	1.0	1	500	15	6010B
Arsenic(As)	ND	0.3	1	500	5.0	6010B
Barium(Ba)	79.7	5.0	1	10,000	100	6010B
Beryllium(Be)	ND	0.5	1	75	0.75	6010B
Cadmium(Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total(Cr)	16.7	0.5	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt(Co)	4.76	1.0	1	8,000	80	6010B
Copper(Cu)	10.6	1.0	1	2,500	25	6010B
Lead(Pb)	4.22	0.5	1	1,000	5.0	6010B
Mercury(Hg)	ND	0.1	1	20	0.2	7471A
Molybdenum(Mo)	ND	5.0	1	3,500	350	6010B
Nickel(Ni)	11.3	2.5	1	2,000	20	6010B
Selenium(Se)	ND	1.0	1	100	1.0	6010B
Silver(Ag)	ND	1.0	1	500	5.0	6010B
Thallium(Tl)	ND	1.0	1	700	7.0	6010B
Vanadium(V)	30.9	5.0	1	2,400	24	6010B
Zinc(Zn)	44.1	0.5	1	5,000	250	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5
* = STLC analysis for the metal is recommended (if marked)
** = Additional Analysis required, please call to discuss (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)
-- = Not analyzed/not requested

Data Reviewed and Approved by: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06
DATE ANALYZED: 08/07/06
REPORT TO: MR. RUSSELL COTE
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-2C-0.5**
LAB I.D.: 060803-11

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Arsenic(As)	ND	0.3	1	500	5.0	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
* = STLC analysis for the metal is recommended (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**

MATRIX: SOIL — DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06 — DATE ANALYZED: 08/07/06
REPORT TO: MR. RUSSELL COTE — DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-3B-0.5** — LAB I.D.: 060803-18

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony(Sb)	ND	1.0	1	500	15	6010B
Arsenic(As)	ND	0.3	1	500	5.0	6010B
Barium(Ba)	79.1	5.0	1	10,000	100	6010B
Beryllium(Be)	ND	0.5	1	75	0.75	6010B
Cadmium(Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total(Cr)	18.1	0.5	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt(Co)	4.90	1.0	1	8,000	80	6010B
Copper(Cu)	12.8	1.0	1	2,500	25	6010B
Lead(Pb)	4.01	0.5	1	1,000	5.0	6010B
Mercury(Hg)	ND	0.1	1	20	0.2	7471A
Molybdenum(Mo)	ND	5.0	1	3,500	350	6010B
Nickel(Ni)	12.0	2.5	1	2,000	20	6010B
Selenium(Se)	ND	1.0	1	100	1.0	6010B
Silver(Ag)	ND	1.0	1	500	5.0	6010B
Thallium(Tl)	ND	1.0	1	700	7.0	6010B
Vanadium(V)	32.8	5.0	1	2,400	24	6010B
Zinc(Zn)	50.7	0.5	1	5,000	250	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5
* = STLC analysis for the metal is recommended (if marked)
** = Additional Analysis required, please call to discuss (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)
-- = Not analyzed/not requested

Data Reviewed and Approved by: _____

CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**

MATRIX: SOIL — DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06 — DATE ANALYZED: 08/07/06
REPORT TO: MR. RUSSELL COTE — DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-3D-0.5** — LAB I.D.: 060803-20

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Arsenic(As)	ND	0.3	1	500	5.0	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
* = STLC analysis for the metal is recommended (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR TITLE 22 (if marked)

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**

MATRIX: SOIL
DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06
DATE ANALYZED: 08/07/06
REPORT TO: MR. RUSSELL COTE
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-4C-0.5**
LAB I.D.: 060803-27

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Arsenic(As)	ND	0.3	1	500	5.0	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
* = STLC analysis for the metal is recommended (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

Data Reviewed and Approved by: _____

CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**

MATRIX: SOIL — DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06 — DATE ANALYZED: 08/07/06
REPORT TO: MR. RUSSELL COTE — DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-5C-0.5** — LAB I.D.: 060803-35

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony(Sb)	ND	1.0	1	500	15	6010B
Arsenic(As)	ND	0.3	1	500	5.0	6010B
Barium(Ba)	55.3	5.0	1	10,000	100	6010B
Beryllium(Be)	ND	0.5	1	75	0.75	6010B
Cadmium(Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total(Cr)	9.77	0.5	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt(Co)	3.30	1.0	1	8,000	80	6010B
Copper(Cu)	8.31	1.0	1	2,500	25	6010B
Lead(Pb)	5.28	0.5	1	1,000	5.0	6010B
Mercury(Hg)	ND	0.1	1	20	0.2	7471A
Molybdenum(Mo)	ND	5.0	1	3,500	350	6010B
Nickel(Ni)	7.31	2.5	1	2,000	20	6010B
Selenium(Se)	ND	1.0	1	100	1.0	6010B
Silver(Ag)	ND	1.0	1	500	5.0	6010B
Thallium(Tl)	ND	1.0	1	700	7.0	6010B
Vanadium(V)	18.2	5.0	1	2,400	24	6010B
Zinc(Zn)	37.7	0.5	1	5,000	250	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5
* = STLC analysis for the metal is recommended (if marked)
** = Additional Analysis required, please call to discuss (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)
-- = Not analyzed/not requested

Data Reviewed and Approved by: _____

CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**

MATRIX: SOIL — DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06 — DATE ANALYZED: 08/07/06
REPORT TO: MR. RUSSELL COTE — DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB1-5A-0.5** — LAB I.D.: 060803-33

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Arsenic(As)	ND	0.3	1	500	5.0	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
* = STLC analysis for the metal is recommended (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**

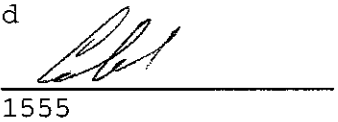
MATRIX: SOIL — DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06 — DATE ANALYZED: 08/07/06
REPORT TO: MR. RUSSELL COTE — DATE REPORTED: 08/11/06

SAMPLE I.D.: **BG1-0.5** — LAB I.D.: 060803-41

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony(Sb)	ND	1.0	1	500	15	6010B
Arsenic(As)	ND	0.3	1	500	5.0	6010B
Barium(Ba)	60.1	5.0	1	10,000	100	6010B
Beryllium(Be)	ND	0.5	1	75	0.75	6010B
Cadmium(Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total(Cr)	14.3	0.5	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt(Co)	3.73	1.0	1	8,000	80	6010B
Copper(Cu)	7.86	1.0	1	2,500	25	6010B
Lead(Pb)	2.95	0.5	1	1,000	5.0	6010B
Mercury(Hg)	ND	0.1	1	20	0.2	7471A
Molybdenum(Mo)	ND	5.0	1	3,500	350	6010B
Nickel(Ni)	8.95	2.5	1	2,000	20	6010B
Selenium(Se)	ND	1.0	1	100	1.0	6010B
Silver(Ag)	ND	1.0	1	500	5.0	6010B
Thallium(Tl)	ND	1.0	1	700	7.0	6010B
Vanadium(V)	28.3	5.0	1	2,400	24	6010B
Zinc(Zn)	36.7	0.5	1	5,000	250	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5
* = STLC analysis for the metal is recommended (if marked)
** = Additional Analysis required, please call to discuss (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)
-- = Not analyzed/not requested

Data Reviewed and Approved by: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**

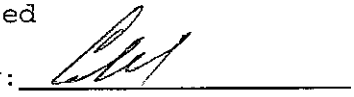
MATRIX: SOIL
DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06
DATE ANALYZED: 08/07/06
REPORT TO: MR. RUSSELL COTE
DATE REPORTED: 08/11/06

SAMPLE I.D.: **BG2-0.5**
LAB I.D.: 060803-43

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony(Sb)	ND	1.0	1	500	15	6010B
Arsenic(As)	ND	0.3	1	500	5.0	6010B
Barium(Ba)	70.9	5.0	1	10,000	100	6010B
Beryllium(Be)	ND	0.5	1	75	0.75	6010B
Cadmium(Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total(Cr)	12.5	0.5	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt(Co)	3.43	1.0	1	8,000	80	6010B
Copper(Cu)	10.8	1.0	1	2,500	25	6010B
Lead(Pb)	23.5	0.5	1	1,000	5.0	6010B
Mercury(Hg)	ND	0.1	1	20	0.2	7471A
Molybdenum(Mo)	ND	5.0	1	3,500	350	6010B
Nickel(Ni)	7.75	2.5	1	2,000	20	6010B
Selenium(Se)	ND	1.0	1	100	1.0	6010B
Silver(Ag)	ND	1.0	1	500	5.0	6010B
Thallium(Tl)	ND	1.0	1	700	7.0	6010B
Vanadium(V)	25.7	5.0	1	2,400	24	6010B
Zinc(Zn)	111	0.5	1	5,000	250	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5
* = STLC analysis for the metal is recommended (if marked)
** = Additional Analysis required, please call to discuss (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)
-- = Not analyzed/not requested

Data Reviewed and Approved by: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**

MATRIX: SOIL — DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06 — DATE ANALYZED: 08/07/06
REPORT TO: MR. RUSSELL COTE — DATE REPORTED: 08/11/06

METHOD BLANK FOR LAB I.D.:
060803-4, -9, -11, -18, -20, -27, -33, -35, -41, -43

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony(Sb)	ND	1.0	1	500	15	6010B
Arsenic(As)	ND	0.3	1	500	5.0	6010B
Barium(Ba)	ND	5.0	1	10,000	100	6010B
Beryllium(Be)	ND	0.5	1	75	0.75	6010B
Cadmium(Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total(Cr)	ND	0.5	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt(Co)	ND	1.0	1	8,000	80	6010B
Copper(Cu)	ND	1.0	1	2,500	25	6010B
Lead(Pb)	ND	0.5	1	1,000	5.0	6010B
Mercury(Hg)	ND	0.1	1	20	0.2	7471A
Molybdenum(Mo)	ND	5.0	1	3,500	350	6010B
Nickel(Ni)	ND	2.5	1	2,000	20	6010B
Selenium(Se)	ND	1.0	1	100	1.0	6010B
Silver(Ag)	ND	1.0	1	500	5.0	6010B
Thallium(Tl)	ND	1.0	1	700	7.0	6010B
Vanadium(V)	ND	5.0	1	2,400	24	6010B
Zinc(Zn)	ND	0.5	1	5,000	250	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5
* = STLC analysis for the metal is recommended (if marked)
** = Additional Analysis required, please call to discuss (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)
-- = Not analyzed/not requested

Data Reviewed and Approved by: _____

CAL-DHS ELAP CERTIFICATE No.: 1555

QA/QC for Metals Analysis --TTLC--SOLID/SOIL MATRIX

Matrix Spike/ Matrix Spike Duplicate/ LCS :

ANALYSIS DATE: 8/7/2006 Unit : Mg/KG(ppm)

Analysis	Spk.Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Arsenic (As)	060803-41	1.00	109	PASS	0	50.0	48.3	97%	48.9	98%	1%
Copper (Cu)	060803-41	1.00	100	PASS	7.86	50.0	56.4	97%	57.0	98%	1%
Lead (Pb)	060803-41	1.00	110	PASS	2.95	50.0	45.4	85%	46.1	86%	2%

ANALYSIS DATE. : 8/7/2006

Analysis	Spk.Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Mercury (Hg)	060803-231	0.300	94.6	PASS	0	0.300	0.273	91%	0.277	92%	1%

MS/MSD Status:

Analysis	%MS	%MSD	%LCS	%RPD
Arsenic (As)	PASS	PASS	PASS	PASS
LEAD (Pb)	PASS	PASS	PASS	PASS
Copper (Cu)	PASS	PASS	PASS	PASS
MERCURY (Hg)	PASS	PASS	PASS	PASS
Accepted Range	75 ~ 125	75 ~ 125	85 ~ 115	0 ~ 20

ANALYST: Ann

FINAL REVIEWER: (D)

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE # 1555

Turnaround Time
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
X 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Organo chlorine Pesticide (Specify List)	Organo Phosphorus Pesticides	Chlorinated Herbicides	Paraquat	Arsenic discrete	Cam-17 metals (discrete) Sample/Nitrate/Nitrite Ammonia	HOLD			Misc.	COMMENTS
								Analysis Required										
EB1-1A-0.5	060803-1	8/3/06	0635	SOIL	3		ICE	X	X	X	X			X				
EB1-1B-0.5	-2		0650		3			X	X	X	X			X				composite
EB1-1C-0.5	-3		0700		3			X	X	X	X			X				
EB1-1D-0.5	-4		0710		3			X	X	X	X	X		X				
EB1-1A-2	-5		0645		3										X			
EB1-1B-2	-6		0655		3										X			
EB1-1C-2	-7		0705		3										X			
EB1-1D-2	-8		0715		3										X			
EB1-2A-0.5	-9		0730		3			X	X	X	X		X	X				
EB1-2B-0.5	-10		0750		3			X	X	X	X			X				composite
EB1-2C-0.5	-11		0800		3			X	X	X	X	X		X				
EB1-2D-0.5	-12		0815		3			X	X	X	X			X				
EB1-2A-2	-13		0735		3										X			
EB1-2B-2	-14		0755		3										X			
EB1-2C-2	-15		0810		3										X			

Company Name: Building Analytics
Address: 502 S. Verdugo St. 200
City/State/Zip: Burbank CA

Project Contact: Russell Cote
Tel: (818) 841-2575
Fax: (818) 841 2576

Sampler's Signature: Russell Cote
Project Name/ID: 106167 Entrada Water Basins

Relinquished by: Russell Cote	Received by:	Date & Time: 8/3/06 0800	Instructions for Sample Storage After Analysis:
Relinquished by:	Received by:	Date & Time:	O Dispose of O Return to Client O Store (30 Days)
Relinquished by:	Received by:	Date & Time:	O Other:

CHAIN OF CUSTODY RECORD

Date: _____

WHITE WITH SAMPLE - YELLOW TO CLIENT

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE # 1555

Turnaround Time
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
X 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Organo Chlorine Pesticides (Special List)	Organo phosphorus Pesticides	Para Quat Chlorinated Herbicides	Aromatic diesel	CAM-17 metals	Dissolved Samples Nitrate/Nitrite Ammonia	HOLD	Misc.	COMMENTS
								Analysis Required								
EB1-2D-2	060803-16	8/2/06	0820	SOIL	3		ICE							X		
EB1-3A-0.5	-17		0830		3			X	X	X	X		X			Composite
EB1-3B-0.5	-18		0840		3			X	X	X	X	X	X			
EB1-3C-0.5	-19		0850		3			X	X	X	X		X			
EB1-3D-0.5	-20		0900		3			X	X	X	X	X	X			
EB1-3A-2	-21		0835		3									X		
EB1-3B-2	-22		0845		3									X		
EB1-3C-2	-23		0855		3									X		
EB1-3D-2	-24		0910		3									X		
EB1-4A-0.5	-25		0915		3			X	X	X	X		X			Composite
EB1-4B-0.5	-26		0945		3			X	X	X	X		X			
EB1-4C-0.5	-27		0935		3			X	X	X	X	X	X			
EB1-4D-0.5	-28		0925		3			X	X	X	X		X			
EB1-4A-2	-29		0920		3									X		
EB1-4B-2	-30		0950		3									X		

Company Name: Building Analytics
Address: 508 S. Verdugo Ste 200
City/State/Zip: Burbank, CA

Project Contact: Russell Coste
Tel: (818) 841-2525
Fax: (818) 841-2576

Sampler's Signature: Russell Coste
Project Name/ID: 106167 Entrada Water Basins

Relinquished by:	Received by:	Date & Time:
Russell Coste	[illegible]	8/3/06 0800
Relinquished by:	Received by:	Date & Time:
Relinquished by:	Received by:	Date & Time:

Instructions for Sample Storage After Analysis:
O Dispose of O Return to Client O Store (30 Days)
O Other:

CHAIN OF CUSTODY RECORD

Date: _____

WHITE WITH SAMPLE - YELLOW TO CLIENT

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE # 1555

Turnaround Time
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Organochlorine Pesticides (Special List)	Organo phosphorus Pesticides	Chlorinated Herbicids	Paraquat	Asenic (discreet Sample)	CAM-17 metals (discreet Sample)	Nitrate/Nitrite & ammonia	HOLD	Misc.	COMMENTS
								Analysis Required									
EB1-4C-2	060803-31	8/2/06	~~0940~~ ~~0820~~ 0940	SOIL	3		ICE								X		
EB1-4S-2	-32		0930		3										X		
EB1-5A-0.5	-33		1010		3			X	X	X	X	X		X			composite
EB1-5B-0.5	-34		1020		3			X	X	X	X			X			
EB1-5C-0.5	-35		1030		3			X	X	X	X		X	X			
EB1-5D-0.5	-36		1000		3			X	X	X	X			X			
EB1-5A-2	-37		1015		3										X		
EB1-5B-2	-38		1025		3										X		
EB1-5C-2	-39		1035		3										X		
EB1-5D-2	-40		1005		3										X		
BG1-0.5	-41		1040		1								X				
BG1-2	-42		~~1040~~ 1045		1										X		
BG2-0.5	-43		1530		1								X				
BG2-2	-44		1535		1										X		

Company Name: Building Analytics
Address: 502 S. Verdugo Ste. 200
City/State/Zip: Burbank CA

Project Contact: Russell Cole
Tel: (818) 841-2575
Fax: (818) 841 2576

Sampler's Signature: Russell Cole
Project Name/ID: 106167 Burbank Watershed

Relinquished by: Russell Cole	Received by: Jessica	Date & Time: 8/3/06 0800	Instructions for Sample Storage After Analysis:
Relinquished by:	Received by:	Date & Time:	O Dispose of O Return to Client O Store (30 Days)
Relinquished by:	Received by:	Date & Time:	O Other:

CHAIN OF CUSTODY RECORD

Date: _____

WHITE WITH SAMPLE - YELLOW TO CLIENT

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: August 11, 2006

Mr. Russell Cote
BA Environmental
502 South Verdugo Drive,
Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

Project: **106167 / Entrada Water Basins**
Lab I.D.: **060803-45 through -92**

Dear Mr. Cote:

The **analytical results (except Paraquat)** for the soil samples, received by our laboratory on August 3, 2006, are attached. The samples were received chilled, intact and accompanying chain of custody record.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,

Curtis Desilets
Vice President/Program Manager

Jesse Tu, Ph.D.
Laboratory Manager

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/05/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-1A-0.5, EB2-1B-0.5, EB2-1C-0.5, EB2-1D-0.5 (Composite)**
LAB I.D.: 060803-45 through -48 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Azinphos Methyl	ND	0.05	1
Bolstar (Sulprofos)	ND	0.05	1
Chlorpyrifos	ND	0.05	1
Coumaphos	ND	0.05	1
Demeton-O	ND	0.05	1
Demeton-S	ND	0.05	1
Diazinon	ND	0.05	1
Dichlorvos	ND	0.05	1
Disulfoton	ND	0.05	1
Ethoprop	ND	0.05	1
Fenchlorphos (Ronnel)	ND	0.05	1
Fensulfothion	ND	0.05	1
Fenthion	ND	0.05	1
Merphos	ND	0.05	1
Methyl Parathion	ND	0.05	1
Mevinphos	ND	0.10	1
Naled	ND	0.10	1
Phorate	ND	0.05	1
Ronnel	ND	0.05	1
Tetrachlorvinphos (Stirophos)	ND	0.05	1
Tokuthion (Prothiofos)	ND	0.05	1
Trichloronate	ND	0.05	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/05/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-2A-0.5, EB2-2B-0.5, EB2-2C-0.5, EB2-2D-0.5 (Composite)**
LAB I.D.: 060803-53 through -56 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Azinphos Methyl	ND	0.05	1
Bolstar (Sulprofos)	ND	0.05	1
Chlorpyrifos	ND	0.05	1
Coumaphos	ND	0.05	1
Demeton-O	ND	0.05	1
Demeton-S	ND	0.05	1
Diazinon	ND	0.05	1
Dichlorvos	ND	0.05	1
Disulfoton	ND	0.05	1
Ethoprop	ND	0.05	1
Fenchlorphos (Ronnel)	ND	0.05	1
Fensulfothion	ND	0.05	1
Fenthion	ND	0.05	1
Merphos	ND	0.05	1
Methyl Parathion	ND	0.05	1
Mevinphos	ND	0.10	1
Naled	ND	0.10	1
Phorate	ND	0.05	1
Ronnel	ND	0.05	1
Tetrachlorvinphos (Stirophos)	ND	0.05	1
Tokuthion (Prothiofos)	ND	0.05	1
Trichloronate	ND	0.05	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/05/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-3A-0.5, EB2-3B-0.5, EB2-3C-0.5, EB2-3D-0.5 (Composite)**
LAB I.D.: 060803-61 through -64 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Azinphos Methyl	ND	0.05	1
Bolstar (Sulprofos)	ND	0.05	1
Chlorpyrifos	ND	0.05	1
Coumaphos	ND	0.05	1
Demeton-O	ND	0.05	1
Demeton-S	ND	0.05	1
Diazinon	ND	0.05	1
Dichlorvos	ND	0.05	1
Disulfoton	ND	0.05	1
Ethoprop	ND	0.05	1
Fenchlorphos (Ronnel)	ND	0.05	1
Fensulfothion	ND	0.05	1
Fenthion	ND	0.05	1
Merphos	ND	0.05	1
Methyl Parathion	ND	0.05	1
Mevinphos	ND	0.10	1
Naled	ND	0.10	1
Phorate	ND	0.05	1
Ronnel	ND	0.05	1
Tetrachlorvinphos (Stirophos)	ND	0.05	1
Tokuthion (Prothiofos)	ND	0.05	1
Trichloronate	ND	0.05	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/05/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-4A-0.5, EB2-4B-0.5, EB2-4C-0.5, EB2-4D-0.5 (Composite)**
LAB I.D.: 060803-69 through -72 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Azinphos Methyl	ND	0.05	1
Bolstar (Sulprofos)	ND	0.05	1
Chlorpyrifos	ND	0.05	1
Coumaphos	ND	0.05	1
Demeton-O	ND	0.05	1
Demeton-S	ND	0.05	1
Diazinon	ND	0.05	1
Dichlorvos	ND	0.05	1
Disulfoton	ND	0.05	1
Ethoprop	ND	0.05	1
Fenchlorphos (Ronnel)	ND	0.05	1
Fensulfothion	ND	0.05	1
Fenthion	ND	0.05	1
Merphos	ND	0.05	1
Methyl Parathion	ND	0.05	1
Mevinphos	ND	0.10	1
Naled	ND	0.10	1
Phorate	ND	0.05	1
Ronnel	ND	0.05	1
Tetrachlorvinphos (Stirophos)	ND	0.05	1
Tokuthion (Prothiofos)	ND	0.05	1
Trichloronate	ND	0.05	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/05/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-5A-0.5, EB2-5B-0.5, EB2-5C-0.5, EB2-5D-0.5 (Composite)**
LAB I.D.: 060803-77 through -80 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Azinphos Methyl	ND	0.05	1
Bolstar (Sulprofos)	ND	0.05	1
Chlorpyrifos	ND	0.05	1
Coumaphos	ND	0.05	1
Demeton-O	ND	0.05	1
Demeton-S	ND	0.05	1
Diazinon	ND	0.05	1
Dichlorvos	ND	0.05	1
Disulfoton	ND	0.05	1
Ethoprop	ND	0.05	1
Fenchlorphos (Ronnel)	ND	0.05	1
Fensulfothion	ND	0.05	1
Fenthion	ND	0.05	1
Merphos	ND	0.05	1
Methyl Parathion	ND	0.05	1
Mevinphos	ND	0.10	1
Naled	ND	0.10	1
Phorate	ND	0.05	1
Ronnel	ND	0.05	1
Tetrachlorvinphos (Stirophos)	ND	0.05	1
Tokuthion (Prothiofos)	ND	0.05	1
Trichloronate	ND	0.05	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/05/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-6A-0.5, EB2-6B-0.5, EB2-6C-0.5, EB2-6D-0.5 (Composite)**
LAB I.D.: 060803-85 through -88 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Azinphos Methyl	ND	0.05	1
Bolstar (Sulprofos)	ND	0.05	1
Chlorpyrifos	ND	0.05	1
Coumaphos	ND	0.05	1
Demeton-O	ND	0.05	1
Demeton-S	ND	0.05	1
Diazinon	ND	0.05	1
Dichlorvos	ND	0.05	1
Disulfoton	ND	0.05	1
Ethoprop	ND	0.05	1
Fenchlorphos (Ronnel)	ND	0.05	1
Fensulfothion	ND	0.05	1
Fenthion	ND	0.05	1
Merphos	ND	0.05	1
Methyl Parathion	ND	0.05	1
Mevinphos	ND	0.10	1
Naled	ND	0.10	1
Phorate	ND	0.05	1
Ronnel	ND	0.05	1
Tetrachlorvinphos (Stirophos)	ND	0.05	1
Tokuthion (Prothiofos)	ND	0.05	1
Trichloronate	ND	0.05	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/04/06
DATE REPORTED: 08/11/06

METHOD BLANK FOR LAB I.D.:
060803-45 THROUGH -48 (COMPOSITE), 060803-53 THROUGH -56 (COMPOSITE),
060803-61 THROUGH -64 (COMPOSITE), 060803-69 THROUGH -72 (COMPOSITE),
060803-77 THROUGH -80 (COMPOSITE), 060803-85 THROUGH -88 (COMPOSITE)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Azinphos Methyl	ND	0.05	1
Bolstar (Sulprofos)	ND	0.05	1
Chlorpyrifos	ND	0.05	1
Coumaphos	ND	0.05	1
Demeton-O	ND	0.05	1
Demeton-S	ND	0.05	1
Diazinon	ND	0.05	1
Dichlorvos	ND	0.05	1
Disulfoton	ND	0.05	1
Ethoprop	ND	0.05	1
Fenchlorphos (Ronnel)	ND	0.05	1
Fensulfothion	ND	0.05	1
Fenthion	ND	0.05	1
Merphos	ND	0.05	1
Methyl Parathion	ND	0.05	1
Mevinphos	ND	0.10	1
Naled	ND	0.10	1
Phorate	ND	0.05	1
Ronnel	ND	0.05	1
Tetrachlorvinphos (Stirophos)	ND	0.05	1
Tokuthion (Prothiofos)	ND	0.05	1
Trichloronate	ND	0.05	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro-Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

EPA 8141A QA/QC Report

Matrix: **Soil** Date Analyzed: **8/4-5/2006**

Unit: **mg/Kg (PPM)**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 060803-1~3

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Bolstar	0.00	1.00	0.984	**98%**	0.973	**97%**	**1%**	**0-30%**	**40-140**
Ethoprop	0.00	1.00	0.941	**94%**	0.941	**94%**	**0%**	**0-30%**	**40-140**
Ronnel	0.00	1.00	1.01	**101%**	1.01	**101%**	**0%**	**0-30%**	**40-140**
Phorate	0.00	1.00	0.934	**93%**	0.926	**93%**	**1%**	**0-30%**	**40-140**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Bolstar	0.100	0.100	**100%**	**40-140**
Ethoprop	0.100	0.097	**97%**	**40-140**
Ronnel	0.100	0.102	**102%**	**40-140**
Phorate	0.100	0.096	**96%**	**40-140**

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	0801-24~27	0803-1~4	0803-9~12	0803-17~20	0803-25~28	0803-33~36
Tributyl Phosphate	40-140	90%	114%	92%	88%	88%	87%	88%
Triphenyl Phosphate	40-140	87%	90%	92%	87%	88%	86%	87%

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.	0803-45~48	0803-53~56	0803-61~64	0803-69~72	0803-77~80	0803-85~88	060804-16	060804-17
Tributyl Phosphate	86%	89%	89%	89%	91%	89%	90%	90%
Triphenyl Phosphate	86%	89%	88%	90%	91%	88%	91%	90%

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.	060804-18					
Tributyl Phosphate	87%					
Triphenyl Phosphate	88%					

S.R. = Sample Result

spk conc = Spike Concentration

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

** = Surrogate fail due to matrix interference (If Marked)*

Note: *LCS, MS, MSD are in control therefore results are in control.*

Analyzed and Reviewed By: _____

Final Reviewer: _____

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04-05/06
DATE ANALYZED: 08/06/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-1A-0.5, EB2-1B-0.5, EB2-1C-0.5, EB2-1D-0.5 (Composite)**
LAB I.D.: 060803-45 through -48 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
2,4,5-T	ND	0.020	1
2,4,5-TP (Silvex)	ND	0.020	1
2,4-D	ND	0.200	1
2,4-DB	ND	0.200	1
Dalapon (Dichloroacetic Acid)	ND	0.500	1
Dicamba	ND	0.020	1
Dichloroprop	ND	0.200	1
Dinoseb (DNBP)	ND	0.100	1
MCPA	ND	20.0	1
MCPP	ND	20.0	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04-05/06
DATE ANALYZED: 08/06/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-2A-0.5, EB2-2B-0.5, EB2-2C-0.5, EB2-2D-0.5 (Composite)**
LAB I.D.: 060803-53 Through -56 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
2,4,5-T	ND	0.020	1
2,4,5-TP (Silvex)	ND	0.020	1
2,4-D	ND	0.200	1
2,4-DB	ND	0.200	1
Dalapon (Dichloroacetic Acid)	ND	0.500	1
Dicamba	ND	0.020	1
Dichloroprop	ND	0.200	1
Dinoseb (DNBP)	ND	0.100	1
MCPA	ND	20.0	1
MCPP	ND	20.0	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04-05/06
DATE ANALYZED: 08/06/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-3A-0.5, EB2-3B-0.5, EB2-3C-0.5, EB2-3D-0.5 (Composite)**
LAB I.D.: 060803-61 through -64 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
2,4,5-T	ND	0.020	1
2,4,5-TP (Silvex)	ND	0.020	1
2,4-D	ND	0.200	1
2,4-DB	ND	0.200	1
Dalapon (Dichloroacetic Acid)	ND	0.500	1
Dicamba	ND	0.020	1
Dichloroprop	ND	0.200	1
Dinoseb (DNBP)	ND	0.100	1
MCPA	ND	20.0	1
MCPP	ND	20.0	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04-05/06
DATE ANALYZED: 08/06/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-4A-0.5, EB2-4B-0.5, EB2-4C-0.5, EB2-4D-0.5 (Composite)**
LAB I.D.: 060803-69 through -72 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
2,4,5-T	ND	0.020	1
2,4,5-TP (Silvex)	ND	0.020	1
2,4-D	ND	0.200	1
2,4-DB	ND	0.200	1
Dalapon (Dichloroacetic Acid)	ND	0.500	1
Dicamba	ND	0.020	1
Dichloroprop	ND	0.200	1
Dinoseb (DNBP)	ND	0.100	1
MCPA	ND	20.0	1
MCPP	ND	20.0	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04-05/06
DATE ANALYZED: 08/06/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-5A-0.5, EB2-5B-0.5, EB2-5C-0.5, EB2-5D-0.5 (Composite)**
LAB I.D.: 060803-77 through -80 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
2,4,5-T	ND	0.020	1
2,4,5-TP (Silvex)	ND	0.020	1
2,4-D	ND	0.200	1
2,4-DB	ND	0.200	1
Dalapon (Dichloroacetic Acid)	ND	0.500	1
Dicamba	ND	0.020	1
Dichloroprop	ND	0.200	1
Dinoseb (DNBP)	ND	0.100	1
MCPA	ND	20.0	1
MCPP	ND	20.0	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE
DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04-05/06
DATE ANALYZED: 08/06/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-6A-0.5, EB2-6B-0.5, EB2-6C-0.5, EB2-6D-0.5 (Composite)**
LAB I.D.: 060803-85 through -88 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
2,4,5-T	ND	0.020	1
2,4,5-TP (Silvex)	ND	0.020	1
2,4-D	ND	0.200	1
2,4-DB	ND	0.200	1
Dalapon (Dichloroacetic Acid)	ND	0.500	1
Dicamba	ND	0.020	1
Dichloroprop	ND	0.200	1
Dinoseb (DNBP)	ND	0.100	1
MCPA	ND	20.0	1
MCPP	ND	20.0	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04-05/06
DATE ANALYZED: 08/06/06
DATE REPORTED: 08/11/06

METHOD BLANK FOR LAB I.D.:
060803-45 THROUGH -48 (COMPOSITE), 060803-53 THROUGH -56 (COMPOSITE), 060803-61 THROUGH -64 (COMPOSITE), 060803-69 THROUGH -72 (COMPOSITE), 060803-77 THROUGH -80 (COMPOSITE), 060803-85 THROUGH -88 (COMPOSITE)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
2,4,5-T	ND	0.020	1
2,4,5-TP (Silvex)	ND	0.020	1
2,4-D	ND	0.200	1
2,4-DB	ND	0.200	1
Dalapon (Dichloroacetic Acid)	ND	0.500	1
Dicamba	ND	0.020	1
Dichloroprop	ND	0.200	1
Dinoseb (DNBP)	ND	0.100	1
MCPA	ND	20.0	1
MCPP	ND	20.0	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro-Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

QA/QC Report

Analysis: EPA 8151A

Matrix: **Soil/Solid** Date Analyzed: **8/6/2006**

Unit: **mg/Kg (PPM)**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 060804-18

Analyte	S.R.	spk conc	MS	% REC	MSD	% REC	%RPD	ACP %RPD	ACP %REC
2,4,5-T	0	0.5000	0.611	**122%**	0.592	**118%**	**3%**	**0-20%**	**50-150**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
2,4,5-T	0.0500	0.0522	104%	**70-130**
2,4,5-TP	0.0500	0.0447	89%	**70-130**
2,4-DB	0.500	0.589	118%	**70-130**

Surrogate Recovery:

Analyte	ACP %	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample ID:		M-BLK	0801-24~27	0803-1~4	0803-9~12	0803-17~20	0803-25~28	0803-33~36	0803-45~48
DCAA	50-150	128%	129%	133%	123%	126%	117%	125%	124%

Analyte	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample ID:	0803-53~56	0803-61~64	0803-69~72	0803-77~80	0803-85~88	060804-16	060804-17	060804-18	
DCAA	123%	125%	116%	124%	125%	129%	114%	127%	

Analyte	%REC	%REC	%REC	%REC					
Sample ID:									
DCAA									

S.R. = Sample Result

spk conc = Spike Concentration

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

Analyzed and Reviewed By: _____

Final Reviewer: _____

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/05/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-1A-0.5, EB2-1B-0.5, EB2-1C-0.5, EB2-1D-0.5 (Composite)**
LAB I.D.: 060803-45 through -48 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxyclor	ND	0.001	1
Toxaphene	ND	0.200	1
Chloroneb	ND	0.010	1
1,2-Dibromo-3-Chloropropane(DBCP)	ND	0.001	1
Hexachlorobenzene	ND	0.001	1
Mirex	ND	0.002	1
Trifluralin	ND	0.002	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/05/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-2A-0.5, EB2-2B-0.5, EB2-2C-0.5, EB2-2D-0.5 (Composite)**
LAB I.D.: 060803-53 through -56 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxyclor	ND	0.001	1
Toxaphene	ND	0.200	1
Chloroneb	ND	0.010	1
1,2-Dibromo-3-Chloropropane(DBCP)	ND	0.001	1
Hexachlorobenzene	ND	0.001	1
Mirex	ND	0.002	1
Trifluralin	ND	0.002	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/05/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-3A-0.5, EB2-3B-0.5, EB2-3C-0.5, EB2-3D-0.5 (Composite)**
LAB I.D.: 060803-61 through -64 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxyclor	ND	0.001	1
Toxaphene	ND	0.200	1
Chloroneb	ND	0.010	1
1,2-Dibromo-3-Chloropropane(DBCP)	ND	0.001	1
Hexachlorobenzene	ND	0.001	1
Mirex	ND	0.002	1
Trifluralin	ND	0.002	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/05-06/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-4A-0.5, EB2-4B-0.5, EB2-4C-0.5, EB2-4D-0.5 (Composite)**
LAB I.D.: 060803-69 through -72 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxyclor	ND	0.001	1
Toxaphene	ND	0.200	1
Chloroneb	ND	0.010	1
1,2-Dibromo-3-Chloropropane(DBCP)	ND	0.001	1
Hexachlorobenzene	ND	0.001	1
Mirex	ND	0.002	1
Trifluralin	ND	0.002	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/05/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-5A-0.5, EB2-5B-0.5, EB2-5C-0.5, EB2-5D-0.5 (Composite)**
LAB I.D.: 060803-77 through -80 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxyclor	ND	0.001	1
Toxaphene	ND	0.200	1
Chloroneb	ND	0.010	1
1,2-Dibromo-3-Chloropropane(DBCP)	ND	0.001	1
Hexachlorobenzene	ND	0.001	1
Mirex	ND	0.002	1
Trifluralin	ND	0.002	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/05/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-6A-0.5, EB2-6B-0.5, EB2-6C-0.5, EB2-6D-0.5 (Composite)**
LAB I.D.: 060803-85 through -88 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxyclor	ND	0.001	1
Toxaphene	ND	0.200	1
Chloroneb	ND	0.010	1
1,2-Dibromo-3-Chloropropane(DBCP)	ND	0.001	1
Hexachlorobenzene	ND	0.001	1
Mirex	ND	0.002	1
Trifluralin	ND	0.002	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/04/06
DATE ANALYZED: 08/05/06
DATE REPORTED: 08/11/06

METHOD BLANK FOR LAB I.D.:
060803-45 THROUGH -48 (COMPOSITE), 060803-53 THROUGH -56 (COMPOSITE), 060803-61 THROUGH -64 (COMPOSITE), 060803-69 THROUGH -72 (COMPOSITE), 060803-77 THROUGH -80 (COMPOSITE), 060803-85 THROUGH -88 (COMPOSITE)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL	DF
Aldrin	ND	0.001	1
alpha-BHC	ND	0.001	1
beta-BHC	ND	0.001	1
gamma-BHC (Lindane)	ND	0.001	1
delta-BHC	ND	0.001	1
alpha-Chlordane	ND	0.001	1
gamma-Chlordane	ND	0.001	1
4,4'-DDD	ND	0.001	1
4,4'-DDE	ND	0.001	1
4,4'-DDT	ND	0.001	1
Dieldrin	ND	0.001	1
Endosulfan I	ND	0.001	1
Endosulfan II	ND	0.001	1
Endosulfan Sulfate	ND	0.001	1
Endrin	ND	0.001	1
Endrin Aldehyde	ND	0.001	1
Endrin Ketone	ND	0.001	1
Heptachlor Epoxide	ND	0.001	1
Heptachlor	ND	0.001	1
Methoxyclor	ND	0.001	1
Toxaphene	ND	0.200	1
Chloroneb	ND	0.010	1
1,2-Dibromo-3-Chloropropane(DBCP)	ND	0.001	1
Hexachlorobenzene	ND	0.001	1
Mirex	ND	0.002	1
Trifluralin	ND	0.002	1

COMMENTS:
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro-Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

EPA 8081 QA/QC Report

Matrix: **Soil** Date Analyzed: **8/5-6/2006**

Unit: **mg/Kg (PPM)**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 060803-1~4

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.050	0.0478	**96%**	0.0484	**97%**	**1%**	**0-20%**	**70-130**
Aldrin	0.000	0.050	0.0466	**93%**	0.0468	**94%**	**0%**	**0-20%**	**70-130**
4,4-DDE	0.002	0.050	0.0439	**84%**	0.0444	**85%**	**1%**	**0-20%**	**70-130**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.0050	0.00524	**105%**	**75-125**
Aldrin	0.0050	0.00523	**105%**	**75-125**
4,4-DDE	0.0050	0.00482	**96%**	**75-125**
Dieldrin	0.0050	0.00507	**101%**	**75-125**

Surrogate Recovery	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	0801-24~27	0803-1~4	0803-9~12	0803-17~20	0803-25~28	0803-33~36
Tetra-chloro-meta-xylene	50-150	111%	99%	109%	113%	110%	113%	113%
Decachlorobiphenyl	50-150	108%	97%	103%	110%	107%	107%	103%

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.	0803-45~48	0803-53~56	0803-61~64	0803-69~72	0803-77~80	0803-85~88		
Tetra-chloro-meta-xylene	109%	109%	112%	107%	101%	118%		
Decachlorobiphenyl	91%	100%	100%	102%	92%	106%		

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.						
Tetra-chloro-meta-xylene						
Decachlorobiphenyl						

S.R. = Sample Result

spk conc = Spike Concentration

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

** = Surrogate fail due to matrix interference (If Marked)*

Note: *LCS, MS, MSD are in control therefore results are in control.*

Analyzed and Reviewed By: _____

Final Reviewer: _____

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE
DATE RECEIVED: 08/03/06
DATE ANALYZED: 08/06-08/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-1A-0.5, EB2-1B-0.5, EB2-1C-0.5, EB2-1D-0.5 (Composite)**
LAB I.D.: 060803-45 through -48 (Composite)

PARAMETER	UNIT	SAMPLE RESULT	PQL	DF	EPA METHOD
AMMONIA AS N	MG/KG	1.31	0.50	1	350.3M
NITRATE AS N	MG/KG	5.50	0.50	1	353.3M
NITRITE AS N	MG/KG	ND	0.10	1	353.3M

COMMENTS:
M = MODIFIED
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
MG/KG = MILLIGRAM PER KILOGRAM = PPM

DATA REVIEWED AND APPROVED BY: _____

CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE
DATE RECEIVED: 08/03/06
DATE ANALYZED: 08/06-08/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-2A-0.5, EB2-2B-0.5, EB2-2C-0.5, EB2-2D-0.5 (Composite)**
LAB I.D.: 060803-53 through -56 (Composite)

PARAMETER	UNIT	SAMPLE RESULT	PQL	DF	EPA METHOD
AMMONIA AS N	MG/KG	ND	0.50	1	350.3M
NITRATE AS N	MG/KG	1.45	0.50	1	353.3M
NITRITE AS N	MG/KG	ND	0.10	1	353.3M

COMMENTS:
M = MODIFIED
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
MG/KG = MILLIGRAM PER KILOGRAM = PPM

DATA REVIEWED AND APPROVED BY:

CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

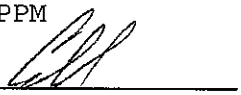
CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06
DATE ANALYZED: 08/06-08/06
REPORT TO: MR. RUSSELL COTE
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-3A-0.5, EB2-3B-0.5, EB2-3C-0.5, EB2-3D-0.5 (Composite)**
LAB I.D.: 060803-61 through -64 (Composite)

PARAMETER	UNIT	SAMPLE RESULT	PQL	DF	EPA METHOD
AMMONIA AS N	MG/KG	0.858	0.50	1	350.3M
NITRATE AS N	MG/KG	2.34	0.50	1	353.3M
NITRITE AS N	MG/KG	ND	0.10	1	353.3M

COMMENTS:
M = MODIFIED
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
MG/KG = MILLIGRAM PER KILOGRAM = PPM

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

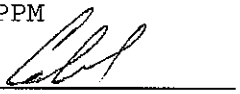
CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE
DATE RECEIVED: 08/03/06
DATE ANALYZED: 08/06-08/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-4A-0.5, EB2-4B-0.5, EB2-4C-0.5, EB2-4D-0.5 (Composite)**
LAB I.D.: 060803-69 through -72 (Composite)

PARAMETER	UNIT	SAMPLE RESULT	PQL	DF	EPA METHOD
AMMONIA AS N	MG/KG	ND	0.50	1	350.3M
NITRATE AS N	MG/KG	3.77	0.50	1	353.3M
NITRITE AS N	MG/KG	ND	0.10	1	353.3M

COMMENTS:
M = MODIFIED
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
MG/KG = MILLIGRAM PER KILOGRAM = PPM

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

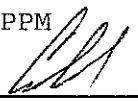
CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06
DATE ANALYZED: 08/06-08/06
REPORT TO: MR. RUSSELL COTE
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-5A-0.5, EB2-5B-0.5, EB2-5C-0.5, EB2-5D-0.5 (Composite)**
LAB I.D.: 060803-77 through -80 (Composite)

PARAMETER	UNIT	SAMPLE RESULT	PQL	DF	EPA METHOD
AMMONIA AS N	MG/KG	0.933	0.50	1	350.3M
NITRATE AS N	MG/KG	4.51	0.50	1	353.3M
NITRITE AS N	MG/KG	ND	0.10	1	353.3M

COMMENTS:
M = MODIFIED
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
MG/KG = MILLIGRAM PER KILOGRAM = PPM

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

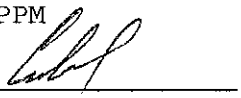
PROJECT: **106167 / Entrada Water Basins**

MATRIX: SOIL
DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06
DATE ANALYZED: 08/06-08/06
REPORT TO: MR. RUSSELL COTE
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-6A-0.5, EB2-6B-0.5, EB2-6C-0.5, EB2-6D-0.5 (Composite)**
LAB I.D.: 060803-85 through -88 (Composite)

PARAMETER	UNIT	SAMPLE RESULT	PQL	DF	EPA METHOD
AMMONIA AS N	MG/KG	3.78	0.50	1	350.3M
NITRATE AS N	MG/KG	5.38	0.50	1	353.3M
NITRITE AS N	MG/KG	ND	0.10	1	353.3M

COMMENTS:
M = MODIFIED
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
MG/KG = MILLIGRAM PER KILOGRAM = PPM

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

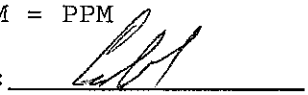
CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06
DATE ANALYZED: 08/06-08/06
REPORT TO: MR. RUSSELL COTE
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-4B-2**
LAB I.D.: 060803-74

PARAMETER	UNIT	SAMPLE RESULT	PQL	DF	EPA METHOD
AMMONIA AS N	MG/KG	ND	0.50	1	350.3M
NITRATE AS N	MG/KG	ND	0.50	1	353.3M
NITRITE AS N	MG/KG	ND	0.10	1	353.3M

COMMENTS:
M = MODIFIED
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
MG/KG = MILLIGRAM PER KILOGRAM = PPM

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE
DATE RECEIVED: 08/03/06
DATE ANALYZED: 08/06-08/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-5C-2**
LAB I.D.: 060803-83

PARAMETER	UNIT	SAMPLE RESULT	PQL	DF	EPA METHOD
AMMONIA AS N	MG/KG	ND	0.50	1	350.3M
NITRATE AS N	MG/KG	7.05	0.50	1	353.3M
NITRITE AS N	MG/KG	ND	0.10	1	353.3M

COMMENTS:
M = MODIFIED
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
MG/KG = MILLIGRAM PER KILOGRAM = PPM

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

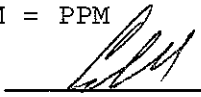
PROJECT: **106167 / Entrada Water Basins**

MATRIX: SOIL
DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06
DATE ANALYZED: 08/06-08/06
REPORT TO: MR. RUSSELL COTE
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-5C-0.5**
LAB I.D.: 060803-83

PARAMETER	UNIT	SAMPLE RESULT	PQL	DF	EPA METHOD
AMMONIA AS N	MG/KG	ND	0.50	1	350.3M
NITRATE AS N	MG/KG	7.05	0.50	1	353.3M
NITRITE AS N	MG/KG	ND	0.10	1	353.3M

COMMENTS:
M = MODIFIED
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
MG/KG = MILLIGRAM PER KILOGRAM = PPM

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**

MATRIX: SOIL
DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06
DATE ANALYZED: 08/06-08/06
REPORT TO: MR. RUSSELL COTE
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-5C-2**
LAB I.D.: 060803-83

PARAMETER	UNIT	SAMPLE RESULT	PQL	DF	EPA METHOD
AMMONIA AS N	MG/KG	ND	0.50	1	350.3M
NITRATE AS N	MG/KG	7.05	0.50	1	353.3M
NITRITE AS N	MG/KG	ND	0.10	1	353.3M

COMMENTS:
M = MODIFIED
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
MG/KG = MILLIGRAM PER KILOGRAM = PPM

DATA REVIEWED AND APPROVED BY:
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**

MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE ANALYZED: 08/06-08/06
DATE REPORTED: 08/11/06

METHOD BLANK FOR LAB I.D.:
060803-45 THROUGH -48 (COMPOSITE), 060803-53 THROUGH -56 (COMPOSITE), 060803-61 THROUGH -64 (COMPOSITE), 060803-69 THROUGH -72 (COMPOSITE), 060803-74, 060803-77 THROUGH -80 (COMPOSITE), 060803-83, 060803-85 THROUGH -88 (COMPOSITE)

PARAMETER	UNIT	SAMPLE RESULT	PQL	DF	EPA METHOD
AMMONIA AS N	MG/KG	ND	0.50	1	350.3M
NITRATE AS N	MG/KG	ND	0.50	1	353.3M
NITRITE AS N	MG/KG	ND	0.10	1	353.3M

COMMENTS:
M = MODIFIED
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = DF X PQL
ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT
MG/KG = MILLIGRAM PER KILOGRAM = PPM

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro-Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766
Tel (909)590-5905 Fax (909)590-5907

Matrix: SOLID

QA/QC Report

Analysis	Units	Date Analyzed	Sample I.D.	S.R.	Duplicate	% RPD	ACP %RPD
Alkalinity	mg/L					0.0%	0-20
Residual Chlorine	mg/Kg					0.0%	0-20
EPA 1664A	mg/Kg					0.0%	0-20
EC	umhos/cm	7/27/2006	060726-41	2120	2123	0.1%	0-20
pH	pH units	8/1/2006	060720-92	7.41	7.45	0.5%	0-20
TDS	mg/L					#VALUE!	0-20
TSS	mg/Kg	7/7/2006	060607-3	8.00	8.00	0.0%	0-20
Resistivity	ohms	8/1/2006	060731-28	8795	9099	3.4%	0-20
% Moisture	%	8/3/2006	060720-32	20.3	20.1	1.0%	0-20
BTU	BTU/lb					0.0%	0-20
Salinity	S					0.0%	0-20

%RPD = Relative Percent Difference **ACP %RPD** = Acceptable Relative Percent Difference

Analysis	Units	Date Analyzed	Sample I.D.	Spk Conc	S.R.	ACP %RPD	ACP %RC	MS	MS %RC	MSD	MSD %RC	% RPD
Acidity	mg/Kg					0-20	80-120					#VALUE!
Ammonia as N	mg/Kg	8/6/2006	LCS 1/2	50.0	0.0	0-20	80-120	43.2	86%	45.0	90%	3.6%
MBAS	mg/Kg			12.0		0-20	80-120					#VALUE!
Chloride	mg/Kg	8/2/2006	LCS1/2	200	15.7	0-20	80-120	182	83%	187	86%	2.5%
COD	mg/Kg					0-20	80-120					#VALUE!
Cr VI	mg/Kg	8/7/2006	LCS1/2	4.0	0.000	0-20	80-120	4.11	103%	4.18	105%	1.7%
Cyanide	mg/Kg	8/2/2006	060731-15	10.0	0.000	0-20	80-120	9.10	91%	8.80	88%	3.0%
Fluoride	mg/Kg			10.0		0-20	80-120					#VALUE!
Nitrate as N	mg/Kg	8/8/2006	060803-33~36	4.0	0.0	0-20	80-120	3.83	96%	3.81	95%	0.5%
Nitrite as N	mg/Kg	8/8/2006	060803-33~36	4.0	0.0	0-20	80-120	3.84	96%	3.82	96%	0.5%
Oil and Grease	mg/Kg	7/19/2006	LCS 1/2	667	0	0-20	80-120	577	87%	578	87%	0.1%
Phenolics	mg/Kg					0-20	80-120					#VALUE!
Sulfate	mg/Kg	8/2/2006	LCS1/2	200	0.0	0-20	80-120	175	88%	171	86%	2.0%
Sulfide	mg/Kg	7/12/2006	LCS1/2	3.00	0.0	0-20	80-120	2.92	97%	2.94	97%	0.7%
TRPH	mg/Kg	7/31/2006	060727-27	667	34.0	0-20	80-120	631	90%	634	90%	0.4%
Formaldehyde	mg/Kg			50.0		0-20	80-120					#VALUE!
Sulfide, Reactive	mg/Kg			0.3		0-20	80-120					#VALUE!

S.R. = Sample Results **%RC** = Percent Recovery **ACP %RC** = Accepted Percent Recovery **Spk Conc** = Spike Concentration

Analyst Signature: _____

Final Reviewer: _____

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**

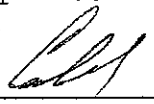
MATRIX: SOIL
DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06
DATE ANALYZED: 08/07/06
REPORT TO: MR. RUSSELL COTE
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-1B-0.5**
LAB I.D.: 060803-46

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony(Sb)	ND	1.0	1	500	15	6010B
Arsenic(As)	ND	0.3	1	500	5.0	6010B
Barium(Ba)	158	5.0	1	10,000	100	6010B
Beryllium(Be)	ND	0.5	1	75	0.75	6010B
Cadmium(Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total(Cr)	14.4	0.5	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt(Co)	4.28	1.0	1	8,000	80	6010B
Copper(Cu)	11.1	1.0	1	2,500	25	6010B
Lead(Pb)	8.49	0.5	1	1,000	5.0	6010B
Mercury(Hg)	ND	0.1	1	20	0.2	7471A
Molybdenum(Mo)	ND	5.0	1	3,500	350	6010B
Nickel(Ni)	9.85	2.5	1	2,000	20	6010B
Selenium(Se)	ND	1.0	1	100	1.0	6010B
Silver(Ag)	ND	1.0	1	500	5.0	6010B
Thallium(Tl)	ND	1.0	1	700	7.0	6010B
Vanadium(V)	26.7	5.0	1	2,400	24	6010B
Zinc(Zn)	45.9	0.5	1	5,000	250	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5
* = STLC analysis for the metal is recommended (if marked)
** = Additional Analysis required, please call to discuss (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)
-- = Not analyzed/not requested

Data Reviewed and Approved by: 

CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06
DATE ANALYZED: 08/07/06
REPORT TO: MR. RUSSELL COTE
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-1D-0.5**
LAB I.D.: 060803-48

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Arsenic(As)	ND	0.3	1	500	5.0	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
* = STLC analysis for the metal is recommended (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**

MATRIX: SOIL
DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06
DATE ANALYZED: 08/07/06
REPORT TO: MR. RUSSELL COTE
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-2C-0.5**
LAB I.D.: 060803-55

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Arsenic(As)	ND	0.3	1	500	5.0	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
* = STLC analysis for the metal is recommended (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE
DATE RECEIVED: 08/03/06
DATE ANALYZED: 08/07/06
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-3A-0.5**
LAB I.D.: 060803-61

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Arsenic(As)	ND	0.3	1	500	5.0	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
* = STLC analysis for the metal is recommended (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

Data Reviewed and Approved by: _____

CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**

MATRIX: SOIL — DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06 — DATE ANALYZED: 08/07/06
REPORT TO: MR. RUSSELL COTE — DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-4A-0.5** — LAB I.D.: 060803-69

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony(Sb)	ND	1.0	1	500	15	6010B
Arsenic(As)	ND	0.3	1	500	5.0	6010B
Barium(Ba)	61.1	5.0	1	10,000	100	6010B
Beryllium(Be)	ND	0.5	1	75	0.75	6010B
Cadmium(Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total(Cr)	10.1	0.5	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt(Co)	3.16	1.0	1	8,000	80	6010B
Copper(Cu)	8.42	1.0	1	2,500	25	6010B
Lead(Pb)	20.3	0.5	1	1,000	5.0	6010B
Mercury(Hg)	ND	0.1	1	20	0.2	7471A
Molybdenum(Mo)	ND	5.0	1	3,500	350	6010B
Nickel(Ni)	6.73	2.5	1	2,000	20	6010B
Selenium(Se)	ND	1.0	1	100	1.0	6010B
Silver(Ag)	ND	1.0	1	500	5.0	6010B
Thallium(Tl)	ND	1.0	1	700	7.0	6010B
Vanadium(V)	21.5	5.0	1	2,400	24	6010B
Zinc(Zn)	44.7	0.5	1	5,000	250	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5
* = STLC analysis for the metal is recommended (if marked)
** = Additional Analysis required, please call to discuss (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)
-- = Not analyzed/not requested

Data Reviewed and Approved by: _____

CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**

MATRIX: SOIL — DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06 — DATE ANALYZED: 08/07/06
REPORT TO: MR. RUSSELL COTE — DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-4C-0.5** — LAB I.D.: 060803-71

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Arsenic(As)	ND	0.3	1	500	5.0	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
* = STLC analysis for the metal is recommended (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576
PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL — DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06 — DATE ANALYZED: 08/07/06
REPORT TO: MR. RUSSELL COTE — DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-5A-0.5** — LAB I.D.: 060803-77

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Arsenic(As)	ND	0.3	1	500	5.0	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
* = STLC analysis for the metal is recommended (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06
DATE ANALYZED: 08/07/06
REPORT TO: MR. RUSSELL COTE
DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-6B-0.5**
LAB I.D.: 060803-86

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Arsenic(As)	ND	0.3	1	500	5.0	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
* = STLC analysis for the metal is recommended (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**

MATRIX: SOIL — DATE RECEIVED: 08/03/06
DATE SAMPLED: 08/02/06 — DATE ANALYZED: 08/07/06
REPORT TO: MR. RUSSELL COTE — DATE REPORTED: 08/11/06

SAMPLE I.D.: **EB2-6C-0.5** — LAB I.D.: 060803-87

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony(Sb)	ND	1.0	1	500	15	6010B
Arsenic(As)	ND	0.3	1	500	5.0	6010B
Barium(Ba)	49.0	5.0	1	10,000	100	6010B
Beryllium(Be)	ND	0.5	1	75	0.75	6010B
Cadmium(Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total(Cr)	9.12	0.5	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt(Co)	3.19	1.0	1	8,000	80	6010B
Copper(Cu)	7.17	1.0	1	2,500	25	6010B
Lead(Pb)	11.9	0.5	1	1,000	5.0	6010B
Mercury(Hg)	ND	0.1	1	20	0.2	7471A
Molybdenum(Mo)	ND	5.0	1	3,500	350	6010B
Nickel(Ni)	5.85	2.5	1	2,000	20	6010B
Selenium(Se)	ND	1.0	1	100	1.0	6010B
Silver(Ag)	ND	1.0	1	500	5.0	6010B
Thallium(Tl)	ND	1.0	1	700	7.0	6010B
Vanadium(V)	18.2	5.0	1	2,400	24	6010B
Zinc(Zn)	31.6	0.5	1	5,000	250	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5
* = STLC analysis for the metal is recommended (if marked)
** = Additional Analysis required, please call to discuss (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)
-- = Not analyzed/not requested

Data Reviewed and Approved by: _____

CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE ANALYZED: 08/07/06
DATE REPORTED: 08/11/06

METHOD BLANK FOR LAB I.D.:
060803-46, -48, -55, -61, -69, -71, -77, -86, -87

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	DF	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony(Sb)	ND	1.0	1	500	15	6010B
Arsenic(As)	ND	0.3	1	500	5.0	6010B
Barium(Ba)	ND	5.0	1	10,000	100	6010B
Beryllium(Be)	ND	0.5	1	75	0.75	6010B
Cadmium(Cd)	ND	0.5	1	100	1.0	6010B
Chromium Total(Cr)	ND	0.5	1	2,500	560/5@	6010B
Chromium VI (Cr6)	--	0.1	1	500	5.0	7196A
Cobalt(Co)	ND	1.0	1	8,000	80	6010B
Copper(Cu)	ND	1.0	1	2,500	25	6010B
Lead(Pb)	ND	0.5	1	1,000	5.0	6010B
Mercury(Hg)	ND	0.1	1	20	0.2	7471A
Molybdenum(Mo)	ND	5.0	1	3,500	350	6010B
Nickel(Ni)	ND	2.5	1	2,000	20	6010B
Selenium(Se)	ND	1.0	1	100	1.0	6010B
Silver(Ag)	ND	1.0	1	500	5.0	6010B
Thallium(Tl)	ND	1.0	1	700	7.0	6010B
Vanadium(V)	ND	5.0	1	2,400	24	6010B
Zinc(Zn)	ND	0.5	1	5,000	250	6010B

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = PQL X DF
ND = Below the Actual Detection Limit or non-detected
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5
* = STLC analysis for the metal is recommended (if marked)
** = Additional Analysis required, please call to discuss (if marked)
*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)
-- = Not analyzed/not requested

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

QA/QC for Metals Analysis --TTLC--SOLID/SOIL MATRIX

Matrix Spike/ Matrix Spike Duplicate/ LCS :

ANALYSIS DATE: 8/7/2006 Unit : Mg/KG(ppm)

Analysis	Spk.Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Arsenic (As)	060803-41	1.00	109	PASS	0	50.0	48.3	97%	48.9	98%	1%
Copper (Cu)	060803-41	1.00	100	PASS	7.86	50.0	56.4	97%	57.0	98%	1%
Lead (Pb)	060803-41	1.00	110	PASS	2.95	50.0	45.4	85%	46.1	86%	2%

ANALYSIS DATE. : 8/7/2006

Analysis	Spk.Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Mercury (Hg)	060803-231	0.300	94.6	PASS	0	0.300	0.273	91%	0.277	92%	1%

MS/MSD Status:

Analysis	%MS	%MSD	%LCS	%RPD
Arsenic (As)	PASS	PASS	PASS	PASS
LEAD (Pb)	PASS	PASS	PASS	PASS
Copper (Cu)	PASS	PASS	PASS	PASS
MERCURY (Hg)	PASS	PASS	PASS	PASS
Accepted Range	75 ~ 125	75 ~ 125	85 ~ 115	0 ~ 20

ANALYST: _____

FINAL REVIEWER: _____

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins** DATE RECEIVED:08/03/06
MATRIX:SOIL DATE EXTRACTED:08/09/06
DATE SAMPLED:08/02/06 DATE ANALYZED:08/10/06
REPORT TO:MR. RUSSELL COTE DATE REPORTED:08/11/06

SAMPLE I.D.: **EB2-1B-2** LAB I.D.: 060803-50

PARAMETER	UNITS	SAMPLE RESULT	PQL	DF	EPA METHOD
C4-C10 RANGE	MG/KG	ND	10	1	8015B
C11-C22 RANGE	MG/KG	ND	10	1	8015B
C23-C35 RANGE	MG/KG	ND	50	1	8015B

COMMENTS
C4-C10 = GASOLINE RANGE
C11-C22 = DIESEL RANGE
C23-C35 = MOTOR OIL RANGE
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = BELOW THE ACTUAL DETECTION LIMIT OR NON-DETECTED
MG/KG = MILLIGRAM PER KILOGRAM = PPM

Data Reviewed and Approved by:
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: **BA Environmental**
502 South Verdugo Drive, Suite 200
Burbank, CA 91502
Tel(818)841-2575 Fax(818)841-2576

PROJECT: **106167 / Entrada Water Basins**
MATRIX: SOIL
DATE SAMPLED: 08/02/06
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 08/03/06
DATE EXTRACTED: 08/09/06
DATE ANALYZED: 08/09/06
DATE REPORTED: 08/11/06

METHOD BLANK FOR LAB I.D.: 060803-50

PARAMETER	UNITS	SAMPLE RESULT	PQL	DF	EPA METHOD
C4-C10 RANGE	MG/KG	ND	10	1	8015B
C11-C22 RANGE	MG/KG	ND	10	1	8015B
C23-C35 RANGE	MG/KG	ND	50	1	8015B

COMMENTS
C4-C10 = GASOLINE RANGE
C11-C22 = DIESEL RANGE
C23-C35 = MOTOR OIL RANGE
DF = DILUTION FACTOR
PQL = PRACTICAL QUANTITATION LIMIT
ACTUAL DETECTION LIMIT = PQL X DF
ND = BELOW THE ACTUAL DETECTION LIMIT OR NON-DETECTED
MG/KG = MILLIGRAM PER KILOGRAM = PPM

Data Reviewed and Approved by:
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro Chem, Inc

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

8015B Soil/Solid QC

Date Analyzed: 8/9~10/2006 **Units:** mg/Kg (PPM)

Matrix: **Solid/Sludge**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: **060807-33**

Analyte	SR	spk conc	MS	%MS	MSD	%MSD	%RPD	ACP %MS	ACP RPD
C11~C22 Range	0	2500	2497	**100%**	2452	**98%**	**2%**	**75-125**	**0-20%**

LCS STD RECOVERY:

Analyte	spk conc	LCS	% REC	ACP
C11~C22 Range	200	182	**91%**	**75-125**

Analyzed and Reviewed By: _____

Final Reviewer: _____

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE # 1555

Turnaround Time
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
X 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Chlorinated Herbicides	Organochlorine Pesticides (Specific List)	Organo Phosphorus Pesticides	Perchlorate	Arsenic discrete	CAM-17 Metals (Specific List)	Nitrate/Nitrite Ammonia	HOLD	Misc.	COMMENTS
								Analysis Required									
EB2-1A-0.5	060803-45	8/2/06	1455	Soil	3		ICE	X	X	X	X			X			
EB2-1B-0.5	-46		1445		3			X	X	X	X		X	X			Composite
EB2-1C-0.5	-47		1505		3			X	X	X	X			X			
EB2-1D-0.5	-48		1435		3			X	X	X	X	X		X			
EB2-1A-2	-49		1500		3										X		
EB2-1B-2	-50		1450		3										X		CAD as per Russ 8/9/06 @ 0830
EB2-1C-2	-51		1510		3										X		
EB2-1D-2	-52		1440		3										X		
EB2-2A-0.5	-53		1415		3			X	X	X	X			X			**
EB2-2B-0.5	-54		1405		3			X	X	X	X			X			Composite
EB2-2C-0.5	-55		1355		3			X	X	X	X	X		X			
EB2-2D-0.5	-56		1425		3			X	X	X	X			X			
EB2-2A-2	-57		1420		3										X		
EB2-2B-2	-58		1410		3										X		
EB2-2C-2	-59		1400		3										X		

Company Name: Building Analytics	**Project Contact:** Russell Cote	**Sampler's Signature:** Russell Cote
Address: 502 S. Verdugo Ste. 200	**Tel:** (818) 841-2575	**Project Name/ID:** 106169
City/State/Zip: Burbank CA	**Fax:** (818) 841 2576	Entrada Water Basins

Relinquished by: Russell Cote	Received by: Jessica Ra	Date & Time: 8/3/06 0800
Relinquished by:	Received by:	Date & Time:
Relinquished by:	Received by:	Date & Time:

Instructions for Sample Storage After Analysis:
O Dispose of O Return to Client O Store (30 Days)
O Other:

CHAIN OF CUSTODY RECORD

Date: _____

WHITE WITH SAMPLE - YELLOW TO CLIENT

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE # 1555

Turnaround Time
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
~~X~~ 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Organo chlorine Pesticide (Special List)	Organo phosphorus pesticides	Chlorinated Herbicides	Perchlorate	Arsenic dissolved	Cam-17 metals (dissolved sample)	Nitrate/Nitrite Arsenic	HOLD	Misc.	COMMENTS
								Analysis Required									
EB2-2D-2	060803-60	8/2/06	1430	Soil	3		ICE								X		
EB2-3A-0.5	-61		1345		3			X	X	X	X	X		X			composite
EB2-3B-0.5	-62		1335		3			X	X	X	X			X			
EB2-3C-0.5	-63		1325		3			X	X	X	X			X			
EB2-3D-0.5	-64		1315		3			X	X	X	X			X			
EB2-3A-2	-65		1350		3										X		
EB2-3B-2	-66		1340		3										X		
EB2-3C-2	-67		1330		3										X		
EB2-3D-2	-68		1320		3										X		
EB2-4A-0.5	-69		1215		3			X	X	X	X		X	X			composite
EB2-4B-0.5	-70		1205		3			X	X	X	X			X			
EB2-4C-0.5	-71		1155		3			X	X	X	X	X		X			
EB2-4D-0.5	-72		1145		3			X	X	X	X	~~X~~		X			
EB2-4A-2	-73		1220		3										X		
EB2-4B-2	-74		1210		3									X			discard

Company Name: Building Analytics
Address: 502 S. Verdugo St. 200
City/State/Zip: Burbank CA

Project Contact: Russell Cote
Tel: (818) 841-2575
Fax: (818) 841-2576

Sampler's Signature: Russell Cote
Project Name/ID: 106167 Entrada Water Basins

Relinquished by: Russell Cote	Received by: Rebecca Pu	Date & Time: 8/3/06 0800	Instructions for Sample Storage After Analysis:
Relinquished by:	Received by:	Date & Time:	O Dispose of O Return to Client O Store (30 Days)
Relinquished by:	Received by:	Date & Time:	O Other:

CHAIN OF CUSTODY RECORD

Date: _____

WHITE WITH SAMPLE - YELLOW TO CLIENT

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE # 1555

Turnaround Time
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
~~0~~ 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Organo chlorine Pesticides (Spectrum List)	Organo phosphorus Pesticides	Chlorinated Herbicides	Reinject	Arsenic discrete	Cam-17 metals (discrete sample)	Nitrate/Nitrite Ammonia	HOLD	Misc.	COMMENTS
								Analysis Required									
EB2-4C-2	060803-75	8/2/06	~~1200~~	SOIL	3		ICE								X		
EB2-4D-2	-76		~~1450~~		3										X		
EB2-5A-0.5	-77		1235		3			X	X	X	X	X		X			Composite
EB2-5B-0.5	-78		1245		3			X	X	X	X			X			
EB2-5C-0.5	-79		1255		3			X	X	X	X			X			
EB2-5D-0.5	-80		1305		3			X	X	X	X			X			
EB2-5A-2	-81		1240		3										X		
EB2-5B-2	-82		1250		3										X		
EB2-5C-2	-83		1300		3									X			discrete
EB2-5D-2	-84		1310		3										X		
EB2-6A-0.5	-85		1130		3			X	X	X	X			X			
EB2-6B-0.5	-86		1100		3			X	X	X	X	X		X			Composite
EB2-6C-0.5	-87		1050		3			X	X	X	X		X	X			
EB2-6D-0.5	-88		1040		3			X	X	X	X			X			
EB2-6A-2	-89		1135		3										X		

Company Name: Building Analytics
Address: 502 S. Verdugo Ste. 200
City/State/Zip: Burbank CA

Project Contact: Russell Cote
Tel: (818) 841-2575
Fax: (818) 841-2576

Sampler's Signature: Russell Cote
Project Name/ID: 106167
Entrada Water basins

Relinquished by: Russell Cote	Received by: Jessica	Date & Time: 8/3/06 0800
Relinquished by:	Received by:	Date & Time:
Relinquished by:	Received by:	Date & Time:

Instructions for Sample Storage After Analysis:
O Dispose of O Return to Client O Store (30 Days)
O Other:

CHAIN OF CUSTODY RECORD

Date: _____

WHITE WITH SAMPLE - YELLOW TO CLIENT

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE # 1555

Turnaround Time
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
✓ 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Organo Chlorine Pesticides (Specify Each)	Organo Phosphorus Pesticide	Chlorinated Herbicide	Paraquat	Arsenic	CAM-17 Metals (discovered sample)	Nitrite / Nitrate Ammonia	HOLD	Misc.	COMMENTS
								Analysis Required									
EB2-LoB-2	060803-90	8/2/06	1105	Soil	3		ICE								X		
EB2-LoC-2	-91	↓	1055	↓	3		↓								X		
EB2-LoD-2	-92	↓	1045	↓	3		↓								X		

Company Name: Building Analytics
Address: 502 S. Varduge Ste 200
City/State/Zip: Burbank CA

Project Contact: Russell Cote
Tel: (818) 841-2575
Fax: (818) 841-2576

Sampler's Signature: Russell Cote
Project Name/ID: 1061167
Entrada Water Dosing

Relinquished by: Russell Cote	Received by: Jessica Q	Date & Time: 8/3/06 0800	Instructions for Sample Storage After Analysis:
Relinquished by:	Received by:	Date & Time:	O Dispose of O Return to Client O Store (30 Days)
Relinquished by:	Received by:	Date & Time:	O Other:

CHAIN OF CUSTODY RECORD

Date: _____

WHITE WITH SAMPLE - YELLOW TO CLIENT

BA ENVIRONMENTAL
A Division of Building Analytics
www.BAEnvironmental.com

CORPORATE OFFICE
528 STATE STREET
GLENDALE, CALIFORNIA 91203
TOLL FREE 1-888-440-7225
818-500-1398
818-246-8195 FAX

September 27, 2004

File No.: 104012

Mr. Mark Dillon
Counsel for Newhall Land
1921 Palomar Oaks Way, Suite 200
Carlsbad, California 92008

Reference: River Village
Tentative Tract Map No. 53108, Highway 126
Newhall Ranch, California

Subject: Report
Phase I Environmental Site Assessment

Dear Mr. Dillon:

BA Environmental is pleased to submit this Phase I Environmental Site Assessment (ESA) report regarding the above-referenced property to Newhall Land. The objective of this Phase I ESA was to assess the potential for contamination at the subject property caused by hazardous materials. To accomplish this, a reconnaissance of the subject property and vicinity was performed, available relevant regulatory records were reviewed, and the property history was researched.

The subject property consists of an approximate 280-acre parcel of land that has been graded and utilized for agricultural production; numerous dirt roads traverse the subject site. Approximately four small buildings exist on the site and are used in activities related to the on-site agricultural production. The subject site is also occupied by several irrigation wells. This project also includes the two borrow sites where fill material will be derived to be placed on the subject property. Borrow Site "A" is approximately 400 acres and Borrow Site "B" is approximately 300 acres. The two borrow sites are primarily in their native states with some dirt roads traversing them. A portion of Borrow Site "A" appears to have been used in the past for agricultural purposes. Mr. John Frye, General Manager, Agriculture and Natural Resources for Newhall Land and Farming, stated that this area was briefly used to grow hay, and that no pesticides were used in this area. There was also some evidence of past oil exploration in this area. An electrical transmission tower is located in Borrow Site "B," as well as evidence of past oil wells. Primary vehicular access to the subject site is from private driveways to the north. Primary vehicular access to Borrow Site "A" is from a dirt road to the south of the subject site or from a dirt road from Potrero Canyon to the south. Primary vehicular access to Borrow Site "B" is from a dirt road to the east of Chiquito Canyon Road.

The review of historical documents indicates that portions of the subject site have been vacant undeveloped land or used as agricultural land from prior to 1903 until the present.

From prior to 1903 until prior to 1991, Southern Pacific Railroad tracks ran along the northern boundary of the subject property. Since at least 1969, the eastern portion of the subject property has been located within the Castaic Junction Oil Field. Several small structures have been located throughout the subject property from prior to 1947 through the present. The configurations and locations of these structures have changed several times since 1947. Since 1947, at least two oil wells, possibly three, have been located near the eastern property boundary. No oil wells currently exist on-site. Sometime prior to 1952, three oil ASTs (located within a containment berm) were also located near the eastern property boundary. By 1968, these ASTs had been removed. A circular AST was located approximately 555 feet south of Highway 126 and approximately 1,000 feet east of the intersection of Walcott Way and Highway 126, from prior to 1952 until prior to 1968. The purpose of this AST is unknown. An oil well has been located in the central portion of the subject property, approximately 555 feet south of the intersection of Walcott Way and Highway 126 from prior to 1952 until prior to 1994. This area has also been occupied by an equipment storage area between 1952 and 1972, and between approximately 1994 to the present. An airstrip occupied the central portion of the subject property since prior to 1968 until prior to 1994, when it was removed. The Indian Dunes Motorcycle Park also occupied the central portion of the subject property from prior to 1972 until prior to 1994, when it was abandoned and subsequently removed. By 1994, the subject property was used for agricultural purposes.

BA Environmental performed a site reconnaissance of the subject property. The site reconnaissance addressed three areas: Subject Property (Tentative Tract Map No. 53108), Borrow Site "A" and Borrow Site "B."

Subject Property (Tentative Tract Map No. 53108)

At the time of the site visit, the subject property was used primarily for agricultural production. Crops included what was believed to be green beans, beets, carrots and other vegetables. Some land appeared to be out of production or fallow. The far western end was occupied by undeveloped land covered by native vegetation. Concrete and asphalt debris was observed scattered throughout the fields. A large pile of asphalt and concrete debris was observed along the northern property boundary. Included in this debris were concrete pipes, an old pickup truck body, old telephone poles and other miscellaneous debris. Approximately 200 feet south-southwest of this pile was a pile of wood debris. Old trash piles and construction debris piles were observed in the western portion of the subject property and along the old railroad easement. The trash observed in these piles appeared to household trash. Old piping was observed scattered in the western portion of the subject property. Some of this piping appeared to be sections of old oil pipelines and some appeared to be transite concrete pipe.

An equipment storage area was observed approximately 50 feet south of the intersection of Walcott Way and Highway 126. This storage area was observed to contain various farm equipment. Two ASTs mounted on trailers were observed in this area. These trailers appeared to be empty. Several empty and partially full 55-gallon steel drums were observed on-site. These drums appeared to contain oil or petroleum products. Staining was observed on the soil throughout this area. One sheet metal building is located in the fenced storage area, and consists of approximately 400 square feet. This building is used to store equipment and grain. This building was formerly an aircraft

hangar, which was associated with an airstrip that was formerly located on the subject site. It is likely that this area was formerly used to fuel and maintain the aircraft and may have been an area used to mix pesticides.

The eastern storage area consists of three buildings and a plastic-sheeting hothouse. The buildings are used for storage and packaging. Farm equipment was observed to be stored in this area. Several small ASTs were observed in this area, as well as agricultural chemical mixing. Several 55-gallon drums and smaller five-gallon buckets were observed. None of these containers were labeled. Some staining was observed on the dirt in this storage area.

Several ASTs containing liquid fertilizers and various other agricultural chemicals were observed in the eastern portion of the subject property. Minor staining was observed on the dirt beneath these ASTs.

One portable diesel-powered pump was observed near the eastern property boundary. Associated with this pump was a small 100-gallon AST on a trailer and an approximate 500-gallon AST sitting on a wooden pallet. The 500-gallon AST was labeled as containing diesel fuel, likely for the pump. Staining was observed on the outside of the AST, as well as on the soil beneath the AST.

An old railroad easement was observed along the northern property boundary, paralleling Highway 126. The railroad tracks have been removed; however, some ballast materials still remain. Debris and trash piles were observed along this easement.

During the site visit, evidence of underground storage tanks (USTs) or wastewater clarifiers was observed on the subject site. The only hazardous materials observed on-site were agricultural chemicals (i.e., pesticides and fertilizers) and petroleum products (i.e., diesel fuel, oil and lubricants).

Four small diameter groundwater monitoring wells (piezometers) were observed on-site. According to Newhall Land personnel, these wells are utilized by Seward Engineering for groundwater elevation data used for engineering purposes.

Several pipelines were observed crossing the subject site. The pipelines were identified visually by either marker signs, or visible piping or pipeline vents. A Southern California Gas pipeline was observed running along the northern property boundary in the railroad easement, and crossing the western end of the subject property. These pipelines are believed to be 18" to 20" in diameter and likely carry natural gas. Where visible, these pipelines appeared to be coated with a tar-like material to prevent corrosion.

A Shell Oil Company petroleum pipeline was also observed to run along the northern property boundary, parallel to the old railroad easement. The size of this pipeline is unknown; however, it is likely to contain crude oil. Approximately 250 feet southeast of the intersection of Chiquito Canyon Road and Highway 126 is a fenced enclosure. This enclosure is adjacent to the Shell Oil Company pipeline and a Shell Oil pipeline vault. A sign on the gate of the enclosure indicates that the enclosure is owned by Eouilon Pipeline Company, and is the Del Valle Booster Station. This is likely a booster station for an oil pipeline. Inside of the enclosure was a pump, a 100-gallon AST likely

containing diesel fuel and two electrical transformers. The pump and AST were observed to be in a concrete containment.

An unidentified pipeline was observed running along the southern edge of the old railroad easement. Where exposed, the pipeline appeared to be approximately 18" to 20" in diameter and was coated with a tar-like substance to prevent corrosion. Two vents, similar to those used in oil pipelines, were observed associated with this pipeline.

Damaged piping was observed on the surface in the old railroad easement. It appeared that this pipeline had been removed. It is uncertain if this pipeline was replaced or completely removed. The pipeline appeared to be 16" to 18" in diameter. Oil staining was observed in the areas where this pipeline was exposed.

A Unocal pipeline was observed to run across the western end of the subject property. The size of this pipeline is unknown; however, the pipeline likely carried oil. Reportedly, this pipeline is currently idle, and not being used.

Borrow Site "A"

This parcel was observed to be primarily undeveloped at the time of the site reconnaissance. The site is covered with native vegetation, which consists of brush, oak trees and native plants. The floor of a small valley/canyon, which runs east to west across the borrow site, appears to have been used in the past for agricultural purposes. Mr. John Frye, General Manager, Agriculture and Natural Resources for Newhall Land and Farming, stated that this area was briefly used to grow hay, and that no pesticides were used in this area. Concrete and wood debris were observed scattered in the agricultural field on the floor of the small valley/canyon. This concrete and wood debris may be the indications of either a former structure or oil exploration activities. An abandoned road was observed running along the northern boundary of this borrow site. A flat, roughly graded dirt pad was observed along this road. This is the location of what is believed to have been an exploratory oil well. At the eastern end of this small valley/canyon is a graded dirt pad with what appears to be a filled-in concrete vault. This is likely the location of a former oil well. No oil staining was observed on this graded pad.

During the site visit, no hazardous substances, or evidence of USTs, ASTs or wastewater clarifiers were observed on this site.

Borrow Site "B"

This parcel was observed to be primarily undeveloped at the time of the site reconnaissance. The site is covered with native vegetation, which consists of brush and native plants. A dirt road crosses the subject property and leads to a Southern California Edison (SCE) transmission tower. Along this dirt road, a concrete pad was observed. This pad had a configuration similar to that used for an oil derrick and a cable tool-drilling rig. It is believed that this was the location of a former oil exploration well. No staining was noted around the concrete pad. Approximately 500 feet up a small access road was a second flat dirt pad. Soil in this area was observed to be stained by what is

believed to be crude oil. This may have been the location of a second exploratory oil well.

During the site visit, no hazardous substances, or evidence of USTs, ASTs or wastewater clarifiers were observed on this site.

Four small diameter groundwater-monitoring wells (piezometers) were observed on Tentative Tract Map 53108. Reportedly, these wells are utilized for groundwater elevation data used for engineering purposes.

Three water wells were observed in the western portion of the subject property. One was observed in the central portion near the intersection of Walcott Way and Highway 126. Approximately six water wells were observed along the eastern property boundary. All of these water wells are used to supply irrigation water to the agricultural crops on the subject site.

Three oil wells have been documented on the subject property. In addition, evidence of three possibly four oil wells has been noted in Borrow Site "A." Evidence of two oil wells has also been noted in Borrow Site "B."

BA Environmental completed limited soil sampling at the above-referenced site to assess whether past use of pesticides or herbicides has impacted the shallow soils beneath the previously cultivated areas on Tentative Tract No. 53108.

Sixty-nine shallow hand auger borings were advanced to depths of between one and two feet below ground surface (bgs).

Field observations of soil samples collected from all of the borings revealed no unusual odors or discoloration. Groundwater was not encountered in any of the shallow borings.

Samples collected were composited at the laboratory in groups of four, except one sample which was composited from five samples. The composited samples were analyzed for Organochlorine Pesticides (OCP), Organophosphorous Pesticides (OPP) and Chlorinated Herbicides (CH) using Environmental Protection Agency (EPA) Method Nos. 8081 (OCP) , 8141 (OPP) and 8151 (CH).

All of the soil samples analyzed were reported not to contain detectable concentrations of OPP or CH.

Several OCPs were detected in the soil samples analyzed. Soil samples G11, G13, G14, G15 and G17 were reported to contain concentrations of alpha-chlordane ranging from 0.001 to 0.018 milligrams per kilogram (mg/kg). Samples G3, G11, and G13, G14, G15 and G17 were reported to contain concentrations of gamma-chlordane ranging from 0.001 to 0.027 mg/kg. 4,4-DDD was detected in samples G13 through G15 at a concentration of 0.001 mg/kg. Samples G11 and G13 thorough G17 were reported to contain 4,4-DDE in concentrations ranging from 0.002 to 0.034 mg/kg. 4,4-DDT was detected in samples G7 and G11 through G17 in concentrations ranging from 0.002 to 0.023 mg/kg. Dieldrin was detected in samples G6 and G14 at 0.002 and 0.003 mg/kg, respectively. Endosulfan I was detected in sample G14 at a concentration of 0.001

mg/kg. Samples G11 and G17 contained concentrations of Endosulfan II at 0.018 and 0.034 mg/kg, respectively. Endosulfan Sulfate was detected in sample G14 at a concentration of 0.005 mg/kg. Samples G9 through G17 were reported to contain Endrin at concentrations ranging from 0.001 to 0.136 mg/kg. Sample G13 was reported to contain Heptachlor Epoxide at a concentration of 0.001 mg/kg.

The concentrations of OCPs detected on the subject site were compared with the Preliminary Remediation Goals (PRGs) set up by the United States Environmental Protection Agency (EPA) for various compounds and metals. This comparison revealed that none of the OCPs detected at the subject site exceeded the residential or industrial use PRGs for those compounds.

BA Environmental performed a review of available government database records. The subject property is not listed on any of the searched databases. The closest off-site facility is located to the north across Henry Mayo Drive (Highway 126). This facility is located in an assumed cross-gradient location relative to the regional groundwater flow direction. No impact from these facilities is likely. Based on the status and distances of the remaining facilities, there is a low potential for environmental impact due to off-site sources.

BA Environmental has performed a Phase I ESA, in conformance with the scope and limitations of ASTM Practice E 1527-00, of the vacant parcel of land, which is located south of the intersection of Henry Mayo Drive (Highway 126), north of the Santa Clara River, east of the intersection of Henry Mayo Drive (Highway 126) and Chiquito Canyon Road, and west of Castaic Creek, which is referred to as River Village, Tentative Tract Map No. 53108, Highway 126, and the two borrow sites, in Newhall Ranch, California. Any exceptions to, or deletions from, this practice are described in the Introduction section of this report.

This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property, except the following:

- Up to three oil wells and associated production area may exist on the subject property, and several on Borrow Sites "A" and "B";
- Several ASTs, likely associated with oil production, existed on-site in the 1950s;
- Several pipelines cross the subject property, and one pipeline crosses Borrow Site "B";
- Scattered suspect ACM debris was observed in the central and western portions of the subject property;
- Staining was observed beneath what appeared to be an abandoned pipeline along the old railroad easement, and near what was believed to be a former oil well on Borrow Site "B." In addition, staining was observed beneath a diesel AST associated with a portable water pump located in the eastern portion of the subject property; and
- Two equipment storage areas were observed on the subject site, one located in the eastern portion of the subject property and one in the central portion. The storage area in the central portion was associated with a former airstrip. Agricultural

chemical storage and mixing was observed or may have taken place at these areas in the past. Soil staining was observed in both areas.

BA Environmental recommends the following:

- If disturbed, or if located within an area of redevelopment, all former oil wells located on the subject property or on either borrow site should be reabandoned according to all applicable local and state regulations;
- If the pipelines on the subject site and Borrow Site "B" are not to be used in the future, they should be abandoned and soils beneath them assessed for petroleum hydrocarbon leakage. If the pipelines are planned to remain in use, the pipelines should be assessed for possible hydrocarbon leakage;
- Properly dispose of scattered suspect ACMs; and
- The areas of former ASTs, current agricultural storage areas and current soil staining observed on the subject site or Borrow Site "B" should be assessed for potential impact to the subject site.

Although not a recognized environmental condition, it is recommended that all groundwater monitoring wells or production water wells be abandoned according to applicable local and state regulations, prior to redevelopment.

If you have questions regarding this project or report, please contact us at (818) 500-1898.

Respectfully submitted,
BA ENVIRONMENTAL

Russell M. Cote, M. Sc., R.G. No. 7139
Manager, Environmental Services

TABLE OF CONTENTS

Page

LETTER OF TRANSMITTAL

INTRODUCTION 1

SITE LOCATION 2

GEOLOGY AND HYDROGEOLOGY 4

HISTORICAL REVIEW 4

SITE RECONNAISSANCE AND IMPROVEMENTS 9

ADJACENT LAND USE 17

AGENCY CONTACTS 18

GOVERNMENT RECORDS REVIEW 19

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS 23

REPORT AUTHORS 29

FIGURES

Figure 1:	Site Vicinity
Figure 2:	Site Map
Figure 3:	Oil Well Locations
Figure 4:	Development Map
Figure 5:	Soil Sample Locations

TABLES

Table 1:	Summary of Soil Analyses (Pesticides/Herbicides)

APPENDICES

Appendix A:	Site Photographs
Appendix B:	Historic Aerial Photographs
Appendix C:	Historic Topographic Maps
Appendix D:	Laboratory Reports and Chain-of-Custody Documentation
Appendix E:	Oil Well Records
Appendix F:	DOGGR Well Abandonment Procedures
Appendix G:	Government Records Report
Appendix H:	References
Appendix I:	Glossary of Acronyms

PHASE I ENVIRONMENTAL SITE ASSESSMENT
River Village
Tentative Tract Map No. 53108, Highway 126
Newhall Ranch, California

INTRODUCTION

BA Environmental is pleased to submit this Phase I Environmental Site Assessment (ESA) report to Newhall Land. This report is regarding the parcel of land located south of the intersection of Henry Mayo Drive (Highway 126), north of the Santa Clara River, east of the intersection of Henry Mayo Drive (Highway 126) and Chiquito Canyon Road, and west of Castaic Creek, which is referred to as River Village, Tentative Tract Map No. 53108, Highway 126, in Newhall Ranch, California.

This report was prepared in accordance with the Proposal and Contract between BA Environmental and Newhall Land, dated January 15, 2004 and Purchase Authorization PA-PL20237.

The purpose of the ESA is to identify, to the extent feasible, recognized environmental conditions, which can be defined as, "The presence or likely presence of any hazardous substance or petroleum products under conditions that indicate an existing release, a past release or a material threat of any hazardous substances or petroleum products."

This Phase I ESA meets the general requirements of the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: E 1527-00. The ASTM standard practice defines good commercial and customary practice for conducting ESAs using reasonable inquiry. The scope of services for this Phase I ESA consisted of several tasks, including:

- A reconnaissance of the site and its vicinity;
- Interviews with current owners and occupants of the subject property, and personnel at local government agencies;
- A compilation of the property history, including the review of previous environmental reports regarding the subject property (if available);
- An agency list search of facilities with recorded environmental issues located within the radii required by ASTM; and
- A summary of our findings, conclusions and recommendations.

Additional services that were provided include:

- A visual survey of asbestos containing materials (ACMs)
- A visual survey and review of map of designated wetlands;
- A review of a survey and map of radon zones; and
- Collection of soil samples for pesticide and herbicide screening.

As per ASTM Practice E 1527-00, there are no deviations from, or deletions of, the general requirements of this standard practice contained in this report.

A Phase I ESA is a non-intrusive examination. As such, it is not a full and complete assessment of all environmental conditions. Adverse conditions may exist that could not be discovered by such an assessment. BA Environmental has made every reasonable effort to discover and interpret the information and current conditions regarding the site within the time available. We will recommend prudent additional investigations, if deemed necessary.

This report must not be regarded as a guarantee that no further contamination exists beyond that which may have been detected within the building or beneath the property. If additional relevant information about the property is brought to our attention, the conclusions and recommendations contained in the report may not be valid.

This assessment relied upon information obtained from the site reconnaissance and from relevant regulatory agencies. BA Environmental believes that the information contained herein is reliable. However, BA Environmental cannot guarantee the accuracy of information provided by others.

SITE LOCATION

The subject property is a parcel of land located south of Henry Mayo Drive (Highway 126), north of the Santa Clara River, east of the intersection of Henry Mayo Drive (Highway 126) and Chiquito Canyon Road, and west of Castaic Creek, which is referred to as River Village, Tentative Tract Map No. 53108, Highway 126, in Newhall Ranch, California. This project also includes the two borrow sites where fill material will be derived to be placed on the subject property. Borrow Site "A" is located south of the Santa Clara River and west of Interstate 5 and consists of approximately 400 acres. Borrow Site "B" is located northeast of the intersection of Chiquito Canyon Road and Henry Mayo Drive and consists of approximately 300 acres. The subject property may be reached from the Interstate Freeway 5 (Golden State Freeway), exit Highway 126. Proceed west approximately 4.2 miles to the western end of the subject property. Primary vehicular access to the subject site is from private driveways to the north.

The subject property consists of an approximate 280-acre parcel of land that has been graded and utilized for agricultural production, and numerous dirt roads traverse the subject site. Approximately four small buildings exist on the site and are used in activities related to the on-site agricultural production. The subject site is also occupied by several irrigation wells. The borrow sites are primarily in their native states with some dirt roads traversing them. A portion of Borrow Site "A" has been used in the past for agricultural purposes as well as having some evidence of past oil exploration. An electrical transmission tower is located in Borrow Site "B," as well as evidence of past oil wells.

Adjacent land use to the subject site includes agricultural land and undeveloped land to the west, Castaic Creek to the east, the Santa Clara River to the south, and Highway 126 followed by Chiquita Canyon Landfill to the north (Figures 1 and 2).

Topographic Map Review

The property is depicted on the Val Verde, California Topographic Quadrangle map of the United States Geological Survey (USGS).[1] Tentative Tract Map No. 53108 encompasses portions of Sections 14, 22 and 23 Township 4 North, Range 17 West of the San Bernardino Base and Meridian. Borrow Site "A" encompasses portions of Sections 22 and 23, Township 4 North, Range 17 West of the San Bernardino Base and Meridian. Borrow Site "B" encompasses portions of Sections 15 and 22 Township 4 North, Range 17 West of the San Bernardino Base and Meridian. The subject site is located in a valley formed by the Santa Clara River. Borrow Area "A" is located on the eastern flank of Adobe Canyon. A smaller canyon cuts across Borrow Site "A." Borrow Area "B" is located on the northeastern edge of the intersection of Chiquito Canyon and the valley formed by the Santa Clara River.

Tentative Tract Map No. 53108 is located south of Henry Mayo Drive (Highway 126), north of the Santa Clara River, east of the intersection of Henry Mayo Drive (Highway 126) and Chiquito Canyon Road, and west of Castaic Creek. The subject property is depicted as being vacant undeveloped land. Several small structures are depicted on the subject site. A landing strip is depicted on the subject property, approximately 200 feet south of Highway 126. This landing strip extends across the eastern half of the subject property. Southern Pacific Railroad tracks are also depicted, approximately 20 to 50 feet south of Highway 126.

Borrow Site "A" is located south of the Santa Clara River and west of Interstate 5 and is depicted as undeveloped land with several dirt trails traversing it. Borrow Site "B" is located northeast of the intersection of Chiquito Canyon Road and Highway 126 and is depicted as undeveloped land with several dirt trails traversing it.

A portion of Tentative Tract Map No. 53108 is part of the Castaic Union Oil Field. Borrow Site "A" is part of the Newhall-Portero Oil Field. Borrow Site "B" is located on the eastern end of the Del Valle Oil and Gas Field. Oil wells are depicted in the eastern and central portions of the subject site. Water wells are depicted in the eastern and western portions of the subject property.

The subject site is located in a valley formed by the Santa Clara River. Borrow Sites "A" and "B" are located in the hills along the flanks of this valley. The topography of the site and the surrounding area slopes toward the Santa Clara River or moderately on the flanks of the valley. The site generally slopes to the west-southwest at a gradient of approximately 50 feet per mile. The elevation at the site is approximately 420 feet above mean sea level (msl). The elevation ranges from 900 feet above msl at the west end of Tentative Tract Map No. 53108 to 1,200 feet above msl in Borrow Site "A."

The Santa Clara River is located adjacent to the south of River Village Tentative Tract Map No. 53108, and Castaic Creek is adjacent to the east. Several intermittent streams which drain into the Santa Clara River are located within a one-mile radius of the subject site and the two borrow sites. No other major bodies of surface water (i.e., oceans, lakes, rivers, streams, etc.) are located within a one-mile radius of the site.

---

1 USGS Map, Newhall, California Quadrangle, 1952, photo-revised 1988.

A review of the topographic map and oil and gas maps indicates that several oil or gas wells are located on the subject site, or in the site vicinity.[2] These wells were listed as "abandoned uncompleted."

GEOLOGY AND HYDROGEOLOGY

The subject site is located on the alluvial plain of the Santa Clara River and tributaries. Underlying sediments consist of alluvial and flood plain deposits of silt, sands and gravels. Sand is medium to coarse grained, and cobbles are found to increase in size with depth. The Plio-Pleistocene Saugus Formation, a thin to moderately thick bedded non-marine deposit, ranging from reddish-brown siltstones, silty sandstones to conglomerates, underlies the Quaternary alluvial sediments and outcrops in the northern and eastern portion of the subject property. The Newhall Segment of the San Gabriel Fault, which is classified as a late Quaternary fault which cuts strata of Pleistocene age, is located within 500 feet of the subject site.[3]

According to the County of Los Angeles, Department of Public Works, Hydraulic Conservation Division, which maintains information on groundwater depth from the county-owned wells, the closest well to the subject property, listed with their department, is located approximately 1,500 feet west of the confluence of the Santa Clara River and Castaic Creek. This well is identified as #6967, and was last measured on June 19, 2003. The data indicates that from the ground surface depth to groundwater surface was 24.3 feet, and that the ground surface elevation at the well head is 949.7 feet above msl. Groundwater flow direction is expected to flow to the south/southwest following topography.[4] A groundwater monitoring well located approximately 200 feet north of the subject property, associated with the Chiquito Canyon Landfill, was reported to have groundwater at approximately 32 to 36 below ground surface (bgs).

HISTORICAL REVIEW

As part of the Historical Review, BA Environmental reviewed historical aerial photographs, historical fire insurance maps, oil and gas well maps, city records, and building department records.

Historical Aerial Photographs

Historical aerial photographs of the site were reviewed for the years 1928 (earliest photograph available), 1947, 1952, 1968, 1972, 1976, 1980, 1988, 1989, 1990, 1993, 1994, 1995 and 1999.[5] Copies are included in Appendix B.

1928
The portion of the subject site (Tentative Tract Map No. 53108) appeared to be an undeveloped river channel with native vegetation, while the eastern portion appeared to

---

2 Munger Map Book of California/Alaska Oil and Gas Fields, 37th Edition, June 1993.

3 1994 Fault Activity Map of California and Adjacent Areas (1:750,000 scale), California Department of Conservation, Division of Mines and Geology.

4 County of Los Angeles Department of Public Works, Hydrologic Records, records request October 14, 2003.

5 The EDR Aerial Photograph Print Service, Inquiry No. 1108642-9, January 15, 2004 and Continental Aerial Photography, Cypress, California 1952, 1972, 1980, 1988, 1990, 1993, 1995 and 1999.

be occupied by agricultural land. Railroad tracks ran along the northern property boundary, parallel to Highway 126. Borrow Sites "A" and "B" appeared to be undeveloped land covered by native vegetation. A small valley or canyon cuts across Borrow Site "A," from east to west. Adjacent properties to the subject property include Castaic Creek to the east, the Santa Clara River Channel to the west and south, and Highway 126 to the north. Adjacent properties to Borrow Site "B" include undeveloped land covered by native vegetation to the north, east and west, and Highway 126 to the south. Adjacent properties to Borrow Site "A" include undeveloped land covered by native vegetation to the north, south, east and west.

1947

There were no significant changes in the subject property, except near the eastern property boundary. Near the eastern property boundary, four small structures and what appeared to be an oil well were observed. Borrow Site "B" was still observed to be undeveloped land; however, a dirt road was observed to traverse it. What appeared to be a concrete pad for an oil well was observed next to this road. At the end of the road was what appeared to be the location of a possible second oil well. There were no significant changes in Borrow Site "A." There were no significant changes in the properties adjacent to the subject site. There were no significant changes to the properties adjacent to Borrow Site "B," except that there appeared to be an oil field to the west. There were no significant changes to the properties adjacent to Borrow Site "A," except to the west, which was occupied by agricultural land, and to the south, which appeared to be an oil field.

1952

The subject site remained either an undeveloped river channel or agricultural land. A dirt road was observed to traverse north to south across the central portion of the subject property, in the area of the present intersection of Wolcott Way and Highway 126. In this same area, south of Highway 126, were what appeared to be a storage area and several structures. Near the eastern property boundary were what appeared to be one structure, two wells (possibly water wells), one oil well (located within a bermed containment), and three aboveground storage tanks (AST), likely wash tanks in a bermed containment. Located between the eastern property boundary and the present intersection of Wolcott Way and Highway 126 (approximately 555 feet south of Highway 126 and approximately 1,000 feet east of the intersection of Walcott Way and Highway 126) was a circular structure interpreted to be an AST. Railroad tracks were still present south of Highway 126. There appeared to be no significant changes in properties adjacent to the subject property, or the two borrow sites.

1968

There were no significant changes to the subject property, except that an airstrip was present in the central portion of the subject property. The storage area was still present in the central portion of the subject property. Two structures were observed near the eastern property boundary. These structures are believed to be related to the agricultural activities. The three ASTs and oil well observed in this area in 1952 were not present. There were no significant changes in the two borrow sites, except that a dirt road was observed to traverse west to east across Borrow Site "B." There were no significant changes in the properties adjacent to the subject site or the two borrow sites.

1972

There were no changes in the eastern or western portions of the subject property, except that the airstrip had been extended to the east. The central portion of the property was still occupied by the airstrip; however, a significant part of the central portion of the

subject property was occupied by a motorcycle park (Indian Dunes Motorcycle Park). In addition, the railroad tracks along the northern property boundary appeared to have been removed. There were no significant changes in the two borrow sites. There were no significant changes in the properties adjacent to the subject property or the two borrow sites, except that Chiquito Canyon Land Fill was located north of Highway 126.

1976, 1980, 1988, 1989 and 1990
There were no significant changes in the subject property. In 1976, there were two small structures near the airstrip. Two small structures and what was believed to be an oil well were located neat the eastern property boundary. What is believed to be four water wells were also located along the eastern property boundary. In 1980, there were four small structures near the eastern property boundary. There were no significant changes in Borrow Site "A," except that in 1989 a dirt road ending in a rectangular disturbed area (possibly an exploratory oil well) was observed in the small valley/canyon located in this borrow site. There were also no significant changes in Borrow Site "B," except that in 1976 there appeared to be an electrical transmission tower on the borrow site and a transmission line traversed from west to east across the site. There were no significant changes in the adjacent properties.

1993, 1994, 1995 and 1999
The eastern and western portions of the property show no significant changes. In 1994, the airstrip in the central portion of the subject property appears to have been removed, and the motorcycle park (Indian Dunes Motorcycle Park) appeared to have been abandoned. One small structure remains in the central portion of the property near the location of the former airstrip, and two structures are located near the eastern property boundary. By 1996, there were three small structures near the eastern property boundary, along with equipment storage. In 1993, the small valley/canyon in Borrow Site "A" was observed to have several dirt roads crossing it, as well as an area of disturbed vegetation (possible oil exploration activities). In 1994, the floor of this small valley/canyon appeared to be graded and used for agricultural purposes. There were no significant changes in Borrow Site "B." There were no significant changes in the adjacent properties.

Historical Fire Insurance Maps

Historical fire insurance maps have been primarily used by insurance underwriters to determine the risk involved in insuring individual buildings in urban areas against loss due to fire. When available, these maps can provide information regarding the historical use of a particular site and its adjacent properties. Historical fire insurance maps were not available for the subject property.[6]

Munger Map Review

A review of relevant Munger oil and gas field maps indicates that the subject site is located within Castaic Junction Oil Field on Tentative Tract Map No. 53108. Several oil wells were reported to have been drilled on the subject property or within 0.25 miles of the subject property. The approximate locations are plotted on Figure 2 and 3. No indication of oil wells was observed during the reconnaissance of the subject property or

6 EDR Sanborn® Map Report, Inquiry No. 1108642.5s, January 8, 2004.

adjacent properties.[7] Indications of two oil wells on Borrow Site "B," and possibly one on Borrow Site "A" were observed on the day of the site reconnaissance.

Historical Topographic Maps

BA Environmental reviewed the Santa Susana and Val Verde, California Topographic Quadrangle maps for the years 1903, 1916, 1941, 1943, 1947, 1952, 1969, 1988, 1991 and 1995.[8] Copies are included in Appendix C.

1903 and 1916
The subject site (Tentative Tract Map No. 53108) and Borrow Site "B" and Borrow Site "A" and surrounding areas were depicted as vacant, undeveloped land in the Santa Clara River Valley. The Southern Pacific Railroad was depicted along the northern boundary of the subject property (Tentative Tract Map No. 53108). A highway was depicted in the general vicinity of Highway 126. The Santa Clara River was depicted to the south of the subject site and Castaic Creek was depicted to the east of the subject property. The small community of Castaic was depicted to the east.

1941, 1943 and 1947
Significant changes were not observed on the subject property or adjacent properties to the north, south, east or west. In 1941, dirt trails were observed to cross the subject site. Some wooded areas are also depicted on the map. There appears to have been two oil wells located on Borrow Site "A," and two more located just north of the northern boundary of area "A." The Del Valle Oil Field was located west of Borrow Site "B," and the Newhall-Potrero Oil Field was located to the west and south of Borrow Site "A." Newhall Ranch was located near the intersection of Highway 126 and Highway 99 (Interstate Highway 5). The small community of Val Verde was visible to the north of the subject property. Chiquito Canyon Road was visible for the first time on the 1941 map. A dirt road extended from Chiquito Canyon south in the vicinity of Borrow Site "A."

1952
The subject site was still depicted as vacant land with some wooded areas. Two water wells and two small structures were depicted near the western boundary of the subject property. One oil well was depicted in the central portion of the subject property, near the current farm equipment storage area observed on the day of the site visit. Four water wells, one oil well and three oil tanks were depicted near the eastern boundary of the subject property. Significant changes were not observed on Borrow Site "A" or Borrow Site "B." Significant changes were not observed in the adjacent properties. Highway 126 was labeled "Saugus Ventura Road."

1969
Significant changes were not observed on the subject property, except that a landing strip extended across the subject property and terminated approximately 3,000 feet to the northeast. The eastern portion of the subject site is labeled as being in the Castaic Junction Oil Field. The oil tanks depicted on the 1952 topographic map were not depicted on this map. The wells and structures observed on the 1952 map were still present. Four rectangular shaped buildings were depicted near the southern boundary of the subject property on what is believed to be an adjacent property. Additional dirt trails

---

7 Munger Map Book of California/Alaska Oil and Gas Fields, 37th Edition, June 1993.

8 The EDR Historical Topographic Map Report, Inquiry No. 1063369-5, October 16, 2003.

were observed in the vicinity of Borrow Sites "A" and "B." The Del Valle Oil and Gas Field is located to the west of the subject site and the Newhall-Potero Oil Field is located to the south and west of the subject site.

1988 and 1991
Significant changes were not observed on the adjacent properties to the north, south, east or west. The present day Chiquita Canyon Landfill was labeled "gravel pit" on this map.

1995
Significant changes were not observed on the subject property, except that a small structure was depicted next to the oil well located in the central portion of the subject property. This structure appears to be in the same location as the structure associated with the equipment storage area in this same area, observed on the day of the site visit. Several dirt trails are depicted traversing the subject property, and the Southern Pacific Railroad tracks were no longer depicted. There were no significant changes in the two borrow sites or the adjacent properties. The Chiquita Canyon Landfill had been expanded between 1991 and 1995. The landing strip that was first observed in 1969 had been removed by 1995.

Building Records

The Los Angeles County Department of Public Works Building and Safety Department and Tax Assessors office were contacted regarding building permits and certificates of occupancy for the site.[9] According to the Los Angeles County Department of Public Works Building and Safety Department, no permits existed for the subject property.

Historical Summary

The review of historical documents indicates that portions of the subject site have been vacant undeveloped land or used as agricultural land from prior to 1903 until present. From prior to 1903 until prior to 1991, Southern Pacific Railroad tracks ran along the northern boundary of the subject property. Since at least 1969, the eastern portion of the subject property has been located within the Castaic Junction Oil Field. Several small structures have been located throughout the subject property from prior to 1947 through present. The configurations and locations of these structures have changed several times since 1947. Since 1947, at least two oil wells, possibly three, have been located near the eastern property boundary. No oil wells currently exist on-site. Sometime prior to 1952, three oil ASTs (located within a containment berm) were also located near the eastern property boundary. By 1968, these ASTs had been removed. A circular AST was located approximately 555 feet south of Highway 126 and approximately 1,000 feet east of the intersection of Walcott Way and Highway 126, from prior to 1952 until prior to 1968. The purpose of this AST is unknown. An oil well has been located in the central portion of the subject property, approximately 555 feet south of the intersection of Walcott Way and Highway 126, from prior to 1952 until prior to 1994. This area has also been occupied by an equipment storage area between 1952 and 1972, and between approximately 1994 to the present. An airstrip occupied the central portion of the subject property since prior to 1968 until prior to 1994 when it was removed. The Indian Dunes Motorcycle Park also occupied the central portion of the subject property from

9 County of Los Angeles Public Works Department, Building and Safety Division, and http://assessor.co.la.ca.us/DataMaps/pais.asp., October 23, 2003.

prior to 1972 until prior to 1994 when it was abandoned and subsequently removed. By 1994, the subject property was used for agricultural purposes.

Borrow Sites "A" and "B" have primarily been undeveloped since prior to 1903 until the present. Two oil wells were located near the northern boundary of Borrow Site "A" in 1941. There is no evidence of production from these wells. In 1989 and in 1993, visual evidence of possible oil exploration activities were observed on the floor of a small valley/canyon located on Borrow Site "A." No oil wells currently exist on Borrow Site "A." The floor of the small valley/canyon located in Borrow Site "A" appears to have been used for agricultural purposes from around 1994 through the present.

Some time prior to 1947, a dirt road was constructed across Borrow Site "B," and what appeared to be two oil wells were drilled on this site. No evidence of production was observed. In addition, evidence of a possible oil pipeline was noted to cross Borrow Site "B," along its southern boundary. Evidence of this possible pipeline was noted as early as 1952. Sometime prior to 1976, electrical transmission lines were noted to cross from west to east across Borrow Site "B," and a transmission tower is located on the site.

SITE RECONNAISSANCE AND IMPROVEMENTS

Between January 28, 2004 to February 4, 2004, BA Environmental performed a visual reconnaissance of the subject property located south of Henry Mayo Drive (Highway 126), north of the Santa Clara River, east of the intersection of Henry Mayo Drive (Highway 126) and Chiquito Canyon Road, and west of Castaic Creek, which is referred to as River Village, Tentative Tract Map No. 53108, Highway 126, in the unincorporated portion of Los Angeles County. Planned usage for the subject property will include residential and commercial developments, parks and a school (see Figure 4). This project also includes the two borrow sites where fill material will be derived to be placed on the subject property. Borrow Site "A" is located south of the Santa Clara River and west of Interstate 5 and consists of approximately 400 acres. Borrow Site "B" is located northeast of the intersection of Chiquito Canyon Road and Henry Mayo Drive and consists of approximately 300 acres. Mr. Russell M. Cote of BA Environmental performed the site reconnaissance, unescorted.

The subject property consists of an approximate 280-acre parcel of land that has been graded and utilized for agricultural production; numerous dirt roads traverse the subject site. Approximately four small buildings exist on the site and are used in activities related to the on-site agricultural production. The subject site is also occupied by several irrigation wells. This project also includes the two borrow sites where fill material will be derived to be placed on the subject property. Borrow Site "A" is located south of the Santa Clara River and west of Interstate 5 and consists of approximately 400 acres, and Borrow Site "B" is located northeast of the intersection of Chiquito Canyon Road and Henry Mayo Drive and consists of approximately 300 acres. The two borrow sites are primarily in their native states with some dirt roads traversing them. A portion of Borrow Site "A" appears to have been used in the past for agricultural purposes. Mr. John Frye, General Manager, Agriculture and Natural Resources for Newhall Land and Farming, stated that this area was briefly used to grow hay, and that no pesticides were used in this area. There was also some evidence of past oil exploration in this area. An electrical transmission tower is located in Borrow Site "B," as well as evidence of past oil wells. Primary vehicular access to the subject site is from private driveways to the north. Primary vehicular access to Borrow Site "A" is from a dirt road to the south of the subject

site or from a dirt road from Potrero Canyon to the south. Primary vehicular access to Borrow Site "B" is from a dirt road to the east of Chiquito Canyon Road.

The site reconnaissance section is separated into three sub-sections: Subject Property (Tentative Tract Map No. 53108), Borrow Site "A" and Borrow Site "B."

Subject Property (Tentative Tract Map No. 53108)

At the time of the site visit, the subject property was used primarily for agricultural production. Crops included what was believed to be green beans, beets, carrots and other vegetables. Some land appeared to be out of production or fallow. The far western end was occupied by undeveloped land covered by native vegetation. Concrete and asphalt debris was observed scattered throughout the fields. A large pile of asphalt and concrete debris was observed along the northern property boundary. Included in this debris were concrete pipes, an old pickup truck body, old telephone poles and other miscellaneous debris. Approximately 200 feet south-southwest of this pile is a pile of wood debris. Old trash piles and construction debris piles were observed in the western portion of the subject property and along the old railroad easement. The trash observed in these piles appeared to household trash. Old piping was observed scattered in the western portion of the subject property. Some of this piping appeared to be sections of old oil pipelines and some appeared to be transite concrete pipe.

An equipment storage area was observed approximately 50 feet south of the intersection of Walcott Way and Highway 126. This storage area was observed to contain various farm equipment. Two ASTs mounted on trailers were observed in this area. These trailers appeared to be empty. Several empty and partially full 55-gallon steel drums were observed on-site. These drums appeared to contain oil or petroleum products. Staining was observed on the soil throughout this area. One sheet metal building is located in the fenced storage area, and consists of approximately 400 square feet. This building is used to store equipment and grain. This building was formerly an aircraft hangar, which was associated with an airstrip that was formerly located on the subject site. It is likely that this area was formerly used to fuel and maintain the aircraft and may have been an area used to mix pesticides.

The eastern storage area consists of three buildings and a plastic-sheeting hothouse. The buildings are used for storage and packaging. Farm equipment was observed to be stored in this area. Several small ASTs were observed in this area, as well as agricultural chemical mixing. Several 55-gallon drums and smaller five-gallon buckets were observed. None of these containers were labeled. Some staining was observed on the dirt in this storage area.

Several ASTs containing liquid fertilizers and various other agricultural chemicals were observed in the eastern portion of the subject property. Minor staining was observed on the dirt beneath these ASTs.

One portable diesel-powered pump was observed near the eastern property boundary. Associated with this pump was a small 100-gallon AST on a trailer and an approximate 500-gallon AST sitting on a wooden pallet. The 500-gallon AST was labeled as containing diesel fuel, likely for the pump. Staining was observed on the outside of the AST, as well as on the soil beneath the AST.

Several pumps were observed associated with water wells in the western and eastern portions of the subject property. These pumps are used to supply irrigation water to the

fields under cultivation. Minor staining was observed beneath the pumps.

An old railroad easement was observed along the northern property boundary, paralleling Highway 126. The railroad tracks have been removed; however, some ballast materials still remain. Debris and trash piles were observed along this easement.

During the site visit, evidence of underground storage tanks (USTs) or wastewater clarifiers were observed on the subject site. The only hazardous materials observed on-site were agricultural chemicals (i.e., pesticides and fertilizers) and petroleum products (i.e., diesel fuel, oil and lubricants).

Four small diameter groundwater monitoring wells (piezometers) were observed on-site. According to Newhall Land personnel, these wells are utilized by Seward Engineering for groundwater elevation data used for engineering purposes.

Several pipelines were observed crossing the subject site. The pipelines were identified visually by either marker signs, or visible piping or pipeline vents. A Southern California Gas pipeline was observed running along the northern property boundary in the railroad easement, and crossing the western end of the subject property. These pipelines are believed to be 18" to 20" in diameter and likely carry natural gas. Where visible, these pipelines appeared to be coated with a tar-like material to prevent corrosion.

A Shell Oil Company petroleum pipeline was also observed to run along the northern property boundary, parallel to the old railroad easement. The size of this pipeline is unknown; however, it is likely to contain crude oil. Approximately 250 feet southeast of the intersection of Chiquito Canyon Road and Highway 126 is a fenced enclosure. This enclosure is adjacent to the Shell Oil Company pipeline and a Shell Oil pipeline vault. A sign on the gate of the enclosure indicates that the enclosure is owned by Eouilon Pipeline Company, and is the Del Valle Booster station. This is likely a booster station for an oil pipeline. Inside of the enclosure was a pump, a 100-gallon AST likely containing diesel fuel and two electrical transformers. The pump and AST were observed to be in a concrete containment.

An unidentified pipeline was observed running along the southern edge of the old railroad easement. Where exposed, the pipeline appeared to be approximately 18" to 20" in diameter and was coated with a tar-like substance to prevent corrosion. Two vents, similar to those used in oil pipelines, were observed associated with this pipeline.

Damaged piping was observed on the surface in the old railroad easement. It appeared that this pipeline had been removed. It is uncertain if this pipeline was replaced or completely removed. The pipeline appeared to be 16" to 18" in diameter. Oil staining was observed in the areas where this pipeline was exposed.

A Unocal pipeline was observed to run across the western end of the subject property. The size of this pipeline is unknown; however, the pipeline likely carried oil. Reportedly, this pipeline is currently idle, and not being used.

The Santa Clara River, an intermittent seasonal stream, is located adjacent to the south of the subject property. Castaic Creek a tributary to the Santa Clara River, is located to the east of the subject property. Storm water sheet flows across the subject property to the south into the Santa Clara River and to the east into Castaic Creek.

Borrow Site "A"

This parcel was observed to be primarily undeveloped at the time of the site reconnaissance. The site is covered with native vegetation, which consists of brush, oak trees and native plants. The floor of a small valley/canyon, which runs east to west across the borrow site, appears to have been used in the past for agricultural purposes. Mr. John Frye, General Manager, Agriculture and Natural Resources for Newhall Land and Farming, stated that this area was briefly used to grow hay, and that no pesticides were used in this area. Concrete and wood debris was observed scattered in the agricultural field on the floor of the small valley/canyon. This concrete and wood debris may be the indication of either a former structure or oil exploration activities. An abandoned road was observed running along the northern boundary of this borrow site. A flat roughly graded dirt pad was observed along this road. This is the location of what is believed to have been an exploratory oil well. At the eastern end of this small valley/canyon is a graded dirt pad with what appears to be a filled-in concrete vault. This is likely the location of a former oil well. No oil staining was observed on this graded pad. Storm water sheet flows across the subject property to the west into the unnamed tributary and to the north into the Santa Clara River.

During the site visit, no hazardous substances, or evidence of USTs, ASTs or wastewater clarifiers were observed on this site.

Borrow Site "B"

This parcel was observed to be primarily undeveloped at the time of the site reconnaissance. The site is covered with native vegetation, which consists of brush and native plants. A dirt road crosses the subject property and leads to a Southern California Edison (SCE) transmission tower. A concrete pad was observed along this dirt road. This pad had a configuration similar to that used for an oil derrick and a cable tool-drilling rig. It is believed that this was the location of a former oil exploration well. No staining was noted around the concrete pad. Approximately 500 feet up a small access road was a second flat dirt pad. Soil in this area was observed to be stained by what is believed to be crude oil. This may have been the location of a second exploratory oil well. Chiquito Canyon Road is located adjacent to the west of this parcel. Highway 126 is located adjacent to the south. Storm water flows across the subject property to the east into Chiquito Canyon and south into the Santa Clara River.

During the site visit, no hazardous substances, or evidence of USTs, ASTs or wastewater clarifiers were observed on this site.

Soil Sampling for Pesticides and Herbicides

Scope of Services

The objective of the limited soil sampling was to assess whether past use of pesticides or herbicides have impacted the shallow soils beneath the previously cultivated areas on Tentative Tract No. 53108. BA Environmental proposed to collect up to 15 composite soil samples at a depth of approximately one to two feet below ground surface (bgs).

In order to complete the limited soil sampling activities, BA Environmental performed the following tasks:

a. Collected up to 69 soil samples based upon designated use (agricultural production, grazing, etc.). The locations of the soil samples from which the composites were made are included on Figure 5;

b. Submitted 69 soil samples to a State of California, Department of Health Services (DHS)-certified laboratory to be composited. These samples were composited in the laboratory into 15 composite samples. The 15 composite samples were to be analyzed for Organochlorine Pesticides (OCP), Organophosphorous Pesticides (OPP) and Chlorinated Herbicides (CH), using Environmental Protection Agency (EPA) Method Nos. 8081, 8141 and 8151, respectively;

c. Provided all of the necessary equipment and materials to perform the required services. This equipment included soil sampling equipment.

Soil Sampling Procedures

Between January 29, 2004 and February 5, 2004, BA Environmental conducted limited soil sampling investigation using hand auger equipment. Coordination and supervision of soil sampling activities were performed by a Registered Geologist from BA Environmental.

Sixty-nine shallow soil borings were advanced to a depth of between one and two feet bgs (Figure 3).

Following retrieval of the samples, the samples were labeled with the sample number, collection date and project number, placed in a cooler chilled to approximately 4° C (40° F), and retained for laboratory analyses.

Field observations of soil samples collected from all of the borings revealed no unusual odors or staining.

Decontamination

Quality assurance/quality control (QA/QC) procedures were performed to prevent cross contamination between the samples. Only clean sampling equipment was used for this drilling project. A three-stage tap water wash was used to clean equipment between boring and sampling events. New nitrile gloves were used while obtaining the samples. The soil samples were collected in clean liners.

Sample Handling and Transport

The soil samples collected from the hand auger borings to be used for chemical analyses were placed in a cooler, chilled to approximately 4° C (40° F), and transported to Enviro Chem Inc. of Pomona, California, a State of California DHS-certified laboratory, under a strict chain-of-custody prepared at the time of sampling. The samples were composited by the laboratory.

Quality Assurance/Quality Control (QA/QC)

To increase the confidence levels in the data obtained, a QA/QC program was implemented. QA refers to management of actions designed to maintain precision, accuracy and completeness of the data developed from the project. QC refers to accepted formal procedures and activities specifically designed for the purpose of collecting data that is intended to be reliable and consistent for the site conditions.

The program includes formal procedures for all field activities, including soil sampling, decontamination, instrument calibration, documentation of activities and calculations, and peer review. Routine QC procedures were performed by the laboratory, and included daily calibration of instruments, percent surrogate recoveries and analyses of matrix spikes and matrix spike duplicates (laboratory reports). The laboratory reported the results to be within acceptable percent recoveries with no results exceeding the laboratory established control limits.

Limited Soil Sampling - Laboratory Results

Samples collected were composited at the laboratory in groups of four, except one sample which was composited from five samples. The composited samples were analyzed for Organochlorine Pesticides (OCP), Organophosphorous Pesticides (OPP) and Chlorinated Herbicides (CH), using Environmental Protection Agency (EPA) Method Nos. 8081 (OCP) , 8141 (OPP) and 8151 (CH).

OCP in Soil

Composited soil samples G1 through G17 were analyzed for OCP and the data is presented in Table 1, which is included as an attachment to this report. In summary, samples G11, G13, G14, G15 and G17 were reported to contain concentrations of alpha-chlordane ranging from 0.001 to 0.018 milligrams per kilogram (mg/kg). Samples G3, G11, and G13, G14, G15 and G17 were reported to contain concentrations of gamma-chlordane ranging from 0.001 to 0.027 mg/kg. 4,4-DDD was detected in samples G13 through G15 at a concentration of 0.001 mg/kg. Samples G11 and G13 thorough G17 were reported to contain 4,4-DDE in concentrations ranging from 0.002 to 0.034 mg/kg. 4,4-DDT was detected in samples G7 and G11 through G17 in concentrations ranging from 0.002 to 0.023 mg/kg. Dieldrin was detected in samples G6 and G14 at 0.002 and 0.003 mg/kg, respectively. Endosulfan I was detected in sample G14 at a concentration of 0.001 mg/kg. Samples G11 and G17 contained concentrations of Endosulfan II at 0.018 and 0.034 mg/kg, respectively. Endosulfan Sulfate was detected in sample G14 at a concentration of 0.005 mg/kg. Samples G9 through G17 were reported to contain Endrin at concentrations ranging from 0.001 to 0.136 mg/kg. Sample G13 was reported to contain Heptachlor Epoxide at a concentration of 0.001 mg/kg. The laboratory results are summarized in Table 1. The laboratory report is included in Appendix D.

The concentrations of OCPs detected on the subject site were compared with the Preliminary Remediation Goals (PRGs) set up by the United States Environmental Protection Agency (EPA) for various compounds and metals. This comparison revealed that none of the OCPs detected at the subject site exceeded the residential or industrial use PRGs for those compounds. Based on these results, there is a low potential for threat to human health or the environment.

OPP in Soil

Composited soil samples G1 through G17 were analyzed for OPP and the data is presented in Table 1 (see attachments). In summary, all of the samples analyzed were reported not to contain detectable concentrations of OPP. The laboratory results are summarized in Table 1. The laboratory report is included in Appendix D.

CH in Soil

Composited soil samples G1 through G17 were analyzed for CH and the data is presented in Table 1 (see attachments). In summary, all of the samples analyzed were reported not to contain detectable concentrations of CH. The laboratory results are summarized in Table 1. The laboratory report is included in Appendix D.

Pits, Ponds and Lagoons

Pits, ponds and lagoons are often associated with the disposal of solid and liquid wastes, which may include hazardous materials. According to ASTM Standard E 1527-00, pits, ponds and lagoons are "man-made or natural depressions in the ground surface that are likely to hold liquids or sludges containing hazardous substances or petroleum products." Information obtained from the assessment indicated that pits, ponds and lagoons do not currently exist on the subject site. Based on the review of historical records of the subject site, it is unlikely that pits, ponds or lagoons have existed at the site in the past.

Septic Tanks and Cesspools

Septic tanks and cesspools are often associated with the disposal of wastewater from structures that are not served by public sewer systems. Septic tanks and cesspools may be associated with hazardous materials, if such materials have been inappropriately disposed of in the past via sinks. Information obtained from the site assessment indicated that septic tanks and cesspools do not currently exist on the subject property.

Wells, Cisterns and Sumps

Four small diameter groundwater-monitoring wells (piezometers) were observed on Tentative Tract Map 53108. According to Newhall Land personnel, these wells are utilized by Seward Engineering for groundwater elevation data used for engineering purposes.

Three waster wells were observed in the western portion of the subject property. One was observed in the central portion near the intersection of Walcott Way and Highway 126. Approximately six water wells were observed along the eastern property boundary. All of these water wells are used to supply irrigation water to the agricultural crops on the subject site.

Three oil wells have been documented on the subject property. In addition, evidence of three, possibly four, oil wells has been noted in Borrow Site "A." Evidence of two oil wells has also been noted in Borrow Site "B." These oil wells are further discussed in the Historical Review section above or the Agency Contacts section below.

Polychlorinated Biphenyls (PCBs)

No equipment likely to contain PCBs was observed on the subject property or adjacent properties.

On-Site Fuel Storage Tanks

According to the State of California Water Resources Control Board (SCWRCB), underground storage tanks (USTs) and/or permits do not exist for the subject property.[10] A review of Los Angeles County Department of Public Works revealed that UST files existed for 28700 Henry Mayo Drive, a site located within the limits of the subject property. One 1,000-gallon gasoline and one 1,000-gallon diesel UST were removed in 1989 by PW Environmental, in the vicinity of the central farm equipment storage area south of Wolcott Way. This UST is further discussed in the Agency Contacts Section below.

One portable diesel powered pump was observed near the eastern property boundary. Associated with this pump was a small 100-gallon AST on a trailer and an approximate 500-gallon AST sitting on a wooden pallet. The 500-gallon AST was labeled as containing diesel fuel, likely for the pump. Staining was observed on the outside of the AST, as well as on the soil beneath the AST.

Utilities

Electric service is provided by SCE. Water service is provided by the Valencia Water Company. No refuse removal service is provided to the subject property.

Visual Asbestos Survey

BA Environmental performed a visual survey of suspect friable and non-friable asbestos-containing materials (ACMs).

- Friable materials are materials which can be crumbled, pulverized, or reduced to powder by hand pressure when dry.
- Non-friable materials are materials in which the fibers have been locked in by a bonding agent, coating, or binder, and may not release fibers during normal use and handling. Improper handling, such as grinding or sanding of non-friable ACMs, will render these materials friable.

On the day of the site reconnaissance, scattered suspect ACMs were observed. These suspects ACMs included pieces of transite pipe, construction material debris along the old railroad easement, and tar-like coating observed on metal pipe sections located in the western portion of the subject site.

10 The EDR Radius Map with GeoCheck®, Inquiry No. 1108642.4s, January 8, 2004.

Radon Gas Survey

Radon is a radioactive gas that occurs naturally in the environment, and cannot be seen, smelled or tasted. The human health effect associated with exposure to elevated levels of radon is an increased risk of developing lung cancer. The US Environmental Protection Agency (EPA) and the US Center for Disease Control are concerned about the increased risk of lung cancer developing in individuals exposed to above average levels of radon in their homes or offices. In order to address these concerns, the US EPA conducted a radon survey and presented the results for various counties in 1993.[11]

The EPA's map of Radon Zones assigns each of the 3,141 counties in the United States to one of three zones. The zone designations were determined by assessing five factors that are known to be important indicators of radon potential: indoor radon measurements, geology, aerial radioactivity surveys, soil parameters and foundation types. The subject property falls within the designation of Zone 2. Zone 2 counties have a predicted average indoor radon screening level of greater than or equal to 2.0 picocuries per liter (pCi/l) and less than or equal to 4.0 pCi/l of dry air. Based on the results of the survey, the subject site appears to fall within a radon screening level below the recommended EPA Action Level of 4.0 pCi/l. It is BA Environmental's opinion, based upon these results, that it is unlikely that radon is a concern for the subject site.

ADJACENT LAND USE

During the reconnaissance of the surrounding area within a 0.25-mile radius, BA Environmental observed that the subject site is located in an area undeveloped land and agricultural land, with oil fields to the northwest and south.

Adjacent land use to the subject site (Tentative Tract Map No. 53108) include agricultural land and undeveloped land to the west, Castaic Creek to the east, the Santa Clara River to the south, and Highway 126 followed by Chiquita Canyon Landfill and vacant undeveloped land to the north. Adjacent properties to Borrow Site "A" include agricultural land to the west, and undeveloped land to the north, south and east. South of this borrow site is an oil field. Adjacent properties to Borrow Site "B" include undeveloped land to the north, Chiquito Canyon Road and an oilfield to the west, undeveloped land followed by the Chiquito Canyon Landfill to the east, and Highway 126 followed by the subject site to the south.

Wetlands and Flood Plains

During the site reconnaissance and drive-by survey of the surrounding area, BA Environmental did not observe indications that the subject property is located within known wetlands. According to the Environmental Data Resources, Inc. (EDR) report regarding the subject site and site vicinity, no wetlands per the 1994 National Wetlands Inventory are located within a one-mile radius of the subject site. According to the EDR report, portions of the subject property are located within a 100-year flood zone per the Federal Emergency Management Agency (FEMA).[12]

---

11 EPA Map of Radon Zones, 1993.

12 The EDR Radius Map with GeoCheck®, Inquiry No. 1108642.4s, January 8, 2004.

AGENCY CONTACTS

California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR)

BA Environmental visited the office of the DOGGR regarding oil well abandonment records for the site vicinity. The review of well abandonment records revealed that three oil wells were drilled on the subject property and four additional wells were drilled within 500 feet of the subject property. Well records obtained from the DOGGR with the exception of 'Newhall' 1 are included as Appendix E.

Table 2
Oil Wells Located in Site Vicinity
Tentative Tract Map No. 53108
Newhall Ranch, California

Section	Township	Range	Operator	Well No.	Year Abandoned
15	4 North	17 West	Texaco E&P Inc.	'Newhall' 1	Unknown
14	4 North	17 West	Exxon Mobil Corp	'NHL&F' 50	1993
14	4 North	17 West	Exxon Mobil Corp	'NHL&F' 2	1993
14	4 North	17 West	Exxon Mobil Corp	'NHL&F' 9	1993
14	4 North	17 West	Exxon Mobil Corp	'NHL&F' 77	1993
23	4 North	17 West	Exxon Mobil Corp	'NHL&F' 54	1956
23	4 North	17 West	Exxon Mobil Corp	'NHL&F' 45	1955
23	4 North	17 West	Exxon Mobil Corp	'NHL&F' 1	1994

DOGGR also supplied requirements for well abandonment procedures. A copy of the DOGGR oil well abandonment procedures is included in Appendix F. BA Environmental spoke with Mr. Steve Mulqueen regarding well abandonment. According to Mr. Mulqueen, the abandoned oil wells need to be located, and plotted on the site plan for the project and submitted in triplicate to the DOGGR. Locating the wells is accomplished by hiring a surveyor to locate each well using "location record" for each well. After this is accomplished, the well needs to be excavated. Following excavation, the well needs to tested for gas leakage and inspected for fluid leakage by DOGGR personnel. If the well leaks or is not abandoned properly, the well may need to be reabandoned. If fill soil is to be placed over the oil well, the casing may need to be extended to within five feet of finished grade. If a structure is proposed within 10 feet of an abandoned/reabandoned well, the site plans should include an approved well-vent system designed to vent natural gases to the atmosphere. If a structure is within 25 feet of an abandoned/reabandoned well, and the permitting agency is Los Angeles County, then an approval letter would be required.

Any oil wells located within the borrow sites, as well as any unidentified oil wells encountered on the subject site should be reabandoned as noted above.

Los Angeles County Department of Public Works (LACDPW)

BA Environmental visited the office of the LACDPW regarding files for USTs and hazardous materials storage and usage. According to the LACDPW, files existed for several properties owned and operated by Newhall Land. These files included 30003 Walnut Orchard Road, 31820 Henry Mayo Drive, 28700 Henry Mayo Drive, 27230 Henry Mayo Drive. Only the 28700 Henry Mayo Drive listing appears to be within the limits of the subject property. One 1,000-gallon gasoline and one 1,000-gallon diesel UST were removed in 1989 by PW Environmental in the vicinity of the central farm equipment storage area south of Wolcott Way. One sample collected beneath the gasoline UST was reported to contain 96 milligrams per kilogram (mg/kg) of Total Petroleum Hydrocarbons as gasoline (TPH-g). LACDPW requested a description of sampling methods and manifests for the UST removal. PW Environmental submitted these documents in August and September of 1989. No closure letter was present in the file.

GOVERNMENT RECORDS REVIEW

Regulatory compliance is a primary element of an ESA. Failure to comply with governmental regulations can result in fines, and can expose businesses or individuals to liabilities from which the law would otherwise shield them. The presence of hazardous wastes or hazardous materials, on-site or at neighboring sites, may present certain liabilities. Environmental Data Resources, Inc. (EDR) provided the most recent information regarding the hazardous materials sites identified below.[13] Sites of potential environmental concern are described at the end of this section in Table 3. It should be noted that the search radii for each database has been extended beyond ASTM requirements. The referenced search radii below are minimum distances. The actual search distances are much greater.

1. The Federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), also known as the Superfund Act, protects the victims and the environment in the event of a hazardous materials spill. This act primarily addresses cleanup of designated Superfund hazardous waste sites (HWS). To achieve its stated purpose, CERCLA established a hazardous Substances Trust Fund, the Emergency Response Trust Fund, and the Post-Closure Liability Trust Fund. These funds compensate the victims and provide money necessary for the decontamination of the environment. The EPA compiles a list of known contaminated sites that are under consideration for the Superfund List. This list is known as the CERCLIS database. According to the September 2003 version of this document, **no** CERCLIS site is located within a 0.5-mile radius of the subject property.

   The US EPA maintains the National Priority List (NPL) under CERCLA 42 U.S.C. Section 9601 (1985). Once a site has been designated on the CERCLIS, the EPA ranks it to determine the potential risk to human health and the environment. Only those CERCLIS sites which present the greatest risk are added to the NPL, which qualifies the sites to receive CERCLA remedial funding. According to the October 2003 version of this document, **no** NPL site is located within a 1.0-mile radius of the subject property.

---

13 The EDR Radius Map with GeoCheck®, Inquiry No. 1108642.4s, January 8, 2004.

2. The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal, in addition to enforcing penalties against violators. The RCRA Facilities database is a compilation by the EPA of facilities that generate, store, transport, treat, or dispose of hazardous waste.

   According to the September 2003 listing of hazardous waste treatment, storage and disposal facilities (TSDs), **no** TSD facility is located within a 0.5-mile radius of the subject site.

   The Resource Conservation and Recovery Information System - TSDs CORRACTS report contains information pertaining to TSDs which have conducted, or are currently conducting, a corrective action as regulated under RCRA.

   According to the September 2003 version of the CORRACTS document, **no** CORRACTS facility is located within a 1.0-mile radius of the subject property.

   According to the September 2003 listing of hazardous waste generators, **three** large quantity generator (LQG) facilities and **four** small quantity generator (SQG) facilities are located within a 0.5-mile radius of the subject property.

3. The California Environmental Protection Agency (Cal-EPA) maintains the California Facility Inventory Database (Ca.-FID). The Ca.-FID contains an historical listing of active and inactive UST locations from the State Water Resources Control Board. According to the October 1994 version of this database, the subject property **is not listed** on the Ca.-FID database.

4. The California Department of Toxic Substance Control's (DTSC) Annual Work Plan (AWP, formerly BEP), also known as Cal-Sites, is a listing of known hazardous waste sites. According to the November 2003 version of this document, **no** AWP sites are located within a 1.0-mile radius of the subject site.

   The DTSC maintains a database (known as the Cal-Sites ASPIS list) that includes potential or confirmed hazardous substance release properties. According to the November 2003 version of this database, **no** ASPIS site is located within a 1.0-mile radius of the subject property.

   The DTSC maintains the California Hazardous Materials Incident Report System (known as CHMIRS), which contains information on reported hazardous material incidents (accidental releases or spills). According to the December 2002 version of this database, **eight** CHMIRS sites are located within a 1.0-mile radius of the subject property.

   The DTSC developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds, known as the Bond Expenditure Plan (BEP). This list is not updated. According to the January 1989 version of this database, **no** BEP site is located within a 1.0-mile radius of the subject property.

5. The Emergency Response Notification System (ERNS) is a national database used to collect information on reported releases of oil and hazardous substances. The database contains information from spill reports made to federal authorities,

including the EPA, the US Coast Guard, the National Response Center, and the Department of Transportation.

According to the December 2002 version of this document, there have been **no** reported releases of hazardous substances at the subject property.

6. The State of California State Water Resources Control Board (SWRCB) maintains the California Leaking Underground Storage Tank (LUST) list. According to the April 2003 version of this document, **five** LUST sites are listed as being within a 0.5-mile radius of the subject property.

7. The SWRCB maintains an inventory (CA UST) of registered USTs. According to the April 2003 version of this document, **three** UST sites are listed as being within a 0.5-mile radius of the subject property.

8. The SWRCB maintains the Hazardous Substance Storage Container Database which is a listing of Historic UST (Hist UST) sites. According to the October 1990 version of this database, the subject site **is not listed** as a Hist UST.

9. The SWRCB maintains an inventory (AST) of registered Above-ground Petroleum Storage Tank facilities. According to the July 2003 version of this database, **no** ASTs have been identified for the subject property.

10. The SWRCB maintains the Spills, Leaks, Investigations and Clean-up (SLIC) records. According to the July 2003 version of this database, **two** SLIC sites are located within a 0.5-mile radius of the subject property.

11. The California Governor's Office of Planning and Research annually publishes a listing of potential and confirmed HWS throughout the State of California under Government Code Section 65962.5. This list is also known as the Cortese List. According to the April 2001 version of this list, **nine** Cortese sites are located within a 1.0-mile radius of the subject site.

12. The California Integrated Waste Management Board maintains a list of permitted solid waste landfills (SWF/LF), incinerators and transfer stations. According to the November 2003 version of this database, **two** SWF/LF sites are located within a 0.5-mile radius of the subject property.

13. BA Environmental reviewed the list of "orphan" sites, which have inadequate address information and are therefore unplotted. **Nineteen (19)** "orphan" sites are listed. The "orphan" sites appear to be located at a distance greater than 0.5 miles from the subject property with the exception of the listing for Highway 126 Bridge, which is located adjacent to the east. This site is a construction site and not likely to cause an environmental impact to the subject property. Based on the distance of the remaining "orphan" sites from the subject property, there is a low potential for environmental impact to the subject property.

Table 3
GOVERNMENT-LISTED DATABASES
IDENTIFIED SITES OF ENVIRONMENTAL CONCERN
Tentative Tract Map No. 53108, Highway 126
Newhall Ranch, California

Site of Concern And Address	Distance and Direction from Subject Property	Databases	Regulatory Status	Potential Environmental Impact
Chiquita Canyon Landfill 29201 Henry Mayo Dr	500 Feet North (cross-gradient)	HMS	No Violations	Low
Laidlaw Waste Systems Inc 29201 Henry Mayo Dr	500 Feet North (cross-gradient)	HMS	No Violations	Low
Universal By-Products-Valencia 29201 Henry Mayo Dr	500 Feet North (cross-gradient)	WMUDS SWAT	No Violations	Low
Chiquita Canyon Landfill Inc 29201 Henry Mayo Dr	500 Feet North (cross-gradient)	HAZNET SWF/LF	No Violations	Low
Laidlaw Waste Systems 29201 Henry Mayo Dr	500 Feet North (cross-gradient)	CA Fid UST	No Violations	Low
Chiquita Canyon Landfill 29201 Henry Mayo Dr	500 Feet North (cross-gradient)	CA WDS EMI HAZNET SWF/LF	No Violations	Low
Chiquita Canyon Landfill 29201 Henry Mayo Dr	500 Feet North (cross-gradient)	WMUDS SWAT	No Violations	Low
Laidlaw Waste Systems 29201 Henry Mayo Dr	500 Feet North (cross-gradient)	UST	No Violations	Low
Chiquita Canyon Sanitary Landfill 29201 Henry Mayo Dr	500 Feet North (cross-gradient)	SQG FINDS	No Violations	Low
27900 Chiquito Canyon	1,000 Feet Northwest (down-gradient)	CHMIRS	Release of Petroleum February 1989	Low

Site of Concern And Address	Distance and Direction from Subject Property	Databases	Regulatory Status	Potential Environmental Impact
Newhall Land & Farming 3003 Walnut Orchard Rd	500 Feet Northwest (down-gradient)	LUST CORTESE	Soil Only Release Case Closed	Low
Travel Village 27946 Henry Mayo Drive	2,000 Feet East (cross-gradient)	Hist UST	Not on LUST list	Low
TA Manufacturing 28605 W. Franklin	2000 Feet Northeast (up-gradient)	LQG FINDS HAZNET	No Violations	Low

The subject property is not listed on any of the searched databases. The closest off-site facility is located to the north across Henry Mayo Drive (Highway 126). This facility is located in an assumed cross-gradient location relative to the regional groundwater flow direction. No impact from these facilities is likely. Based on the status and distances of the remaining facilities, there is a low potential for environmental impact due to off-site sources.

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

The subject property consists of an approximate 280-acre parcel of land that has been graded and utilized for agricultural production; numerous dirt roads traverse the subject site. Approximately four small buildings exist on the site and are used in activities related to the on-site agricultural production. The subject site is also occupied by several irrigation wells. This project also includes the two borrow sites where fill material will be derived to be placed on the subject property. Borrow Site "A" is approximately 400 acres and Borrow Site "B" is approximately 300 acres. The two borrow sites are primarily in their native states with some dirt roads traversing them. A portion of Borrow Site "A" appears to have been used in the past for agricultural purposes. Mr. John Frye, General Manager, Agriculture and Natural Resources for Newhall Land and Farming, stated that this area was briefly used to grow hay, and that no pesticides were used in this area. There was also some evidence of past oil exploration in this area. An electrical transmission tower is located in Borrow Site "B," as well as evidence of past oil wells. Primary vehicular access to the subject site is from private driveways to the north. Primary vehicular access to Borrow Site "A" is from a dirt road to the south of the subject site or from a dirt road from Potrero Canyon to the south. Primary vehicular access to Borrow Site "B" is from a dirt road to the east of Chiquito Canyon Road.

The review of historical documents indicates that portions of the subject site have been vacant undeveloped land or used as agricultural land from prior to 1903 until the present. From prior to 1903 until prior to 1991, Southern Pacific Railroad tracks ran along the northern boundary of the subject property. Since at least 1969, the eastern portion of the subject property has been located within the Castaic Junction Oil Field. Several small structures have been located throughout the subject property from prior to 1947 through the present. The configurations and locations of these structures have changed several times since 1947. Since 1947, at least two oil wells, possibly three, have been located near the eastern property boundary. No oil wells currently exist on-site. Sometime prior to 1952, three oil ASTs (located within a containment berm) were also located near the

eastern property boundary. By 1968, these ASTs had been removed. A circular AST was located approximately 555 feet south of Highway 126 and approximately 1,000 feet east of the intersection of Walcott Way and Highway 126, from prior to 1952 until prior to 1968. The purpose of this AST is unknown. An oil well has been located in the central portion of the subject property, approximately 555 feet south of the intersection of Walcott Way and Highway 126 from prior to 1952 until prior to 1994. This area has also been occupied by an equipment storage area between 1952 and 1972, and between approximately 1994 to the present. An airstrip occupied the central portion of the subject property since prior to 1968 until prior to 1994, when it was removed. The Indian Dunes Motorcycle Park also occupied the central portion of the subject property from prior to 1972 until prior to 1994, when it was abandoned and subsequently removed. By 1994, the subject property was used for agricultural purposes.

BA Environmental performed a site reconnaissance of the subject property. The site reconnaissance addressed three areas: Subject Property (Tentative Tract Map No. 53108), Borrow Site "A" and Borrow Site "B."

Subject Property (Tentative Tract Map No. 53108)

At the time of the site visit, the subject property was used primarily for agricultural production. Crops included what was believed to be green beans, beets, carrots and other vegetables. Some land appeared to be out of production or fallow. The far western end was occupied by undeveloped land covered by native vegetation. Concrete and asphalt debris was observed scattered throughout the fields. A large pile of asphalt and concrete debris was observed along the northern property boundary. Included in this debris were concrete pipes, an old pickup truck body, old telephone poles and other miscellaneous debris. Approximately 200 feet south-southwest of this pile was a pile of wood debris. Old trash piles and construction debris piles were observed in the western portion of the subject property and along the old railroad easement. The trash observed in these piles appeared to household trash. Old piping was observed scattered in the western portion of the subject property. Some of this piping appeared to be sections of old oil pipelines and some appeared to be transite concrete pipe.

An equipment storage area was observed approximately 50 feet south of the intersection of Walcott Way and Highway 126. This storage area was observed to contain various farm equipment. Two ASTs mounted on trailers were observed in this area. These trailers appeared to be empty. Several empty and partially full 55-gallon steel drums were observed on-site. These drums appeared to contain oil or petroleum products. Staining was observed on the soil throughout this area. One sheet metal building is located in the fenced storage area, and consists of approximately 400 square feet. This building is used to store equipment and grain. This building was formerly an aircraft hangar, which was associated with an airstrip that was formerly located on the subject site. It is likely that this area was formerly used to fuel and maintain the aircraft and may have been an area used to mix pesticides.

The eastern storage area consists of three buildings and a plastic-sheeting hothouse. The buildings are used for storage and packaging. Farm equipment was observed to be stored in this area. Several small ASTs were observed in this area, as well as agricultural chemical mixing. Several 55-gallon drums and smaller five-gallon buckets were observed. None of these containers were labeled. Some staining was observed on the dirt in this storage area.

Several ASTs containing liquid fertilizers and various other agricultural chemicals were

observed in the eastern portion of the subject property. Minor staining was observed on the dirt beneath these ASTs.

One portable diesel-powered pump was observed near the eastern property boundary. Associated with this pump was a small 100-gallon AST on a trailer and an approximate 500-gallon AST sitting on a wooden pallet. The 500-gallon AST was labeled as containing diesel fuel, likely for the pump. Staining was observed on the outside of the AST, as well as on the soil beneath the AST.

An old railroad easement was observed along the northern property boundary, paralleling Highway 126. The railroad tracks have been removed; however, some ballast materials still remain. Debris and trash piles were observed along this easement.

During the site visit, evidence of underground storage tanks (USTs) or wastewater clarifiers was observed on the subject site. The only hazardous materials observed on-site were agricultural chemicals (i.e., pesticides and fertilizers) and petroleum products (i.e., diesel fuel, oil and lubricants).

Four small diameter groundwater monitoring wells (piezometers) were observed on-site. According to Newhall Land personnel, these wells are utilized by Seward Engineering for groundwater elevation data used for engineering purposes.

Several pipelines were observed crossing the subject site. The pipelines were identified visually by either marker signs, or visible piping or pipeline vents. A Southern California Gas pipeline was observed running along the northern property boundary in the railroad easement, and crossing the western end of the subject property. These pipelines are believed to be 18" to 20" in diameter and likely carry natural gas. Where visible, these pipelines appeared to be coated with a tar-like material to prevent corrosion.

A Shell Oil Company petroleum pipeline was also observed to run along the northern property boundary, parallel to the old railroad easement. The size of this pipeline is unknown; however, it is likely to contain crude oil. Approximately 250 feet southeast of the intersection of Chiquito Canyon Road and Highway 126 is a fenced enclosure. This enclosure is adjacent to the Shell Oil Company pipeline and a Shell Oil pipeline vault. A sign on the gate of the enclosure indicates that the enclosure is owned by Eouilon Pipeline Company, and is the Del Valle Booster Station. This is likely a booster station for an oil pipeline. Inside of the enclosure was a pump, a 100-gallon AST likely containing diesel fuel and two electrical transformers. The pump and AST were observed to be in a concrete containment.

An unidentified pipeline was observed running along the southern edge of the old railroad easement. Where exposed, the pipeline appeared to be approximately 18" to 20" in diameter and was coated with a tar-like substance to prevent corrosion. Two vents, similar to those used in oil pipelines, were observed associated with this pipeline.

Damaged piping was observed on the surface in the old railroad easement. It appeared that this pipeline had been removed. It is uncertain if this pipeline was replaced or completely removed. The pipeline appeared to be 16" to 18" in diameter. Oil staining was observed in the areas where this pipeline was exposed.

A Unocal pipeline was observed to run across the western end of the subject property. The size of this pipeline is unknown; however, the pipeline likely carried oil. Reportedly, this pipeline is currently idle, and not being used.

Borrow Site "A"

This parcel was observed to be primarily undeveloped at the time of the site reconnaissance. The site is covered with native vegetation, which consists of brush, oak trees and native plants. The floor of a small valley/canyon, which runs east to west across the borrow site, appears to have been used in the past for agricultural purposes. Mr. John Frye, General Manager, Agriculture and Natural Resources for Newhall Land and Farming, stated that this area was briefly used to grow hay, and that no pesticides were used in this area. Concrete and wood debris were observed scattered in the agricultural field on the floor of the small valley/canyon. This concrete and wood debris may be the indications of either a former structure or oil exploration activities. An abandoned road was observed running along the northern boundary of this borrow site. A flat, roughly graded dirt pad was observed along this road. This is the location of what is believed to have been an exploratory oil well. At the eastern end of this small valley/canyon is a graded dirt pad with what appears to be a filled-in concrete vault. This is likely the location of a former oil well. No oil staining was observed on this graded pad.

During the site visit, no hazardous substances, or evidence of USTs, ASTs or wastewater clarifiers were observed on this site.

Borrow Site "B"

This parcel was observed to be primarily undeveloped at the time of the site reconnaissance. The site is covered with native vegetation, which consists of brush and native plants. A dirt road crosses the subject property and leads to a Southern California Edison (SCE) transmission tower. Along this dirt road, a concrete pad was observed. This pad had a configuration similar to that used for an oil derrick and a cable tool-drilling rig. It is believed that this was the location of a former oil exploration well. No staining was noted around the concrete pad. Approximately 500 feet up a small access road was a second flat dirt pad. Soil in this area was observed to be stained by what is believed to be crude oil. This may have been the location of a second exploratory oil well.

During the site visit, no hazardous substances, or evidence of USTs, ASTs or wastewater clarifiers were observed on this site.

Four small diameter groundwater-monitoring wells (piezometers) were observed on Tentative Tract Map 53108. Reportedly, these wells are utilized for groundwater elevation data used for engineering purposes.

Three water wells were observed in the western portion of the subject property. One was observed in the central portion near the intersection of Walcott Way and Highway 126. Approximately six water wells were observed along the eastern property boundary. All of these water wells are used to supply irrigation water to the agricultural crops on the subject site.

Three oil wells have been documented on the subject property. In addition, evidence of three possibly four oil wells has been noted in Borrow Site "A." Evidence of two oil wells has also been noted in Borrow Site "B."

BA Environmental completed limited soil sampling at the above-referenced site to assess whether past use of pesticides or herbicides has impacted the shallow soils beneath the previously cultivated areas on Tentative Tract No. 53108.

Sixty-nine shallow hand auger borings were advanced to depths of between one and two feet below ground surface (bgs).

Field observations of soil samples collected from all of the borings revealed no unusual odors or discoloration. Groundwater was not encountered in any of the shallow borings.

Samples collected were composited at the laboratory in groups of four, except one sample which was composited from five samples. The composited samples were analyzed for Organochlorine Pesticides (OCP), Organophosphorous Pesticides (OPP) and Chlorinated Herbicides (CH) using Environmental Protection Agency (EPA) Method Nos. 8081 (OCP) , 8141 (OPP) and 8151 (CH).

All of the soil samples analyzed were reported not to contain detectable concentrations of OPP or CH.

Several OCPs were detected in the soil samples analyzed. Soil samples G11, G13, G14, G15 and G17 were reported to contain concentrations of alpha-chlordane ranging from 0.001 to 0.018 milligrams per kilogram (mg/kg). Samples G3, G11, and G13, G14, G15 and G17 were reported to contain concentrations of gamma-chlordane ranging from 0.001 to 0.027 mg/kg. 4,4-DDD was detected in samples G13 through G15 at a concentration of 0.001 mg/kg. Samples G11 and G13 thorough G17 were reported to contain 4,4-DDE in concentrations ranging from 0.002 to 0.034 mg/kg. 4,4-DDT was detected in samples G7 and G11 through G17 in concentrations ranging from 0.002 to 0.023 mg/kg. Dieldrin was detected in samples G6 and G14 at 0.002 and 0.003 mg/kg, respectively. Endosulfan I was detected in sample G14 at a concentration of 0.001 mg/kg. Samples G11 and G17 contained concentrations of Endosulfan II at 0.018 and 0.034 mg/kg, respectively. Endosulfan Sulfate was detected in sample G14 at a concentration of 0.005 mg/kg. Samples G9 through G17 were reported to contain Endrin at concentrations ranging from 0.001 to 0.136 mg/kg. Sample G13 was reported to contain Heptachlor Epoxide at a concentration of 0.001 mg/kg.

The concentrations of OCPs detected on the subject site were compared with the Preliminary Remediation Goals (PRGs) set up by the United States Environmental Protection Agency (EPA) for various compounds and metals. This comparison revealed that none of the OCPs detected at the subject site exceeded the residential or industrial use PRGs for those compounds.

BA Environmental performed a review of available government database records. The subject property is not listed on any of the searched databases. The closest off-site facility is located to the north across Henry Mayo Drive (Highway 126). This facility is located in an assumed cross-gradient location relative to the regional groundwater flow direction. No impact from these facilities is likely. Based on the status and distances of the remaining facilities, there is a low potential for environmental impact due to off-site sources.

BA Environmental has performed a Phase I ESA, in conformance with the scope and limitations of ASTM Practice E 1527-00, of the vacant parcel of land, which is located south of the intersection of Henry Mayo Drive (Highway 126), north of the Santa Clara River, east of the intersection of Henry Mayo Drive (Highway 126) and Chiquito Canyon

Road, and west of Castaic Creek, which is referred to as River Village, Tentative Tract Map No. 53108, Highway 126, and the two borrow sites, in Newhall Ranch, California. Any exceptions to, or deletions from, this practice are described in the Introduction section of this report.

This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property, except the following:

- Up to three oil wells and associated production area may exist on the subject property, and several on Borrow Sites "A" and "B";
- Several ASTs, likely associated with oil production, existed on-site in the 1950s;
- Several pipelines cross the subject property, and one pipeline crosses Borrow Site "B";
- Scattered suspect ACM debris was observed in the central and western portions of the subject property;
- Staining was observed beneath what appeared to be an abandoned pipeline along the old railroad easement, and near what was believed to be a former oil well on Borrow Site "B." In addition, staining was observed beneath a diesel AST associated with a portable water pump located in the eastern portion of the subject property; and
- Two equipment storage areas were observed on the subject site, one located in the eastern portion of the subject property and one in the central portion. The storage area in the central portion was associated with a former airstrip. Agricultural chemical storage and mixing was observed or may have taken place at these areas in the past. Soil staining was observed in both areas.

BA Environmental recommends the following:

- If disturbed, or if located within an area of redevelopment, all former oil wells located on the subject property or on either borrow site should be reabandoned according to all applicable local and state regulations;
- If the pipelines on the subject site and Borrow Site "B" are not to be used in the future, they should be abandoned and soils beneath them assessed for petroleum hydrocarbon leakage. If the pipelines are planned to remain in use, the pipelines should be assessed for possible hydrocarbon leakage;
- Properly dispose of scattered suspect ACMs; and
- The areas of former ASTs, current agricultural storage areas and current soil staining observed on the subject site or Borrow Site "B" should be assessed for potential impact to the subject site.

Although not a recognized environmental condition, it is recommended that all groundwater monitoring wells or production water wells be abandoned according to applicable local and state regulations, prior to redevelopment.

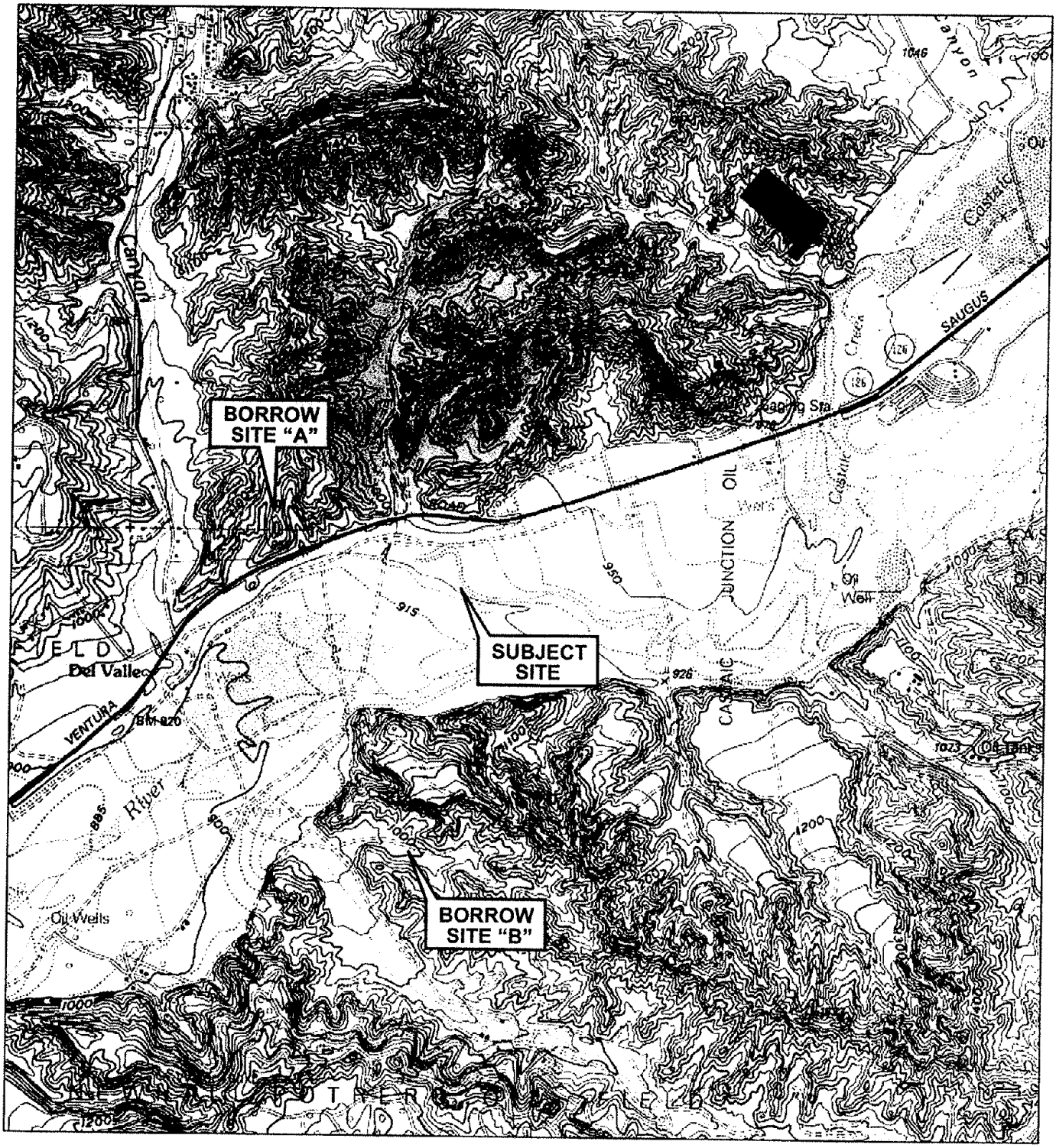
REPORT AUTHORS

BA Environmental
528 State Street
Glendale, California 91203

Prepared by: _____
Russell M. Cote, M. Sc., R.G. No. 7139
Manager, Environmental Services

Reviewed by: _____
Andy Holmberg
President

FIGURES



NORTH

Reference: USGS Val Verde Quadrangle, California
7.5 Minute Series

SITE VICINITY
SCALE - 1:24,000

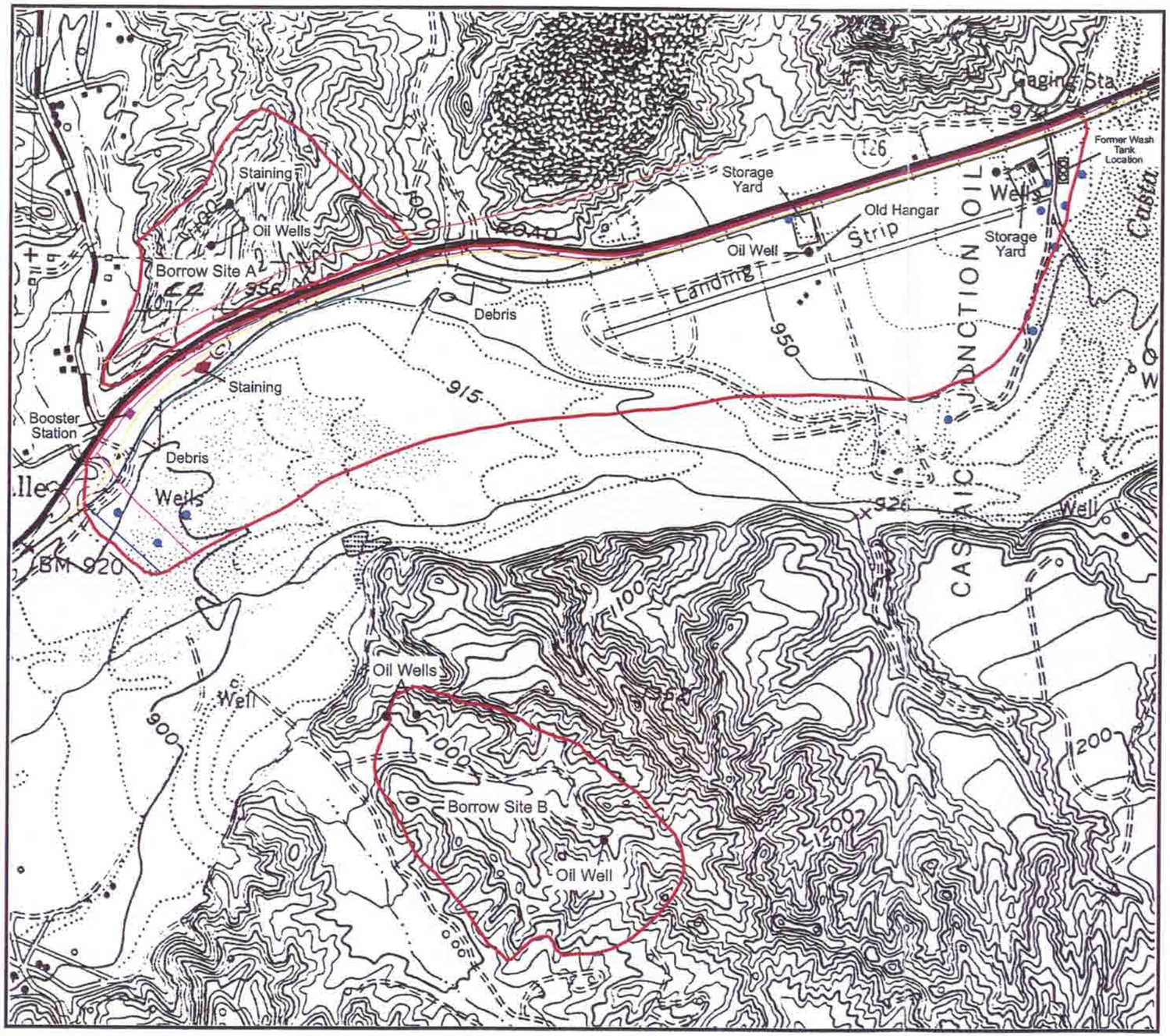
BA ENVIRONMENTAL

PHASE I ENVIRONMENTAL SITE ASSESSMENT

PROJECT: River Village
Tentative Tract Map No. 53108, Highway 126
Newhall Ranch, California

PROJECT NO.
104012

FIGURE
1



LEGEND

= Limits of Subject Property

= Southern California Gas Pipeline

= Unocal Pipeline

= Shell Gas Pipeline

= Mobil Oil Pipeline

= Unidentified Pipeline

= Exposed Abandoned Pipeline

= Water Well

= Former Oil Well

BA ENVIRONMENTAL

NORTH

0 505 1010

Approximate Scale, feet

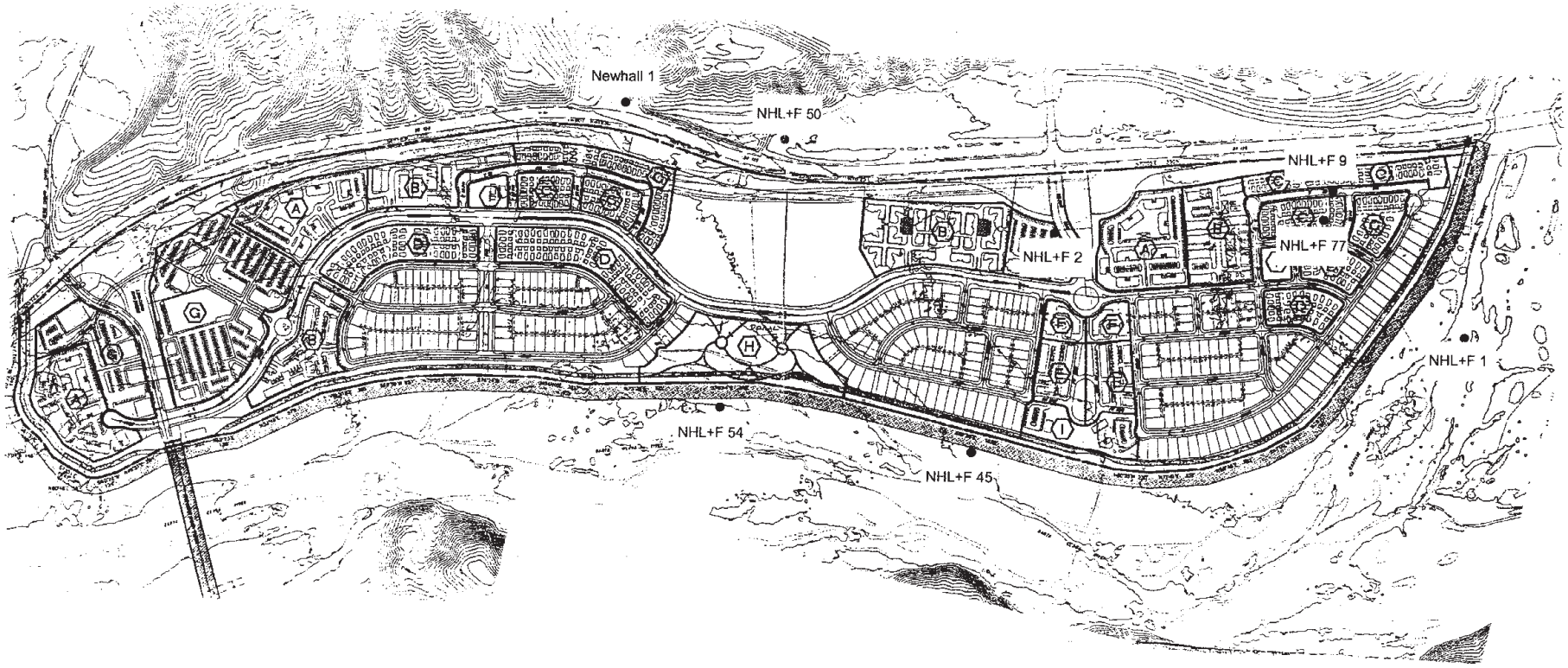
Site Plan

PHASE I ENVIRONMENTAL SITE ASSESSMENT

PROJECT: **River Village**
Tentative Tract Map No. 53108, Highway 126
Newhall Ranch, California

PROJECT NO. **104012**

FIGURE **2**



Legend

● = Oil well location

NHL+F = Newhall Land and Farming

BA ENVIRONMENTAL

NORTH

0 335 670

Approximate Scale, feet

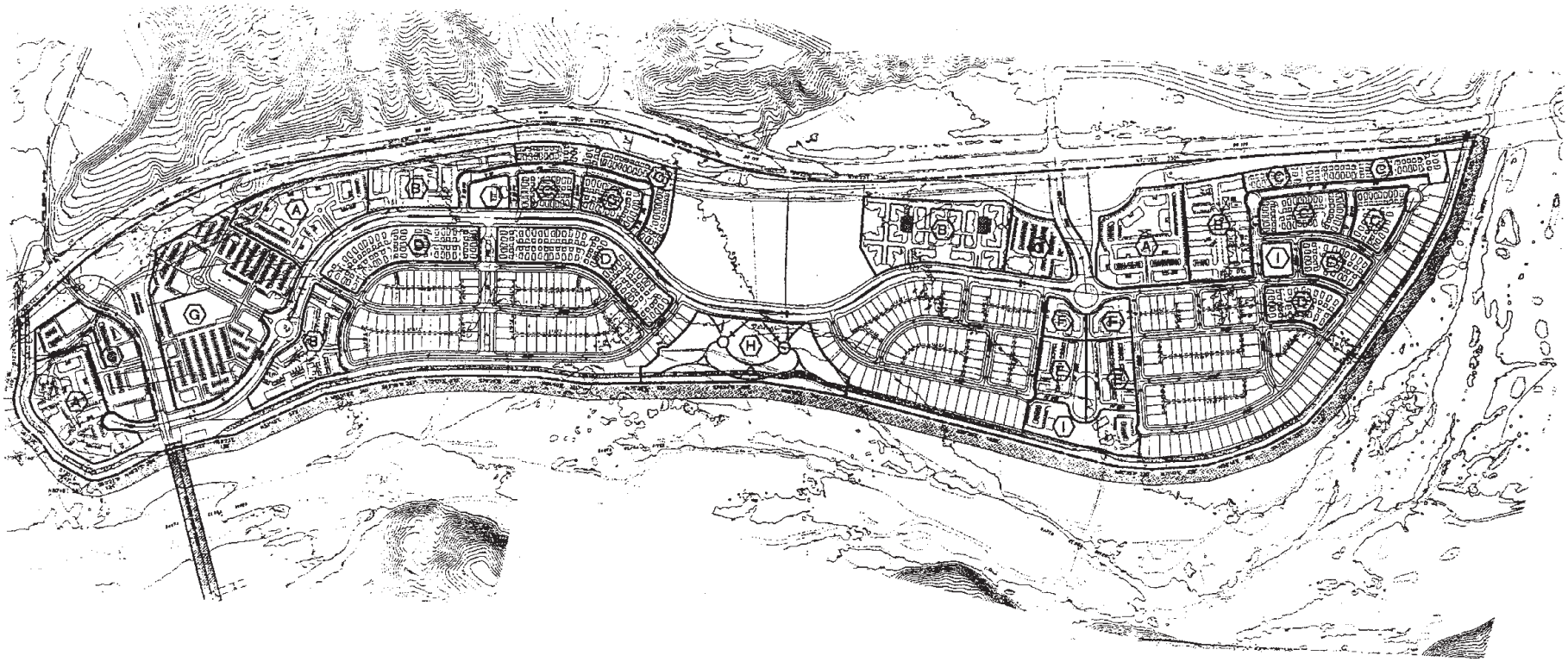
Site Plan

PHASE I ENVIRONMENTAL SITE ASSESSMENT
Oil Well Locations

PROJECT: **River Village**
Tentative Tract Map No. 53108, Highway 126
Newhall Ranch, California

PROJECT NO. **104012**

FIGURE **3**



BA ENVIRONMENTAL

NORTH

0 335 670

Approximate Scale, feet

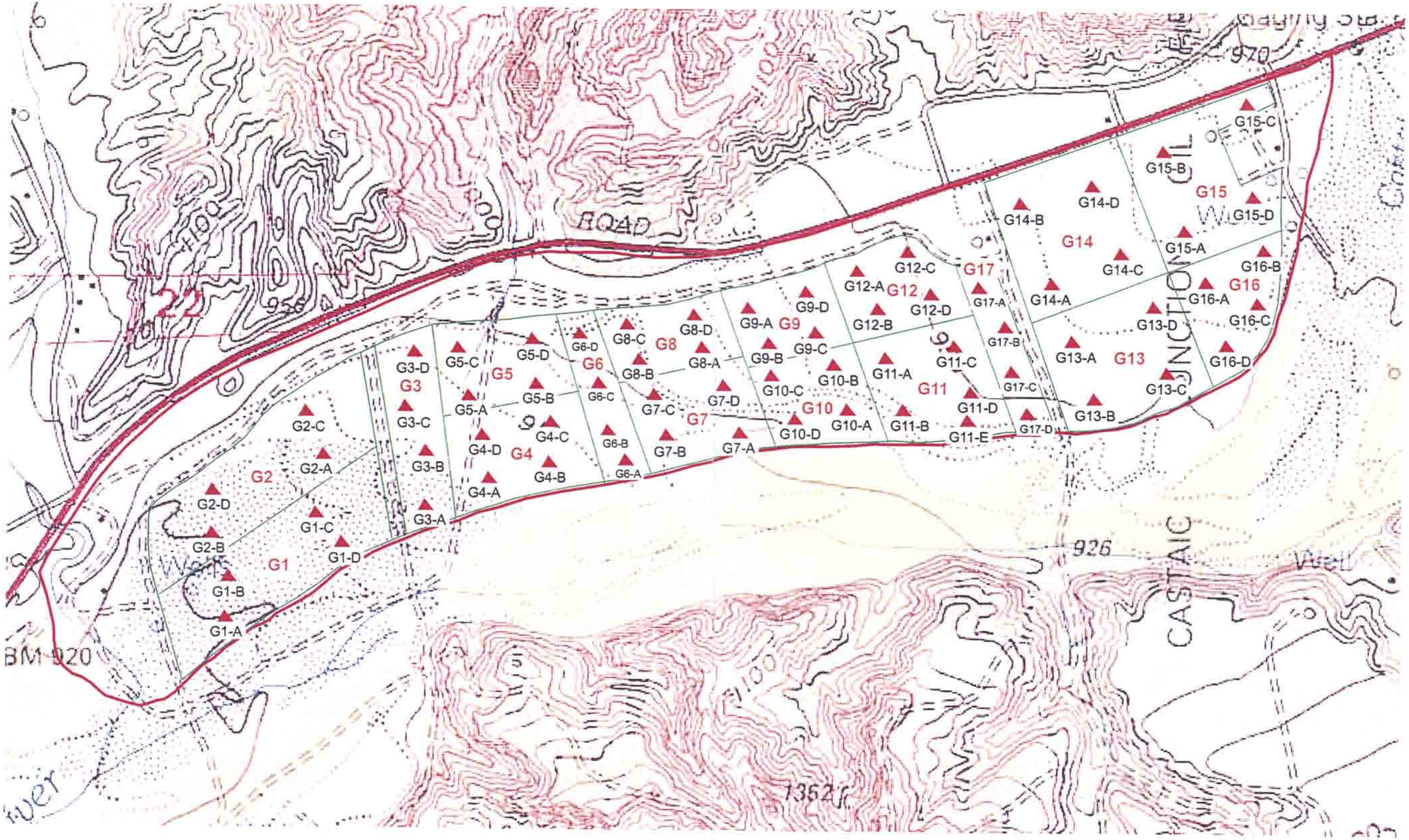
Site Plan

PHASE I ENVIRONMENTAL SITE ASSESSMENT
Development Map

PROJECT: **River Village**
Tentative Tract Map No. 53108, Highway 126
Newhall Ranch, California

PROJECT NO.
104012

FIGURE
4



Site Plan

Legend

= Limits of Subject Property

= Grid Boundary

G1 = Grid Designation

▲ G1-A = Soil Sample Location and Designation

BA ENVIRONMENTAL

NORTH

0 340 680

Approximate Scale, feet

PHASE I ENVIRONMENTAL SITE ASSESSMENT
Soil Sample Locations
PROJECT: **River Village**
Tentative Tract Map No. 53108, Highway 126
Newhall Ranch, California

PROJECT NO. **104012**

FIGURE **5**

TABLES

Table 1
Soil Sample Analytical Results
OCP, OPP and Herbicides
Tentative Tract Map No. 53108
Newhall Ranch, California

Sample No.	Date	Depth bgs	OCP											OPPs (mg/kg)	CH (mg/kg)
			alpha-Chlordane (mg/kg)	gamma-Chlordane (mg/kg)	4,4-DDD (mg/kg)	4,4-DDE (mg/kg)	4,4-DDT (mg/kg)	Dieldren (mg/kg)	Endosulfan I (mg/kg)	Endosulfan II (mg/kg)	Endrin (mg/kg)	Endosulfan Sulfate (mg/kg)	Heptachlor Epoxide (mg/kg)		
G1-A,B,C,D	1-29-04	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G2-A,B,C,D	1-29-04	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G3-A,B,C,D	1-29-04	1.5	ND	**0.001**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G4-A,B,C,D	1-29-04	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G5-A,B,C,D	1-29-04	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G6-A,B,C,D	1-29-04	1.5	ND	ND	ND	ND	ND	**0.002**	ND	ND	ND	ND	ND	ND	ND
G7-A,B,C,D	1-29-04	1.5	ND	ND	ND	ND	**0.002**	ND	ND	ND	ND	ND	ND	ND	ND
G8-A,B,C,D	1-29-04	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G9-A,B,C,D	2-4-04	1.5	ND	ND	ND	ND	ND	ND	ND	ND	**0.001**	ND	ND	ND	ND
G10-A,B,C,D	2-4-04	1.5	ND	ND	ND	ND	ND	ND	ND	ND	**0.001**	ND	ND	ND	ND
G11-A,B,C,D,E	2-4-04	1.5	**0.012**	**0.017**	ND	**0.008**	**0.014**	ND	ND	**0.018**	**0.061**	ND	ND	ND	ND
G12-A,B,C,D	2-4-04	1.5	ND	ND	ND	ND	**0.022**	ND	ND	ND	**0.029**	ND	ND	ND	ND
G13-A,B,C,D	2-2-04	1.5	**0.001**	**0.004**	**0.001**	**0.026**	**0.006**	ND	ND	ND	**0.061**	ND	**0.001**	ND	ND
G14-A,B,C,D	2-2-04	1.5	**0.002**	**0.015**	**0.001**	**0.007**	**0.015**	**0.003**	**0.001**	ND	**0.082**	**0.005**	ND	ND	ND
G15-A,B,C,D	2-2-04	1.5	**0.003**	**0.004**	**0.001**	**0.034**	**0.007**	ND	ND	ND	**0.055**	ND	ND	ND	ND
G16-A,B,C,D	2-2-04	1.5	ND	ND	ND	**0.002**	**0.003**	ND	ND	ND	**0.004**	ND	ND	ND	ND
G17-A,B,C,D	2-4-04	1.5	**0.018**	**0.027**	ND	**0.012**	**0.023**	ND	ND	**0.034**	**0.136**	ND	ND	ND	ND
PRGs Residential			1.6 ca*	1.6 ca*	2.4 ca	1.7 ca	1.7 ca*	0.03 ca	370 nc	370 nc	18 nc	NA	0.053 ca*	NA	NA
PRGs Industrial			6.5 ca*	6.5 ca*	10 ca	7.0 ca	7.0 ca*	0.11 ca	3700 nc	3700 nc	180 nc	NA	0.19 ca*	NA	NA
Detection Limits (mg/kg)			**0.001**	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**	**0.02-3.35**	**0.020-20.0**

Notes:

CH – Chlorinated Herbicides
OCP - Organochlorine Pesticides
OPP - Organophosphorous Pesticides
PRG - Primary Remediation Goal
ND – None detected above detection limits.
NA - Not applicable
MCL – Maximum Contaminant level
bgs - below ground surface
ca – Cancer PRG
ca* - Cancer PRG (where :nc<100x ca)
nc – Non-cancer PRG

- Concentrations are reported in milligrams per kilogram (mg/kg) which is equivalent to parts per million (ppm).
- Concentrations are reported in micrograms per liter (µg/l) which is equivalent to parts per billion (ppb).
- Analyses for OCP were performed in accordance with the Environmental Protection Agency (EPA) Method No. 8081.
- Analyses for OPP were performed in accordance with the EPA Method No. 8141.
- Analyses for CH were performed in accordance with the EPA Method No. 8151.

APPENDICES

APPENDIX A:

Site Photographs

1

1. View of subject property looking east.

2

2. View of subject property looking west.

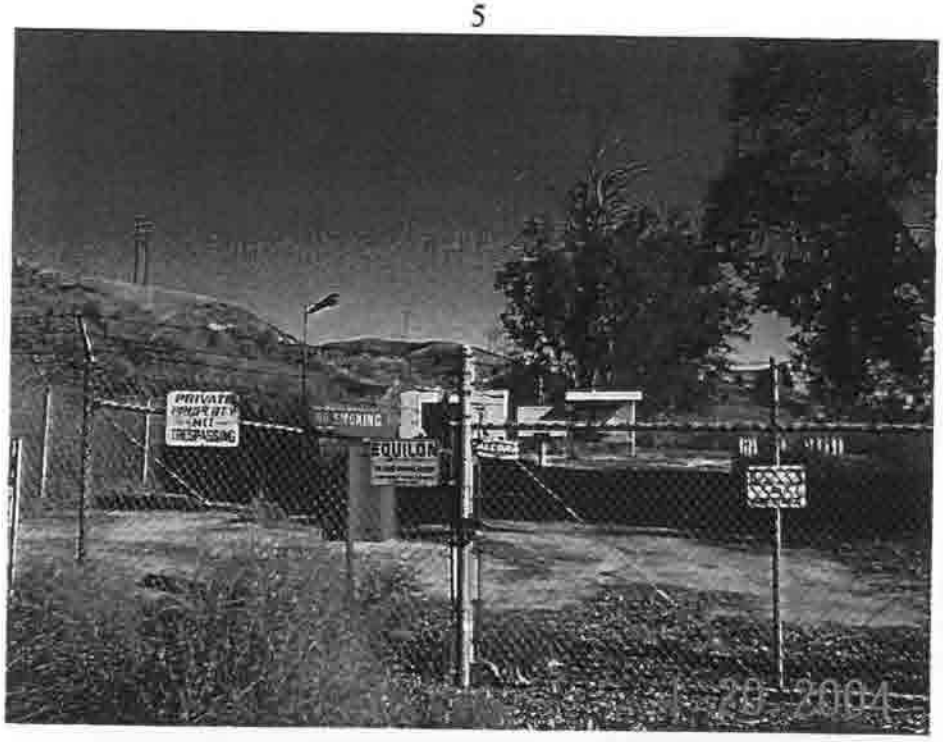
3

3. Santa Clara River along southern property boundary.

4

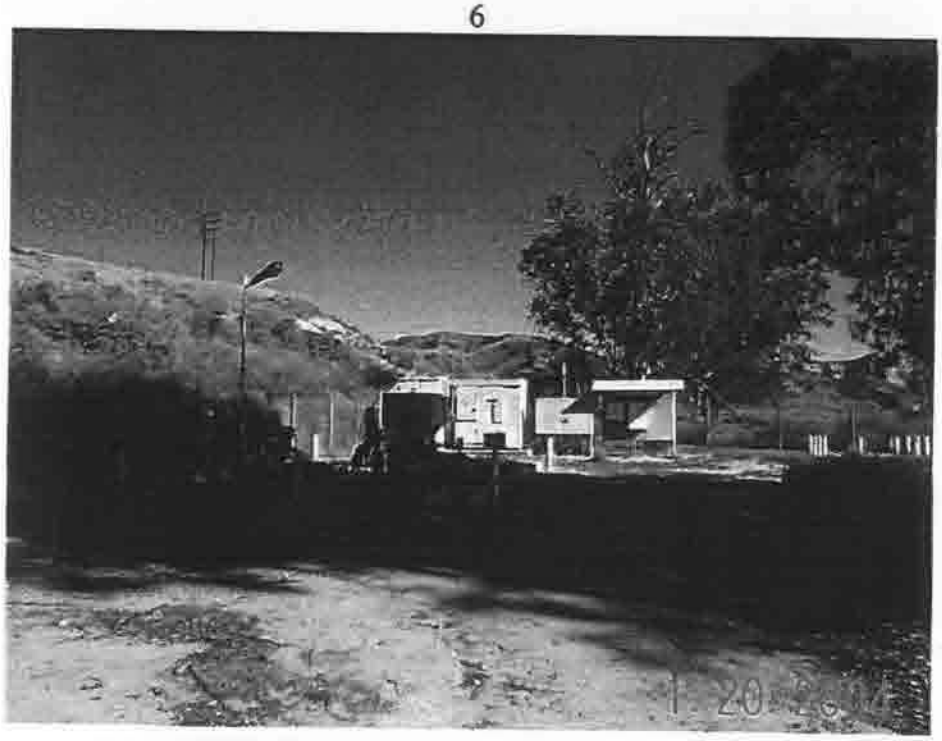
4. Pipeline easement along old railroad tracks,
along northern property boundary.

5



5. Booster station along pipeline easement, northern property boundary.

6



6. Close-up of booster station.

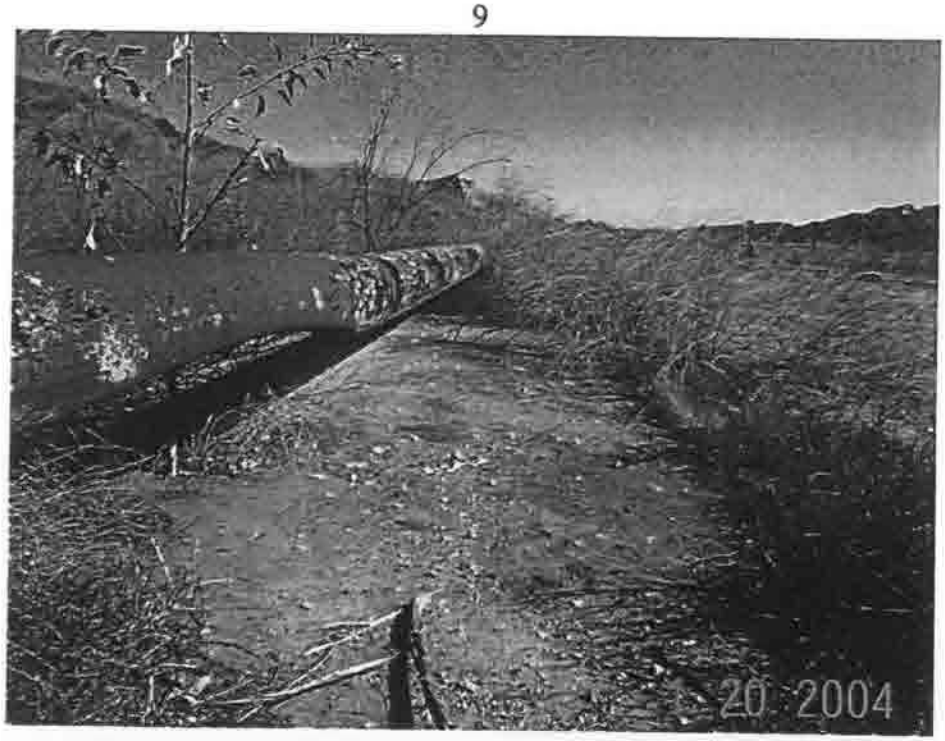
7

7. Access vault for Shell Oil pipeline.

8

8. Vent pipe for oil pipeline.

9



9. Exposed, abandoned oil pipeline. Note oil staining beneath pipe.

10

10. Construction debris in old railroad easement, possible asbestos-containing.

11

11. Construction debris in old railroad easement.

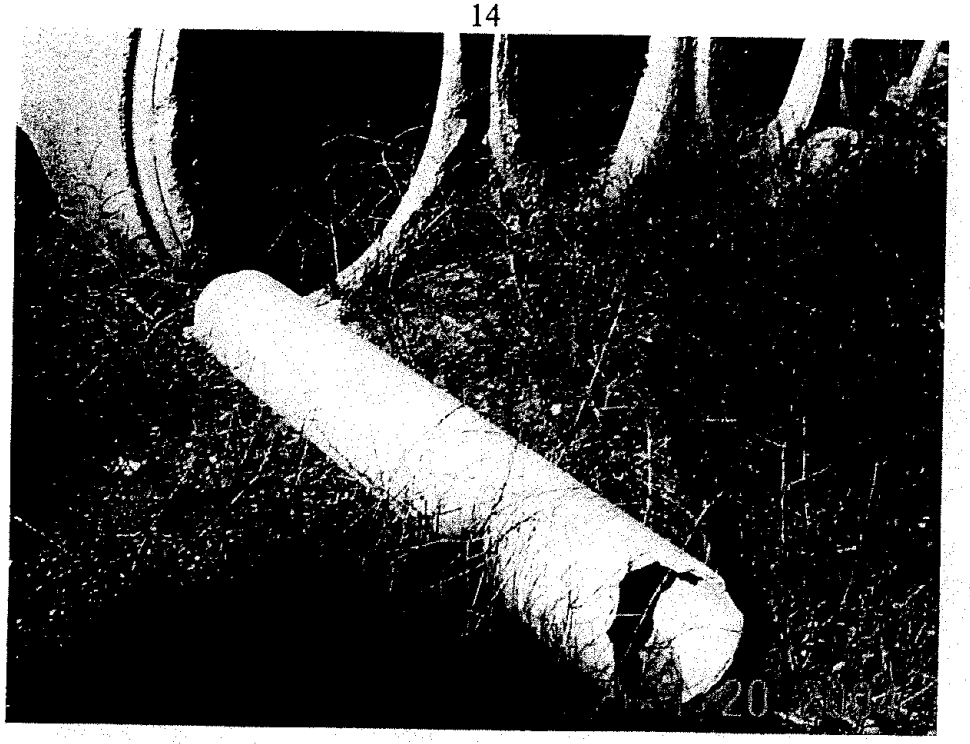
12

12. Trash along bottom slope of old railroad easement.

13

13. Metal debris in debris pile along northern property boundary.

14

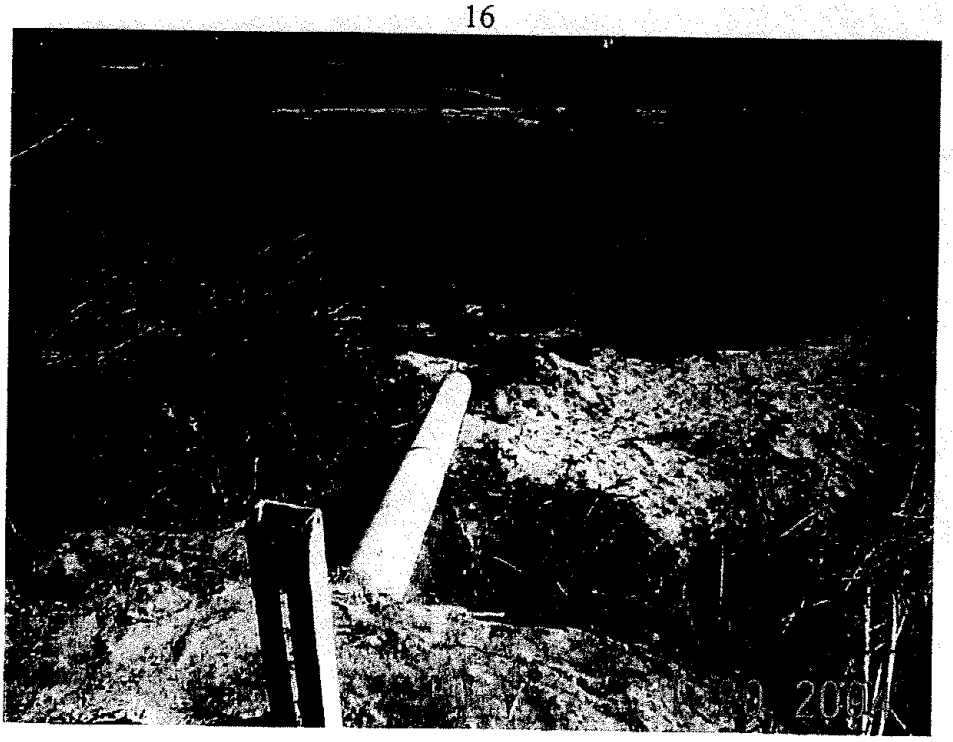


14. Transite pipe in debris pile along northern property boundary.

15

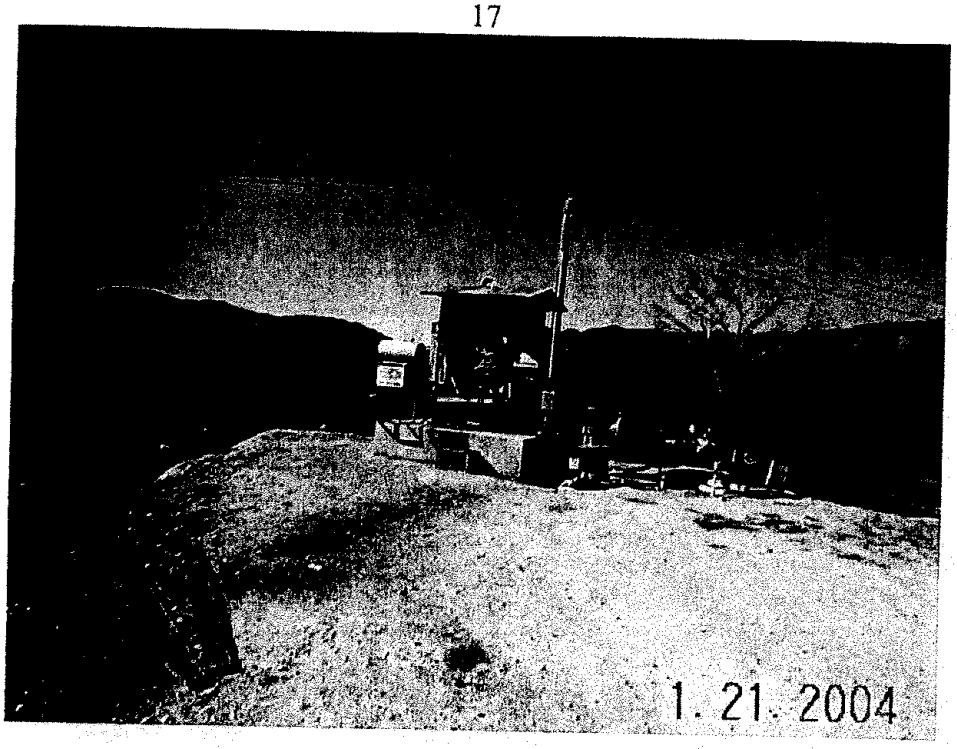
15. Asphalt debris pile along northern property boundary.

16



16. Southern California Gas pipeline in western portion of subject property.

17

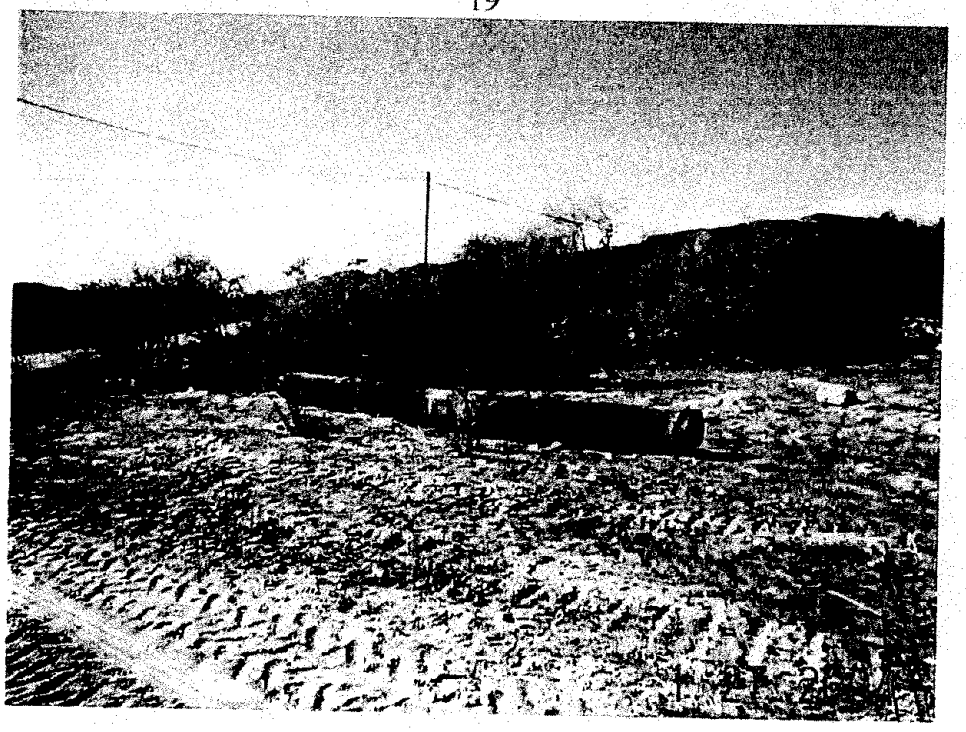


17. Water well in western portion of subject property.

18

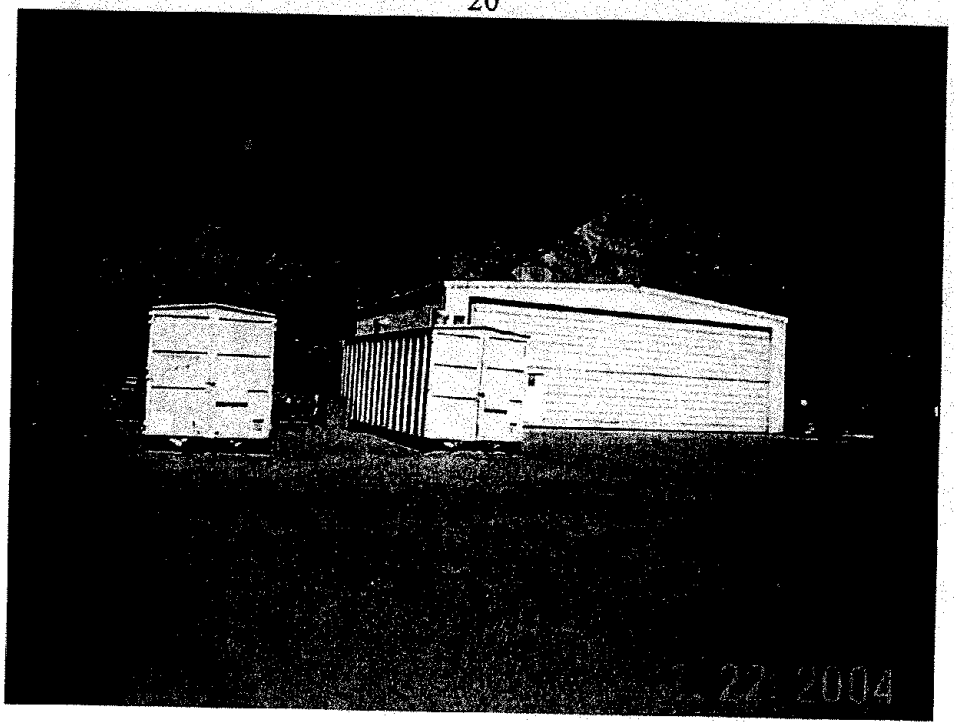
18. Wood debris in central portion of subject property.

19



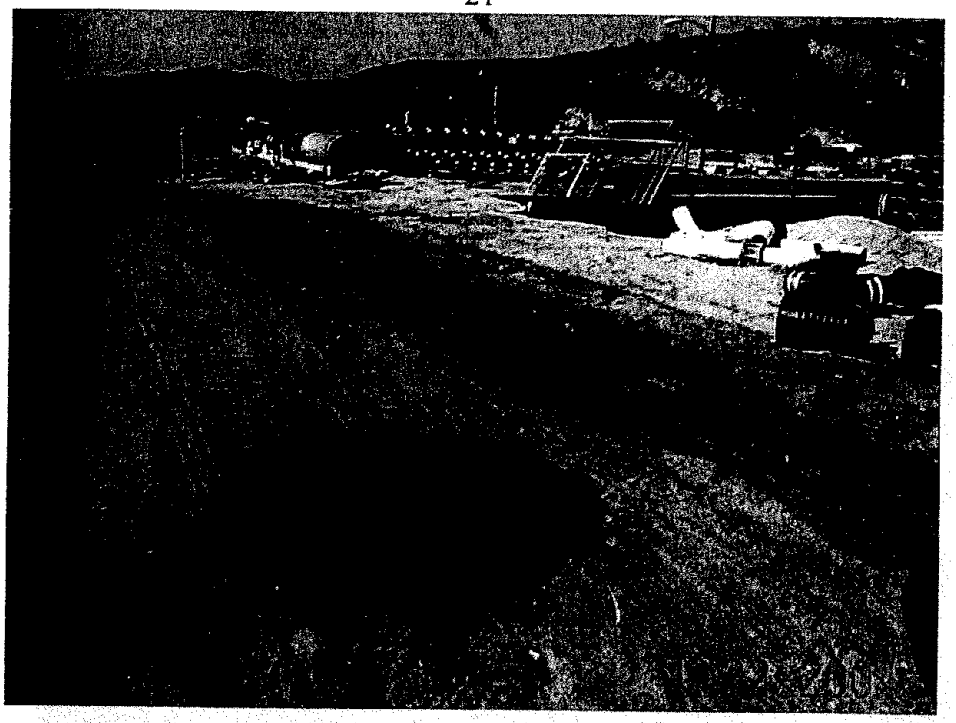
19. Section of abandoned pipe with suspect asbestos-containing tar wrap.

20



20. Old hangar building and cargo containers at storage area near Wolcott Way.

21



21. Oil staining around equipment storage yard, near Wolcott Way.

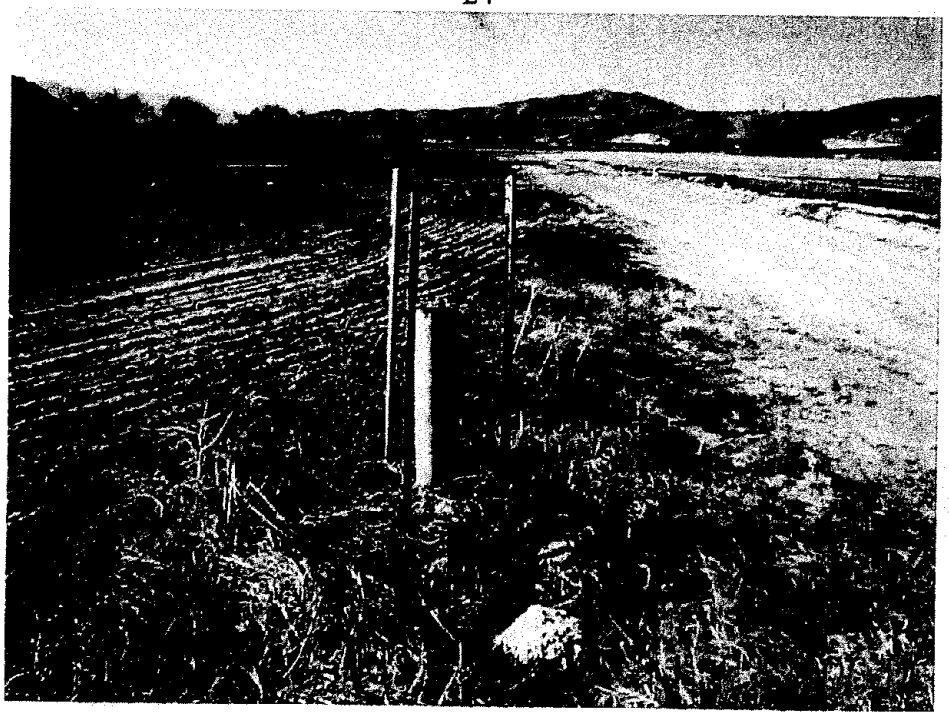
22

22. 55-gallon drum at storage area.

23

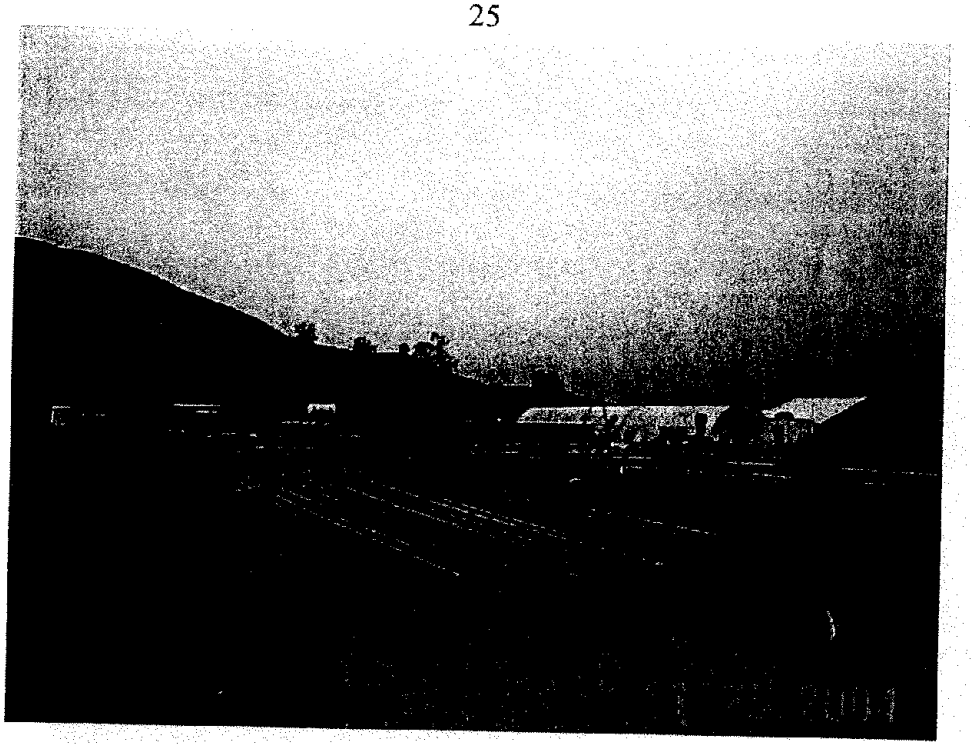
23. Oil staining within fence at equipment storage area at Wolcott Way.

24



24. Piezometer in south-central portion of subject property.

25

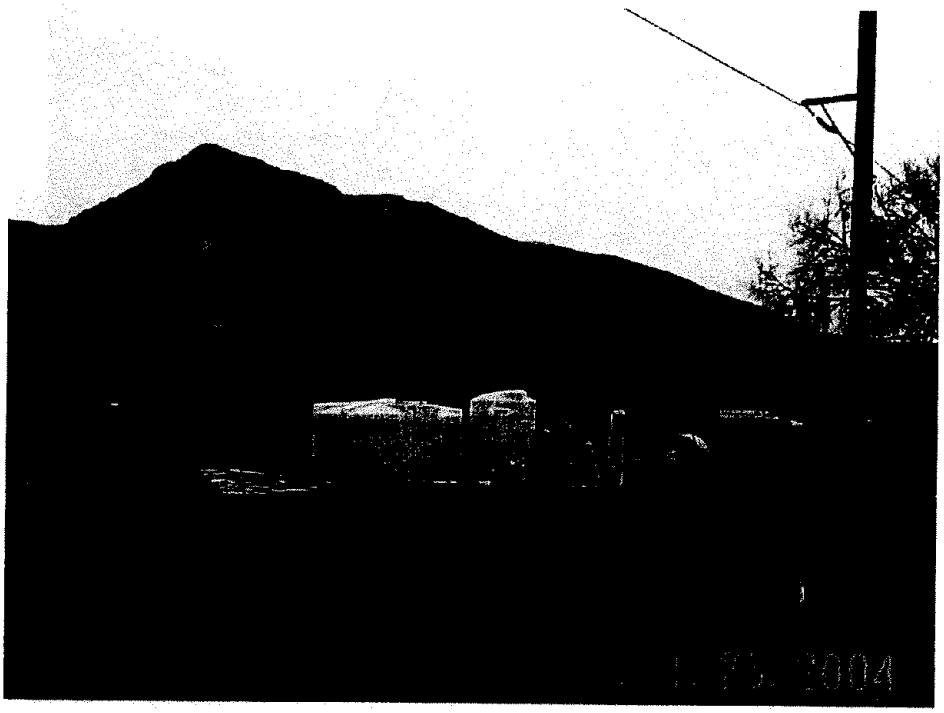


25. Equipment storage area in eastern portion of subject property.

26

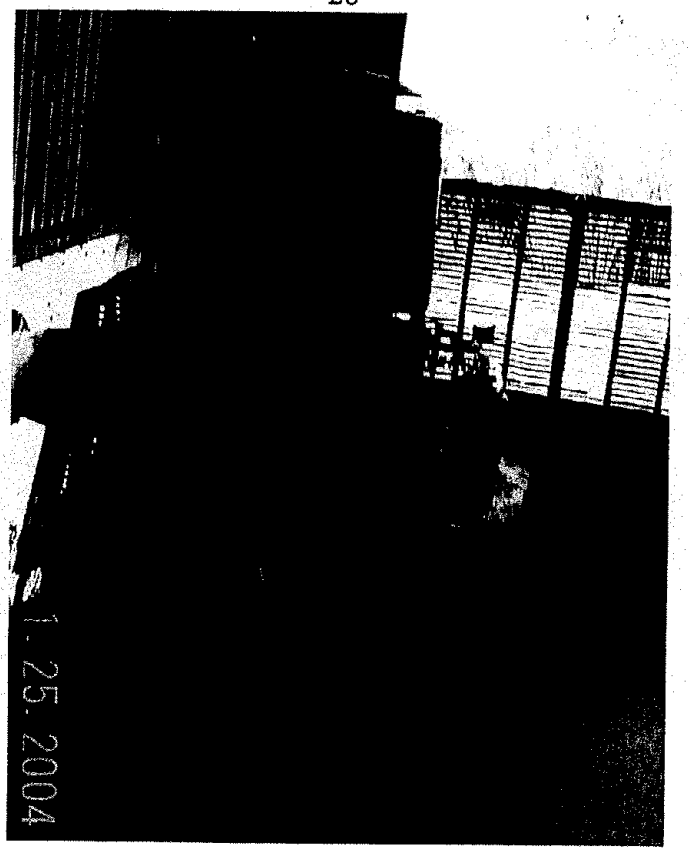
26. Buildings associated with equipment storage area in eastern portion of subject property.

27



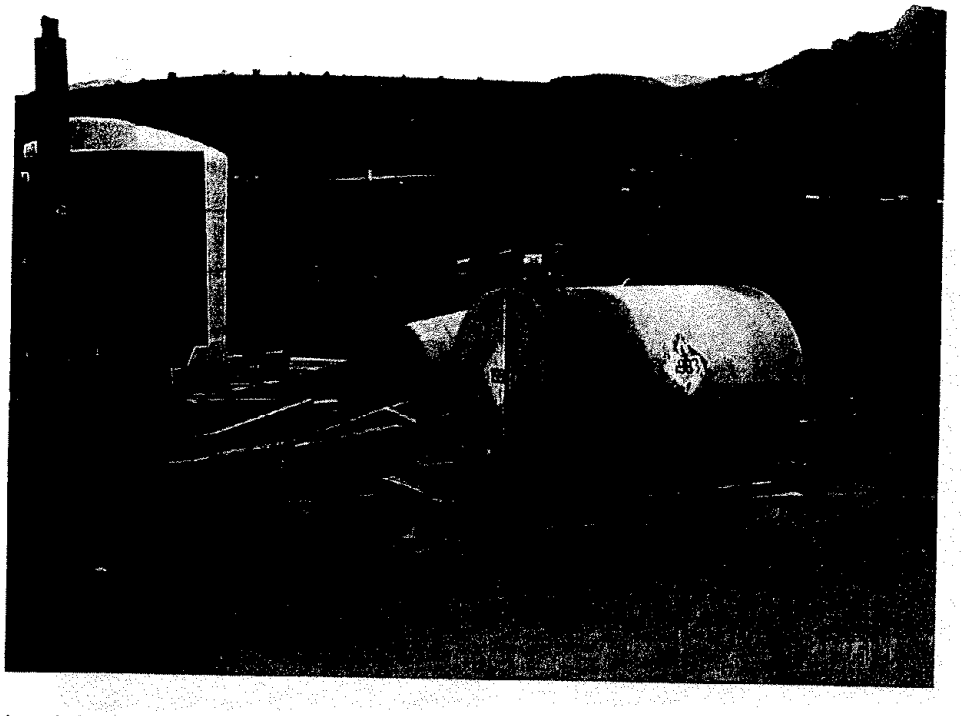
27. Agricultural ASTs in eastern portion of subject property.

28



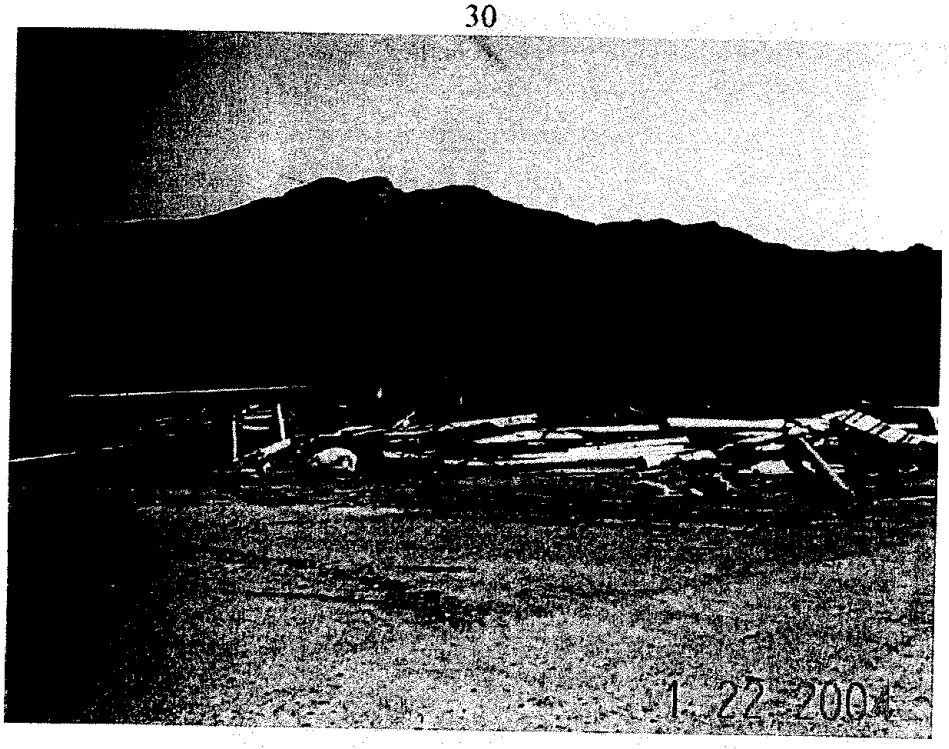
28. Water well in eastern portion of subject property.

29



29. Diesel fuel AST associated with portable water pump located in eastern portion of subject property. Note diesel fuel staining.

30

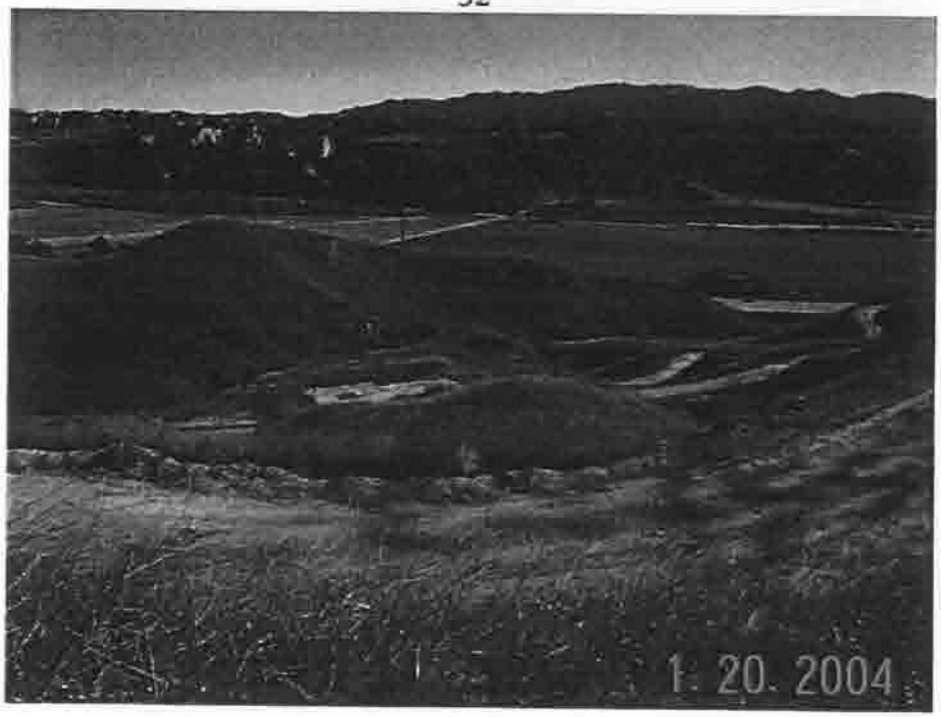


30. Debris is eastern portion of subject property near river.

31

31. View of Borrow Site "A."

32



32. Borrow Site "A."

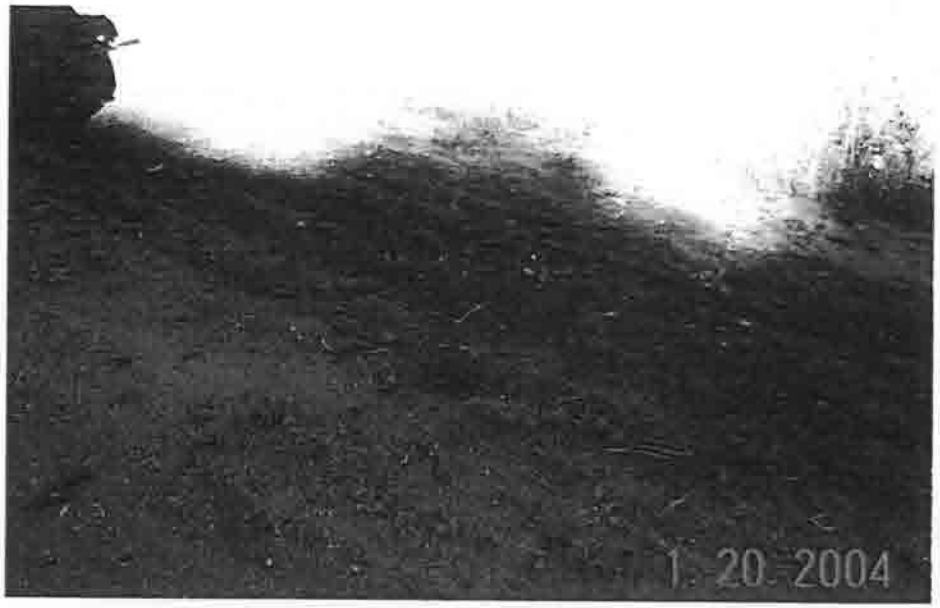
33

33. Former oil drilling platform located in Borrow Site "A."

34

34. Possible oil well location in Borrow Site "A."

35



35. Oil staining on soil at possible oil well location in Borrow Site "A."

36

36. Borrow Site "B."

37

37. Looking west across Borrow Site "B."

38

38. Location of possible oil well in Borrow Site "B."

39

39. Location of former oil well in Borrow Site "B."

40

40. Close-up of former oil well in Borrow Site "B."

APPENDIX B:

Historic Aerial Photographs

Inquiry : 1063369.8 Year : 1928 Flyer : Fairchild Scale : 1"=500'

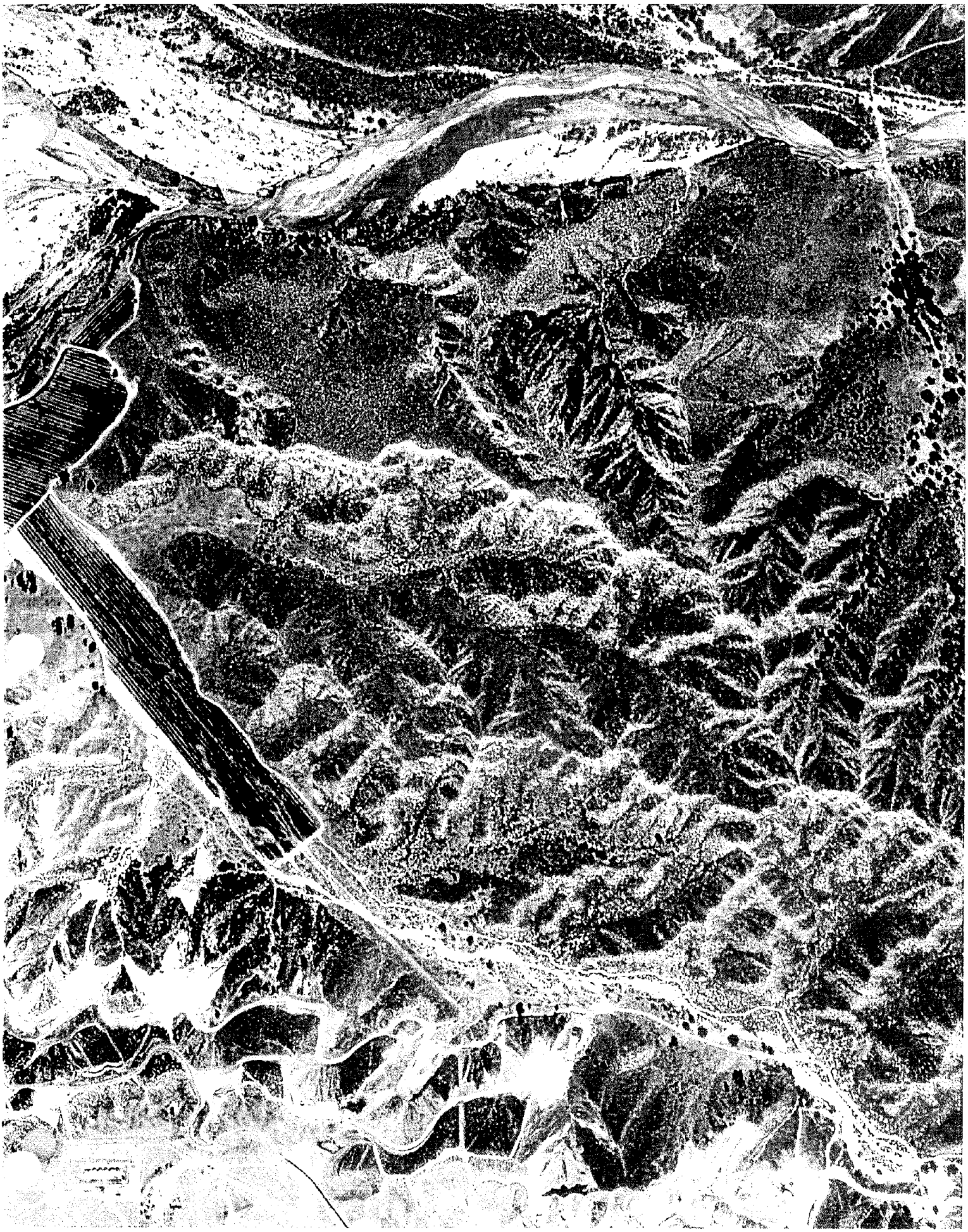
Inquiry : 1108642. Year : 1928 Flyer : Fairchild Scale : 1"=500'

Inquiry : 1108642.9 Year : 1928 Flyer : Fairchild Scale : 1"=500'

Inquiry : 1108642. Year : 1947 Flyer : Tubis Scale : 1"=666'

Inquiry : 1063369.8 Year : 1947 Flyer : Tubis Scale : 1"=666'

Inquiry : 1108642.9 Year : 1947 Flyer : Tubis Scale : 1"=666'



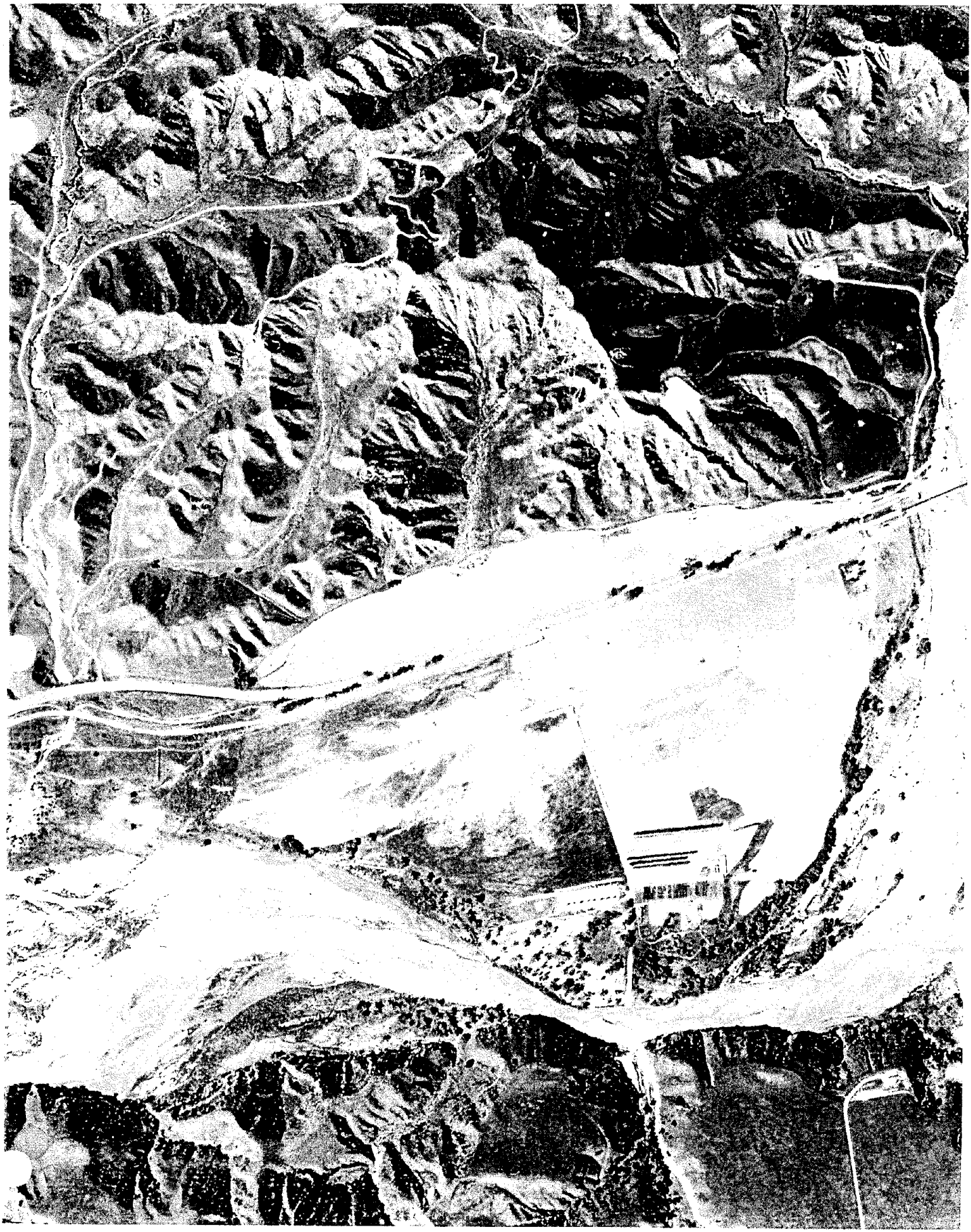
Inquiry : 1108642. Year : 1947 Flyer : Tubis Scale : 1"=666'

Inquiry : 1108642. Year : 1952 Flyer : Pacific Air Scale : 1"=555'

Inquiry : 1108642.9 Year : 1952 Flyer : Pacific Air Scale : 1"=555'

Inquiry : 1108642. Year : 1952 Flyer : Pacific Air Scale : 1"=555'

Inquiry : 1108642. Year : 1968 Flyer : Teledyne Scale : 1"=666'

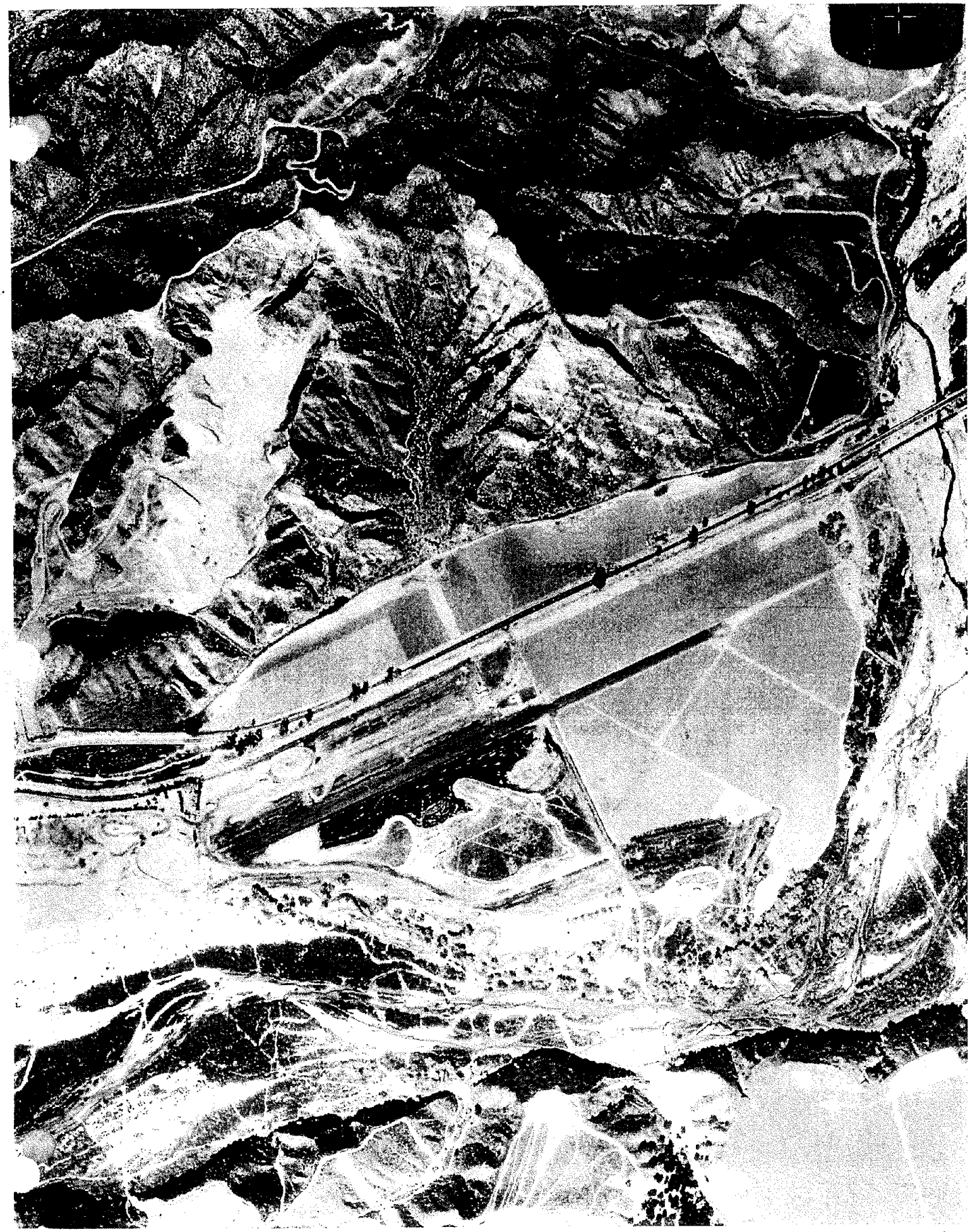


Inquiry : 1108642.9 Year : 1968 Flyer : Teledyne Scale : 1"=666'

7-28-72
AV 13-2

Inquiry : 1108642. Year : 1976 Flyer : Teledyne Scale : 1"=666'

Inquiry : 1063369.8 Year : 1976 Flyer : Teledyne Scale : 1"=666'



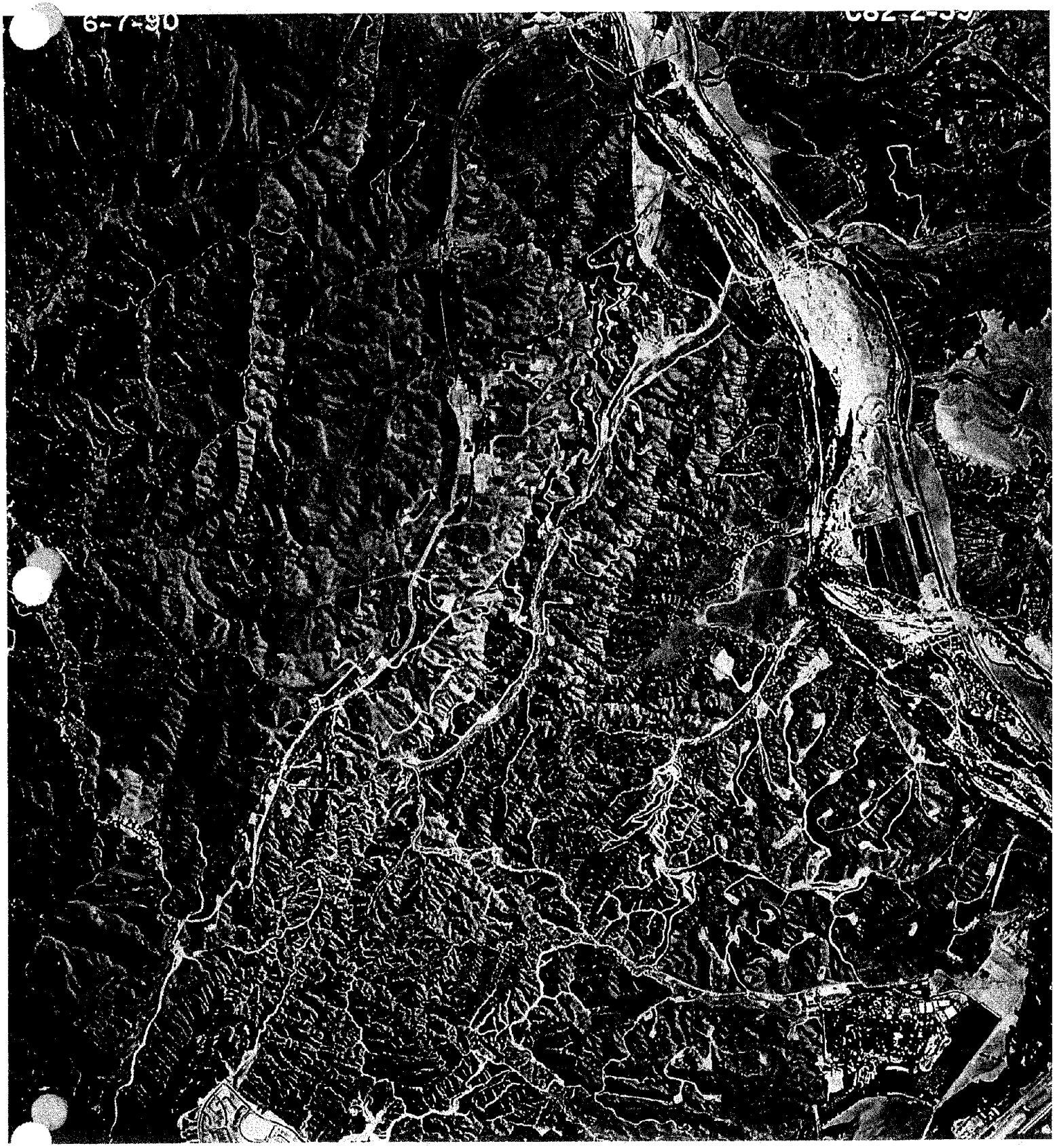
Inquiry : 1108642.9 Year : 1976 Flyer : Teledyne Scale : 1"=666'

470

8
N-VEN 3-22

ıquiry : 1108642. Year : 1989 Flyer : USGS Scale : 1"=666'

Inquiry : 1108642.9 Year : 1989 Flyer : USGS Scale : 1"=666'



5-9-93
1"=2000'
C87-31-12

Inquiry : 1108642. Year : 1994 Flyer : USGS Scale : 1"=666'

Inquiry : 1063369.8 Year : 1994 Flyer : USGS Scale : 1"=666'

Inquiry : 1108642.9 Year : 1994 Flyer : USGS Scale : 1"=666'

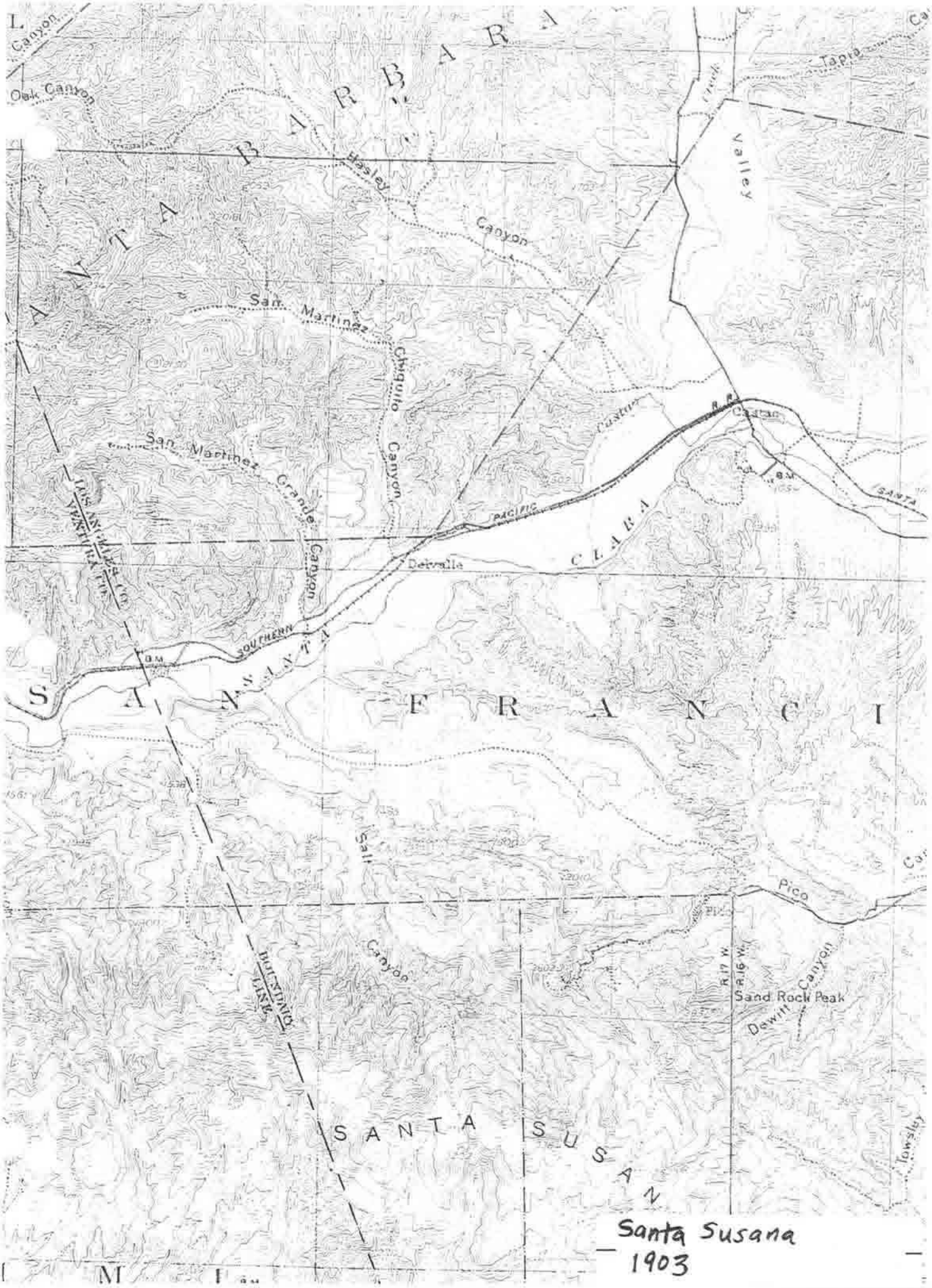
Inquiry : 1108642. Year : 1994 Flyer : USGS Scale : 1"=666'

07-12-95
K-2000
CIR-15-207

22-99
1"=2000'

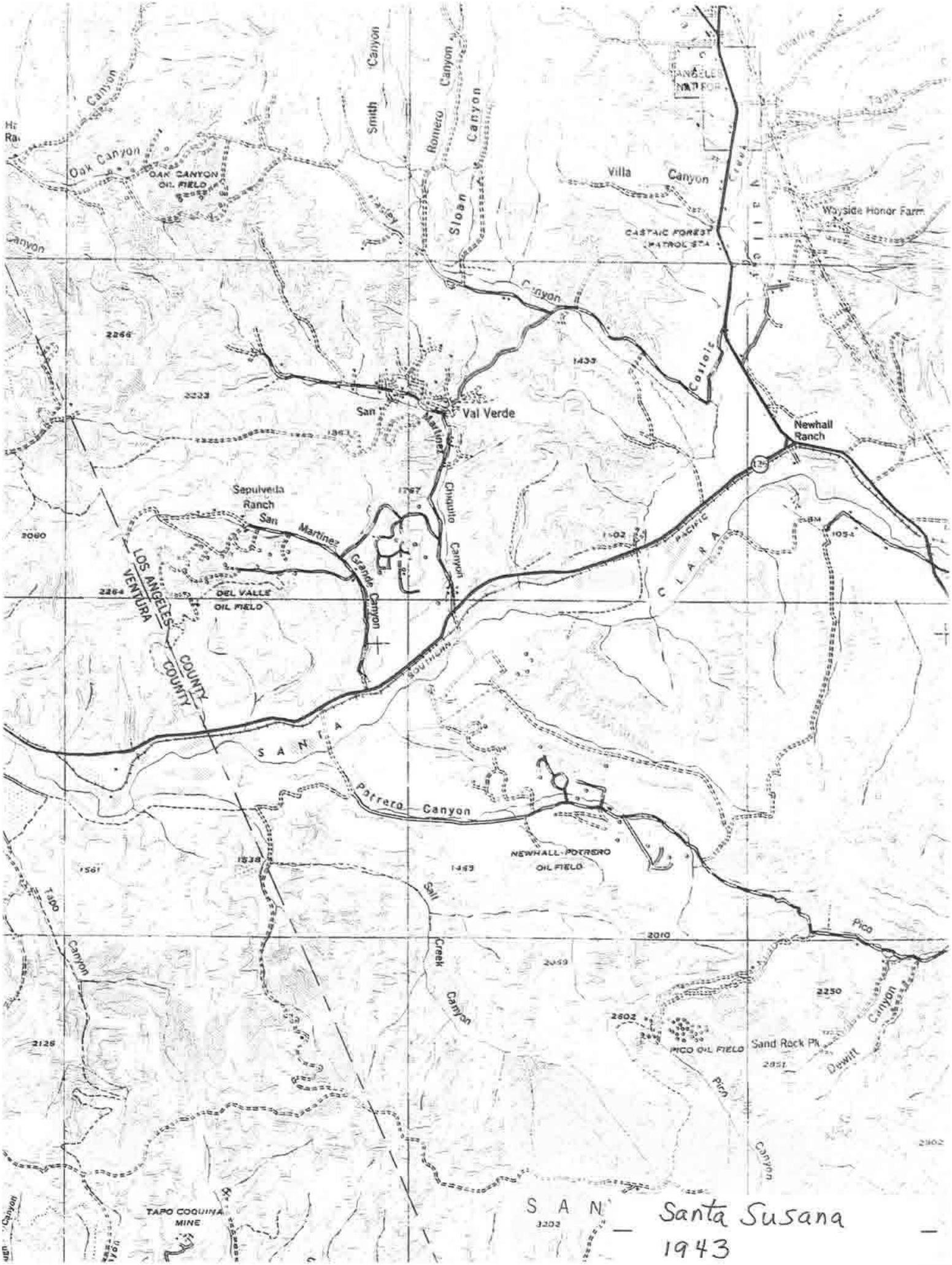
APPENDIX C:

Historic Topographic Maps

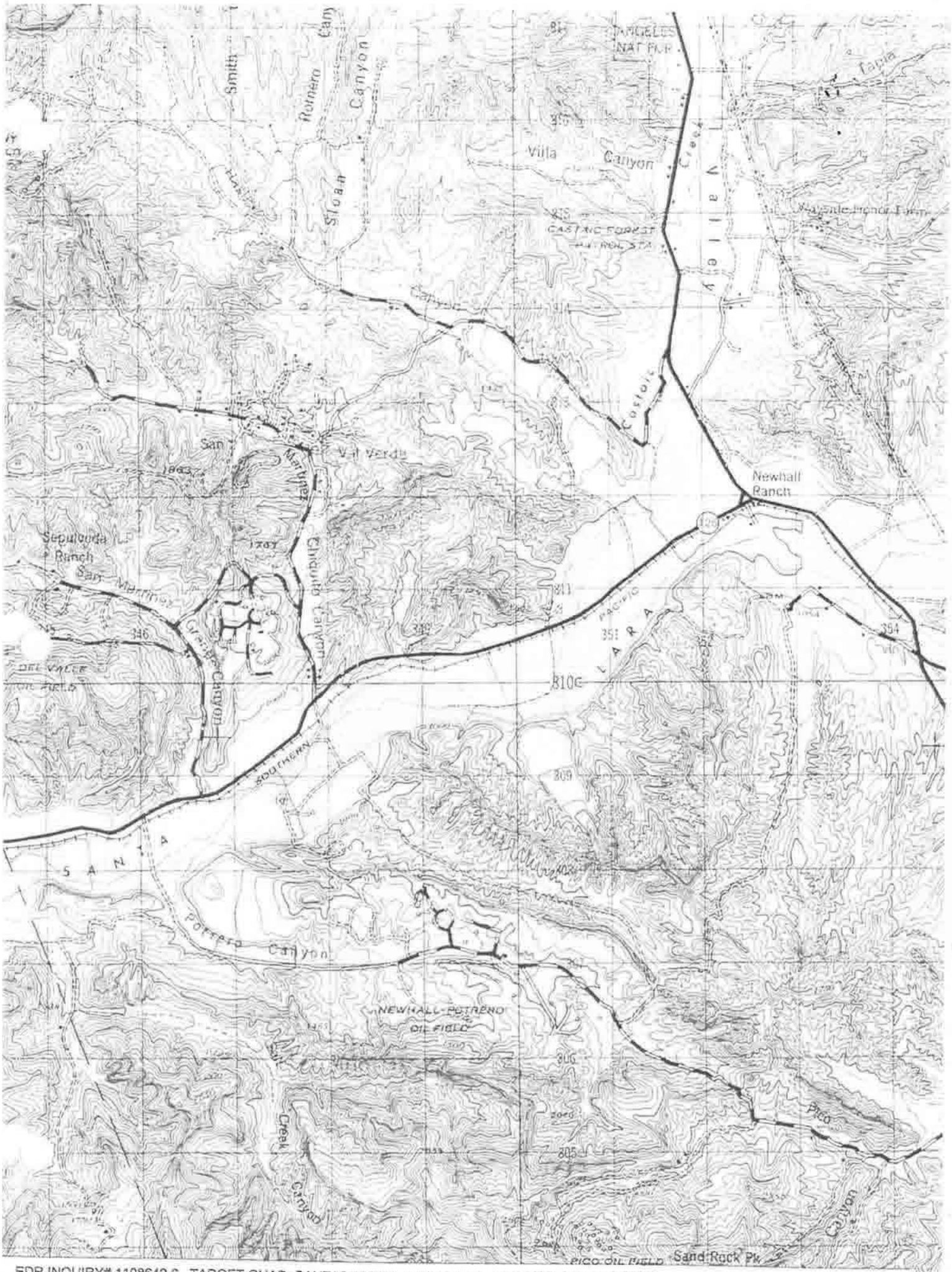


Santa Susana
1903

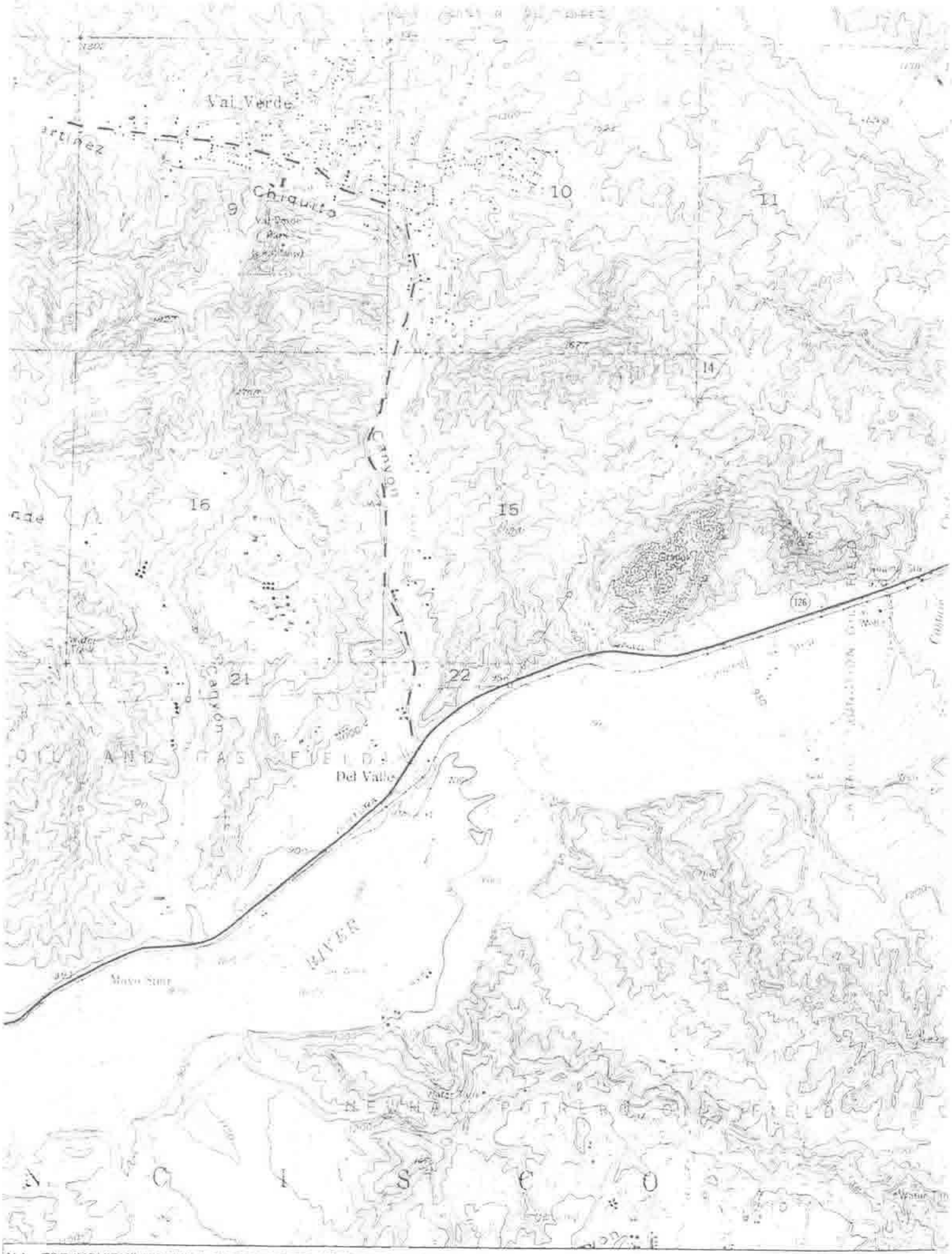
Santa Susana
1941



Santa Susana
1943


Smith
Romero Canyon
Sloan Canyon
Villa Canyon
Valley
Newhall Ranch
San Martinez Chiquito Canyon
Sepulveda Ranch
San Martinez
Creek
Chiquito Canyon
SOUTHERN PACIFIC
SANTA CLARA
Potrero Canyon
NEWHALL-POTRERO OIL FIELD
Pico Canyon
PICO OIL FIELD
Sand Rock Pk

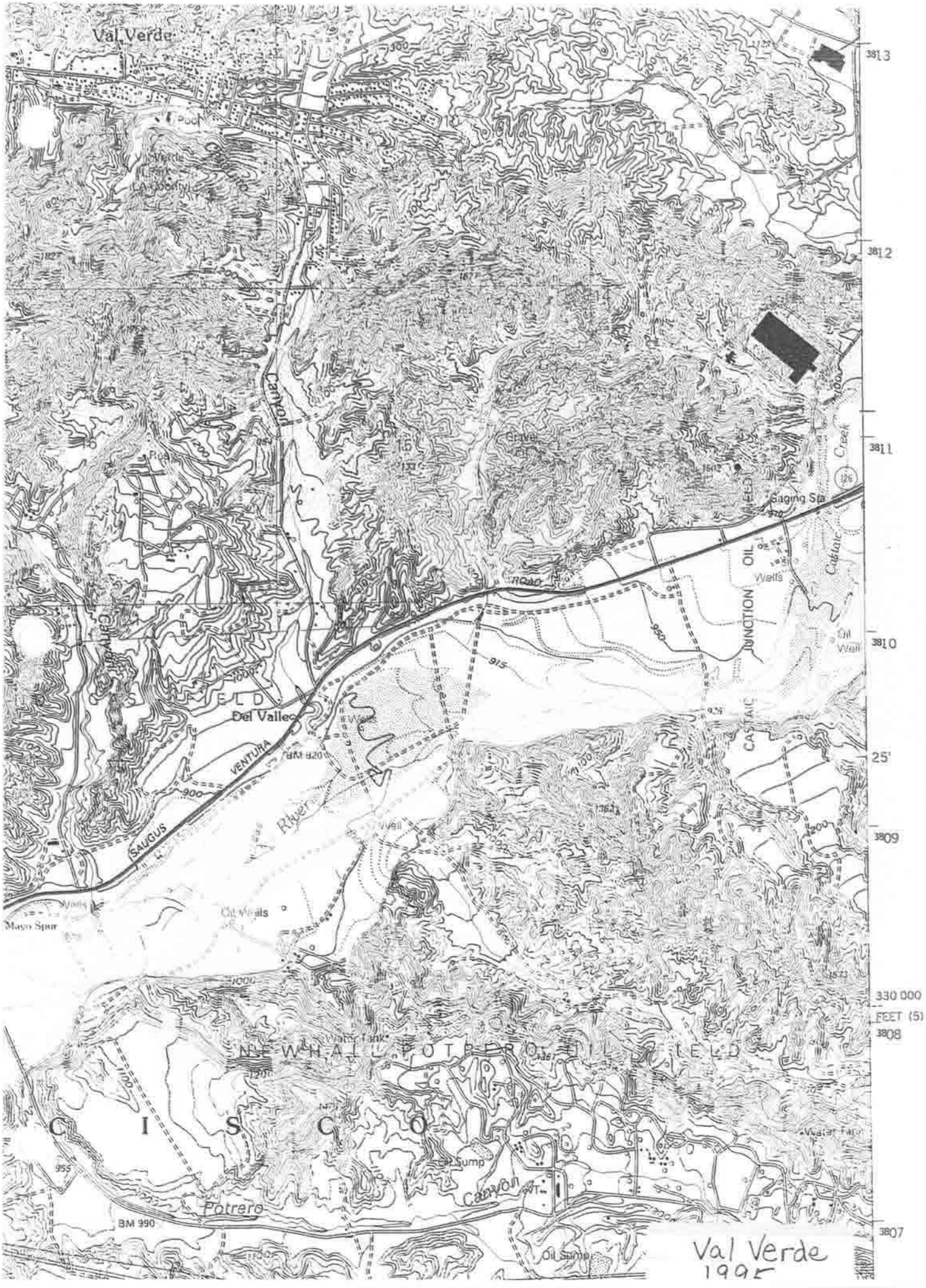
Val Verde
1952



N ^ EDR INQUIRY# 1108642.6 TARGET QUAD: VALVERDE PHOTOREVISED: 1952,1988 Series: 7.5' Scale: 1:24,000

EDR INQUIRY# 1108642.6 TARGET QUAD: VALVERDE PHOTOREVISED: 1952-1969 Series: 7.5' Scale: 1:24,000

Val Verde
Pool
Chiquita
Park
Canyon
Res
Gravel Pit
Gaging Sta
Castaic Creek
126
Wells
Castaic Jct
Interstate 5
Newhall 9 mi
Oil Well
Landing Strip
Del Valle
Wells
Ventura
BM 920
Well
Saugus
River
Oil Wells
Water Tank
Oil Sump
Potrero
Canyon
BM 990
(Newhall)
2252 I NE
Val Verde
1991



Val Verde
1995

APPENDIX D:

Laboratory Reports and Chain-of-Custody Documentation

Enviro - Chem, Inc.
1215 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: February 6, 2004

FEB 12 2004

Mr. Russell Cote
BA Environmental
528 State Street
Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

Project: **Newhall Land / 104012**

Dear Mr. Cote:

The analytical results for the soil samples, received by our Lab on January 29, 2004, are attached.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,

Curtis Desilets
Vice President/Program Manager

Jesse Tu, Ph.D.
Laboratory Manager

Enviro - Chem, Inc.
1215 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/02/04
DATE ANALYZED: 02/03-04/04
DATE REPORTED: 02/06/04

SAMPLE I.D.: **G1-A/B/C/D (Composite)**
LAB I.D.: 040130-10,-11,-12,-13 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL(X1)
Aldrin	ND	0.001
alpha-BHC	ND	0.001
beta-BHC	ND	0.001
gamma-BHC (Lindane)	ND	0.001
delta-BHC	ND	0.001
alpha-Chlordane	ND	0.001
gamma-Chlordane	ND	0.001
4,4'-DDD	ND	0.001
4,4'-DDE	ND	0.001
4,4'-DDT	ND	0.001
Dieldrin	ND	0.001
Endosulfan I	ND	0.001
Endosulfan II	ND	0.001
Endosulfan Sulfate	ND	0.001
Endrin	ND	0.001
Endrin Aldehyde	ND	0.001
Endrin Ketone	ND	0.001
Heptachlor Epoxide	ND	0.001
Heptachlor	ND	0.001
Methoxyclor	ND	0.001
Toxaphene	ND	0.200

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/02/04
DATE ANALYZED: 02/03-04/04
DATE REPORTED: 02/06/04

SAMPLE I.D.: **G2-A/B/C/D (Composite)**
LAB I.D.: 040130-14,-15,-16,-17 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL(X1)
Aldrin	ND	0.001
alpha-BHC	ND	0.001
beta-BHC	ND	0.001
gamma-BHC (Lindane)	ND	0.001
delta-BHC	ND	0.001
alpha-Chlordane	ND	0.001
gamma-Chlordane	ND	0.001
4,4'-DDD	ND	0.001
4,4'-DDE	ND	0.001
4,4'-DDT	ND	0.001
Dieldrin	ND	0.001
Endosulfan I	ND	0.001
Endosulfan II	ND	0.001
Endosulfan Sulfate	ND	0.001
Endrin	ND	0.001
Endrin Aldehyde	ND	0.001
Endrin Ketone	ND	0.001
Heptachlor Epoxide	ND	0.001
Heptachlor	ND	0.001
Methoxyclor	ND	0.001
Toxaphene	ND	0.200

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/02/04
DATE ANALYZED: 02/03-04/04
DATE REPORTED: 02/06/04

SAMPLE I.D.: **G3-A/B/C/D (Composite)**
LAB I.D.: 040130-18,-19,-20,-21 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL(X1)
Aldrin	ND	0.001
alpha-BHC	ND	0.001
beta-BHC	ND	0.001
gamma-BHC (Lindane)	ND	0.001
delta-BHC	ND	0.001
alpha-Chlordane	ND	0.001
gamma-Chlordane	0.001	0.001
4,4'-DDD	ND	0.001
4,4'-DDE	ND	0.001
4,4'-DDT	ND	0.001
Dieldrin	ND	0.001
Endosulfan I	ND	0.001
Endosulfan II	ND	0.001
Endosulfan Sulfate	ND	0.001
Endrin	ND	0.001
Endrin Aldehyde	ND	0.001
Endrin Ketone	ND	0.001
Heptachlor Epoxide	ND	0.001
Heptachlor	ND	0.001
Methoxyclor	ND	0.001
Toxaphene	ND	0.200

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: BA Environmental
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: Newhall Land / 104012
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/02/04
DATE ANALYZED: 02/03-04/04
DATE REPORTED: 02/06/04

SAMPLE I.D.: G4-A/B/C/D (Composite)
LAB I.D.: 040130-22,-23,-24,-25 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL(X1)
Aldrin	ND	0.001
alpha-BHC	ND	0.001
beta-BHC	ND	0.001
gamma-BHC (Lindane)	ND	0.001
delta-BHC	ND	0.001
alpha-Chlordane	ND	0.001
gamma-Chlordane	ND	0.001
4,4'-DDD	ND	0.001
4,4'-DDE	ND	0.001
4,4'-DDT	ND	0.001
Dieldrin	ND	0.001
Endosulfan I	ND	0.001
Endosulfan II	ND	0.001
Endosulfan Sulfate	ND	0.001
Endrin	ND	0.001
Endrin Aldehyde	ND	0.001
Endrin Ketone	ND	0.001
Heptachlor Epoxide	ND	0.001
Heptachlor	ND	0.001
Methoxyclor	ND	0.001
Toxaphene	ND	0.200

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/02/04
DATE ANALYZED: 02/03-04/04
DATE REPORTED: 02/06/04

SAMPLE I.D.: **G5-A/B/C/D (Composite)**
LAB I.D.: 040130-26,-27,-28,-29 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL(X1)
Aldrin	ND	0.001
alpha-BHC	ND	0.001
beta-BHC	ND	0.001
gamma-BHC (Lindane)	ND	0.001
delta-BHC	ND	0.001
alpha-Chlordane	ND	0.001
gamma-Chlordane	ND	0.001
4,4'-DDD	ND	0.001
4,4'-DDE	ND	0.001
4,4'-DDT	ND	0.001
Dieldrin	ND	0.001
Endosulfan I	ND	0.001
Endosulfan II	ND	0.001
Endosulfan Sulfate	ND	0.001
Endrin	ND	0.001
Endrin Aldehyde	ND	0.001
Endrin Ketone	ND	0.001
Heptachlor Epoxide	ND	0.001
Heptachlor	ND	0.001
Methoxyclor	ND	0.001
Toxaphene	ND	0.200

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: BA Environmental
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: Newhall Land / 104012
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/02/04
DATE ANALYZED: 02/03-04/04
DATE REPORTED: 02/06/04

SAMPLE I.D.: G6-A/B/C/D (Composite)
LAB I.D.: 040130-30,-31,-32,-33 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL(X1)
Aldrin	ND	0.001
alpha-BHC	ND	0.001
beta-BHC	ND	0.001
gamma-BHC (Lindane)	ND	0.001
delta-BHC	ND	0.001
alpha-Chlordane	ND	0.001
gamma-Chlordane	ND	0.001
4,4'-DDD	ND	0.001
4,4'-DDE	ND	0.001
4,4'-DDT	ND	0.001
Dieldrin	0.002	0.001
Endosulfan I	ND	0.001
Endosulfan II	ND	0.001
Endosulfan Sulfate	ND	0.001
Endrin	ND	0.001
Endrin Aldehyde	ND	0.001
Endrin Ketone	ND	0.001
Heptachlor Epoxide	ND	0.001
Heptachlor	ND	0.001
Methoxyclor	ND	0.001
Toxaphene	ND	0.200

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX:SOIL
DATE SAMPLED:01/29/04
REPORT TO:MR. RUSSELL COTE

DATE RECEIVED:01/29/04
DATE EXTRACTED:02/02/04
DATE ANALYZED:02/03-04/04
DATE REPORTED:02/06/04

SAMPLE I.D.: **G7-A/B/C/D (Composite)**
LAB I.D.: 040130-34,-35,-36,-37 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL(X1)
Aldrin	ND	0.001
alpha-BHC	ND	0.001
beta-BHC	ND	0.001
gamma-BHC (Lindane)	ND	0.001
delta-BHC	ND	0.001
alpha-Chlordane	ND	0.001
gamma-Chlordane	ND	0.001
4,4'-DDD	ND	0.001
4,4'-DDE	ND	0.001
4,4'-DDT	0.002	0.001
Dieldrin	ND	0.001
Endosulfan I	ND	0.001
Endosulfan II	ND	0.001
Endosulfan Sulfate	ND	0.001
Endrin	ND	0.001
Endrin Aldehyde	ND	0.001
Endrin Ketone	ND	0.001
Heptachlor Epoxide	ND	0.001
Heptachlor	ND	0.001
Methoxyclor	ND	0.001
Toxaphene	ND	0.200

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/02/04
DATE ANALYZED: 02/03-04/04
DATE REPORTED: 02/06/04

SAMPLE I.D.: **G8-A/B/C/D (Composite)**
LAB I.D.: 040130-38,-39,-40,-41 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL(X1)
Aldrin	ND	0.001
alpha-BHC	ND	0.001
beta-BHC	ND	0.001
gamma-BHC (Lindane)	ND	0.001
delta-BHC	ND	0.001
alpha-Chlordane	ND	0.001
gamma-Chlordane	ND	0.001
4,4'-DDD	ND	0.001
4,4'-DDE	ND	0.001
4,4'-DDT	ND	0.001
Dieldrin	ND	0.001
Endosulfan I	ND	0.001
Endosulfan II	ND	0.001
Endosulfan Sulfate	ND	0.001
Endrin	ND	0.001
Endrin Aldehyde	ND	0.001
Endrin Ketone	ND	0.001
Heptachlor Epoxide	ND	0.001
Heptachlor	ND	0.001
Methoxyclor	ND	0.001
Toxaphene	ND	0.200

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/02/04
DATE ANALYZED: 02/03-04/04
DATE REPORTED: 02/06/04

METHOD BLANK FOR LAB I.D.: 040130-10 TO -13 (Composite), 040130-14 TO -17 (Composite), 040130-18 TO -21 (Composite), 040130-22 TO -25 (Composite), 040130-26 TO -29 (Composite), 040130-30 TO -33 (Composite), 040130-34 TO -37 (Composite), 040130-38 TO -41 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL(X1)
Aldrin	ND	0.001
alpha-BHC	ND	0.001
beta-BHC	ND	0.001
gamma-BHC (Lindane)	ND	0.001
delta-BHC	ND	0.001
alpha-Chlordane	ND	0.001
gamma-Chlordane	ND	0.001
4,4'-DDD	ND	0.001
4,4'-DDE	ND	0.001
4,4'-DDT	ND	0.001
Dieldrin	ND	0.001
Endosulfan I	ND	0.001
Endosulfan II	ND	0.001
Endosulfan Sulfate	ND	0.001
Endrin	ND	0.001
Endrin Aldehyde	ND	0.001
Endrin Ketone	ND	0.001
Heptachlor Epoxide	ND	0.001
Heptachlor	ND	0.001
Methoxyclor	ND	0.001
Toxaphene	ND	0.200

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro-Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

EPA 8081 QA/QC Report

Matrix: Soil Date Analyzed: 2/3-4/2004
Unit: mg/Kg

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 040130-120

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.050	0.046	**92%**	0.047	**94%**	**2%**	**0-20%**	**70-130**
Aldrin	0.000	0.050	0.048	**95%**	0.048	**97%**	**2%**	**0-20%**	**70-130**
4,4-DDE	0.000	0.050	0.050	**99%**	0.051	**102%**	**3%**	**0-20%**	**70-130**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.050	0.049	**97%**	**75-125**
Aldrin	0.050	0.049	**98%**	**75-125**
4,4-DDE	0.050	0.049	**98%**	**75-125**
Dieldrin	0.050	0.052	**104%**	**75-125**

Surrogate Recovery	ACP%	MB	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.			040130-116	040130-117	040130-118	040130-119	040130-120	0130-10~13
Tetra-chloro-meta-xylene		111%	120%	114%	116%	130%	110%	122%
Decachlorobipneyl	50-150	114%	116%	108%	121%	94%	103%	112%

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.	0130-14~17	0130-18~21	0130-22~25	0130-26~29	0130-30~33	0130-34~37	0130-38~41	
Tetra-chloro-meta-xylene	116%	129%	117%	121%	99%	113%	111%	
Decachlorobipneyl	108%	126%	106%	118%	80%	104%	96%	

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.						
Tetra-chloro-meta-xylene						
Decachlorobipneyl						

S.R. = Sample Result
spk conc = Spike Concentration
%REC = Percent Recovery
ACP %RPD = Acceptable Percent RPD Range
ACP %REC = Acceptable Percent Recovery Range

* = *Surrogate fail due to matrix interference*

Note: ***LCS, MS, MSD are in control therefore results are in control.***

Analyzed and Reviewed By:

Final Reviewer:

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: BA Environmental
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: Newhall Land / 104012
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

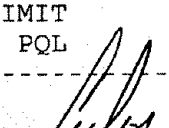
DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/02-04/04
DATE ANALYZED: 02/04/04
DATE REPORTED: 02/06/04

SAMPLE I.D.: G1-A/B/C/D (Composite)
LAB I.D.: 040130-10,-11,-12,-13 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL
2,4,5-T	ND	0.020
2,4,5-TP (Silvex)	ND	0.020
2,4-D	ND	0.200
2,4-DB	ND	0.200
Dalapon (Dichloroacetic Acid)	ND	0.500
Dicamba	ND	0.020
Dichloroprop	ND	0.200
Dinoseb (DNBP)	ND	0.100
MCPA	ND	20.0
MCPP	ND	20.0

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/02-04/04
DATE ANALYZED: 02/04/04
DATE REPORTED: 02/06/04

SAMPLE I.D.: **G2-A/B/C/D (Composite)**
LAB I.D.: 040130-14,-15,-16,-17 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL
2,4,5-T	ND	0.020
2,4,5-TP (Silvex)	ND	0.020
2,4-D	ND	0.200
2,4-DB	ND	0.200
Dalapon (Dichloroacetic Acid)	ND	0.500
Dicamba	ND	0.020
Dichloroprop	ND	0.200
Dinoseb (DNBP)	ND	0.100
MCPA	ND	20.0
MCPP	ND	20.0

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/02-04/04
DATE ANALYZED: 02/04/04
DATE REPORTED: 02/06/04

SAMPLE I.D.: **G3-A/B/C/D (Composite)**
LAB I.D.: 040130-18,-19,-20,-21 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL
2,4,5-T	ND	0.020
2,4,5-TP (Silvex)	ND	0.020
2,4-D	ND	0.200
2,4-DB	ND	0.200
Dalapon (Dichloroacetic Acid)	ND	0.500
Dicamba	ND	0.020
Dichloroprop	ND	0.200
Dinoseb (DNBP)	ND	0.100
MCPA	ND	20.0
MCPP	ND	20.0

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/02-04/04
DATE ANALYZED: 02/04/04
DATE REPORTED: 02/06/04

SAMPLE I.D.: **G4-A/B/C/D (Composite)**
LAB I.D.: 040130-22,-23,-24,-25 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL
2,4,5-T	ND	0.020
2,4,5-TP (Silvex)	ND	0.020
2,4-D	ND	0.200
2,4-DB	ND	0.200
Dalapon (Dichloroacetic Acid)	ND	0.500
Dicamba	ND	0.020
Dichloroprop	ND	0.200
Dinoseb (DNBP)	ND	0.100
MCPA	ND	20.0
MCPP	ND	20.0

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/02-04/04
DATE ANALYZED: 02/04/04
DATE REPORTED: 02/06/04

SAMPLE I.D.: **G5-A/B/C/D (Composite)**
LAB I.D.: 040130-26,-27,-28,-29 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL
2,4,5-T	ND	0.020
2,4,5-TP (Silvex)	ND	0.020
2,4-D	ND	0.200
2,4-DB	ND	0.200
Dalapon (Dichloroacetic Acid)	ND	0.500
Dicamba	ND	0.020
Dichloroprop	ND	0.200
Dinoseb (DNBP)	ND	0.100
MCPA	ND	20.0
MCPP	ND	20.0

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/02-04/04
DATE ANALYZED: 02/04/04
DATE REPORTED: 02/06/04

SAMPLE I.D.: **G6-A/B/C/D (Composite)**
LAB I.D.: 040130-30,-31,-32,-33 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL
2,4,5-T	ND	0.020
2,4,5-TP (Silvex)	ND	0.020
2,4-D	ND	0.200
2,4-DB	ND	0.200
Dalapon (Dichloroacetic Acid)	ND	0.500
Dicamba	ND	0.020
Dichloroprop	ND	0.200
Dinoseb (DNBP)	ND	0.100
MCPA	ND	20.0
MCPP	ND	20.0

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/02-04/04
DATE ANALYZED: 02/04/04
DATE REPORTED: 02/06/04

SAMPLE I.D.: **G7-A/B/C/D (Composite)**
LAB I.D.: 040130-34,-35,-36,-37 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL
2,4,5-T	ND	0.020
2,4,5-TP (Silvex)	ND	0.020
2,4-D	ND	0.200
2,4-DB	ND	0.200
Dalapon (Dichloroacetic Acid)	ND	0.500
Dicamba	ND	0.020
Dichloroprop	ND	0.200
Dinoseb (DNBP)	ND	0.100
MCPA	ND	20.0
MCPP	ND	20.0

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/02-04/04
DATE ANALYZED: 02/04/04
DATE REPORTED: 02/06/04

SAMPLE I.D.: **G8-A/B/C/D (Composite)**
LAB I.D.: 040130-38,-39,-40,-41 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL
2,4,5-T	ND	0.020
2,4,5-TP (Silvex)	ND	0.020
2,4-D	ND	0.200
2,4-DB	ND	0.200
Dalapon (Dichloroacetic Acid)	ND	0.500
Dicamba	ND	0.020
Dichloroprop	ND	0.200
Dinoseb (DNBP)	ND	0.100
MCPA	ND	20.0
MCPP	ND	20.0

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/02-04/04
DATE ANALYZED: 02/04/04
DATE REPORTED: 02/06/04

METHOD BLANK FOR LAB I.D.: 040130-10 TO -13 (Composite), 040130-14 TO -17 (Composite), 040130-18 TO -21 (Composite), 040130-22 TO -25 (Composite), 040130-26 TO -29 (Composite), 040130-30 TO -33 (Composite), 040130-34 TO -37 (Composite), 040130-38 TO -41 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL
2,4,5-T	ND	0.020
2,4,5-TP (Silvex)	ND	0.020
2,4-D	ND	0.200
2,4-DB	ND	0.200
Dalapon (Dichloroacetic Acid)	ND	0.500
Dicamba	ND	0.020
Dichloroprop	ND	0.200
Dinoseb (DNBP)	ND	0.100
MCPA	ND	20.0
MCPP	ND	20.0

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro-Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

QA/QC Report

Analysis: EPA 8151A

Matrix: **SOIL** Date Analyzed: **2/4/2004**

Unit: **mg/Kg (PPM)**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 040130-38~41

Analyte	S.R.	spk conc	MS	% REC	MSD	% REC	%RPD	ACP %RPD	ACP %REC
2,4,5-T	0	1.0	1.03	**103%**	1.06	**106%**	**3%**	**0-20%**	**50-150**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
2,4,5-T	0.100	0.105	105%	**70-130**
2,4,5-TP	0.100	0.094	94%	**70-130**
2,4-DB	1.00	1.12	112%	**70-130**

Surrogate Recovery:

Analyte	spk conc	ACP %	M-BLK	%REC	%REC	%REC	%REC	%REC	%REC
Sample ID:				040130-10~13	040130-14~17	040130-18~21	040130-22~25	040130-26~29	040130-30~33
DCAA	0.20	50-150	59%	57%	66%	75%	66%	86%	85%

Analyte	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample ID:	040130-34~37	040130-38~41							
DCAA	68%	75%							

Analyte	%REC	%REC	%REC	%REC	%REC
Sample ID:					
DCAA					

S.R. = Sample Result

spk conc = Spike Concentration

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

Analyzed and Reviewed By: _____

Final Reviewer: _____

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: February 9, 2004

Mr. Russell Cote
BA Environmental
528 State Street
Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

Project: **Newhall Land / 104012; 8141A**

Dear Mr. Cote:

The analytical results for the soil samples, received by our Lab on January 29, 2004, are attached.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,

Curtis Desilets
Vice President/Program Manager

Jesse Tu, Ph.D.
Laboratory Manager

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

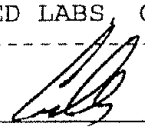
DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/03/04
DATE ANALYZED: 02/07/04
DATE REPORTED: 02/09/04

SAMPLE I.D.: **G1-A/B/C/D (Composite)**
LAB I.D.: 040130-10,-11,-12,-13 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Azinphos Methyl	ND	1.0
Bolstar (Sulprofos)	ND	0.1
Chlorpyrifos	ND	0.2
Coumaphos	ND	1.0
Demeton-O	ND	0.17
Demeton-S	ND	0.17
Diazinon	ND	0.4
Dichlorvos	ND	0.07
Disulfoton	ND	0.13
Ethoprop	ND	0.17
Fensulfothion	ND	1.0
Fenthion	ND	0.07
Malathion	ND	0.02
Merphos	ND	0.17
Mevinphos	ND	0.2
Naled	ND	0.07
Parathion Ethyl	ND	0.02
Parathion Methyl	ND	0.02
Phorate	ND	0.1
Ronnel	ND	0.2
Tetrachlorvinphos (Stirophos)	ND	3.35
Tokuthion (Prothiofos)	ND	0.33
Trichloronate	ND	0.1

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS PERFORMED BY ASSOCIATED LABS, ORANGE, CA

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

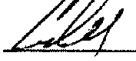
DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/03/04
DATE ANALYZED: 02/07/04
DATE REPORTED: 02/09/04

SAMPLE I.D.: **G3-A/B/C/D (Composite)**
LAB I.D.: 040130-18,-19,-20,-21 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Azinphos Methyl	ND	1.0
Bolstar (Sulprofos)	ND	0.1
Chlorpyrifos	ND	0.2
Coumaphos	ND	1.0
Demeton-O	ND	0.17
Demeton-S	ND	0.17
Diazinon	ND	0.4
Dichlorvos	ND	0.07
Disulfoton	ND	0.13
Ethoprop	ND	0.17
Fensulfothion	ND	1.0
Fenthion	ND	0.07
Malathion	ND	0.02
Merphos	ND	0.17
Mevinphos	ND	0.2
Naled	ND	0.07
Parathion Ethyl	ND	0.02
Parathion Methyl	ND	0.02
Phorate	ND	0.1
Ronnel	ND	0.2
Tetrachlorvinphos (Stirophos)	ND	3.35
Tokuthion (Prothiofos)	ND	0.33
Trichloronate	ND	0.1

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS PERFORMED BY ASSOCIATED LABS, ORANGE, CA

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX:SOIL
DATE SAMPLED:01/29/04
REPORT TO:MR. RUSSELL COTE

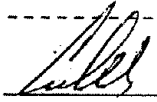
DATE RECEIVED:01/29/04
DATE EXTRACTED:02/03/04
DATE ANALYZED:02/07/04
DATE REPORTED:02/09/04

SAMPLE I.D.: **G4-A/B/C/D (Composite)**
LAB I.D.: 040130-22,-23,-24,-25 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Azinphos Methyl	ND	1.0
Bolstar (Sulprofos)	ND	0.1
Chlorpyrifos	ND	0.2
Coumaphos	ND	1.0
Demeton-O	ND	0.17
Demeton-S	ND	0.17
Diazinon	ND	0.4
Dichlorvos	ND	0.07
Disulfoton	ND	0.13
Ethoprop	ND	0.17
Fensulfothion	ND	1.0
Fenthion	ND	0.07
Malathion	ND	0.02
Merphos	ND	0.17
Mevinphos	ND	0.2
Naled	ND	0.07
Parathion Ethyl	ND	0.02
Parathion Methyl	ND	0.02
Phorate	ND	0.1
Ronnel	ND	0.2
Tetrachlorvinphos (Stirophos)	ND	3.35
Tokuthion (Prothiofos)	ND	0.33
Trichloronate	ND	0.1

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS PERFORMED BY ASSOCIATED LABS, ORANGE, CA

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

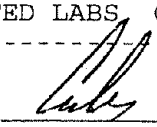
DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/03/04
DATE ANALYZED: 02/07/04
DATE REPORTED: 02/09/04

SAMPLE I.D.: **G5-A/B/C/D (Composite)**
LAB I.D.: 040130-26,-27,-28,-29 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Azinphos Methyl	ND	1.0
Bolstar (Sulprofos)	ND	0.1
Chlorpyrifos	ND	0.2
Coumaphos	ND	1.0
Demeton-O	ND	0.17
Demeton-S	ND	0.17
Diazinon	ND	0.4
Dichlorvos	ND	0.07
Disulfoton	ND	0.13
Ethoprop	ND	0.17
Fensulfothion	ND	1.0
Fenthion	ND	0.07
Malathion	ND	0.02
Merphos	ND	0.17
Mevinphos	ND	0.2
Naled	ND	0.07
Parathion Ethyl	ND	0.02
Parathion Methyl	ND	0.02
Phorate	ND	0.1
Ronnel	ND	0.2
Tetrachlorvinphos (Stirophos)	ND	3.35
Tokuthion (Prothiofos)	ND	0.33
Trichloronate	ND	0.1

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS PERFORMED BY ASSOCIATED LABS, ORANGE, CA

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/03/04
DATE ANALYZED: 02/07/04
DATE REPORTED: 02/09/04

SAMPLE I.D.: **G6-A/B/C/D (Composite)**
LAB I.D.: 040130-30,-31,-32,-33 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Azinphos Methyl	ND	1.0
Bolstar (Sulprofos)	ND	0.1
Chlorpyrifos	ND	0.2
Coumaphos	ND	1.0
Demeton-O	ND	0.17
Demeton-S	ND	0.17
Diazinon	ND	0.4
Dichlorvos	ND	0.07
Disulfoton	ND	0.13
Ethoprop	ND	0.17
Fensulfothion	ND	1.0
Fenthion	ND	0.07
Malathion	ND	0.02
Merphos	ND	0.17
Mevinphos	ND	0.2
Naled	ND	0.07
Parathion Ethyl	ND	0.02
Parathion Methyl	ND	0.02
Phorate	ND	0.1
Ronnel	ND	0.2
Tetrachlorvinphos (Stirophos)	ND	3.35
Tokuthion (Prothiofos)	ND	0.33
Trichloronate	ND	0.1

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS PERFORMED BY ASSOCIATED LABS, ORANGE, CA

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX:SOIL
DATE SAMPLED:01/29/04
REPORT TO:MR. RUSSELL COTE

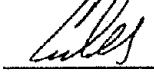
DATE RECEIVED:01/29/04
DATE EXTRACTED:02/03/04
DATE ANALYZED:02/07/04
DATE REPORTED:02/09/04

SAMPLE I.D.: **G7-A/B/C/D (Composite)**
LAB I.D.: 040130-34,-35,-36,-37 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Azinphos Methyl	ND	1.0
Bolstar (Sulprofos)	ND	0.1
Chlorpyrifos	ND	0.2
Coumaphos	ND	1.0
Demeton-O	ND	0.17
Demeton-S	ND	0.17
Diazinon	ND	0.4
Dichlorvos	ND	0.07
Disulfoton	ND	0.13
Ethoprop	ND	0.17
Fensulfothion	ND	1.0
Fenthion	ND	0.07
Malathion	ND	0.02
Merphos	ND	0.17
Mevinphos	ND	0.2
Naled	ND	0.07
Parathion Ethyl	ND	0.02
Parathion Methyl	ND	0.02
Phorate	ND	0.1
Ronnel	ND	0.2
Tetrachlorvinphos (Stirophos)	ND	3.35
Tokuthion (Prothiofos)	ND	0.33
Trichloronate	ND	0.1

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS PERFORMED BY ASSOCIATED LABS, ORANGE, CA

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

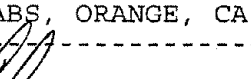
DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/03/04
DATE ANALYZED: 02/07/04
DATE REPORTED: 02/09/04

SAMPLE I.D.: **G8-A/B/C/D (Composite)**
LAB I.D.: 040130-38,-39,-40,-41 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Azinphos Methyl	ND	1.0
Bolstar (Sulprofos)	ND	0.1
Chlorpyrifos	ND	0.2
Coumaphos	ND	1.0
Demeton-O	ND	0.17
Demeton-S	ND	0.17
Diazinon	ND	0.4
Dichlorvos	ND	0.07
Disulfoton	ND	0.13
Ethoprop	ND	0.17
Fensulfothion	ND	1.0
Fenthion	ND	0.07
Malathion	ND	0.02
Merphos	ND	0.17
Mevinphos	ND	0.2
Naled	ND	0.07
Parathion Ethyl	ND	0.02
Parathion Methyl	ND	0.02
Phorate	ND	0.1
Ronnel	ND	0.2
Tetrachlorvinphos (Stirophos)	ND	3.35
Tokuthion (Prothiofos)	ND	0.33
Trichloronate	ND	0.1

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS PERFORMED BY ASSOCIATED LABS, ORANGE, CA

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: BA Environmental
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: Newhall Land / 104012
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/03/04
DATE ANALYZED: 02/07/04
DATE REPORTED: 02/09/04

METHOD BLANK FOR LAB I.D.: 040130-10 TO -13 (Composite), 040130-14 TO -17 (Composite), 040130-18 TO -21 (Composite), 040130-22 TO -25 (Composite), 040130-26 TO -29 (Composite), 040130-30 TO -33 (Composite), 040130-34 TO -37 (Composite), 040130-38 TO -41 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Azinphos Methyl	ND	1.0
Bolstar (Sulprofos)	ND	0.1
Chlorpyrifos	ND	0.2
Coumaphos	ND	1.0
Demeton-O	ND	0.17
Demeton-S	ND	0.17
Diazinon	ND	0.4
Dichlorvos	ND	0.07
Disulfoton	ND	0.13
Ethoprop	ND	0.17
Fensulfothion	ND	1.0
Fenthion	ND	0.07
Malathion	ND	0.02
Merphos	ND	0.17
Mevinphos	ND	0.2
Naled	ND	0.07
Parathion Ethyl	ND	0.02
Parathion Methyl	ND	0.02
Phorate	ND	0.1
Ronnel	ND	0.2
Tetrachlorvinphos (Stirophos)	ND	3.35
Tokuthion (Prothiofos)	ND	0.33
Trichloronate	ND	0.1

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS PERFORMED BY ASSOCIATED LABS, ORANGE, CA

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868 - 714/771-6900 FAX 714/538-1209

CLIENT Enviro-Chem Laboratories, Inc. (7420)
ATTN: Curtis Desilets
1214 E. Lexington Avenue
Pomona, CA 91766

LAB REQUEST 123712

REPORTED 02/09/2004
RECEIVED 01/30/2004

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
494471	040130/10-13
494472	040130/14-17
494473	040130/18-21
494474	040130/22-25
494475	040130/26-29
494476	040130/30-33
494477	040130/34-37
494478	040130/38-41
494479	Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical
Microbiological
Environmental

FEB-10-2004 09:17 FROM-Associated Laboratories 714-538-1209 T-535 P.001/012 F-665

Order #: 494471 **Client:** Enviro-Chem Laboratories, Inc.

Matrix: SOLID **Client Sample ID:** 040130/10-13

Date Sampled: 01/29/2004

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8141 Organophosphate Pesticides						
Azinophos Methyl (Guthion)	ND	1	1.0	mg/Kg	02/07/04	SD
Bolstar	ND	1	0.1	mg/Kg	02/07/04	SD
Chlorpyrifos(Dursban)	ND	1	0.2	mg/Kg	02/07/04	SD
Coumaphos	ND	1	1.0	mg/Kg	02/07/04	SD
Demeton(Systox)-O	ND	1	0.17	mg/Kg	02/07/04	SD
Demeton(Systox)-S	ND	1	0.17	mg/Kg	02/07/04	SD
Diazinon	ND	1	0.4	mg/Kg	02/07/04	SD
Dichlorvos	ND	1	0.07	mg/Kg	02/07/04	SD
Disulfoton (Disyston)	ND	1	0.13	mg/Kg	02/07/04	SD
Ethoprop	ND	1	0.17	mg/Kg	02/07/04	SD
Fensulfothion	ND	1	1.0	mg/Kg	02/07/04	SD
Fenthion	ND	1	0.07	mg/Kg	02/07/04	SD
Malathion	ND	1	0.02	mg/Kg	02/07/04	SD
Merphos	ND	1	0.17	mg/Kg	02/07/04	SD
Mevinphos (Phosdrin)	ND	1	0.2	mg/Kg	02/07/04	SD
Naled (Dibrom)	ND	1	0.07	mg/Kg	02/07/04	SD
Parathion Ethyl	ND	1	0.02	mg/Kg	02/07/04	SD
Parathion Methyl	ND	1	0.02	mg/Kg	02/07/04	SD
Phorate (Thimet)	ND	1	0.1	mg/Kg	02/07/04	SD
Ronnel	ND	1	0.2	mg/Kg	02/07/04	SD
Stirophos (Tetrachlorvinphos)	ND	1	3.35	mg/Kg	02/07/04	SD
Tokuthion (Protothiofos)	ND	1	0.33	mg/Kg	02/07/04	SD
Trichloronate	ND	1	0.1	mg/Kg	02/07/04	SD
Surrogates				**Units**	**Control Limits**	
TBP (sur)	71			%	50 - 145	
TPP (sur)	60			%	50 - 145	

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

FEB-10-2004 09:18 FROM-Associated Laboratories 714-538-1209 T-535 P 002/012 F-665

Order #: 494472 **Client:** Enviro-Chem Laboratories, Inc.

Matrix: SOLID **Client Sample ID:** 040130/14-17

Date Sampled: 01/29/2004

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
8141 Organophosphate Pesticides					
Azinophos Methyl (Guthion)	ND	1	1.0	mg/Kg	02/07/04 SD
Bolstar	ND	1	0.1	mg/Kg	02/07/04 SD
Chlorpyrifos(Dursban)	ND	1	0.2	mg/Kg	02/07/04 SD
Coumaphos	ND	1	1.0	mg/Kg	02/07/04 SD
Demeton(Systox)-O	ND	1	0.17	mg/Kg	02/07/04 SD
Demeton(Systox)-S	ND	1	0.17	mg/Kg	02/07/04 SD
Diazinon	ND	1	0.4	mg/Kg	02/07/04 SD
Dichlorvos	ND	1	0.07	mg/Kg	02/07/04 SD
Disulfoton (Disyston)	ND	1	0.13	mg/Kg	02/07/04 SD
Ethoprop	ND	1	0.17	mg/Kg	02/07/04 SD
Fensulfothion	ND	1	1.0	mg/Kg	02/07/04 SD
Fenthion	ND	1	0.07	mg/Kg	02/07/04 SD
Malathion	ND	1	0.02	mg/Kg	02/07/04 SD
Merphos	ND	1	0.17	mg/Kg	02/07/04 SD
Mevinphos (Phosdrin)	ND	1	0.2	mg/Kg	02/07/04 SD
Naled (Dibrom)	ND	1	0.07	mg/Kg	02/07/04 SD
Parathion Ethyl	ND	1	0.02	mg/Kg	02/07/04 SD
Parathion Methyl	ND	1	0.02	mg/Kg	02/07/04 SD
Phorate (Thimet)	ND	1	0.1	mg/Kg	02/07/04 SD
Ronnel	ND	1	0.2	mg/Kg	02/07/04 SD
Stirophos (Tetrachlorvinphos)	ND	1	3.35	mg/Kg	02/07/04 SD
Tokuthion (Protothiofos)	ND	1	0.33	mg/Kg	02/07/04 SD
Trichloronate	ND	1	0.1	mg/Kg	02/07/04 SD
Surrogates				**Units**	**Control Limits**
TBP (sur)	61			%	50 - 145
TPP (sur)	50			%	50 - 145

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit. DF = Dilution Factor

FEB-10-2004 09:18 FROM-Associated Laboratories 714-538-1209 T-535 P.003/012 F-665

Order #: 494473
Matrix: SOLID
Date Sampled: 01/29/2004
Time Sampled:
Sampled By:

Client: Enviro-Chem Laboratories, Inc.
Client Sample ID: 040130/18-21

Analyte	Result	DF	DLR	Units	Date/Analyst
8141 Organophosphate Pesticides					
Azinophos Methyl (Guthion)	ND	1	1.0	mg/Kg	02/07/04 SD
Bolstar	ND	1	0.1	mg/Kg	02/07/04 SD
Chlorpyrifos(Dursban)	ND	1	0.2	mg/Kg	02/07/04 SD
Coumaphos	ND	1	1.0	mg/Kg	02/07/04 SD
Demeton(Systox)-O	ND	1	0.17	mg/Kg	02/07/04 SD
Demeton(Systox)-S	ND	1	0.17	mg/Kg	02/07/04 SD
Diazinon	ND	1	0.4	mg/Kg	02/07/04 SD
Dichlorvos	ND	1	0.07	mg/Kg	02/07/04 SD
Disulfoton (Disyston)	ND	1	0.13	mg/Kg	02/07/04 SD
Ethoprop	ND	1	0.17	mg/Kg	02/07/04 SD
Fensulfothion	ND	1	1.0	mg/Kg	02/07/04 SD
Fenthion	ND	1	0.07	mg/Kg	02/07/04 SD
Malathion	ND	1	0.02	mg/Kg	02/07/04 SD
Merphos	ND	1	0.17	mg/Kg	02/07/04 SD
Mevinphos (Phosdrin)	ND	1	0.2	mg/Kg	02/07/04 SD
Naled (Dibrom)	ND	1	0.07	mg/Kg	02/07/04 SD
Parathion Ethyl	ND	1	0.02	mg/Kg	02/07/04 SD
Parathion Methyl	ND	1	0.02	mg/Kg	02/07/04 SD
Phorate (Thimet)	ND	1	0.1	mg/Kg	02/07/04 SD
Ronnel	ND	1	0.2	mg/Kg	02/07/04 SD
Stirophos (Tetrachlorvinphos)	ND	1	3.35	mg/Kg	02/07/04 SD
Tokuthion (Prothiofos)	ND	1	0.33	mg/Kg	02/07/04 SD
Trichloronate	ND	1	0.1	mg/Kg	02/07/04 SD
Surrogates				**Units**	**Control Limits**
TBP (sur)	80			%	50 - 145
TPP (sur)	83			%	50 - 145

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

FEB-10-2004 09:18 FROM-Associated Laboratories 714-538-1209 T-535 P 004/012 F-665

Order #: 494474 **Client:** Enviro-Chem Laboratories, Inc.

Matrix: SOLID **Client Sample ID:** 040130/22-25

Date Sampled: 01/29/2004

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8141 Organophosphate Pesticides						
Azinophos Methyl (Guthion)	ND	1	1.0	mg/Kg	02/07/04	SD
Bolstar	ND	1	0.1	mg/Kg	02/07/04	SD
Chlorpyrifos(Dursban)	ND	1	0.2	mg/Kg	02/07/04	SD
Coumaphos	ND	1	1.0	mg/Kg	02/07/04	SD
Demeton(Systox)-O	ND	1	0.17	mg/Kg	02/07/04	SD
Demeton(Systox)-S	ND	1	0.17	mg/Kg	02/07/04	SD
Diazinon	ND	1	0.4	mg/Kg	02/07/04	SD
Dichlorvos	ND	1	0.07	mg/Kg	02/07/04	SD
Disulfoton (Disyston)	ND	1	0.13	mg/Kg	02/07/04	SD
Ethoprop	ND	1	0.17	mg/Kg	02/07/04	SD
Fensulfothion	ND	1	1.0	mg/Kg	02/07/04	SD
Fenthion	ND	1	0.07	mg/Kg	02/07/04	SD
Malathion	ND	1	0.02	mg/Kg	02/07/04	SD
Merphos	ND	1	0.17	mg/Kg	02/07/04	SD
Mevinphos (Phosdrin)	ND	1	0.2	mg/Kg	02/07/04	SD
Naled (Dibrom)	ND	1	0.07	mg/Kg	02/07/04	SD
Parathion Ethyl	ND	1	0.02	mg/Kg	02/07/04	SD
Parathion Methyl	ND	1	0.02	mg/Kg	02/07/04	SD
Phorate (Thimet)	ND	1	0.1	mg/Kg	02/07/04	SD
Ronnel	ND	1	0.2	mg/Kg	02/07/04	SD
Stirophos (Tetrachlorvinphos)	ND	1	3.35	mg/Kg	02/07/04	SD
Tokuthion (Prothiofos)	ND	1	0.33	mg/Kg	02/07/04	SD
Trichloronate	ND	1	0.1	mg/Kg	02/07/04	SD

Surrogates		Units	Control Limits
TBP (sur)	77	%	50 - 145
TPP (sur)	74	%	50 - 145

DLR = Detection limit for reporting purposes. ND = Not Detected below indicated detection limit, DF = Dilution Factor

FEB-10-2004 09:18 FROM-Associated Laboratories 714-538-1209 T-535 P.005/012 F-665

Order #: 494475 **Client:** Enviro-Chem Laboratories, Inc.

Matrix: SOLID **Client Sample ID:** 040130/26-29

Date Sampled: 01/29/2004

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8141 Organophosphate Pesticides						
Azinophos Methyl (Guthion)	ND	1	1.0	mg/Kg	02/07/04	SD
Bolstar	ND	1	0.1	mg/Kg	02/07/04	SD
Chlorpyrifos(Dursban)	ND	1	0.2	mg/Kg	02/07/04	SD
Coumaphos	ND	1	1.0	mg/Kg	02/07/04	SD
Demeton(Systox)-O	ND	1	0.17	mg/Kg	02/07/04	SD
Demeton(Systox)-S	ND	1	0.17	mg/Kg	02/07/04	SD
Diazinon	ND	1	0.4	mg/Kg	02/07/04	SD
Dichlorvos	ND	1	0.07	mg/Kg	02/07/04	SD
Disulfoton (Disyston)	ND	1	0.13	mg/Kg	02/07/04	SD
Ethoprop	ND	1	0.17	mg/Kg	02/07/04	SD
Fensulfothion	ND	1	1.0	mg/Kg	02/07/04	SD
Fenthion	ND	1	0.07	mg/Kg	02/07/04	SD
Malathion	ND	1	0.02	mg/Kg	02/07/04	SD
Merphos	ND	1	0.17	mg/Kg	02/07/04	SD
Mevinphos (Phosdrin)	ND	1	0.2	mg/Kg	02/07/04	SD
Naled (Dibrom)	ND	1	0.07	mg/Kg	02/07/04	SD
Parathion Ethyl	ND	1	0.02	mg/Kg	02/07/04	SD
Parathion Methyl	ND	1	0.02	mg/Kg	02/07/04	SD
Phorate (Thimet)	ND	1	0.1	mg/Kg	02/07/04	SD
Ronnel	ND	1	0.2	mg/Kg	02/07/04	SD
Stirophos (Tetrachlorvinphos)	ND	1	3.35	mg/Kg	02/07/04	SD
Tokuthion (Protothiofos)	ND	1	0.33	mg/Kg	02/07/04	SD
Trichloronate	ND	1	0.1	mg/Kg	02/07/04	SD

Surrogates		Units	Control Limits
TBP (sur)	78	%	50 - 145
TPP (sur)	68	%	50 - 145

DLR = Detection limit for reporting purposes. ND = Not Detected below indicated detection limit, DF = Dilution Factor

FEB-10-2004 09:19 FROM-Associated Laboratories 714-538-1209 T-535 P.006/012 F-665

Order #: 494476 **Client:** Enviro-Chem Laboratories, Inc.
Matrix: SOLID **Client Sample ID:** 040130/30-33
Date Sampled: 01/29/2004
Time Sampled:
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8141 Organophosphate Pesticides						
Azinophos Methyl (Guthion)	ND	1	1.0	mg/Kg	02/07/04	SD
Bolstar	ND	1	0.1	mg/Kg	02/07/04	SD
Chlorpyrifos(Dursban)	ND	1	0.2	mg/Kg	02/07/04	SD
Coumaphos	ND	1	1.0	mg/Kg	02/07/04	SD
Demeton(Systox)-O	ND	1	0.17	mg/Kg	02/07/04	SD
Demeton(Systox)-S	ND	1	0.17	mg/Kg	02/07/04	SD
Diazinon	ND	1	0.4	mg/Kg	02/07/04	SD
Dichlorvos	ND	1	0.07	mg/Kg	02/07/04	SD
Disulfoton (Disyston)	ND	1	0.13	mg/Kg	02/07/04	SD
Ethoprop	ND	1	0.17	mg/Kg	02/07/04	SD
Fensulfothion	ND	1	1.0	mg/Kg	02/07/04	SD
Fenthion	ND	1	0.07	mg/Kg	02/07/04	SD
Malathion	ND	1	0.02	mg/Kg	02/07/04	SD
Merphos	ND	1	0.17	mg/Kg	02/07/04	SD
Mevinphos (Phosdrin)	ND	1	0.2	mg/Kg	02/07/04	SD
Naled (Dibrom)	ND	1	0.07	mg/Kg	02/07/04	SD
Parathion Ethyl	ND	1	0.02	mg/Kg	02/07/04	SD
Parathion Methyl	ND	1	0.02	mg/Kg	02/07/04	SD
Phorate (Thimet)	ND	1	0.1	mg/Kg	02/07/04	SD
Ronnel	ND	1	0.2	mg/Kg	02/07/04	SD
Stirophos (Tetrachlorvinphos)	ND	1	3.35	mg/Kg	02/07/04	SD
Tokuthion (Prothiofos)	ND	1	0.33	mg/Kg	02/07/04	SD
Trichloronate	ND	1	0.1	mg/Kg	02/07/04	SD

Surrogates		Units	Control Limits
TBP (sur)	80	%	50 - 145
TPP (sur)	68	%	50 - 145

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

FEB-10-2004 09:19 FROM-Associated Laboratories 714-538-1209 T-535 P.007/012 F-665

Order #: 494477
Matrix: SOLID
Date Sampled: 01/29/2004
Time Sampled:
Sampled By:

Client: Enviro-Chem Laboratories, Inc.
Client Sample ID: 040130/34-37

Analyte	Result	DF	DLR	Units	Date/Analyst	
8141 Organophosphate Pesticides						
Azinophos Methyl (Guthion)	ND	1	1.0	mg/Kg	02/07/04	SD
Bolstar	ND	1	0.1	mg/Kg	02/07/04	SD
Chlorpyrifos(Dursban)	ND	1	0.2	mg/Kg	02/07/04	SD
Coumaphos	ND	1	1.0	mg/Kg	02/07/04	SD
Demeton(Systox)-O	ND	1	0.17	mg/Kg	02/07/04	SD
Demeton(Systox)-S	ND	1	0.17	mg/Kg	02/07/04	SD
Diazinon	ND	1	0.4	mg/Kg	02/07/04	SD
Dichlorvos	ND	1	0.07	mg/Kg	02/07/04	SD
Disulfoton (Disyston)	ND	1	0.13	mg/Kg	02/07/04	SD
Ethoprop	ND	1	0.17	mg/Kg	02/07/04	SD
Fensulfothion	ND	1	1.0	mg/Kg	02/07/04	SD
Fenthion	ND	1	0.07	mg/Kg	02/07/04	SD
Malathion	ND	1	0.02	mg/Kg	02/07/04	SD
Merphos	ND	1	0.17	mg/Kg	02/07/04	SD
Mevinphos (Phosdrin)	ND	1	0.2	mg/Kg	02/07/04	SD
Naled (Dibrom)	ND	1	0.07	mg/Kg	02/07/04	SD
Parathion Ethyl	ND	1	0.02	mg/Kg	02/07/04	SD
Parathion Methyl	ND	1	0.02	mg/Kg	02/07/04	SD
Phorate (Thimet)	ND	1	0.1	mg/Kg	02/07/04	SD
Rounel	ND	1	0.2	mg/Kg	02/07/04	SD
Stirophos (Tetrachlorvinphos)	ND	1	3.35	mg/Kg	02/07/04	SD
Tokuthion (Protothiofos)	ND	1	0.33	mg/Kg	02/07/04	SD
Trichloronate	ND	1	0.1	mg/Kg	02/07/04	SD

Surrogates

		Units	Control Limits
TBP (sur)	85	%	50 - 145
TPP (sur)	70	%	50 - 145

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

FEB-10-2004 09:18 FROM-Associated Laboratories 714-538-1209 T-535 P.008/012 F-665

Order #: 494478
Matrix: SOLID
Date Sampled: 01/29/2004
Time Sampled:
Sampled By:

Client: Enviro-Chem Laboratories, Inc.
Client Sample ID: 040130/38-41

Analyte	Result	DF	DLR	Units	Date/Analyst
8141 Organophosphate Pesticides					
Azinophos Methyl (Guthion)	ND	1	1.0	mg/Kg	02/07/04 SD
Bolstar	ND	1	0.1	mg/Kg	02/07/04 SD
Chlorpyrifos(Dursban)	ND	1	0.2	mg/Kg	02/07/04 SD
Coumaphos	ND	1	1.0	mg/Kg	02/07/04 SD
Demeton(Systox)-O	ND	1	0.17	mg/Kg	02/07/04 SD
Demeton(Systox)-S	ND	1	0.17	mg/Kg	02/07/04 SD
Diazinon	ND	1	0.4	mg/Kg	02/07/04 SD
Dichlorvos	ND	1	0.07	mg/Kg	02/07/04 SD
Disulfoton (Disyston)	ND	1	0.13	mg/Kg	02/07/04 SD
Ethoprop	ND	1	0.17	mg/Kg	02/07/04 SD
Fensulfothion	ND	1	1.0	mg/Kg	02/07/04 SD
Fenthion	ND	1	0.07	mg/Kg	02/07/04 SD
Malathion	ND	1	0.02	mg/Kg	02/07/04 SD
Merphos	ND	1	0.17	mg/Kg	02/07/04 SD
Mevinphos (Phosdrin)	ND	1	0.2	mg/Kg	02/07/04 SD
Naled (Dibrom)	ND	1	0.07	mg/Kg	02/07/04 SD
Parathion Ethyl	ND	1	0.02	mg/Kg	02/07/04 SD
Parathion Methyl	ND	1	0.02	mg/Kg	02/07/04 SD
Phorate (Thimet)	ND	1	0.1	mg/Kg	02/07/04 SD
Ronnel	ND	1	0.2	mg/Kg	02/07/04 SD
Stirophos (Tetrachlorvinphos)	ND	1	3.35	mg/Kg	02/07/04 SD
Tokuthion (Prothiofos)	ND	1	0.33	mg/Kg	02/07/04 SD
Trichloronate	ND	1	0.1	mg/Kg	02/07/04 SD
Surrogates				**Units**	**Control Limits**
TBP (sur)	85			%	50 - 145
TPP (sur)	70			%	50 - 145

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

Order #: 494479 **Client:** Enviro-Chem Laboratories, Inc.

Matrix: SOLID **Client Sample ID:** Laboratory Method Blank

Date Sampled:

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
8141 Organophosphate Pesticides					
Azinophos Methyl (Guthion)	ND	1	1.0	mg/Kg	02/07/04 SD
Bolstar	ND	1	0.1	mg/Kg	02/07/04 SD
Chlorpyrifos(Dursban)	ND	1	0.2	mg/Kg	02/07/04 SD
Coumaphos	ND	1	1.0	mg/Kg	02/07/04 SD
Demeton(Systox)-O	ND	1	0.17	mg/Kg	02/07/04 SD
Demeton(Systox)-S	ND	1	0.17	mg/Kg	02/07/04 SD
Diazinon	ND	1	0.4	mg/Kg	02/07/04 SD
Dichlorvos	ND	1	0.07	mg/Kg	02/07/04 SD
Disulfoton (Disyston)	ND	1	0.13	mg/Kg	02/07/04 SD
Ethoprop	ND	1	0.17	mg/Kg	02/07/04 SD
Fensulfothion	ND	1	1.0	mg/Kg	02/07/04 SD
Fenthion	ND	1	0.07	mg/Kg	02/07/04 SD
Malathion	ND	1	0.02	mg/Kg	02/07/04 SD
Merphos	ND	1	0.17	mg/Kg	02/07/04 SD
Mevinphos (Phosdrin)	ND	1	0.2	mg/Kg	02/07/04 SD
Naled (Dibrom)	ND	1	0.07	mg/Kg	02/07/04 SD
Parathion Ethyl	ND	1	0.02	mg/Kg	02/07/04 SD
Parathion Methyl	ND	1	0.02	mg/Kg	02/07/04 SD
Phorate (Thimet)	ND	1	0.1	mg/Kg	02/07/04 SD
Ronnel	ND	1	0.2	mg/Kg	02/07/04 SD
Stirophos (Tetrachlorvinphos)	ND	1	3.35	mg/Kg	02/07/04 SD
Tokuthion (Protothiofos)	ND	1	0.33	mg/Kg	02/07/04 SD
Trichloronate	ND	1	0.1	mg/Kg	02/07/04 SD

Surrogates		Units	Control Limits
TBP (sur)	77	%	50 - 145
TPP (sur)	85	%	50 - 145

DLR = Detection limit for reporting purposes. ND = Not Detected below indicated detection limit, DF = Dilution Factor

FEB-10-2004 09:20 FROM-Associated Laboratories 714-538-1209 T-535 P 010/012 F-665

ASSOCIATED LABORATORIES
QA REPORT FORM

Determinative Method : EPA 8141 Preparative Method: EPA 3545

QC Sample: 123712-494473

Matrix: SOLID

Analysis Date: 2/7/04

Batch Date: 02/03/04 (op 020304s)

Applies to: LR 123712 and LR 123536

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULTS
REPORTING UNITS = mg/Kg

Test	Sample Result	Spike Added	Spike Recovered		% Rec		RPD	QC Limits	
			MS	MSD	MS	MSD		RPD	% Rec
Demeton-O	ND	0.400	0.237	0.254	59	64	7	35	45-140
Ethoprop	ND	0.400	0.369	0.346	92	86	7	35	45-140
Naled	ND	0.400	0.381	0.374	95	93	2	35	45-140
Diazinon	ND	0.400	0.325	0.324	81	81	0	35	45-140
Stirophos	ND	0.400	0.315	0.329	79	82	4	35	45-140
Fensulfothion	ND	0.400	0.411	0.391	103	98	5	35	45-140
Azinophos, Methyl-	ND	0.400	0.341	0.349	85	87	2	35	45-140
Coumaphos	ND	0.400	0.191	0.206	48	52	8	35	45-140

ND = Not Detected

% Rec - MS & MSD = Percent Recovery from Matrix Spike & Matrix Spike Duplicate

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate recoveries

LAB CONTROL SPIKE / LAB CONTROL SPIKE DUPLICATE RECOVERIES
REPORTING UNITS = mg/Kg

Test	Spike Added	Spike Recovered	% Rec LCS	QC Limits
Demeton-O	0.400	0.344	86	55-130
Ethoprop	0.400	0.371	93	55-130
Naled	0.400	0.389	97	55-130
Diazinon	0.400	0.381	95	55-130
Stirophos	0.400	0.371	93	55-130
Fensulfothion	0.400	0.399	100	55-130
Azinophos, Methyl-	0.400	0.375	94	55-130
Coumaphos	0.400	0.333	83	55-130

Method Blank = All ND

% Rec - LCS & LCSD = Percent Recovery from Lab Control Spike & Lab Control Spike Duplicate

RPD = Relative Percent Difference of Lab Control Spike and Lab Control Spike Duplicate recoveries

FEB-10-2004 09:20 FROM-Associated Laboratories 714-538-1209 T-535 P 011/012 F-665

Enviro - Chem, Inc.
1218 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 01/29/04
REPORT TO: MR. RUSSELL COTE

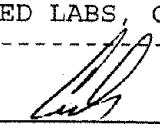
DATE RECEIVED: 01/29/04
DATE EXTRACTED: 02/03/04
DATE ANALYZED: 02/07/04
DATE REPORTED: 02/09/04

SAMPLE I.D.: **G2-A/B/C/D (Composite)**
LAB I.D.: 040130-14,-15,-16,-17 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Azinphos Methyl	ND	1.0
Bolstar (Sulprofos)	ND	0.1
Chlorpyrifos	ND	0.2
Coumaphos	ND	1.0
Demeton-O	ND	0.17
Demeton-S	ND	0.17
Diazinon	ND	0.4
Dichlorvos	ND	0.07
Disulfoton	ND	0.13
Ethoprop	ND	0.17
Fensulfothion	ND	1.0
Fenthion	ND	0.07
Malathion	ND	0.02
Merphos	ND	0.17
Mevinphos	ND	0.2
Naled	ND	0.07
Parathion Ethyl	ND	0.02
Parathion Methyl	ND	0.02
Phorate	ND	0.1
Ronnel	ND	0.2
Tetrachlorvinphos (Stirophos)	ND	3.35
Tokuthion (Prothiofos)	ND	0.33
Trichloronate	ND	0.1

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS PERFORMED BY ASSOCIATED LABS, ORANGE, CA

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

123712

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE # 1555

Turnaround Time
- 0 Same Day
- 0 24 Hours
- 0 48 Hours
- 0 72 Hours
- ● 1 Week (Standard)
- Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	8141	COMMENTS
040130-10→13		1/29/04		Soil	1			X	
-14→17		↓		↓	↓			↓	
-18→21		↓		↓	↓			↓	
-22→25		↓		↓	↓			↓	
-26→29		↓		↓	↓			↓	
-30→33		↓		↓	↓			↓	
-34→37		↓		↓	↓			↓	
-38→41		↓		↓	↓			↓	

Analysis Required

ASSOCIATED

DANIELLE. REFER TO PREVIOUS QUOTE. -CURTIS

Company Name:	Project Contact: Curtis B. Desjets	Sampler's Signature:
Address: Enviro-Chem, Inc. 1214 E. Lexington Avenue Pomona, CA 91768-5519	Tel: (909) 590-5905	Project Name/ID: 040130-10→13, 14→17, 18→21, 22→25, 26→29, 30→33, 34→37, 38→41
City/State/Zip:	Fax: (909) 590-5907	

Relinquished by:	Received by:	Date & Time: 1/30/04 1105	Instructions for Sample Storage After Analys
Relinquished by:	Received by:	Date & Time: 1/30/04 1145	O Dispose of O Return to Client O Store (30 Days)
Relinquished by:	Received by:	Date & Time:	O Other:

CHAIN OF CUSTODY RECORD

1:30·04. 3:20

Date: 1/30/11/30/04

FEB-10-2004 09:20 FROM-Associated Laboratories 714-538-1209 T-535 P.012/012 F-665

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE # 1555

Turnaround Time
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
X 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	8081	8141	8151							COMMENTS
								Analysis Required									
G1-A	040130-10	1-29-04		Soil	1 X 4oz		Ice	X	X	X							
G1-B	-11							X	X	X							Composite Samples
G1-C	-12							X	X	X							
G1-D	-13							X	X	X							
G2-A	-14							X	X	X							
G2-B	-15							X	X	X							Composite Samples
G2-C	-16							X	X	X							
G2-D	-17							X	X	X							
G3-A	-18							X	X	X							
G3-B	-19							X	X	X							Composite Samples
G3-C	-20							X	X	X							
G3-D	-21							X	X	X							

Company Name: Building Analytics
Address: 528 State St.
City/State/Zip: Glendale CA 91203

Project Contact: Russell Cote
Tel: (818) 500-1868
Fax: (818) 246-8185

Sampler's Signature: Russell Cote
Project Name/ID: Newhall Land
104012

Relinquished by: Russell Cote	Received by: [illegible]	Date & Time: 1/29/04 1525	Instructions for Sample Storage After Analysis:
Relinquished by: [illegible]	Received by: [illegible]	Date & Time: 1/30/04 0905	O Dispose of O Return to Client O Store (30 Days)
Relinquished by:	Received by:	Date & Time:	O Other:

CHAIN OF CUSTODY RECORD

Date:

WHITE WITH SAMPLE, YELLOW TO CLIENT

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE # 1555

Turnaround Time
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
X 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	8081	8141	8151	COMMENTS
				Analysis Required							
G4-A	040130-22	1-29-04		Soil	1 X 40Z		TCE	X	X	X	Composite Samples
G4-B	-23							X	X	X	
G4-C	-24							X	X	X	
G4-D	-25							X	X	X	
G5-A	-26							X	X	X	Composite Samples
G5-B	-27							X	X	X	
G5-C	-28							X	X	X	
G5-D	-29							X	X	X	
G6-A	-30							X	X	X	Composite Samples
G6-B	-31							X	X	X	
G6-C	-32							X	X	X	
G6-D	-33							X	X	X	

Company Name: Building Analytics
Address: 528 State St
City/State/Zip: Colorado CA 91203

Project Contact: Russell Cote
Tel: (818) 500-1598
Fax: (818) 246-8195

Sampler's Signature: Russell Cote
Project Name/ID: 104012 Newhall Land

Relinquished by: Russell Cote	Received by: [illegible]	Date & Time: 1/29/04 1525	Instructions for Sample Storage After Analysis:
Relinquished by: [illegible]	Received by: [illegible]	Date & Time: 1/30/04 0905	O Dispose of O Return to Client O Store (30 Days)
Relinquished by:	Received by:	Date & Time:	O Other:

CHAIN OF CUSTODY RECORD

Date: _____

WHITE WITH SAMPLE - YELLOW TO CLIENT

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE # 1555

Turnaround Time
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
~~0~~ 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	8081	8141	8151										MISC.	COMMENTS
								Analysis Required													
G7-A	040130-34	1-29-04		Soil	1x402		ICE	X	X	X											
G7-B	-35							X	X	X											Composite Samples
G7-C	-36							X	X	X											
G7-D	-37							X	X	X											
G8-A	-38							X	X	X											
G8-B	-39							X	X	X											Composite Samples
G8-C	-40							X	X	X											
G8-D	-41							X	X	X											

Company Name: Building Analytics
Address: 528 State St.
City/State/Zip: Glendale CA 91203

Project Contact: Russell Cole
Tel: (818) 500-1888
Fax: (818) 246-8155

Sampler's Signature: Russell Cole
Project Name/ID: Newhall Land 104012

Relinquished by: Russell Cole
Relinquished by:
Relinquished by:

Received by:
Received by:
Received by:

Date & Time: 1/29/04 1525
Date & Time: 1/30/04 0905
Date & Time:

Instructions for Sample Storage After Analysis:
O Dispose of O Return to Client O Store (30 Days)
O Other:

CHAIN OF CUSTODY RECORD

Date:

WHITE WITH SAMPLE - YELLOW TO CLIENT

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: February 12, 2004

Mr. Russell Cote
BA Environmental
528 State Street
Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

Project: **Newhall Land / 104012**

Dear Mr. Cote:

The analytical results for the soil samples, received by our Lab on February 5, 2004, are attached.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,

Curtis Desilets
Vice President/Program Manager

Jesse Tu, Ph.D.
Laboratory Manager

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: BA Environmental
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: Newhall Land / 104012
MATRIX: SOIL
DATE SAMPLED: 02/04/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/05/04
DATE EXTRACTED: 02/09/04
DATE ANALYZED: 02/10-11/04
DATE REPORTED: 02/12/04

SAMPLE I.D.: G9-A/B/C/D (Composite)
LAB I.D.: 040205-1,-2,-3,-4 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL(X1)
Aldrin	ND	0.001
alpha-BHC	ND	0.001
beta-BHC	ND	0.001
gamma-BHC (Lindane)	ND	0.001
delta-BHC	ND	0.001
alpha-Chlordane	ND	0.001
gamma-Chlordane	ND	0.001
4,4'-DDD	ND	0.001
4,4'-DDE	ND	0.001
4,4'-DDT	ND	0.001
Dieldrin	ND	0.001
Endosulfan I	ND	0.001
Endosulfan II	ND	0.001
Endosulfan Sulfate	ND	0.001
Endrin	0.001	0.001
Endrin Aldehyde	ND	0.001
Endrin Ketone	ND	0.001
Heptachlor Epoxide	ND	0.001
Heptachlor	ND	0.001
Methoxyclor	ND	0.001
Toxaphene	ND	0.200

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: BA Environmental
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/04/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/05/04
DATE EXTRACTED: 02/09/04
DATE ANALYZED: 02/10-11/04
DATE REPORTED: 02/12/04

SAMPLE I.D.: **G10-A/B/C/D (Composite)**
LAB I.D.: 040205-5,-6,-7,-8 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL(X1)
Aldrin	ND	0.001
alpha-BHC	ND	0.001
beta-BHC	ND	0.001
gamma-BHC (Lindane)	ND	0.001
delta-BHC	ND	0.001
alpha-Chlordane	ND	0.001
gamma-Chlordane	ND	0.001
4,4'-DDD	ND	0.001
4,4'-DDE	ND	0.001
4,4'-DDT	ND	0.001
Dieldrin	ND	0.001
Endosulfan I	ND	0.001
Endosulfan II	ND	0.001
Endosulfan Sulfate	ND	0.001
Endrin	0.001	0.001
Endrin Aldehyde	ND	0.001
Endrin Ketone	ND	0.001
Heptachlor Epoxide	ND	0.001
Heptachlor	ND	0.001
Methoxyclor	ND	0.001
Toxaphene	ND	0.200

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: BA Environmental
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: Newhall Land / 104012
MATRIX: SOIL
DATE SAMPLED: 02/04/04
REPORT TO: MR. RUSSELL COTE

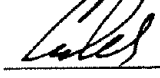
DATE RECEIVED: 02/05/04
DATE EXTRACTED: 02/09/04
DATE ANALYZED: 02/10-11/04
DATE REPORTED: 02/12/04

SAMPLE I.D.: G11-A/B/C/D/E (Composite)
LAB I.D.: 040205-9,-10,-11,-12,-13 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL(X10)
Aldrin	ND	0.001
alpha-BHC	ND	0.001
beta-BHC	ND	0.001
gamma-BHC (Lindane)	ND	0.001
delta-BHC	ND	0.001
alpha-Chlordane	0.012	0.001
gamma-Chlordane	0.017	0.001
4,4'-DDD	ND	0.001
4,4'-DDE	0.008J	0.001
4,4'-DDT	0.014	0.001
Dieldrin	ND	0.001
Endosulfan I	ND	0.001
Endosulfan II	0.018	0.001
Endosulfan Sulfate	ND	0.001
Endrin	0.061	0.001
Endrin Aldehyde	ND	0.001
Endrin Ketone	ND	0.001
Heptachlor Epoxide	ND	0.001
Heptachlor	ND	0.001
Methoxyclor	ND	0.001
Toxaphene	ND	0.200

COMMENTS:
MDL = MINIMUM DETECTION LIMIT
PQL = PRACTICAL QUANTITATION LIMIT
J = TRACE CONCENTRATION BETWEEN MDL AND PQL
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/04/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/05/04
DATE EXTRACTED: 02/09/04
DATE ANALYZED: 02/10-11/04
DATE REPORTED: 02/12/04

SAMPLE I.D.: **G12-A/B/C/D (Composite)**
LAB I.D.: 040205-14,-15,-16,-17 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL(X10)
Aldrin	ND	0.001
alpha-BHC	ND	0.001
beta-BHC	ND	0.001
gamma-BHC (Lindane)	ND	0.001
delta-BHC	ND	0.001
alpha-Chlordane	ND	0.001
gamma-Chlordane	ND	0.001
4,4'-DDD	ND	0.001
4,4'-DDE	ND	0.001
4,4'-DDT	0.022	0.001
Dieldrin	ND	0.001
Endosulfan I	ND	0.001
Endosulfan II	ND	0.001
Endosulfan Sulfate	ND	0.001
Endrin	0.029	0.001
Endrin Aldehyde	ND	0.001
Endrin Ketone	ND	0.001
Heptachlor Epoxide	ND	0.001
Heptachlor	ND	0.001
Methoxyclor	ND	0.001
Toxaphene	ND	0.200

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: BA Environmental
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: Newhall Land / 104012
MATRIX: SOIL
DATE SAMPLED: 02/04/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/05/04
DATE EXTRACTED: 02/09/04
DATE ANALYZED: 02/10-11/04
DATE REPORTED: 02/12/04

SAMPLE I.D.: G17-A/B/C/D (Composite)
LAB I.D.: 040205-18,-19,-20,-21 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL(X10)
Aldrin	ND	0.001
alpha-BHC	ND	0.001
beta-BHC	ND	0.001
gamma-BHC (Lindane)	ND	0.001
delta-BHC	ND	0.001
alpha-Chlordane	0.018	0.001
gamma-Chlordane	0.027	0.001
4,4'-DDD	ND	0.001
4,4'-DDE	0.012	0.001
4,4'-DDT	0.023	0.001
Dieldrin	ND	0.001
Endosulfan I	ND	0.001
Endosulfan II	0.034	0.001
Endosulfan Sulfate	ND	0.001
Endrin	0.136	0.001
Endrin Aldehyde	ND	0.001
Endrin Ketone	ND	0.001
Heptachlor Epoxide	ND	0.001
Heptachlor	ND	0.001
Methoxyclor	ND	0.001
Toxaphene	ND	0.200

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/04/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/05/04
DATE EXTRACTED: 02/09/04
DATE ANALYZED: 02/10-11/04
DATE REPORTED: 02/12/04

METHOD BLANK FOR LAB I.D.: 040205-1 TO -4 (Composite), 040205-5 TO -8 (Composite), 040205-9 TO -13 (Composite), 040205-14 TO -17 (Composite), 040205-18 TO -21(Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL(X1)
Aldrin	ND	0.001
alpha-BHC	ND	0.001
beta-BHC	ND	0.001
gamma-BHC (Lindane)	ND	0.001
delta-BHC	ND	0.001
alpha-Chlordane	ND	0.001
gamma-Chlordane	ND	0.001
4,4'-DDD	ND	0.001
4,4'-DDE	ND	0.001
4,4'-DDT	ND	0.001
Dieldrin	ND	0.001
Endosulfan I	ND	0.001
Endosulfan II	ND	0.001
Endosulfan Sulfate	ND	0.001
Endrin	ND	0.001
Endrin Aldehyde	ND	0.001
Endrin Ketone	ND	0.001
Heptachlor Epoxide	ND	0.001
Heptachlor	ND	0.001
Methoxyclor	ND	0.001
Toxaphene	ND	0.200

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro-Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

EPA 8081 QA/QC Report

Matrix: Soil Date Analyzed: 2/10/2004

Unit: mg/Kg

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 040206-15

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.050	0.044	89%	0.046	91%	3%	0-20%	70-130
Aldrin	0.000	0.050	0.045	91%	0.046	92%	1%	0-20%	70-130
4,4-DDE	0.000	0.050	0.048	97%	0.049	97%	1%	0-20%	70-130

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.050	0.048	97%	75-125
Aldrin	0.050	0.047	94%	75-125
4,4-DDE	0.050	0.051	102%	75-125
Dieldrin	0.050	0.050	100%	75-125

Surrogate Recovery	ACP%	MB	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.			040206-14	040206-15	040205-1~4	040205-5~8	040205-9~13	040205-14~17
Tetra-chloro-meta-xylene	50-150	119%	99%	97%	101%	105%	101%	101%
Decachlorobipneyl	50-150	143%	116%	110%	114%	119%	114%	114%

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.	040205-18~21							
Tetra-chloro-meta-xylene	106%							
Decachlorobipneyl	115%							

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.						
Tetra-chloro-meta-xylene						
Decachlorobipneyl						

S.R. = Sample Result

spk conc = Spike Concentration

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

** = Surrogate fail due to matrix interference (If Marked)*

Note: *LCS, MS, MSD are in control therefore results are in control.*

Analyzed and Reviewed By:

Final Reviewer:

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: BA Environmental
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: Newhall Land / 104012
MATRIX: SOIL
DATE SAMPLED: 02/04/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/05/04
DATE EXTRACTED: 02/06-07/04
DATE ANALYZED: 02/09/04
DATE REPORTED: 02/12/04

SAMPLE I.D.: G9-A/B/C/D (Composite)
LAB I.D.: 040205-1,-2,-3,-4 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL
2,4,5-T	ND	0.020
2,4,5-TP (Silvex)	ND	0.020
2,4-D	ND	0.200
2,4-DB	ND	0.200
Dalapon (Dichloroacetic Acid)	ND	0.500
Dicamba	ND	0.020
Dichloroprop	ND	0.200
Dinoseb (DNBP)	ND	0.100
MCPA	ND	20.0
MCPP	ND	20.0

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/04/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/05/04
DATE EXTRACTED: 02/06-07/04
DATE ANALYZED: 02/09/04
DATE REPORTED: 02/12/04

SAMPLE I.D.: **G10-A/B/C/D (Composite)**
LAB I.D.: 040205-5,-6,-7,-8 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL
2,4,5-T	ND	0.020
2,4,5-TP (Silvex)	ND	0.020
2,4-D	ND	0.200
2,4-DB	ND	0.200
Dalapon (Dichloroacetic Acid)	ND	0.500
Dicamba	ND	0.020
Dichloroprop	ND	0.200
Dinoseb (DNBP)	ND	0.100
MCPA	ND	20.0
MCPP	ND	20.0

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/04/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/05/04
DATE EXTRACTED: 02/06-07/04
DATE ANALYZED: 02/09/04
DATE REPORTED: 02/12/04

SAMPLE I.D.: **G11-A/B/C/D/E (Composite)**
LAB I.D.: 040205-9,-10,-11,-12,-13 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL
2,4,5-T	ND	0.020
2,4,5-TP (Silvex)	ND	0.020
2,4-D	ND	0.200
2,4-DB	ND	0.200
Dalapon (Dichloroacetic Acid)	ND	0.500
Dicamba	ND	0.020
Dichloroprop	ND	0.200
Dinoseb (DNBP)	ND	0.100
MCPA	ND	20.0
MCPP	ND	20.0

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: BA Environmental
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: Newhall Land / 104012
MATRIX: SOIL
DATE SAMPLED: 02/04/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/05/04
DATE EXTRACTED: 02/06-07/04
DATE ANALYZED: 02/09/04
DATE REPORTED: 02/12/04

SAMPLE I.D.: G12-A/B/C/D (Composite)
LAB I.D.: 040205-14,-15,-16,-17 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL
2,4,5-T	ND	0.020
2,4,5-TP (Silvex)	ND	0.020
2,4-D	ND	0.200
2,4-DB	ND	0.200
Dalapon (Dichloroacetic Acid)	ND	0.500
Dicamba	ND	0.020
Dichloroprop	ND	0.200
Dinoseb (DNBP)	ND	0.100
MCPA	ND	20.0
MCPP	ND	20.0

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: BA Environmental
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: Newhall Land / 104012
MATRIX: SOIL
DATE SAMPLED: 02/04/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/05/04
DATE EXTRACTED: 02/06-07/04
DATE ANALYZED: 02/09/04
DATE REPORTED: 02/12/04

SAMPLE I.D.: G17-A/B/C/D (Composite)
LAB I.D.: 040205-18,-19,-20,-21 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL
2,4,5-T	ND	0.020
2,4,5-TP (Silvex)	ND	0.020
2,4-D	ND	0.200
2,4-DB	ND	0.200
Dalapon (Dichloroacetic Acid)	ND	0.500
Dicamba	ND	0.020
Dichloroprop	ND	0.200
Dinoseb (DNBP)	ND	0.100
MCPA	ND	20.0
MCPP	ND	20.0

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: BA Environmental
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: Newhall Land / 104012
MATRIX: SOIL
DATE SAMPLED: 02/04/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/05/04
DATE EXTRACTED: 02/06-07/04
DATE ANALYZED: 02/09/04
DATE REPORTED: 02/12/04

METHOD BLANK FOR LAB I.D.: 040205-1 TO -4 (Composite), 040205-5 TO -8 (Composite), 040205-9 TO -13 (Composite), 040205-14 TO -17 (Composite), 040205-18 TO -21(Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL
2,4,5-T	ND	0.020
2,4,5-TP (Silvex)	ND	0.020
2,4-D	ND	0.200
2,4-DB	ND	0.200
Dalapon (Dichloroacetic Acid)	ND	0.500
Dicamba	ND	0.020
Dichloroprop	ND	0.200
Dinoseb (DNBP)	ND	0.100
MCPA	ND	20.0
MCPP	ND	20.0

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro-Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

QA/QC Report

Analysis: EPA 8151A

Matrix: **SOIL** Date Analyzed: **2/8-9/2004**

Unit: **mg/Kg (PPM)**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 040206-15

Analyte	S.R.	spk conc	MS	% REC	MSD	% REC	%RPD	ACP %RPD	ACP %REC
2,4,5-T	0	1.0	1.18	118%	1.19	119%	1%	0-20%	50-150

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
2,4,5-T	0.100	0.115	115%	70-130
2,4,5-TP	0.100	0.114	114%	70-130
2,4-DB	1.00	1.08	108%	70-130

Surrogate Recovery:

Analyte	spk conc	ACP %	M-BLK	%REC	%REC	%REC	%REC	%REC	%REC
Sample ID:				040205-58	040205-59	040205-60	040205-61	040204-53~56	040204-57~60
DCAA	0.20	50-150	73%	79%	78%	81%	81%	97%	97%

Analyte	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample ID:	040204-61~64	040204-65~68	040205-1~4	040205-5~8	040205-9~13	040205-14~17	040205-18~21	040206-14	040206-15
DCAA	95%	89%	108%	88%	127%	99%	118%	100%	107%

Analyte	%REC	%REC	%REC	%REC	%REC
Sample ID:	040204-29				
DCAA	76%				

S.R. = Sample Result

spk conc = Spike Concentration

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

Analyzed and Reviewed By: _____

Final Reviewer: _____

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/05/04
DATE EXTRACTED: 02/06/04
DATE ANALYZED: 02/07/04
DATE REPORTED: 02/12/04

METHOD BLANK FOR LAB I.D.: 040205-1 TO -4 (Composite), 040205-5 TO -8 (Composite), 040205-9 TO -13 (Composite), 040205-14 TO -17 (Composite), 040205-18 TO -21 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Azinphos Methyl	ND	1.0
Bolstar (Sulprofos)	ND	0.1
Chlorpyrifos	ND	0.2
Coumaphos	ND	1.0
Demeton-O	ND	0.17
Demeton-S	ND	0.17
Diazinon	ND	0.4
Dichlorvos	ND	0.07
Disulfoton	ND	0.13
Ethoprop	ND	0.17
Fensulfothion	ND	1.0
Fenthion	ND	0.07
Malathion	ND	0.02
Merphos	ND	0.17
Mevinphos	ND	0.2
Naled	ND	0.07
Parathion Ethyl	ND	0.02
Parathion Methyl	ND	0.02
Phorate	ND	0.1
Ronnel	ND	0.2
Tetrachlorvinphos (Stirophos)	ND	3.35
Tokuthion (Prothiofos)	ND	0.33
Trichloronate	ND	0.1

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS PERFORMED BY ASSOCIATED LABS, ORANGE, CA

DATA REVIEWED AND APPROVED BY: _____

CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: February 12, 2004

Mr. Russell Cote
BA Environmental
528 State Street
Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

Project: **Newhall Land / 104012; 8141A**

Dear Mr. Cote:

The analytical results for the soil samples, received by our Lab on February 5, 2004, are attached.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,

Curtis Desilets
Vice President/Program Manager

Jesse Tu, Ph.D.
Laboratory Manager

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

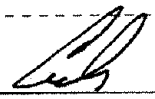
DATE RECEIVED: 02/05/04
DATE EXTRACTED: 02/06/04
DATE ANALYZED: 02/07/04
DATE REPORTED: 02/12/04

SAMPLE I.D.: **G9-A/B/C/D (Composite)**
LAB I.D.: 040205-1,-2,-3,-4 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Azinphos Methyl	ND	1.0
Bolstar (Sulprofos)	ND	0.1
Chlorpyrifos	ND	0.2
Coumaphos	ND	1.0
Demeton-O	ND	0.17
Demeton-S	ND	0.17
Diazinon	ND	0.4
Dichlorvos	ND	0.07
Disulfoton	ND	0.13
Ethoprop	ND	0.17
Fensulfothion	ND	1.0
Fenthion	ND	0.07
Malathion	ND	0.02
Merphos	ND	0.17
Mevinphos	ND	0.2
Naled	ND	0.07
Parathion Ethyl	ND	0.02
Parathion Methyl	ND	0.02
Phorate	ND	0.1
Ronnel	ND	0.2
Tetrachlorvinphos (Stirophos)	ND	3.35
Tokuthion (Prothiofos)	ND	0.33
Trichloronate	ND	0.1

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS PERFORMED BY ASSOCIATED LABS, ORANGE, CA

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

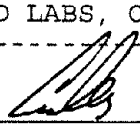
DATE RECEIVED: 02/05/04
DATE EXTRACTED: 02/06/04
DATE ANALYZED: 02/08/04
DATE REPORTED: 02/12/04

SAMPLE I.D.: **G10-A/B/C/D (Composite)**
LAB I.D.: 040205-5,-6,-7,-8 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Azinphos Methyl	ND	1.0
Bolstar (Sulprofos)	ND	0.1
Chlorpyrifos	ND	0.2
Coumaphos	ND	1.0
Demeton-O	ND	0.17
Demeton-S	ND	0.17
Diazinon	ND	0.4
Dichlorvos	ND	0.07
Disulfoton	ND	0.13
Ethoprop	ND	0.17
Fensulfothion	ND	1.0
Fenthion	ND	0.07
Malathion	ND	0.02
Merphos	ND	0.17
Mevinphos	ND	0.2
Naled	ND	0.07
Parathion Ethyl	ND	0.02
Parathion Methyl	ND	0.02
Phorate	ND	0.1
Ronnel	ND	0.2
Tetrachlorvinphos (Stirophos)	ND	3.35
Tokuthion (Prothiofos)	ND	0.33
Trichloronate	ND	0.1

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS PERFORMED BY ASSOCIATED LABS, ORANGE, CA

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

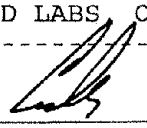
DATE RECEIVED: 02/05/04
DATE EXTRACTED: 02/06/04
DATE ANALYZED: 02/08/04
DATE REPORTED: 02/12/04

SAMPLE I.D.: **G11-A/B/C/D/E (Composite)**
LAB I.D.: 040205-9,-10,-11,-12,-13 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Azinphos Methyl	ND	1.0
Bolstar (Sulprofos)	ND	0.1
Chlorpyrifos	ND	0.2
Coumaphos	ND	1.0
Demeton-O	ND	0.17
Demeton-S	ND	0.17
Diazinon	ND	0.4
Dichlorvos	ND	0.07
Disulfoton	ND	0.13
Ethoprop	ND	0.17
Fensulfothion	ND	1.0
Fenthion	ND	0.07
Malathion	ND	0.02
Merphos	ND	0.17
Mevinphos	ND	0.2
Naled	ND	0.07
Parathion Ethyl	ND	0.02
Parathion Methyl	ND	0.02
Phorate	ND	0.1
Ronnel	ND	0.2
Tetrachlorvinphos (Stirophos)	ND	3.35
Tokuthion (Prothiofos)	ND	0.33
Trichloronate	ND	0.1

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS PERFORMED BY ASSOCIATED LABS, ORANGE, CA

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: BA Environmental
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: Newhall Land / 104012
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

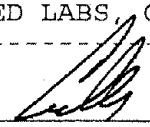
DATE RECEIVED: 02/05/04
DATE EXTRACTED: 02/06/04
DATE ANALYZED: 02/08/04
DATE REPORTED: 02/12/04

SAMPLE I.D.: G12-A/B/C/D (Composite)
LAB I.D.: 040205-14,-15,-16,-17 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Azinphos Methyl	ND	1.0
Bolstar (Sulprofos)	ND	0.1
Chlorpyrifos	ND	0.2
Coumaphos	ND	1.0
Demeton-O	ND	0.17
Demeton-S	ND	0.17
Diazinon	ND	0.4
Dichlorvos	ND	0.07
Disulfoton	ND	0.13
Ethoprop	ND	0.17
Fensulfothion	ND	1.0
Fenthion	ND	0.07
Malathion	ND	0.02
Merphos	ND	0.17
Mevinphos	ND	0.2
Naled	ND	0.07
Parathion Ethyl	ND	0.02
Parathion Methyl	ND	0.02
Phorate	ND	0.1
Ronnel	ND	0.2
Tetrachlorvinphos (Stirophos)	ND	3.35
Tokuthion (Prothiofos)	ND	0.33
Trichloronate	ND	0.1

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS PERFORMED BY ASSOCIATED LABS, ORANGE, CA

DATA REVIEWED AND APPROVED BY: 

CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/05/04
DATE EXTRACTED: 02/06/04
DATE ANALYZED: 02/08/04
DATE REPORTED: 02/12/04

SAMPLE I.D.: **G17-A/B/C/D (Composite)**
LAB I.D.: 040205-18,-19,-20,-21 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Azinphos Methyl	ND	1.0
Bolstar (Sulprofos)	ND	0.1
Chlorpyrifos	ND	0.2
Coumaphos	ND	1.0
Demeton-O	ND	0.17
Demeton-S	ND	0.17
Diazinon	ND	0.4
Dichlorvos	ND	0.07
Disulfoton	ND	0.13
Ethoprop	ND	0.17
Fensulfothion	ND	1.0
Fenthion	ND	0.07
Malathion	ND	0.02
Merphos	ND	0.17
Mevinphos	ND	0.2
Naled	ND	0.07
Parathion Ethyl	ND	0.02
Parathion Methyl	ND	0.02
Phorate	ND	0.1
Ronnel	ND	0.2
Tetrachlorvinphos (Stirophos)	ND	3.35
Tokuthion (Prothiofos)	ND	0.33
Trichloronate	ND	0.1

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS PERFORMED BY ASSOCIATED LABS, ORANGE, CA

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868 - 714/771-6900 FAX 714/538-1209

CLIENT Enviro-Chem Laboratories, Inc. (7420)
ATTN: Curtis Desilets
1214 E. Lexington Avenue
Pomona, CA 91766

LAB REQUEST 124124
REPORTED 02/09/2004
RECEIVED 02/05/2004

PROJECT #040205-1 to 4, 5 to 8, 9 to 13, 14 to 17, 18 to 21

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
496119	040205-1 to 4
496120	040205-5 to 8
496121	040205-9 to 13
496122	040205-14 to 17
496123	040205-18 to 21
496124	Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing , all samples will be discarded by appropriate disposal protocol 30 days from date reported

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order # 496119
Matrix: SOLID
Date Sampled: 02/04/2004
Time Sampled:
Sampled By:

Client: Enviro-Chem Laboratories, Inc.
Client Sample ID: 040205-1 to 4

8141 Organophosphate Pesticides

Analyte	Result	DF	DLR	Units	Date/Analyst
Azinophos Methyl (Guthion)	ND	1	1.0	mg/Kg	02/07/04 SD
Bolstar	ND	1	0.1	mg/Kg	02/07/04 SD
Chlorpyrifos(Dursban)	ND	1	0.2	mg/Kg	02/07/04 SD
Coumaphos	ND	1	1.0	mg/Kg	02/07/04 SD
Demeton(Systox)-O	ND	1	0.17	mg/Kg	02/07/04 SD
Demeton(Systox)-S	ND	1	0.17	mg/Kg	02/07/04 SD
Diazinon	ND	1	0.4	mg/Kg	02/07/04 SD
Dichlorvos	ND	1	0.07	mg/Kg	02/07/04 SD
Disulfoton (Disyston)	ND	1	0.13	mg/Kg	02/07/04 SD
Ethoprop	ND	1	0.17	mg/Kg	02/07/04 SD
Fensulfothion	ND	1	1.0	mg/Kg	02/07/04 SD
Fenthion	ND	1	0.07	mg/Kg	02/07/04 SD
Malathion	ND	1	0.02	mg/Kg	02/07/04 SD
Merphos	ND	1	0.17	mg/Kg	02/07/04 SD
Mevinphos (Phosdrin)	ND	1	0.2	mg/Kg	02/07/04 SD
Naled (Dibrom)	ND	1	0.07	mg/Kg	02/07/04 SD
Parathion Ethyl	ND	1	0.02	mg/Kg	02/07/04 SD
Parathion Methyl	ND	1	0.02	mg/Kg	02/07/04 SD
Phorate (Thimet)	ND	1	0.1	mg/Kg	02/07/04 SD
Ronnel	ND	1	0.2	mg/Kg	02/07/04 SD
Stirophos (Tetrachlorvinphos)	ND	1	3.35	mg/Kg	02/07/04 SD
Tokuthion (Protothiofos)	ND	1	0.33	mg/Kg	02/07/04 SD
Trichloronate	ND	1	0.1	mg/Kg	02/07/04 SD

Surrogates		Units	Control Limits
TBP (sur)	78	%	50 - 145
TPP (sur)	61	%	50 - 145

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Fac

Order # 496120
Matrix: SOLID
Date Sampled: 02/04/2004
Time Sampled:
Sampled By:

Client: Enviro-Chem Laboratories, Inc.
Client Sample ID: 040205-5 to 8

Analyte	Result	DF	DLR	Units	Date/Analyst	
8141 Organophosphate Pesticides						
Azinophos Methyl (Guthion)	ND	1	1.0	mg/Kg	02/08/04	SD
Bolstar	ND	1	0.1	mg/Kg	02/08/04	SD
Chlorpyrifos(Dursban)	ND	1	0.2	mg/Kg	02/08/04	SD
Coumaphos	ND	1	1.0	mg/Kg	02/08/04	SD
Demeton(Systox)-O	ND	1	0.17	mg/Kg	02/08/04	SD
Demeton(Systox)-S	ND	1	0.17	mg/Kg	02/08/04	SD
Diazinon	ND	1	0.4	mg/Kg	02/08/04	SD
Dichlorvos	ND	1	0.07	mg/Kg	02/08/04	SD
Disulfoton (Disyston)	ND	1	0.13	mg/Kg	02/08/04	SD
Ethoprop	ND	1	0.17	mg/Kg	02/08/04	SD
Fensulfothion	ND	1	1.0	mg/Kg	02/08/04	SD
Fenthion	ND	1	0.07	mg/Kg	02/08/04	SD
Malathion	ND	1	0.02	mg/Kg	02/08/04	SD
Merphos	ND	1	0.17	mg/Kg	02/08/04	SD
Mevinphos (Phosdrin)	ND	1	0.2	mg/Kg	02/08/04	SD
Naled (Dibrom)	ND	1	0.07	mg/Kg	02/08/04	SD
Parathion Ethyl	ND	1	0.02	mg/Kg	02/08/04	SD
Parathion Methyl	ND	1	0.02	mg/Kg	02/08/04	SD
Phorate (Thimet)	ND	1	0.1	mg/Kg	02/08/04	SD
Ronnel	ND	1	0.2	mg/Kg	02/08/04	SD
Stirophos (Tetrachlorvinphos)	ND	1	3.35	mg/Kg	02/08/04	SD
Tokuthion (Protothiofos)	ND	1	0.33	mg/Kg	02/08/04	SD
Trichloronate	ND	1	0.1	mg/Kg	02/08/04	SD

Surrogates		Units	Control Limits
TBP (sur)	81	%	50 - 145
TPP (sur)	57	%	50 - 145

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Fac

Order # 496121
Matrix: SOLID
Date Sampled: 02/04/2004
Time Sampled:
Sampled By:

Client: Enviro-Chem Laboratories, Inc.
Client Sample ID: 040205-9 to 13

Analyte	Result	DF	DLR	Units	Date/Analyst	
8141 Organophosphate Pesticides						
Azinophos Methyl (Guthion)	ND	1	1.0	mg/Kg	02/08/04	SD
Bolstar	ND	1	0.1	mg/Kg	02/08/04	SD
Chlorpyrifos(Dursban)	ND	1	0.2	mg/Kg	02/08/04	SD
Coumaphos	ND	1	1.0	mg/Kg	02/08/04	SD
Demeton(Systox)-O	ND	1	0.17	mg/Kg	02/08/04	SD
Demeton(Systox)-S	ND	1	0.17	mg/Kg	02/08/04	SD
Diazinon	ND	1	0.4	mg/Kg	02/08/04	SD
Dichlorvos	ND	1	0.07	mg/Kg	02/08/04	SD
Disulfoton (Disyston)	ND	1	0.13	mg/Kg	02/08/04	SD
Ethoprop	ND	1	0.17	mg/Kg	02/08/04	SD
Fensulfothion	ND	1	1.0	mg/Kg	02/08/04	SD
Fenthion	ND	1	0.07	mg/Kg	02/08/04	SD
Malathion	ND	1	0.02	mg/Kg	02/08/04	SD
Merphos	ND	1	0.17	mg/Kg	02/08/04	SD
Mevinphos (Phosdrin)	ND	1	0.2	mg/Kg	02/08/04	SD
Naled (Dibrom)	ND	1	0.07	mg/Kg	02/08/04	SD
Parathion Ethyl	ND	1	0.02	mg/Kg	02/08/04	SD
Parathion Methyl	ND	1	0.02	mg/Kg	02/08/04	SD
Phorate (Thimet)	ND	1	0.1	mg/Kg	02/08/04	SD
Ronnel	ND	1	0.2	mg/Kg	02/08/04	SD
Stirophos (Tetrachlorvinphos)	ND	1	3.35	mg/Kg	02/08/04	SD
Tokuthion (Protothiofos)	ND	1	0.33	mg/Kg	02/08/04	SD
Trichloronate	ND	1	0.1	mg/Kg	02/08/04	SD

Surrogates		Units	Control Limits
TBP (sur)	81	%	50 - 145
TPP (sur)	59	%	50 - 145

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Fac

Order # 496122 **Client:** Enviro-Chem Laboratories, Inc.
Matrix: SOLID **Client Sample ID:** 040205-14 to 17
Date Sampled: 02/04/2004
Time Sampled:
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
8141 Organophosphate Pesticides					
Azinophos Methyl (Guthion)	ND	1	1.0	mg/Kg	02/08/04 SD
Bolstar	ND	1	0.1	mg/Kg	02/08/04 SD
Chlorpyrifos(Dursban)	ND	1	0.2	mg/Kg	02/08/04 SD
Coumaphos	ND	1	1.0	mg/Kg	02/08/04 SD
Demeton(Systox)-O	ND	1	0.17	mg/Kg	02/08/04 SD
Demeton(Systox)-S	ND	1	0.17	mg/Kg	02/08/04 SD
Diazinon	ND	1	0.4	mg/Kg	02/08/04 SD
Dichlorvos	ND	1	0.07	mg/Kg	02/08/04 SD
Disulfoton (Disyston)	ND	1	0.13	mg/Kg	02/08/04 SD
Ethoprop	ND	1	0.17	mg/Kg	02/08/04 SD
Fensulfothion	ND	1	1.0	mg/Kg	02/08/04 SD
Fenthion	ND	1	0.07	mg/Kg	02/08/04 SD
Malathion	ND	1	0.02	mg/Kg	02/08/04 SD
Merphos	ND	1	0.17	mg/Kg	02/08/04 SD
Mevinphos (Phosdrin)	ND	1	0.2	mg/Kg	02/08/04 SD
Naled (Dibrom)	ND	1	0.07	mg/Kg	02/08/04 SD
Parathion Ethyl	ND	1	0.02	mg/Kg	02/08/04 SD
Parathion Methyl	ND	1	0.02	mg/Kg	02/08/04 SD
Phorate (Thimet)	ND	1	0.1	mg/Kg	02/08/04 SD
Ronnel	ND	1	0.2	mg/Kg	02/08/04 SD
Stirophos (Tetrachlorvinphos)	ND	1	3.35	mg/Kg	02/08/04 SD
Tokuthion (Protothiofos)	ND	1	0.33	mg/Kg	02/08/04 SD
Trichloronate	ND	1	0.1	mg/Kg	02/08/04 SD
Surrogates				**Units**	**Control Limits**
TBP (sur)	86			%	50 - 145
TPP (sur)	59			%	50 - 145

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Fac

Order # 496123
Matrix: SOLID
Date Sampled: 02/04/2004
Time Sampled:
Sampled By:

Client: Enviro-Chem Laboratories, Inc.
Client Sample ID: 040205-18 to 21

8141 Organophosphate Pesticides

Analyte	Result	DF	DLR	Units	Date/Analyst	
Azinophos Methyl (Guthion)	ND	1	1.0	mg/Kg	02/08/04	SD
Bolstar	ND	1	0.1	mg/Kg	02/08/04	SD
Chlorpyrifos(Dursban)	ND	1	0.2	mg/Kg	02/08/04	SD
Coumaphos	ND	1	1.0	mg/Kg	02/08/04	SD
Demeton(Systox)-O	ND	1	0.17	mg/Kg	02/08/04	SD
Demeton(Systox)-S	ND	1	0.17	mg/Kg	02/08/04	SD
Diazinon	ND	1	0.4	mg/Kg	02/08/04	SD
Dichlorvos	ND	1	0.07	mg/Kg	02/08/04	SD
Disulfoton (Disyston)	ND	1	0.13	mg/Kg	02/08/04	SD
Ethoprop	ND	1	0.17	mg/Kg	02/08/04	SD
Fensulfothion	ND	1	1.0	mg/Kg	02/08/04	SD
Fenthion	ND	1	0.07	mg/Kg	02/08/04	SD
Malathion	ND	1	0.02	mg/Kg	02/08/04	SD
Merphos	ND	1	0.17	mg/Kg	02/08/04	SD
Mevinphos (Phosdrin)	ND	1	0.2	mg/Kg	02/08/04	SD
Naled (Dibrom)	ND	1	0.07	mg/Kg	02/08/04	SD
Parathion Ethyl	ND	1	0.02	mg/Kg	02/08/04	SD
Parathion Methyl	ND	1	0.02	mg/Kg	02/08/04	SD
Phorate (Thimet)	ND	1	0.1	mg/Kg	02/08/04	SD
Ronnel	ND	1	0.2	mg/Kg	02/08/04	SD
Stirophos (Tetrachlorvinphos)	ND	1	3.35	mg/Kg	02/08/04	SD
Tokuthion (Protothiofos)	ND	1	0.33	mg/Kg	02/08/04	SD
Trichloronate	ND	1	0.1	mg/Kg	02/08/04	SD

Surrogates		Units	Control Limits
TBP (sur)	84	%	50 - 145
TPP (sur)	59	%	50 - 145

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Fac

Order # 496124 **Client:** Enviro-Chem Laboratories, Inc.
Matrix: SOLID **Client Sample ID:** Laboratory Method Blank
Date Sampled:
Time Sampled:
Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
8141 Organophosphate Pesticides						
Azinophos Methyl (Guthion)	ND	1	1.0	mg/Kg	02/07/04	SD
Bolstar	ND	1	0.1	mg/Kg	02/07/04	SD
Chlorpyrifos(Dursban)	ND	1	0.2	mg/Kg	02/07/04	SD
Coumaphos	ND	1	1.0	mg/Kg	02/07/04	SD
Demeton(Systox)-O	ND	1	0.17	mg/Kg	02/07/04	SD
Demeton(Systox)-S	ND	1	0.17	mg/Kg	02/07/04	SD
Diazinon	ND	1	0.4	mg/Kg	02/07/04	SD
Dichlorvos	ND	1	0.07	mg/Kg	02/07/04	SD
Disulfoton (Disyston)	ND	1	0.13	mg/Kg	02/07/04	SD
Ethoprop	ND	1	0.17	mg/Kg	02/07/04	SD
Fensulfothion	ND	1	1.0	mg/Kg	02/07/04	SD
Fenthion	ND	1	0.07	mg/Kg	02/07/04	SD
Malathion	ND	1	0.02	mg/Kg	02/07/04	SD
Merphos	ND	1	0.17	mg/Kg	02/07/04	SD
Mevinphos (Phosdrin)	ND	1	0.2	mg/Kg	02/07/04	SD
Naled (Dibrom)	ND	1	0.07	mg/Kg	02/07/04	SD
Parathion Ethyl	ND	1	0.02	mg/Kg	02/07/04	SD
Parathion Methyl	ND	1	0.02	mg/Kg	02/07/04	SD
Phorate (Thimet)	ND	1	0.1	mg/Kg	02/07/04	SD
Ronnel	ND	1	0.2	mg/Kg	02/07/04	SD
Stirophos (Tetrachlorvinphos)	ND	1	3.35	mg/Kg	02/07/04	SD
Tokuthion (Protothiofos)	ND	1	0.33	mg/Kg	02/07/04	SD
Trichloronate	ND	1	0.1	mg/Kg	02/07/04	SD

Surrogates		Units	Control Limits
TBP (sur)	79	%	50 - 145
TPP (sur)	68	%	50 - 145

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Fac

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE # 1555

Turnaround Time
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
~~0~~ 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	8088	8141	8151								COMMENTS
				Analysis Required														
G9-A	040205-1	2-4-04		Soil	1	4°	ICE	X	X	X								Composite Samples
G9-B	-2							X	X	X								
G9-C	-3							X	X	X								
G9-D	-4							X	X	X								
G10-A	-5							X	X	X								Composite Samples
G10-B	-6							X	X	X								
G10-C	-7							X	X	X								
G10-D	-8							X	X	X								
G11-A	-9							X	X	X	X							Composite Samples
G11-B	-10							X	X	X								
G11-C	-11							X	X	X								
G11-D	-12							X	X	X								
G11-E	-13							X	X	X								

Company Name: Building Analytx
Address: 528 State St
City/State/Zip: Glendale CA 91203

Project Contact: Russell Cate
Tel: (818) 500-1878
Fax: (818) 246-8195

Sampler's Signature: Russell Cate
Project Name/ID: River Village 104012

Relinquished by: Russell Cate	Received by:	Date & Time: 2/5/04 0820
Relinquished by:	Received by:	Date & Time: 2/5/04 1005
Relinquished by:	Received by:	Date & Time:

Instructions for Sample Storage After Analysis:
O Dispose of O Return to Client O Store (30 Days)
O Other:

CHAIN OF CUSTODY RECORD

Date: _____

WHITE WITH SAMPLE - YELLOW TO CLIENT

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE # 1555

Turnaround Time
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
X 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	8081	8141	8151	Misc.	COMMENTS
				Analysis Required								
G12-A	040205-14	2-4-04		Soil	1	4°C	ICE	X	X	X		
G12-B	-15							X	X	X		Composite Samples
G12-C	-16							X	X	X		
G12-D	-17							X	X	X		
G17-A	-18							X	X	X		
G17-B	-19							X	X	X		Composite Samples
G17-C	-20							X	X	X		
G17-D	-21							X	X	X		

Company Name: Building Analytics
Address: 528 State St.
City/State/Zip: Glendale CA 91203

Project Contact: Russell Cote
Tel: (818) 500-1898
Fax: (818) 246-8195

Sampler's Signature: Russell Cote
Project Name/ID: Riverville
10/1012

Relinquished by: Russell Cote — Received by: — Date & Time: 2/5/04 0820
Relinquished by: — Received by: — Date & Time: 2/5/04 1005
Relinquished by: — Received by: — Date & Time:

Instructions for Sample Storage After Analysis:
O Dispose of O Return to Client O Store (30 Days)
O Other:

CHAIN OF CUSTODY RECORD

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: February 11, 2004

FEB 17 2004

Mr. Russell Cote
BA Environmental
528 State Street
Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

Project: **Newhall Land / 104012**

Dear Mr. Cote:

The analytical results for the soil samples, received by our Lab on February 4, 2004, are attached.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,

Curtis Desilets
Vice President/Program Manager

Jesse Tu, Ph.D.
Laboratory Manager

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

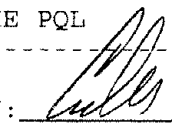
DATE RECEIVED: 02/04/04
DATE EXTRACTED: 02/06/04
DATE ANALYZED: 02/08/04
DATE REPORTED: 02/11/04

SAMPLE I.D.: **G13-A/B/C/D (Composite)**
LAB I.D.: 040204-53,-54,-55,-56 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL(X1)
Aldrin	ND	0.001
alpha-BHC	ND	0.001
beta-BHC	ND	0.001
gamma-BHC (Lindane)	ND	0.001
delta-BHC	ND	0.001
alpha-Chlordane	0.001	0.001
gamma-Chlordane	0.004	0.001
4,4'-DDD	0.001	0.001
4,4'-DDE	0.026	0.001
4,4'-DDT	0.006	0.001
Dieldrin	ND	0.001
Endosulfan I	ND	0.001
Endosulfan II	ND	0.001
Endosulfan Sulfate	ND	0.001
Endrin	0.061	0.001
Endrin Aldehyde	ND	0.001
Endrin Ketone	ND	0.001
Heptachlor Epoxide	0.001	0.001
Heptachlor	ND	0.001
Methoxyclor	ND	0.001
Toxaphene	ND	0.200

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: BA Environmental
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: Newhall Land / 104012
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/04/04
DATE EXTRACTED: 02/06/04
DATE ANALYZED: 02/08/04
DATE REPORTED: 02/11/04

SAMPLE I.D.: **G14-A/B/C/D (Composite)**
LAB I.D.: 040204-57,-58,-59,-60 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL(X1)
Aldrin	ND	0.001
alpha-BHC	ND	0.001
beta-BHC	ND	0.001
gamma-BHC (Lindane)	ND	0.001
delta-BHC	ND	0.001
alpha-Chlordane	0.002	0.001
gamma-Chlordane	0.015	0.001
4,4'-DDD	0.001	0.001
4,4'-DDE	0.007	0.001
4,4'-DDT	0.015	0.001
Dieldrin	0.003	0.001
Endosulfan I	0.001	0.001
Endosulfan II	ND	0.001
Endosulfan Sulfate	0.005	0.001
Endrin	0.082	0.001
Endrin Aldehyde	ND	0.001
Endrin Ketone	ND	0.001
Heptachlor Epoxide	ND	0.001
Heptachlor	ND	0.001
Methoxyclor	ND	0.001
Toxaphene	ND	0.200

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/04/04
DATE EXTRACTED: 02/06/04
DATE ANALYZED: 02/08/04
DATE REPORTED: 02/11/04

SAMPLE I.D.: **G15-A/B/C/D (Composite)**
LAB I.D.: 040204-61,-62,-63,-64 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL(X1)
Aldrin	ND	0.001
alpha-BHC	ND	0.001
beta-BHC	ND	0.001
gamma-BHC (Lindane)	ND	0.001
delta-BHC	ND	0.001
alpha-Chlordane	0.003	0.001
gamma-Chlordane	0.004	0.001
4,4'-DDD	0.001	0.001
4,4'-DDE	0.034	0.001
4,4'-DDT	0.007	0.001
Dieldrin	ND	0.001
Endosulfan I	ND	0.001
Endosulfan II	ND	0.001
Endosulfan Sulfate	ND	0.001
Endrin	0.055	0.001
Endrin Aldehyde	ND	0.001
Endrin Ketone	ND	0.001
Heptachlor Epoxide	ND	0.001
Heptachlor	ND	0.001
Methoxyclor	ND	0.001
Toxaphene	ND	0.200

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY:
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/04/04
DATE EXTRACTED: 02/06/04
DATE ANALYZED: 02/08/04
DATE REPORTED: 02/11/04

SAMPLE I.D.: **G16-A/B/C/D (Composite)**
LAB I.D.: 040204-65,-66,-67,-68 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL(X1)
Aldrin	ND	0.001
alpha-BHC	ND	0.001
beta-BHC	ND	0.001
gamma-BHC (Lindane)	ND	0.001
delta-BHC	ND	0.001
alpha-Chlordane	ND	0.001
gamma-Chlordane	ND	0.001
4,4'-DDD	ND	0.001
4,4'-DDE	0.002	0.001
4,4'-DDT	0.003	0.001
Dieldrin	ND	0.001
Endosulfan I	ND	0.001
Endosulfan II	ND	0.001
Endosulfan Sulfate	ND	0.001
Endrin	0.004	0.001
Endrin Aldehyde	ND	0.001
Endrin Ketone	ND	0.001
Heptachlor Epoxide	ND	0.001
Heptachlor	ND	0.001
Methoxyclor	ND	0.001
Toxaphene	ND	0.200

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: BA Environmental
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: Newhall Land / 104012
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/04/04
DATE EXTRACTED: 02/06/04
DATE ANALYZED: 02/08/04
DATE REPORTED: 02/11/04

METHOD BLANK FOR LAB I.D.: 040204-53 TO -56 (Composite), 040204-57 TO -60 (Composite), 040204-61 TO -64 (Composite), 040204-65 TO -68 (Composite)

Organochlorine Pesticides Analysis
Method: EPA 8081A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL(X1)
Aldrin	ND	0.001
alpha-BHC	ND	0.001
beta-BHC	ND	0.001
gamma-BHC (Lindane)	ND	0.001
delta-BHC	ND	0.001
alpha-Chlordane	ND	0.001
gamma-Chlordane	ND	0.001
4,4'-DDD	ND	0.001
4,4'-DDE	ND	0.001
4,4'-DDT	ND	0.001
Dieldrin	ND	0.001
Endosulfan I	ND	0.001
Endosulfan II	ND	0.001
Endosulfan Sulfate	ND	0.001
Endrin	ND	0.001
Endrin Aldehyde	ND	0.001
Endrin Ketone	ND	0.001
Heptachlor Epoxide	ND	0.001
Heptachlor	ND	0.001
Methoxyclor	ND	0.001
Toxaphene	ND	0.200

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro-Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

EPA 8081 QA/QC Report

Matrix: Soil
Unit: mg/Kg

Date Analyzed: 2/8/2004

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 040205-58

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
Gamma-BHC	0.000	0.050	0.044	87%	0.043	86%	1%	0-20%	70-130
Aldrin	0.000	0.050	0.044	87%	0.044	88%	1%	0-20%	70-130
4,4-DDE	0.000	0.050	0.044	89%	0.045	89%	1%	0-20%	70-130

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
Gamma-BHC	0.050	0.051	103%	75-125
Aldrin	0.050	0.048	97%	75-125
4,4-DDE	0.050	0.053	107%	75-125
Dieldrin	0.050	0.052	103%	75-125

Surrogate Recovery	ACP%	MB	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.			040205-58	040205-59	040205-60	040205-61	040204-53~56	040204-57~60
Tetra-chloro-meta-xylene		118%	102%	103%	89%	105%	119%	106%
Decachlorobipneyl	50-150	118%	101%	110%	108%	109%	108%	105%

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.	040204-61~64	040204-65~68						
Tetra-chloro-meta-xylene	104%	115%						
Decachlorobipneyl	98%	119%						

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.						
Tetra-chloro-meta-xylene						
Decachlorobipneyl						

S.R. = Sample Result
spk conc = Spike Concentration
%REC = Percent Recovery
ACP %RPD = Acceptable Percent RPD Range
ACP %REC = Acceptable Percent Recovery Range

** = Surrogate fail due to matrix interference*

Note: *LCS, MS, MSD are in control therefore results are in control.*

Analyzed and Reviewed By: _____

Final Reviewer: _____

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/04/04
DATE EXTRACTED: 02/06-07/04
DATE ANALYZED: 02/09/04
DATE REPORTED: 02/11/04

SAMPLE I.D.: **G13-A/B/C/D (Composite)**
LAB I.D.: 040204-53,-54,-55,-56 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL
2,4,5-T	ND	0.020
2,4,5-TP (Silvex)	ND	0.020
2,4-D	ND	0.200
2,4-DB	ND	0.200
Dalapon (Dichloroacetic Acid)	ND	0.500
Dicamba	ND	0.020
Dichloroprop	ND	0.200
Dinoseb (DNBP)	ND	0.100
MCPA	ND	20.0
MCPP	ND	20.0

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: BA Environmental
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/04/04
DATE EXTRACTED: 02/06-07/04
DATE ANALYZED: 02/09/04
DATE REPORTED: 02/11/04

SAMPLE I.D.: **G14-A/B/C/D (Composite)**
LAB I.D.: 040204-57,-58,-59,-60 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL
2,4,5-T	ND	0.020
2,4,5-TP (Silvex)	ND	0.020
2,4-D	ND	0.200
2,4-DB	ND	0.200
Dalapon (Dichloroacetic Acid)	ND	0.500
Dicamba	ND	0.020
Dichloroprop	ND	0.200
Dinoseb (DNBP)	ND	0.100
MCPA	ND	20.0
MCPP	ND	20.0

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: BA Environmental
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: Newhall Land / 104012
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/04/04
DATE EXTRACTED: 02/06-07/04
DATE ANALYZED: 02/09/04
DATE REPORTED: 02/11/04

SAMPLE I.D.: G15-A/B/C/D (Composite)
LAB I.D.: 040204-61,-62,-63,-64 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL
2,4,5-T	ND	0.020
2,4,5-TP (Silvex)	ND	0.020
2,4-D	ND	0.200
2,4-DB	ND	0.200
Dalapon (Dichloroacetic Acid)	ND	0.500
Dicamba	ND	0.020
Dichloroprop	ND	0.200
Dinoseb (DNBP)	ND	0.100
MCPA	ND	20.0
MCPP	ND	20.0

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/04/04
DATE EXTRACTED: 02/06-07/04
DATE ANALYZED: 02/09/04
DATE REPORTED: 02/11/04

SAMPLE I.D.: **G16-A/B/C/D (Composite)**
LAB I.D.: 040204-65,-66,-67,-68 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL
2,4,5-T	ND	0.020
2,4,5-TP (Silvex)	ND	0.020
2,4-D	ND	0.200
2,4-DB	ND	0.200
Dalapon (Dichloroacetic Acid)	ND	0.500
Dicamba	ND	0.020
Dichloroprop	ND	0.200
Dinoseb (DNBP)	ND	0.100
MCPA	ND	20.0
MCPP	ND	20.0

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: BA Environmental
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: Newhall Land / 104012
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/04/04
DATE EXTRACTED: 02/06-07/04
DATE ANALYZED: 02/09/04
DATE REPORTED: 02/11/04

METHOD BLANK FOR LAB I.D.: 040204-53 TO -56 (Composite), 040204-57 TO -60 (Composite), 040204-61 TO -64 (Composite), 040204-65 TO -68 (Composite)

Chlorinated Herbicides Analysis
Method: EPA 8151A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL
2,4,5-T	ND	0.020
2,4,5-TP (Silvex)	ND	0.020
2,4-D	ND	0.200
2,4-DB	ND	0.200
Dalapon (Dichloroacetic Acid)	ND	0.500
Dicamba	ND	0.020
Dichloroprop	ND	0.200
Dinoseb (DNBP)	ND	0.100
MCPA	ND	20.0
MCPP	ND	20.0

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro-Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

QA/QC Report

Analysis: EPA 8151A

Matrix: **SOIL** Date Analyzed: **2/8-9/2004**

Unit: **mg/Kg (PPM)**

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 040206-15

Analyte	S.R.	spk conc	MS	% REC	MSD	% REC	%RPD	ACP %RPD	ACP %REC
2,4,5-T	0	1.0	1.18	118%	1.19	119%	1%	0-20%	50-150

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
2,4,5-T	0.100	0.115	115%	70-130
2,4,5-TP	0.100	0.114	114%	70-130
2,4-DB	1.00	1.08	108%	70-130

Surrogate Recovery:

Analyte	spk conc	ACP %	M-BLK	%REC	%REC	%REC	%REC	%REC	%REC
Sample ID:				040205-58	040205-59	040205-60	040205-61	040204-53~56	040204-57~60
DCAA	0.20	50-150	73%	79%	78%	81%	81%	97%	97%

Analyte	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample ID:	040204-61~64	040204-65~68	040205-1~4	040205-5~8	040205-9~13	040205-14~17	040205-18~21	040206-14	040206-15
DCAA	95%	89%	108%	88%	127%	99%	118%	100%	107%

Analyte	%REC	%REC	%REC	%REC	%REC
Sample ID:	040204-29				
DCAA	76%				

S.R. = Sample Result

spk conc = Spike Concentration

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

Analyzed and Reviewed By: _____

Final Reviewer: _____

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: February 12, 2004

Mr. Russell Cote
BA Environmental
528 State Street
Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

Project: **Newhall Land / 104012; 8141A**

Dear Mr. Cote:

The analytical results for the soil samples, received by our Lab on February 4, 2004, are attached.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,

Curtis Desilets
Vice President/Program Manager

Jesse Tu, Ph.D.
Laboratory Manager

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/04/04
DATE EXTRACTED: 02/06/04
DATE ANALYZED: 02/08/04
DATE REPORTED: 02/12/04

SAMPLE I.D.: G13-A/B/C/D (Composite)
LAB I.D.: 040204-53,-54,-55,-56 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Azinphos Methyl	ND	1.0
Bolstar (Sulprofos)	ND	0.1
Chlorpyrifos	ND	0.2
Coumaphos	ND	1.0
Demeton-O	ND	0.17
Demeton-S	ND	0.17
Diazinon	ND	0.4
Dichlorvos	ND	0.07
Disulfoton	ND	0.13
Ethoprop	ND	0.17
Fensulfothion	ND	1.0
Fenthion	ND	0.07
Malathion	ND	0.02
Merphos	ND	0.17
Mevinphos	ND	0.2
Naled	ND	0.07
Parathion Ethyl	ND	0.02
Parathion Methyl	ND	0.02
Phorate	ND	0.1
Ronnel	ND	0.2
Tetrachlorvinphos (Stirophos)	ND	3.35
Tokuthion (Prothiofos)	ND	0.33
Trichloronate	ND	0.1

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS PERFORMED BY ASSOCIATED LABS, ORANGE, CA

DATA REVIEWED AND APPROVED BY:
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

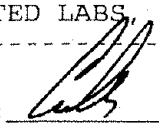
DATE RECEIVED: 02/04/04
DATE EXTRACTED: 02/06/04
DATE ANALYZED: 02/08/04
DATE REPORTED: 02/12/04

SAMPLE I.D.: **G14-A/B/C/D (Composite)**
LAB I.D.: 040204-57,-58,-59,-60 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Azinphos Methyl	ND	1.0
Bolstar (Sulprofos)	ND	0.1
Chlorpyrifos	ND	0.2
Coumaphos	ND	1.0
Demeton-O	ND	0.17
Demeton-S	ND	0.17
Diazinon	ND	0.4
Dichlorvos	ND	0.07
Disulfoton	ND	0.13
Ethoprop	ND	0.17
Fensulfothion	ND	1.0
Fenthion	ND	0.07
Malathion	ND	0.02
Merphos	ND	0.17
Mevinphos	ND	0.2
Naled	ND	0.07
Parathion Ethyl	ND	0.02
Parathion Methyl	ND	0.02
Phorate	ND	0.1
Ronnel	ND	0.2
Tetrachlorvinphos (Stirophos)	ND	3.35
Tokuthion (Prothiofos)	ND	0.33
Trichloronate	ND	0.1

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS PERFORMED BY ASSOCIATED LABS, ORANGE, CA

DATA REVIEWED AND APPROVED BY: 
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/04/04
DATE EXTRACTED: 02/06/04
DATE ANALYZED: 02/08/04
DATE REPORTED: 02/12/04

SAMPLE I.D.: **G15-A/B/C/D (Composite)**
LAB I.D.: 040204-61,-62,-63,-64 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Azinphos Methyl	ND	1.0
Bolstar (Sulprofos)	ND	0.1
Chlorpyrifos	ND	0.2
Coumaphos	ND	1.0
Demeton-O	ND	0.17
Demeton-S	ND	0.17
Diazinon	ND	0.4
Dichlorvos	ND	0.07
Disulfoton	ND	0.13
Ethoprop	ND	0.17
Fensulfothion	ND	1.0
Fenthion	ND	0.07
Malathion	ND	0.02
Merphos	ND	0.17
Mevinphos	ND	0.2
Naled	ND	0.07
Parathion Ethyl	ND	0.02
Parathion Methyl	ND	0.02
Phorate	ND	0.1
Ronnel	ND	0.2
Tetrachlorvinphos (Stirophos)	ND	3.35
Tokuthion (Prothiofos)	ND	0.33
Trichloronate	ND	0.1

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS PERFORMED BY ASSOCIATED LABS, ORANGE, CA

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/04/04
DATE EXTRACTED: 02/06/04
DATE ANALYZED: 02/08/04
DATE REPORTED: 02/12/04

SAMPLE I.D.: **G16-A/B/C/D (Composite)**
LAB I.D.: 040204-65,-66,-67,-68 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Azinphos Methyl	ND	1.0
Bolstar (Sulprofos)	ND	0.1
Chlorpyrifos	ND	0.2
Coumaphos	ND	1.0
Demeton-O	ND	0.17
Demeton-S	ND	0.17
Diazinon	ND	0.4
Dichlorvos	ND	0.07
Disulfoton	ND	0.13
Ethoprop	ND	0.17
Fensulfothion	ND	1.0
Fenthion	ND	0.07
Malathion	ND	0.02
Merphos	ND	0.17
Mevinphos	ND	0.2
Naled	ND	0.07
Parathion Ethyl	ND	0.02
Parathion Methyl	ND	0.02
Phorate	ND	0.1
Ronnel	ND	0.2
Tetrachlorvinphos (Stirophos)	ND	3.35
Tokuthion (Prothiofos)	ND	0.33
Trichloronate	ND	0.1

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS PERFORMED BY ASSOCIATED LABS, ORANGE, CA

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

METHOD BLANK REPORT

CUSTOMER: **BA Environmental**
528 State Street, Glendale, CA 91203
Tel(818)500-1898 Fax(818)246-8195

PROJECT: **Newhall Land / 104012**
MATRIX: SOIL
DATE SAMPLED: 02/02/04
REPORT TO: MR. RUSSELL COTE

DATE RECEIVED: 02/04/04
DATE EXTRACTED: 02/06/04
DATE ANALYZED: 02/07/04
DATE REPORTED: 02/12/04

METHOD BLANK FOR LAB I.D.: 040204-53 TO -56 (Composite), 040204-57 TO -60 (Composite), 040204-61 TO -64 (Composite), 040204-65 TO -68 (Composite)

Organophosphorus Pesticides Analysis
Method: EPA 8141A
Unit: Mg/Kg = Milligram Per Kilogram = PPM

PARAMETER	SAMPLE RESULT	PQL X1
Azinphos Methyl	ND	1.0
Bolstar (Sulprofos)	ND	0.1
Chlorpyrifos	ND	0.2
Coumaphos	ND	1.0
Demeton-O	ND	0.17
Demeton-S	ND	0.17
Diazinon	ND	0.4
Dichlorvos	ND	0.07
Disulfoton	ND	0.13
Ethoprop	ND	0.17
Fensulfothion	ND	1.0
Fenthion	ND	0.07
Malathion	ND	0.02
Merphos	ND	0.17
Mevinphos	ND	0.2
Naled	ND	0.07
Parathion Ethyl	ND	0.02
Parathion Methyl	ND	0.02
Phorate	ND	0.1
Ronnel	ND	0.2
Tetrachlorvinphos (Stirophos)	ND	3.35
Tokuthion (Prothiofos)	ND	0.33
Trichloronate	ND	0.1

COMMENTS:
PQL = PRACTICAL QUANTITATION LIMIT
ND = NON-DETECTED OR BELOW THE PQL
ANALYSIS PERFORMED BY ASSOCIATED LABS, ORANGE, CA

DATA REVIEWED AND APPROVED BY: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Enviro-Chem Laboratories, Inc. (7420)
ATTN: Curtis Desilets
1214 E. Lexington Avenue
Pomona, CA 91766

LAB REQUEST 124125
REPORTED 02/09/2004
RECEIVED 02/05/2004

PROJECT 040204-53 to 56, 57 to 60, 61 to 64, 65 to 68

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
496125	040204-53 to 56
496126	040204-57 to 60
496127	040204-61 to 64
496128	040204-65 to 68
496129	Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

The reports of the Associated Laboratories are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

TESTING & CONSULTING
Chemical
Microbiological
Environmental

FEB-12-2004 15:57 FROM-Associated Laboratories 714-538-1209 T-638 P.001/008 F-814

Order #: 496125 **Client:** Enviro-Chem Laboratories, Inc.

Matrix: SOLID **Client Sample ID:** 040204-53 to 56

Date Sampled: 02/02/2004

Time Sampled:

Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst
8141 Organophosphate Pesticides					
Azinophos Methyl (Guthion)	ND	1	1.0	mg/Kg	02/08/04 SD
Bolstar	ND	1	0.1	mg/Kg	02/08/04 SD
Chlorpyrifos(Dursban)	ND	1	0.2	mg/Kg	02/08/04 SD
Coumaphos	ND	1	1.0	mg/Kg	02/08/04 SD
Demeton(Systox)-O	ND	1	0.17	mg/Kg	02/08/04 SD
Demeton(Systox)-S	ND	1	0.17	mg/Kg	02/08/04 SD
Diazinon	ND	1	0.4	mg/Kg	02/08/04 SD
Dichlorvos	ND	1	0.07	mg/Kg	02/08/04 SD
Disulfoton (Disyston)	ND	1	0.13	mg/Kg	02/08/04 SD
Ethoprop	ND	1	0.17	mg/Kg	02/08/04 SD
Fensulfothion	ND	1	1.0	mg/Kg	02/08/04 SD
Fenthion	ND	1	0.07	mg/Kg	02/08/04 SD
Malathion	ND	1	0.02	mg/Kg	02/08/04 SD
Merphos	ND	1	0.17	mg/Kg	02/08/04 SD
Mevinphos (Phosdrin)	ND	1	0.2	mg/Kg	02/08/04 SD
Naled (Dibrom)	ND	1	0.07	mg/Kg	02/08/04 SD
Parathion Ethyl	ND	1	0.02	mg/Kg	02/08/04 SD
Parathion Methyl	ND	1	0.02	mg/Kg	02/08/04 SD
Phorate (Thimet)	ND	1	0.1	mg/Kg	02/08/04 SD
Ronnel	ND	1	0.2	mg/Kg	02/08/04 SD
Stirophos (Tetrachlorvinphos)	ND	1	3.35	mg/Kg	02/08/04 SD
Tokuthion (Protothiofos)	ND	1	0.33	mg/Kg	02/08/04 SD
Trichloronate	ND	1	0.1	mg/Kg	02/08/04 SD
Surrogates				**Units**	**Control Limits**
TBP (sur)	82			%	50 - 145
TPP (sur)	66			%	50 - 145

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

FEB-12-2004 15:58 FROM-Associated Laboratories (714-994-1208 P.002/008 F-814

Order #: 496126
Matrix: SOLID
Sampled: 02/02/2004
Time Sampled:
Sampled By:

Client: Enviro-Chem Laboratories, Inc.
Client Sample ID: 040204-57 to 60

Analyte	Result	DF	DLR	Units	Date/Analyst
8141 Organophosphate Pesticides					
Azinophos Methyl (Guthion)	ND	1	1.0	mg/Kg	02/08/04 SD
Bolstar	ND	1	0.1	mg/Kg	02/08/04 SD
Chlorpyrifos(Dursban)	ND	1	0.2	mg/Kg	02/08/04 SD
Coumaphos	ND	1	1.0	mg/Kg	02/08/04 SD
Demeton(Systox)-O	ND	1	0.17	mg/Kg	02/08/04 SD
Demeton(Systox)-S	ND	1	0.17	mg/Kg	02/08/04 SD
Diazinon	ND	1	0.4	mg/Kg	02/08/04 SD
Dichlorvos	ND	1	0.07	mg/Kg	02/08/04 SD
Disulfoton (Disyston)	ND	1	0.13	mg/Kg	02/08/04 SD
Ethoprop	ND	1	0.17	mg/Kg	02/08/04 SD
Fensulfothion	ND	1	1.0	mg/Kg	02/08/04 SD
Fenthion	ND	1	0.07	mg/Kg	02/08/04 SD
Malathion	ND	1	0.02	mg/Kg	02/08/04 SD
Merphos	ND	1	0.17	mg/Kg	02/08/04 SD
Mevinphos (Phosdrin)	ND	1	0.2	mg/Kg	02/08/04 SD
Naled (Dibrom)	ND	1	0.07	mg/Kg	02/08/04 SD
Parathion Ethyl	ND	1	0.02	mg/Kg	02/08/04 SD
Parathion Methyl	ND	1	0.02	mg/Kg	02/08/04 SD
Phorate (Thimet)	ND	1	0.1	mg/Kg	02/08/04 SD
Rouncl	ND	1	0.2	mg/Kg	02/08/04 SD
Stirophos (Tetrachlorvinphos)	ND	1	3.35	mg/Kg	02/08/04 SD
Tokuthion (Protothiofos)	ND	1	0.33	mg/Kg	02/08/04 SD
Trichloronate	ND	1	0.1	mg/Kg	02/08/04 SD
Surrogates				**Units**	**Control Limits**
TBP (sur)	81			%	50 - 145
TPP (sur)	59			%	50 - 145

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

FEB-12-2004 15:58 FROM-Associated Laboratories 714-538-1209 T-638 P.003/008 F-814

Order #: 496127
Matrix: SOLID
Sampled: 02/02/2004
Time Sampled:
Sampled By:

Client: Enviro-Chem Laboratories, Inc.
Client Sample ID: 040204-61 to 64

Analyte	Result	DF	DLR	Units	Date/Analyst
8141 Organophosphate Pesticides					
Azinophos Methyl (Guthion)	ND	1	1.0	mg/Kg	02/08/04 SD
Bolstar	ND	1	0.1	mg/Kg	02/08/04 SD
Chlorpyrifos(Dursban)	ND	1	0.2	mg/Kg	02/08/04 SD
Coumaphos	ND	1	1.0	mg/Kg	02/08/04 SD
Demeton(Systox)-O	ND	1	0.17	mg/Kg	02/08/04 SD
Demeton(Systox)-S	ND	1	0.17	mg/Kg	02/08/04 SD
Diazinon	ND	1	0.4	mg/Kg	02/08/04 SD
Dichlorvos	ND	1	0.07	mg/Kg	02/08/04 SD
Disulfoton (Disyston)	ND	1	0.13	mg/Kg	02/08/04 SD
Ethoprop	ND	1	0.17	mg/Kg	02/08/04 SD
Fensulfothion	ND	1	1.0	mg/Kg	02/08/04 SD
Fenthion	ND	1	0.07	mg/Kg	02/08/04 SD
Malathion	ND	1	0.02	mg/Kg	02/08/04 SD
Merphos	ND	1	0.17	mg/Kg	02/08/04 SD
Mevinphos (Phosdrin)	ND	1	0.2	mg/Kg	02/08/04 SD
Naled (Dibrom)	ND	1	0.07	mg/Kg	02/08/04 SD
Parathion Ethyl	ND	1	0.02	mg/Kg	02/08/04 SD
Parathion Methyl	ND	1	0.02	mg/Kg	02/08/04 SD
Phorate (Thimet)	ND	1	0.1	mg/Kg	02/08/04 SD
Ronnel	ND	1	0.2	mg/Kg	02/08/04 SD
Stirophos (Tetrachlorvinphos)	ND	1	3.35	mg/Kg	02/08/04 SD
Tokuthion (Protothiofos)	ND	1	0.33	mg/Kg	02/08/04 SD
Trichloronate	ND	1	0.1	mg/Kg	02/08/04 SD
Surrogates				**Units**	**Control Limits**
TBP (sur)	83			%	50 - 145
TPP (sur)	57			%	50 - 145

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

FEB-12-2004 15:58 FROM-Associated Laboratories 714-538-1209 T-638 P.004/008 F-814

Order #: 496128
Matrix: SOLID
Sampled: 02/02/2004
Time Sampled:
Sampled By:

Client: Enviro-Chem Laboratories, Inc.
Client Sample ID: 040204-65 to 68

Analyte	Result	DF	DLR	Units	Date/Analyst
8141 Organophosphate Pesticides					
Azinophos Methyl (Guthion)	ND	1	1.0	mg/Kg	02/08/04 SD
Bolstar	ND	1	0.1	mg/Kg	02/08/04 SD
Chlorpyrifos(Dursban)	ND	1	0.2	mg/Kg	02/08/04 SD
Coumaphos	ND	1	1.0	mg/Kg	02/08/04 SD
Demeton(Systox)-O	ND	1	0.17	mg/Kg	02/08/04 SD
Demeton(Systox)-S	ND	1	0.17	mg/Kg	02/08/04 SD
Diazinon	ND	1	0.4	mg/Kg	02/08/04 SD
Dichlorvos	ND	1	0.07	mg/Kg	02/08/04 SD
Disulfoton (Disyston)	ND	1	0.13	mg/Kg	02/08/04 SD
Ethoprop	ND	1	0.17	mg/Kg	02/08/04 SD
Fensulfothion	ND	1	1.0	mg/Kg	02/08/04 SD
Fenthion	ND	1	0.07	mg/Kg	02/08/04 SD
Malathion	ND	1	0.02	mg/Kg	02/08/04 SD
Merphos	ND	1	0.17	mg/Kg	02/08/04 SD
Mevinphos (Phosdrin)	ND	1	0.2	mg/Kg	02/08/04 SD
Naled (Dibrom)	ND	1	0.07	mg/Kg	02/08/04 SD
Parathion Ethyl	ND	1	0.02	mg/Kg	02/08/04 SD
Parathion Methyl	ND	1	0.02	mg/Kg	02/08/04 SD
Phorate (Thimet)	ND	1	0.1	mg/Kg	02/08/04 SD
Ronnel	ND	1	0.2	mg/Kg	02/08/04 SD
Stirophos (Tetrachlorvinphos)	ND	1	3.35	mg/Kg	02/08/04 SD
Tokuthion (Protothiofos)	ND	1	0.33	mg/Kg	02/08/04 SD
Trichloronate	ND	1	0.1	mg/Kg	02/08/04 SD

Surrogates		Units	Control Limits
TBP (sur)	79	%	50 - 145
TPP (sur)	54	%	50 - 145

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

FEB-12-2004 15:58 From-Associated Laboratories 714-538-1209 T-638 P.005/008 F-814

Order #: 496129
Matrix: SOLID
Sampled:
Time Sampled:
Sampled By:

Client: Enviro-Chem Laboratories, Inc.
Client Sample ID: Laboratory Method Blank

8141 Organophosphate Pesticides

Analyte	Result	DF	DLR	Units	Date/Analyst
Azinophos Methyl (Guthion)	ND	1	1.0	mg/Kg	02/07/04 SD
Bolstar	ND	1	0.1	mg/Kg	02/07/04 SD
Chlorpyrifos(Dursban)	ND	1	0.2	mg/Kg	02/07/04 SD
Coumaphos	ND	1	1.0	mg/Kg	02/07/04 SD
Demeton(Systox)-O	ND	1	0.17	mg/Kg	02/07/04 SD
Demeton(Systox)-S	ND	1	0.17	mg/Kg	02/07/04 SD
Diazinon	ND	1	0.4	mg/Kg	02/07/04 SD
Dichlorvos	ND	1	0.07	mg/Kg	02/07/04 SD
Disulfoton (Disyston)	ND	1	0.13	mg/Kg	02/07/04 SD
Ethoprop	ND	1	0.17	mg/Kg	02/07/04 SD
Fensulfothion	ND	1	1.0	mg/Kg	02/07/04 SD
Fenthion	ND	1	0.07	mg/Kg	02/07/04 SD
Malathion	ND	1	0.02	mg/Kg	02/07/04 SD
Merphos	ND	1	0.17	mg/Kg	02/07/04 SD
Mevinphos (Phosdrin)	ND	1	0.2	mg/Kg	02/07/04 SD
Naled (Dibrom)	ND	1	0.07	mg/Kg	02/07/04 SD
Parathion Ethyl	ND	1	0.02	mg/Kg	02/07/04 SD
Parathion Methyl	ND	1	0.02	mg/Kg	02/07/04 SD
Phorate (Thimet)	ND	1	0.1	mg/Kg	02/07/04 SD
Ronnel	ND	1	0.2	mg/Kg	02/07/04 SD
Stirophos (Tetrachlorvinphos)	ND	1	3.35	mg/Kg	02/07/04 SD
Tokuthion (Prothiofos)	ND	1	0.33	mg/Kg	02/07/04 SD
Trichloronate	ND	1	0.1	mg/Kg	02/07/04 SD

Surrogates		Units	Control Limits
TBP (sur)	79	%	50 - 145
TPP (sur)	68	%	50 - 145

DLR = Detection limit for reporting purposes. ND = Not Detected below indicated detection limit, DF = Dilution Factor

FEB-12-2004 15:59 FROM-Associated Laboratories 714-538-1209 T-538 P.006/008 F-814

ASSOCIATED LABORATORIES
QA REPORT FORM

Determinative Method : EPA 8141 Preparative Method: EPA 3545

QC Sample: 124124-496119

Matrix: SOLID

Analysis Date: 2/8/04

Batch Date: 02/06/04 (op 020604s)

Applies to: LR 124124 and LR 124125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULTS
REPORTING UNITS = mg/Kg

Test	Sample Result	Spike Added	Spike Recovered		% Rec		RPD	QC Limits	
			MS	MSD	MS	MSD		RPD	% Rec
Demeton-O	ND	0.400	0.336	0.334	84	84	1	35	45-140
Ethoprop	ND	0.400	0.340	0.335	85	84	1	35	45-140
Naled	ND	0.400	0.374	0.350	93	87	7	35	45-140
Diazinon	ND	0.400	0.340	0.340	85	85	0	35	45-140
[illegible]hos	ND	0.400	0.329	0.322	82	80	2	35	45-140
Fensulfothion	ND	0.400	0.390	0.394	98	99	1	35	45-140
Azinophos, Methyl-	ND	0.400	0.297	0.286	74	72	4	35	45-140
Coumaphos	ND	0.400	0.196	0.187	49	47	5	35	45-140

ND - Not Detected
% Rec - MS & MSD = Percent Recovery from Matrix Spike & Matrix Spike Duplicate
RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate recoveries

LAB CONTROL SPIKE / LAB CONTROL SPIKE DUPLICATE RECOVERIES
REPORTING UNITS = mg/Kg

Test	Spike Added	Spike Recovered	% Rec LCS	QC Limits
Demeton-O	0.400	0.341	85	55-130
Ethoprop	0.400	0.356	89	55-130
Naled	0.400	0.394	99	55-130
Diazinon	0.400	0.352	88	55-130
Stirophos	0.400	0.353	88	55-130
Fensulfothion	0.400	0.400	100	55-130
[illegible]inophos, Methyl-	0.400	0.346	86	55-130
[illegible]umaphos	0.400	0.278	69	55-130

Method Blank = All ND
% Rec - LCS & LCSD = Percent Recovery from Lab Control Spike & Lab Control Spike Duplicate
RPD = Relative Percent Difference of Lab Control Spike and Lab Control Spike Duplicate recoveries

FEB-12-2004 15:59 FROM-Associated Laboratories 714-538-1209 T-638 P.007/008 F-814

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE # 1555

124125

Turnaround Time
- 0 Same Day
- 0 24 Hours
- 0 48 Hours
- 0 72 Hours
- 1 Week (Standard)
- Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	8141	ASSOCIATED	COMMENTS
040204-53→56		2/2/04		Soi	—		—	X		DANIELLE - PLEASE REFER TO QUOTE
-57→60		↓		↓	↓		↓	↓		
-61→64										
-65→68										

Analysis Required

Company Name:

Address:

City/State/Zip:

Project Contact: Curtis B. Desilets

Tel: (909) 590-5905

Fax: (909) 590-5907

Sampler's Signature:

Project Name/ID: 040204-53→56, 57→60, 61→64, 65→68

Relinquished by: X

Relinquished by:

Relinquished by:

Received by:

Received by:

Received by:

Date & Time: 2/5/04 1420

Date & Time: 2/5/04 1700

Date & Time:

Instructions for Sample Storage After Analysis
- Dispose of
- Return to Client
- Store (30 Days)
- Other:

CHAIN OF CUSTODY RECORD

WHITE WITH SAMPLE, YELLOW TO CLIENT

Page 1 of 1

FEB-12-2004 15:39 FROM-ASSOCIATED LABORATORIES 714-330-1429 T-030 P.001/001 F-019

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE # 1555

Turnaround Time
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
X 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	8051	8141	8151								COMMENTS
				Analysis Required														
G13-A	060204-53	2-2-04		Soil	1		ICE	X	X	X								Composite Samples
G13-B	-54							X	X	X								
G13-C	-55							X	X	X								
G13-D	-56							X	X	X								
G14-A	-57							X	X	X								Composite Samples
G14-B	-58							X	X	X								
G14-C	-59							X	X	X								
G14-D	-60							X	X	X								
G15-A	-61							X	X	X								Composite Samples
G15-B	-62							X	X	X								
G15-C	-63							X	X	X								
G15-D	-64							X	X	X								

Company Name: Building Analytics
Address: 528 State St.
City/State/Zip: Glendale CA 91203

Project Contact: Russell Cole
Tel: (818) 500-1888
Fax: (818) 246-8155

Sampler's Signature: Russell Cole
Project Name/ID: River village 104012

Relinquished by: Russell Cole
Relinquished by:
Relinquished by:

Received by:
Received by:
Received by:

Date & Time: 2/4/04 1130
Date & Time: 2/4/04 1500
Date & Time:

Instructions for Sample Storage After Analysis:
O Dispose of O Return to Client O Store (30 Days)
O Other:

CHAIN OF CUSTODY RECORD

Date: _____

WHITE WITH SAMPLE · YELLOW TO CLIENT

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE # 1555

Turnaround Time
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
X 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	8081	8141	8151							COMMENTS
				Analysis Required													
G16-A	040204-65	2-2-04		Soil	1		ICE	X	X	X							
G16-B	-66	↓		↓	↓		↓	X	X	X							Composite in to one sample
G16-C	-67	↓		↓	↓		↓	X	X	X							↓
G16-D	-68	↓		↓	↓		↓	X	X	X							↓

Company Name: Building Analytics
Address: 528 State St
City/State/Zip: Glendale CA 91203

Project Contact: Russell Coke
Tel: (818) 500-1558
Fax: (818) 246-8195

Sampler's Signature: Russell Coke
Project Name/ID: River village
104012

Relinquished by: Russell Coke	Received by:	Date & Time: 2/4/04 1730
Relinquished by:	Received by:	Date & Time: 2/4/04 1800
Relinquished by:	Received by:	Date & Time:

Instructions for Sample Storage After Analysis:
O Dispose of O Return to Client O Store (30 Days)
O Other:

CHAIN OF CUSTODY RECORD

APPENDIX E:

Oil Well Records

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF WELL PLUGGING AND ABANDONMENT

Ventura, California

September 21, 1994

EXXON Corporation
Attn: Env. & Reg. Affairs
P.O. Box 1600
Midland, TX 79702

Your report of the plugging and abandonment of well "Newhall Land & Farming Co." 2, A.P.I. No. 037-16473, Section 14, T. 4N, R. 17W, S.B. B.& M., Castaic Junction field, Los Angeles County, dated 10-28-93, received 11-05-93, has been examined in conjunction with records filed in this office. We have determined that all of the requirements of this Division have been fulfilled relative to plugging and abandonment of the well, removal of well equipment and junk, and the filing of well records.

svl

William F. Guerard, Jr
State Oil and Gas Supervisor

By Robert A. Kinnear
Patrick J. Kinnear
Deputy Supervisor

cc: Conservation Committee
Update

Modified OG159 (4/94)

OPERATOR EXXON A.P.I. 037- 16473

WELL NO. "A.L. & F Co." 2 SECTION 14, T. 4 N, R. 17 W

MAP

INTENTION	ABANDON					
NOTICE DATED	5-7-93					
P-REPORT NUMBER	293-146					
CHECKED BY/DATE						
MAP LETTER DATED	12/25/93					
SYMBOL						

	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED
NOTICE	5-12-93											
HISTORY	11-5-93											
SUMMARY												
E-LOG												
MUD LOG												
DIPMETER												
DIRECTIONAL												
CORE/SWS												
CBL												

ENGINEERING CHECK

T-REPORTS	✓					
OPERATOR'S NAME	✓					
WELL NO.	✓					
LOC & ELEV	✓					
SIGNATURE	✓					
SURFACE INSP.	✓					
DRILL CARD						
RECORD'S COMPLETE	✓ SP					

FINAL LETTER OK

MAILED

RELEASED BOND

INJECTION BOOK

IDLE WELL LIST

SURFACE INSP. CARD

REMARKS: SPC insp OK 4-12-94 MW

OK TO RELEASE FROM CONFIDENTIAL

ABANDONED-REMOVED FROM E.D.P.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND
GEOTHERMAL RESOURCES

No. T293-311

Report on Operations

EXXON Corporation
Attn: Env. & Req. Affairs
P.O. Box 1600
Midland, Texas 79702

Ventura, California
December 20, 1993

Your operations at well "Newhall Land & Farming Co." 2, API No. 037-16473, Sec. 14, T. 3N, R. 17W, S.B. B.&M. Castaic Junction Field, in Los Angeles County, were witnessed on 10-21-93. Steve Mulqueen, representative of the supervisor, was present from 0700 to 0800. There were also present Ken Kennedy

Present condition of well: 13 3/8" cem 1493'; 7" cem 11,641', perf 10,254' WSO, cp 100' cp 1472'-1492' & cp 10,252', perfs @ int 10,270'-10,475' (cem off) & perfs @ int 11,200'-11,370'. Junk below 11,133'. TD 11,855'. Plugged w/ 65 sx cem below retainer @ 11,480', plugged w/cem 11,388'-10,054', 1500'-1224', and 124' - sfc.

The operations were performed for the purpose of abandonment.

DECISION:

The plugging operations as witnessed and reported are approved.

scv

William F. Guerard, Jr.
State Oil and Gas Supervisor

By

Patrick J. Kinnear
Deputy Supervisor

OG109 (Modified 1993)

T293-311

DIVISION OF OIL AND GAS
Cementing/Plugging Memo

Operator EXXON CORP. Well No. "N.L.& F." 2
API No. 037-16473 Sec. 14, T. 04N, R. 17W, SB B&M
Field CASTAIC JUNCTION, County LOS ANGELES. On 10-21-93,
Mr. ~~M&B~~. S. MULQUEEN, representative of the supervisor, was present from 0700 to 0800.
There were also present KEN KENNEDY

Casing record of well: 13 3/8" cem 1493'; 7" cem 11641', perf 10254' WSO, cp 100' cp 1472'-1492' & cp 10252', perfs @ int 10270'-10475' (cem off) & perfs @ int 11200'-11370'. Junk below 11133'. TD 11855'. Plugged w/ 65sx

The operations were performed for the purpose of ABANDONMENT
cem below retainer @ 11480', plugged w/ cem 11388'-10054', 1500'-1224', AND 124'-sfc. AND reported

☒ The plugging/~~cementing~~ operations as witnessed ~~and reported~~ are approved.

☐ The location and hardness of the cement plug @ _____' is approved.

Hole size: _____" fr. _____' to _____', _____" to _____' & _____" to _____'

	Casing				Cemented			Top of Fill		Squeezed Away	Final Press.	Perfs.
	Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			
A	7"	23 26 29	0	11641'	10-20	TBG @ 1500' BRADEN HEAD	162 cf	1326'±	1224'	104 cf	700 PSI	1472'-1492'

Casing/tubing recovered: _____" shot/cut at 1492' TO 1472', _____' pulled fr. _____'; (PERFORATE)
_____" shot/cut at 100' TO 102', _____' pulled fr. _____'. (PERFORATE)

Junk (in hole): PACKER @ 11133

Hole fluid (bailed to) at _____'. Witnessed by _____

Mudding	Date	Bbls.	Displaced	Poured	Fill	Engr.
9.7#/g CLAY GEL	10-19-93	3/6 BBL	TBG @ 10050	—	1500' ±	S. MULQUEEN
"	10-20-93	176 BBL*	TBG @ 1500	—	SURFACE	"
		*128 BBL IN ANNULUS				

FILL @ 11300', CLEAN OUT TO 11400'.

Cement Plugs		Placing	Placing Witnessed		Top Witnessed			
Date	Sx./cf	MO & Depth	Time	Engr.	Depth	Wt/Sample	Date & Time	Engr.
10/14	146 cf	TBG @ 11388'	—	REPORTED	10726'	5K#	10/18 0830	S. MULQUEEN
10/18	145 cf	TBG @ 10720'	—	"	10054'	10K#	10/19 0920	"
A 10/20	162 cf	TBG @ 1500'	—	"	1224'	ALL TBG WEIGHT	10/21 0800	"

TESTED CASING TO 500# FOR 10 MIN.

Dist. 1

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator Exxon Corporation **Field** Castaic Junction **County** Los Angeles
Well Newhall Land & Farming Co. #2 **Sec.** 14, **T** 4N, **R** 17W S.B.B. & M.
A.P.I. No. 037-16473 **Name** Julie H. Mitchell (Person submitting report) **Title** Staff Office Assist. (President, Secretary or Agent)
Date October 28, 19 93

Signature Julie H. Mitchell

Environmental & Regulatory Affairs, PO Box 1600, Midland, TX 79702 915/688-7888
(Address) (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date

(see attached)

DIVISION OF OIL AND GAS
RECEIVED
NOV 5 1993
VENTURA, CALIFORNIA

OG103 (6/91/GSR1/5M)

NEWHALL LAND & FARMING CO - 0002 Lease# 061590 Job# 60008760
Field Supt R. O. Storey CMP# 4037164730001 AFE# 00039454
PLUG AND ABANDON

Expected Buildup oil/gas /
Estimated PI

Mix & pump 146 cuft, 90 sx, class G cement. Displace with 62 bbls lease water @ 2500 psi max. Pull out with 15+0 stand of tbg. Reverse out 35 min. Pull 10+0 stands to 9839 ft. Close in well, eot. Estimated top of cement @ 10688 ft.
Div of Oil & Gas, Steve Mulqueen, gave verbal ok to pump cement from 11,388 to 10,688 at 9:00 am.

--- 10/13/93
20 Min safety mtg. Check well (tbg 0, csg 0 psi). Bleed well. Cont rih with 2-7/8 N-80 tbg, 110 stands. Pick up and measure 101 jts. Tag top of fill @ 11,119 ft. Circulate well. Clean out from 1119 - 11121 ft, top of pkr. Stab thru pkr. Rih to 11300 ft. Pooh w/40 jt to 10100. Close in well. eot.

--- 10/12/93
Held 15 in safety mtg. Check well, tbg 0 psi, csg 60 psi. Bleed well. Fill well with 5 bbls lease water. Cont pooh, found heavey scale on out side of tbg. Lay down 118 jt N-80 tbg. Haul in 22 jts 1-3/4in tbg. Meas and pick up 1-3/4in tbg. Run 10+0 2-7/8 tbg, 600 ft. Close in well. eot

--- 10/11/93
Hold 20 min safety mtg. Check well (tbg 0 psi, csg 250 psi). Bleed csg circ 100 bbl lease water. Rig up Coast Wireline. RIH set btg plug @ 60 ft, ok. Rig out Coast. ND production Tree. Nipple up class III BOP and BOE, test ok. Rig up working floor and tbg equip. Rig up Coast slick line. Rih, retrieve tbg. plug from 60 ft well dead. Rig out Coast. Pooh with 2-7/8in N-80 tbg. Fill hole every 1200 ft, no flow. No loss of fluid. Pull 100 stands, 6200 ft. Close in well. eot.

--- 10/07/93
20 min safety mtg. Check out well. Tbg 450 psi, csg 540 psi. Remove 3in flange and gate valve. Well secure with bottom master valve. Rig up Coast Slickline and lubricator. RIH w/2-1/2in camco type B tbg plug. Set @ 60 ft. Pooh, attempt to bleed csg. Would not bleed off. Pump 100 bbl lease water. Csg flowing. Pull tbg plug form 60 ft. Circulate 300 bbl down tbg to kill well.

--- 10/06/93
MIRU. eot

10/27/93 MORNING REPORT 5:38PM

NEWHALL LAND & FARMING CO - 0002 Lease# 061590 Job# 60008760
Field Supt R. O. Storey CMP# 4037164730001 AFE# 00039454
PLUG AND ABANDON

Expected Buildup oil/gas /
Estimated PI

--- 10/21/93
Hold safety mtg. Open well (no pressure). RIH, tag top of cement @ 1224 ft. Pooh laying down 47 jts. Rig up Halliburton. Test lines. Mix & Pump 66 cuft, 58 sx, neat cement down 2-7/8in tbg (tail @ 124 ft), up 7 in and 13-3/8 casings to surface @ 300 psi max. Rig out Halliburton. Pooh lay down 4 jts 2-7/8 tbg. Clean BOPE and tbg equip. Rig down work floor RDMO
Div of Oil & Gas, Stephen Mulqueen, approved tag of cement @ 1224 ft. OK. pumping cement from 124 ft to surface.

--- 10/20/93
Hold 10 min safety mtg. Open well (no pressure). Cont pooh, laying down 2-3/8 N-80 tbg. Lay down 131 jts. POOH standing back in derrick 48 jts Fill well with 20 bbls lease water. Rig up MMI perforators. Rig up Lubricator. Held safety mtg. Rih w/20 ft strip shot Dyna Jet Perforator 4 HPF. Locate collar @ 1493 ft. Shoot holes from 1492-1472. Pooh, rig out MMI. Rih with 50 jts 2-7/8in tbg to 1500 ft. Circulate 175 bbls 9.7 ppg mud in 7in & 13-7/8in csg. Rig up Halliburton. Test lines 200# and 2000#, ok. Mix and Pump 141 sx neat cement with 3% Calcium Chloride. Displace with 8 bbls 9.7 ppg mud. Rig out Halliburton. Pooh with 2-7/8 tbg. Rig up MMI Rih w/2 ft strip shot Dyna Jet Perforator. 4 hpf. Shoot holes from 100 - 102 ft. Pooh, rig out MMI. Close in well, eot.

--- 10/19/93
Hold 20 min safety mtg. Open well (no pressure) RIH. tag top of cement @ 10054. Test csg 0-10054 @ 500# for 10 min, ok. POOH lay down 22 jts. Rih with 11 stands out of derrick with tbg tail @ 10050 ft, pump 316 bbls 9.7 ppg mud down well. Displace with 10 bbls lease water. Pooh, laying down 2-7/8in tbg. Close in well, eot.
Div of Oil & Gas, Steve Mulqueen, witnessed and approved: Mudding of hole from 10050-1500 ft. Tag of bottom hole plug @ 10054 as reported.

--- 10/18/93
Held 20 min safety mtg. Open well (tbg 0 psi, csg 70 psi). Rih, tag top of cement @ 10,726 ft. Circulate well. Rig up Halliburton with tail at 10720 ft. Test lines, ok.
Mix & Pump 145 cuft, 90 sx class G cement and displace with 56 bbls lease water @ 3000# max. Pull out with 40 jts to 8780 ft. Reverse out 35 min. Change tbg line. POOH laying down 2-7/8 tbg out of derrick. Close in well. eot.
Div of Oil & Gas, Steve Mulqueen, witnessed tag of cement @ 10726 and okayed placing of cement from 10726 to 10026.
Note: Cement mix: class G cement with 40% Silica Flour, .5% hr-7, and .5% R-3.

--- 10/14/93
Held 20 min safety mtg. Open well (No pressure). RIH w/2-7/8 in tbg. Work thru packer. Tag fill @ 11300 ft. Clean out to 11400 ft. Tbg is plugging. Pull to 11388, circulate well. Rig up Halliburton Test lines hold safety mtg.

DIVISION OF OIL AND GAS
RECEIVED
NOV 5 1993
VENTURA, CALIFORNIA

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS
AND GEOTHERMAL RESOURCES

No. P293-146
Field Code 126
Area Code 00
New Pool Code --
Old Pool Code 20

PERMIT TO CONDUCT WELL OPERATIONS

EXXON Corporation
Attn: Env. & Reg. Affairs
P.O. Box 1600
Midland, Texas 79702

Ventura, California
May 13, 1993

Your proposal to abandon well Newhall Land & Farming Co." 2, A.P.I. No. 037-16473, Section 14, T. 4 N, R. 17W, S.B. B.&M., Castaic Junction field, --- area, 21 Del Valle pool, Los Angeles County, dated 5-7-93, received 5-12-93, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Blowout prevention equipment conforming to DOG Class IIB 2M requirements shall be installed and maintained in operating condition at all times.
2. Hole fluid of a quality and in sufficient quantity is used to control all subsurface conditions in order to prevent blowouts.
3. A diligent effort shall be made to clean out the well to at least 11,480'.
4. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of 72 lbs./cu. ft. and a minimum gel-shear strength (10 min.) of 25 lbs./100 sq. ft.
5. This office shall be consulted before deviating from the proposed abandonment program.

Continued on Page 2

Blanket Bond
PK:SF:nr

Engineer Steve Fields

Phone (805) 654-4761

WILLIAM F. GUERARD, Jr.
Acting State Oil and Gas Supervisor

By Patrick J. Kinnear
Patrick J. Kinnear
Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
OG111

6. THIS DIVISION SHALL BE NOTIFIED:
   a. To witness the location and hardness of the cement plug at 10,152'.
   b. To witness the mudding of the well.
   c. To witness the squeeze-cementing of the 7" casing through the perforations at 1483'.
   d. To witness the location and hardness of the cement plug at 1383'.
   e. To witness the placing of the surface plug inside the 7" casing and the plug in the 7" x 13 3/8" casing annulus.
   f. To inspect and approve the cleanup of the well site before approval of abandonment will be issued.

KEN KENNEDY / S. MULQUEEN CLEAN-OUT TO 11400' 10-14-93

DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

NOTICE OF INTENTION TO ABANDON WELL

DIVISION OF OIL AND GAS
RECEIVED
MAY 12 1993
VENTURA, CALIFORNIA

FOR DIVISION USE ONLY			
		FORMS	
CARDS	BOND	OGD114	OGD121
✓	BB	5-12-93 ✓	✓

DIVISION OF OIL AND GAS

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon well No. Newhall Land & Farming Co. #2 (Well designation), API No. 037-16473

Sec. 14, T. 4N, R. 17W, S.B. B. & M., Castaic Junction Field, Los Angeles County.

commencing work on 5/29, 1993.

The present condition of the well is:

1. **Total depth** 11,641

2. **Complete casing record, including plugs and perforations**
   13 3/8" 54.5# casing @ 0'-1493'
   7" 23/26/29# casing @ 0'-11,641' perfs:11,200'-11,370'

3. **Last produced** 06/86 (Date) 2 (Oil, B/D) 8 (Water, B/D) 47 (Gas, Mcf/D)

   OR

4. **Last injected** _____ (Date) _____ (Water, B/D) _____ (Gas, Mcf/D) _____ (Surface pressure)

Addtional Data for dry hole (show depths)

5. **Uppermost oil or gas shows**
   Zone 21: 10,270'-10,430'

6. **Stratigraphic markers:**

7. **Formation and age at total depth:**

8. **Base of fresh water sands:** 1490'

5. Is this a critical well according to Section 1720(a), California Code of Regulations? Yes [X] No [ ]

The proposed work is as follows:

1 MIRU. Install and test a DOG class II 5M BOPE.
2. Clean to bottom of 7" casing @ 11,641'.
3. Place class "G" cement plug from 11,641'-10,152', pumping plug in three stages, cementing the 7" casing prefs and to 100' above WSO at 10,252', TOC at 10,152'. Dog to witness.
4. Shoot 4 SPF in the 7" casing @ 1493'to 1983 and place a class "G" cement plug from 1493' to 1373',squeezing the 7" x 13 3/8" annulus. DOG to witness.
5. Shoot 4 holes in the 7" casing @ 100' and circulate a class "G" cement plug from 100' to the surface getting returns in the casing/conductor annulus. DOG to witness.
6. Cut of casing @ 5' and weld plate with well identifier.
7. Clean location. DOG will inspect.

It is understood that if changes in this plan become necessary, we are to notify you immediately

Address 25 Desta Drive P.O. Box 1600 (Street)
Midland, (City) Tx. (State) 79702 (Zip)
Telephone Number 915-688-7888

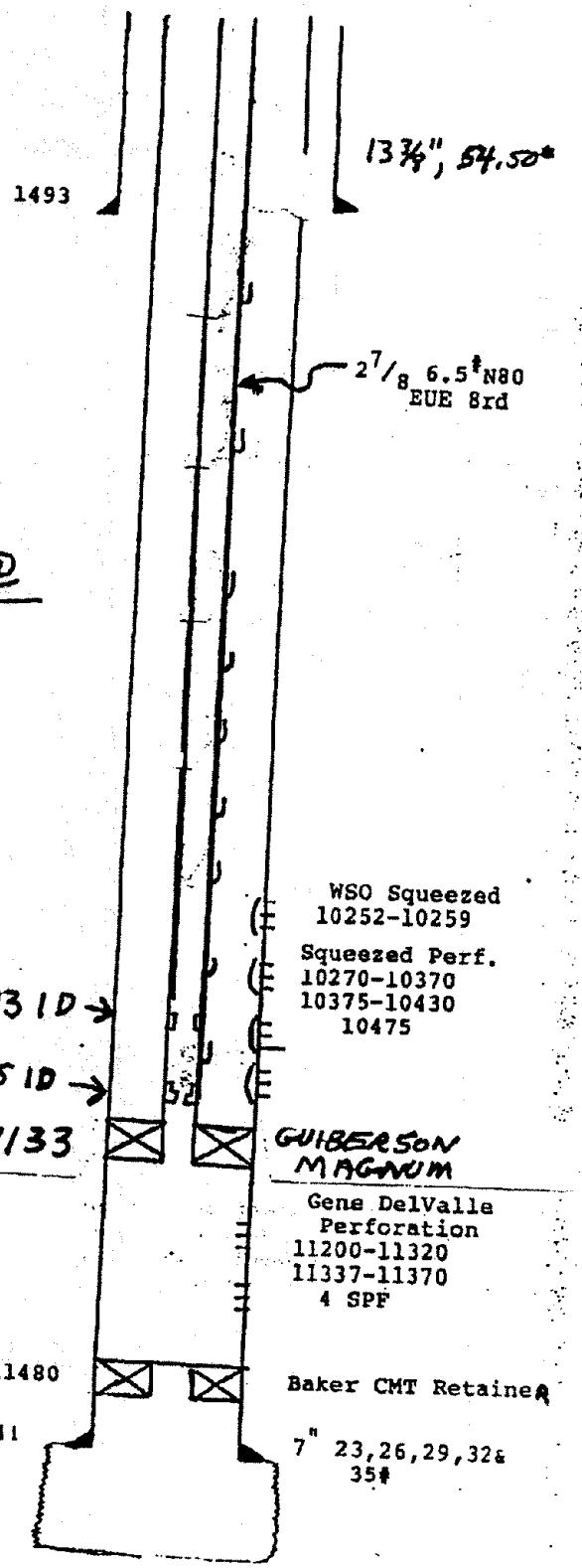
Exxon Corporation (Name of Operator)
By Judy M. Bagwell (Name-Printed)
Judy Bagwell (Name-Signature) 5-7-93 (Date)
Type of Organization Corporation

OG108

N.L.&F. 2

BEFORE P+A

KB is 14.15' above csg hd flange



7" CSG Detail

35#	0-407
32#	407-1453
29#	1453-2621
26#	2621-3406
23#	3406-5535
26#	5535-6059
29#	6059-8771
32#	8771-10649
35#	10649-11641

all N-80 grade
excpt 23# S-95

9-GLM's @

2394
4245
6099
7110
8113
9111
10108
10987
11062

"X" nipple 2.313 ID
11101'

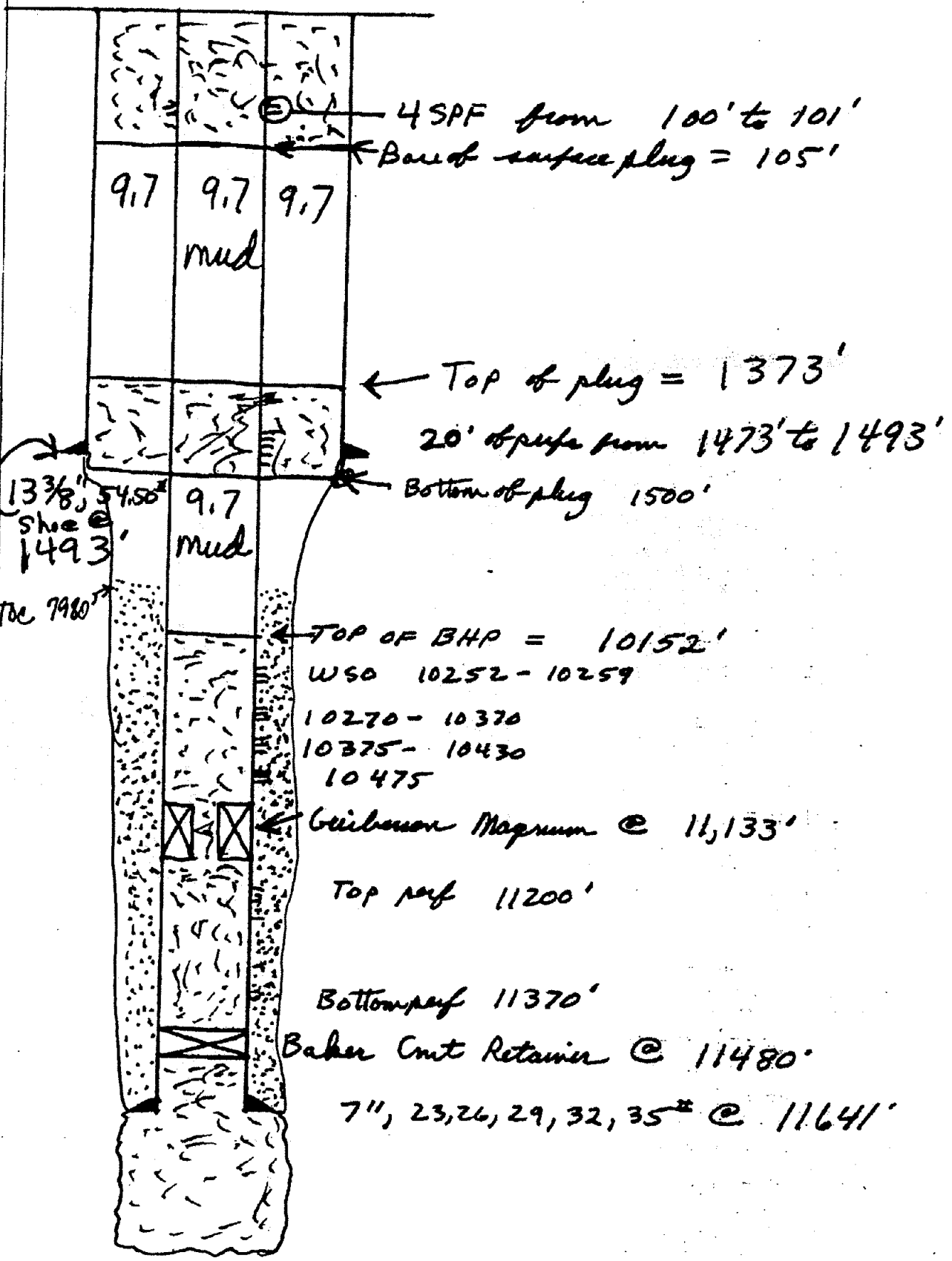
"A" nipple, 2.25 ID
11131'

11133

DIVISION OF OIL AND GAS
RECEIVED
MAY 12 1993
VENTURA, CALIFORNIA

NL+F # 2 DM 9-8-92

AFTER P+A



Procedure by IDT

13 3/8", 54.5# casing @ 0'-1493'
7" 26/29/32# casing @ 0'-11,641' slots:11,200'-11370'

SAFETY
Conduct a safety meeting to instruct all personnel on possible hazards in the area. At least 20# of dry chemical is to be on location, as a minumum, for fire fighting equipment. No smoking is to be allowed on location and all personnel are required to wear safety glasses, boots, and hard hats.

OBJECTIVE
Permanently plug and abandon the well.

FAX MORNING REPORTS TO:

KEN SHAFTO	915-688-6162	MIDLAND RES/SUBSURFACE
SHARON TOMLIN	915-688-6199	MIDLAND REGULATORY AFFAIRS
RICK STOREY	805-762-7284	HILL PROPERTY SR.SUPT

NOTE: DOG VENTURA REPRESENTATIVES ARE TO WITNESS ALL PLUG SETTINGS. NOTIFY AGENCY OF INTENT TO PLUG AT LEAST 24 HRS BEFORE COMMENCING PLUGGING OPERATIONS. RECORD THE DOG REPRESENTATIVES' NAME ON THE MORNING REPORT THAT WITNESSES OR WAIVES A PART OF AN ABANDONMENT. VENTURA OFFICE 805-656-4761

MECHANICAL CONSIDERATIONS: During a workover in 11/85 a tight spot in the 7"casing from 7962'-7968' was swedged to 5 1/2". A Guiberson Magnum type "H" packer was set on a wireline @ 11,133, 2 7/8" N-80, 8rd tubing was set w/10,000# on packer and no latch.

PROCEDURE

1. Ensure that the DOG "Permit to Conduct Well Operations" (Abandonment) and the program and the AFE are available prior to the commencement of any work.

2. BEFORE RIG-UP: Prepare location, remove debris, repair roads, install/inspect rig anchors, flush flow line and remove to the edge of the location.

3. MIRU WSU. Bleed off any pressure on the well (casing and tubing). Load or kill the well if necessary. Set tubing plug.

4. N/D tree. NU an Exxon Class III 5M (DOG Class II 5M) BOP with a hydraulic actuating system. Test the BOP to 250/5000 psi.

5. Pull out of Guiberson Magnum type "H" permanent packer @ 11,133', max pull is 77% of tubing yield. Circulate B/U.

6. POOH L/D GLM's, X nipple, "A" nipple, seal assembly etc. Check condition of tubing. P/U workstring.

8. Clean out to bottom @ 11,480' PBTD in 7" liner. Notify DOG of top of fill and clean out depth if unable to clean out to TD.

9. RU cementers and test lines to 250/5000 psi. Mix and pump the following slurry to spot a balanced plug from 11480' to 10152'.

10. 11480'-10152'=328' X .2210 = 73 cu. ft. X 2 = 146 cu.ft.

Cement type	Class "G" + Silica Flour
Retarder	0.03%
Friction Retarder	0.02%
Fluid loss additive	1.0%
Weight	15.7 PPG
Amount	92 sx (146 cu/ft=100% excess)
Yield	1.585 CU.FT/SK
Water required	6.54 GAL/SK
TTT @ 180 Deg F BHCT	3.30 Hrs.
Compressive strengths @	230 Deg F BHST
8 HOURS 1750 psi	
24 HOURS 4800 psi	

11. POOH 5 stands above calculated TOC and reverse out tubing. POOH 3 stands and WOC 8 hrs. Tag top of plug (10152') and have DOG witness.

12. Test casing integrity to 500 psi for 10 minutes.

13. Displace fluid in the hole with approximately 558 bbls of 9.7 ppg mud.

7", 23# = 10152' x .0393 = 400 BBLS
7"x 13 3/8"= 1480' x .1070 = 158 BBLS

14. POOH lay down excess pipe .

15. Perforate 20' of 4 1/2" SPF centered at 1483' @ the base of fresh water. RIH with tubing open ended to 1483' circulate mud up the 7" X 13 3/8" annulus to the surface.

16. NOTIFY THE DOG TO WITNESS PUMPING THE FRESHWATER PLUG: R/U cementers & test lines 250/2000 psi. pump and squeeze cement slurry to place cement plug in the 7" and the 7"x10 3/4" annulus so the TOC will be 100' above the BFW.

100' of 7", 23# X .2210 = 22 cu.ft.
100' of 7" X 13 3/8" = .6007 = 60 cu.ft.

Cement type	Class "G" + 2% CaCl2
Weight	15.7 PPG
Amount	143 sx (164 cu/ft= 100% excess)
Yield	1.15 CU.FT/SK
Water required	4.96 GAL/SK
TTT @ 180 Deg F BHCT	4.45 Hrs.

Compressive strengths @ 90 Deg F BHST
8 HOURS 155 psi
24 HOURS 1523psi

17. R/U wireline and shoot 4 SPF (90 degrees phasing) in the 7" csg @ 100' (or deeper if required by Newhall grading plan).

18. RIH to 100' and establish circulation in the 7" X 13 3/8" annulus. R/U cementers and pump/squeeze 82 sxs of "G" neat cement to fill the 7" and the 7" X 13 3/8" annulus to surface. DOG TO WITNESS SURFACE PLUG.

19. Complete the following: Remove surface equipment and flow lines back to the header. Restore the site to its pre-drill condition. Complete removal of surface equipment and flowlines within 30 days of FRR. DOG requires all work to be completed, documented, and submitted within 60 days of FRR.

DIVISION OF OIL AND GAS
RECEIVED
MAY 12 1993
VENTURA, CALIFORNIA

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA -
DEPARTMENT OF CONSERVATION -

DIVISION OF OIL AND GAS

History of Oil or Gas Well

RECEIVED
OCT 25 1993
DIVISION OF OIL & GAS
BAKERSFIELD

Operator Exxon Corporation **Field** Castaic Junction **County** Kern
Well Newhall Land & Farming Co. 50, **Sec.** 14, **T** 4N, **R** 17W, S.B. B. & M.
A.P.I. No. 037-16515 **Name** Julie H. Mitchell (Person submitting report) **Title** Staff Office Assist. (President, Secretary or Agent)
Date October 18, 19 93

Signature Julie H. Mitchell

Environmental & Regulatory Affairs, P.O. Box 1600, Midland, TX 79702 915/688/7888
(Address) (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date	
09/01/93	MIRU. Spot tanks & mud pump. Rig up choke manifold & kill lines. Check well. Tbg 0 psi, csg 130 psi. Close in well.
09/02/93	Open well (tbg 0 psi, csg 130 psi). Circulate well 2 hrs. Rig up Lee Archer (slickline). RIH w/2-1/2 slip type tbg plug set @ 278'. Rig out slickline (well dead). Nipple down production tree. Nipple up class III BOP & BOE. Rig up working floor & tbg equip. Rig up slick line. Retrieve plug @ 278'. Rig out slickline. RIH w/2-7/8" tbg (work string). Tag @ 8196'. Circulate out fill & mud. POOH w/20+0. Secure well.
09/07/93	Service rig & equipment. Open well (no psi). Fill well w/2 bbl lease water. Continue measuring out w/2.785 N-80 tbg. Fill hole every 20 stands (not losing or gaining fluid). Pull 131+0 stands total. Makeup 180' 4.5 wash pipe & 6 3-1/8 in D. C. w/ B-S & Jars. RIH w/81+0 2 7/8" N-80 tbg. Rig transmission out 9/8/93. Well secure. Repairs being done.
09/09/93	Open well (no psi). RIH with 50+0 2-7/8" tbg. Tag fill or fish @ 8197. Reverse circulate @ 1000#, 1.61 BPM. Rig up power swivel and stripping cage. Clean out f/8197' to 8200'. Reverse out clean. Swivel broke, secure well.

DIVISION OF OIL AND GAS
RECEIVED
OCT 27 1993
VENTURA, CALIFORNIA

OG103 (8/91/GSR1/SM)

09/13/93 Open well (no psi). RIH, tag top of fish @ 8197'. Reverse circulate f/8197-8352'. Cutting show dried mud. Losing fluid while cleaning out. POOH w/10+0, 300'. Secure well.

09/14/93 Open well (no psi). RIH w/4-1/2" W.P. Tag top of fish @ 8197'. RIH to 8352', no fill. POOH w/131+0 stands. Back wash pipe. Makeup 2-7/8X4-1/2" overshot. RIH w/6 3 1/8" drill collars. RIH w/121+0 2-7/8 tbg. Secure well.

09/15/93 Open well (no psi). RIH, latch on fish @ 8197'. Jarring on fish @ 100,000#, no movement, 2 hrs. Rig up Dia-Log. Attempt to run 5/8" free point tools. Would not go in hole. Make up 5/8" sinker bars. RIH, work thru, excelerator. Tag fill @8654'. POOH, rig up free point tool. RIH to top of excelerator. Could not work thru. POOH. Rig out Dia-Log. POOH with 10+0 2-7/8" tbg. Secure well.

09/17/93 Open well (no psi). Cont POOH w/2-7/8" N-80 tbg. Pull 129+0 stand back 3-1/8" Drill Collars. Make up overshot w/2-7/8" grapple and pack off. Make up BS and tbg jars. RIH w/120+0. Secure well.

09/20/93 Open well (no psi). RIH w/90 jts 2-7/8" N-80 tbg. Latch on fish @ 8196'. Rig up Dia-Log. RIH w/1-11/16" chemical cutter. Tag fill @ 8627'. Cut tbg @ 8612'. POOH. Jar on fish @ 100,000#. Rig up pump. Pump down tbg. Pack off in fishing tool leaking. RIH w/1-11/16" chemical cutter. Cut tbg @ 8337'. POOH, rig out Dia-Log. Jar fish loose. POOH w/100 jts 2-7/8" tbg. Secure well.

09/21/93 Open well (no psi). POOH w/120 jts 2-7/8" tbg. Pull 3-1/8" and 4-3/4" fishing tools. Lay down 152' 2-7/8" tbg. Found hole in first jt @ approx. 8220'. Showed possible csg holes. RIH w/3-1/8" D.C.s and 4-1/2" wash pipe. POOH, lay down all tools. Make up Halliburton 5-1/2" 19-20# cement retainer. RIH w/15o jts 2-7/8" N-80 tbg. Secure well.

09/22/93 Open well (no psi). Continue RIH to 8089'. Set 5-1/2" 17# Halliburton EZSX retainer @ 8089'. Attempt to break down. Rig up Halliburton, test lines 250# and 5000#. Pump 3 bbl pm @ 1000# circulating around cement retainer. (Csg holes above retainer). DOG okayed pump 62 sx cement. Mix & pump 62 sx, 100 cubic ft class G cement w/40% Silica Flour + .15% HR-7 +.15% CFR-3, displace w/43 bbls lease water @ 1600#. Rig out Halliburton. POOH with 30 jts, 930'. Reverse circulate 35 min. Pull 10+0, 600'. Close in.
Note: Lost 30 bbls while reversing out cement.
Note: Peter Wygle of Div Oil & Gas witnessed placement of 62 sx, 98 cubic ft cement thru retainer @ 8089' and squeeze of 400 level foot @ 100 psi.

09/23/93 Open well (no psi). RIH w/2-7/8" N-80 tbg. Tag top of cement @ 7593'. POOH w/265 jts 2-7/8" N-80 tbg. Lay down stinger f/cement retainer. Make up 5-1/2" 17# full bore packer. RIH to 2000'. Test 5-1/2" csg from surface to 2000' @ 500 psi. Release packer. Secure well.
Note: Peter R. Wygle, Div Gas & Oil, witnessed tag @ 7593. Tag ok, wants to test to find location of hole.

09/27/93 Open well (no psi). Continue RIH w/5 1/2" full bore packer. Set @ 4000'. Leaking f/2000-4000'. Pull up. Testing csg every 300'. Locate hole @ 2593'. POOH w/packer & tbg. RIH w/265 jts to 7590'. Secure well.

10/01/93 Open well (no psi). Pickup 2 jts 2 7/8" tbg. Rig up pump & mud tank/ Pump 110 bbls 9.7 ppg mud f/7593 to 2700'. Displace w/15 bbls lse water. POOH lay down 165 jts 2 7/8" tbg. Close in well with 86 jt in hole, 2700'.

10/04/93 Open well (no psi). POOH w/86 jts. Fill well w/30 bbls lse water. Rig up MMI electric line. RIH w/10' perforator gun Dyna Jet 4 spf. Locate collar at 2389'. Shoot holes f/ 2399 to 2409'. POOH circulate well down 5 1/2" csg up 8 5/8" csg @ 300#. RIH w/88 jts 2 7/8" tbg w/tail at 2703'. Rig up Halliburton. Test lines 250# low. 4000# high,. Mix & pump 102 cubic ft 89.5 sx neat cement. Displace w/13 bbls lease water @ 400 psi max. Returns coming up 5 1/2" and 8 5/8" csg. Rig out Halliburton. Pull 30 jts to 1773'. Reverse circulate well clean 30 min. POOH, rig up MMI. RIH w/10' Dyna Jet perforator gun 4 spf. Locate collar @ 802'. Shoot holes @ 782-792'. POOH, rig out MMI. Estimated top of cement @ 2209'. Close in well.
NOTE: Called DOG. Steve Fields okayed, phone, pumping cement f/2700-2309' @ 8:00a.

10/05/93 Open well (no psi). RIH, tag cement plug @ 2063'. Displace 28 bbls 9.7 P.P.G. mud w/5 bbls water from 2063 to 806'. POOH w/40 jt 2 7/8" tbg. Tbg tail @ 806'. Rig up Halliburton, test lines 250# @ 2000#. Mix & pump 65 cubic feet, 57 sx neat cement down 2 7/8" tbg up 8 3/8" csg. Displace w/3.5 bbls lse water. Let cement gravitate in 5 1/2" csg. Pull 5 stand. lay down remaining tbg while waiting on cement. Rig up MMI. RIH w/2 ft link jt shoot 8 holes f/100-98'. POOH. RIH w/ 2 7/8" tbg. Cement still wet. POOH, close in well. Estimated top of cement @ 606'. DOG, Peter Wygle, witness tag @ 2063 top of cement at 9:30a.

10/06/93 Open well (no psi). RIH , tag cement plug @ 553'. POOH, laying down 22 jts 2 7/8" tbg. With tbg tail @ 124' rig up Halliburton. Mix and pump 30 sx in 5 1/2" & 8 5/8" csg to surface. Rig out Halliburton. Clean BOPE, lay down 4 jts. ND BOP. DRMO. DOG, Peter Wygle, witness tag @ 553' & placement of cement f/100' to surface 5 1/2 and 8 5/8" csg - 30 sx=34.2 cubic feet.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF WELL PLUGGING AND ABANDONMENT

Ventura, California

September 21, 1994

EXXON Corporation
Attn: Env. & Reg. Affairs
P.O. Box 1600
Midland, TX 79702

Your report of the plugging and abandonment of well "Newhall Land & Farming Co." 50, A.P.I. No. 037-16515, Section 14, T. 4N, R. 17W, S.B. B.& M., Castaic Junction field, Los Angeles County, dated 10-18-93, received 10-27-93, has been examined in conjunction with records filed in this office. We have determined that all of the requirements of this Division have been fulfilled relative to plugging and abandonment of the well, removal of well equipment and junk, and the filing of well records.

svl

William F. Guerard, Jr
State Oil and Gas Supervisor

By
Patrick J. Kinnear
Deputy Supervisor

cc: Conservation Committee
Update

Modified OG159 (4/94)

DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND
GEOTHERMAL RESOURCES

No. T293-267

Report on Operations

EXXON Corporation
Attn: Env. & Reg. Affairs
P.O. Box 1600
Midland, Texas 79702

Ventura, California
November 22, 1993

Your operations at well "Newhall Land & Farming Co." 50, API No. 037-16515, Sec. 14, T. 4N, R. 17W, S.B. B.&M. Castaic Junction Field, in Los Angeles County, were witnessed on 10-6-93. Pete Wygle, representative of the supervisor, was present from 0800 to 1000. There were also present C. Ballard, Operator's Rep.
Present condition of well: 10 3/4" cem 792'; 8 5/8" cem 2409'; 5 1/2" cem 11,235, perf 10,970' WSO, perf 99' - 101', 2399' - 2409', & @ ints 11,010' - 11,155', holes at 2593', damaged @ 8220' & 10,600'. TD 11,365'. Junk: 2 7/8" tbg 8340' - 10,960' w/pkr @ 10,960'. Plugged w/cem 11,365' - 11,215', w/approx 50 cf of cem below ret @ 8089' - 7593', 2703' - 2063', 806' - 553', & 126' - 5'.

The operations were performed for the purpose of abandonment.

DECISION:

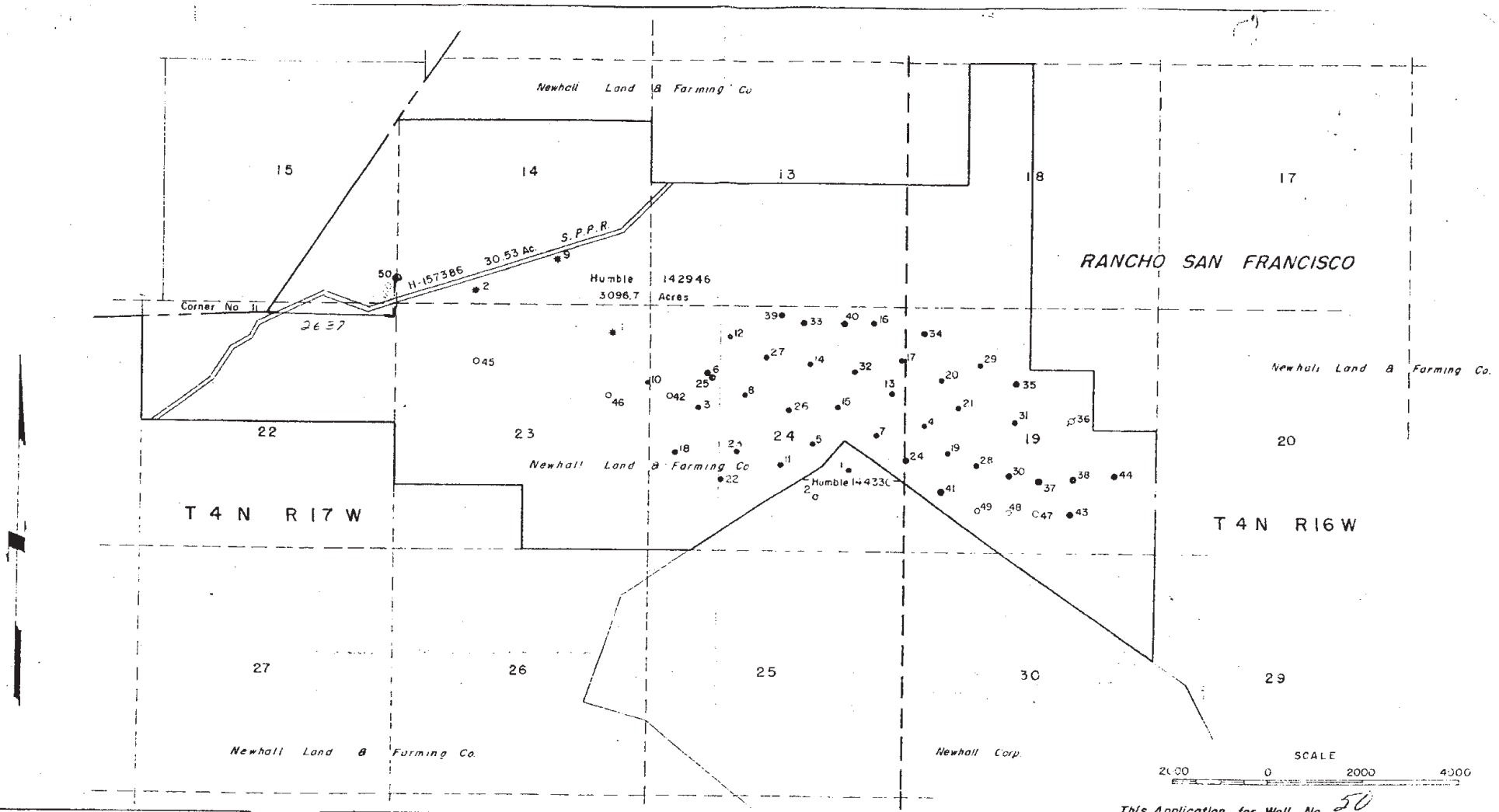
The plugging operations as witnessed and reported are approved.

scv

William F. Guerard, Jr.
State Oil and Gas Supervisor

By Patrick J. Kinnear
Patrick J. Kinnear
Deputy Supervisor

OG109 (Modified 1993)



REVISIONS					
NO	DATE	DESCRIPTION	BY	CHK	APPR

REVISIONS					
NO	DATE	DESCRIPTION	BY	CHK	APPR
7	1-28-55	ADD WELL NO 45	K.D.S		
8	2-2-55	" " " 46	"		
9	3-2-55	" " " 47	"		
10	3-7-55	" " " 48	"		
11	3-7-55	" " " 49	"		
12	4-25-55	" " " 50	"		

REVISIONS					
NO	DATE	DESCRIPTION	BY	CHK	APPR
1	8-18-54	ADD WELL NO 40	KDS		
2	8-30-54	" " " 38	NDC		
3	9-2-54	" " " 41	NDC		
4	9-28-54	" " " 42	KDS		
5	12-14-54	" " " 43	KDS		
6	12-21-54	" " " 44	KDS		

This Application for Well No. 50

NEWHALL LAND & FARMING CO.
LEASE NO 142946
CASTAIC JUNCTION DIST. LOS ANGELES CO.

HUMBLE OIL & REFINING COMPANY
CIVIL ENGINEERING DIVISION
CALIFORNIA AREA

DRAWN KDS	SCALE 1" = 2000'	FILE NO.
CHECKED	DATE 8-18-54	CAB 44
APPR	REVISED	

SUPERSEDES DRWG NO CAB 23

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF WELL PLUGGING AND ABANDONMENT

Ventura, California

September 21, 1994

EXXON Corporation
Attn: Env. & Reg. Affairs
P.O. Box 1600
Midland, TX 79702

Your report of the plugging and abandonment of well "Newhall Land & Farming Co." 9, A.P.I. No. 037-16480, Section 14, T. 4N, R. 17W, S.B. B.& M., Castaic Junction field, Los Angeles County, dated 10-28-93, received 11-05-93, has been examined in conjunction with records filed in this office. We have determined that all of the requirements of this Division have been fulfilled relative to plugging and abandonment of the well, removal of well equipment and junk, and the filing of well records.

svl

William F. Guerard, Jr
State Oil and Gas Supervisor

By Patrick J. Kinnear
Deputy Supervisor

cc: Conservation Committee
Update

Modified OG159 (4/94)

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
RBDMS- RECORDS ENTERED

COMPANY Exxon WELL NO. Newhall Land & Farms B. 9

API NO. 037-16480 SEC. 14, T. 4N, R. 17W, SB B.&M.

COUNTY LA FIELD Castaic Jct

RBDMS DATA ENTERED: 3/24/98
(DATE)

BY: KAP
(NAME)

RBDMS DATA MUST BE UPDATED FOR ALL DATA THAT IS RECEIVED AFTER THE DATE INDICATED ABOVE.

WELL CONSTRUCTION DATA ONLY

OPERATOR Exxon Corp
LSE & NO "Newhall Ldg Farm Co" 9
MAP

	(1)	(2)	( )	( )	( )	( )
INTENTION	Reperforate	ABANDON				
NOTICE DATED	12-15-77	5-7-93				
P-REPORT NUMBER	277-465	P293-147				
CHECKED BY/DATE	PV/7-28-78					
MAP LETTER DATED	Idle 8/5/78	2-19-94 SPM				
SYMBOL	⊕ New Idle	⊕ 11/12/57				

	(1) REC'D	(1) NEED	(2) REC'D	(2) NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED
NOTICE	12-21-78		5-12-93									
HISTORY	7-26-78		11-5-93									
SUMMARY	—		—									
IES/ELECTRIC LOG	—		—									
DIRECTIONAL SURV	—		—									
CORE/SWS DESCRIP	—		—									
OTHER	—											
RECORDS COMPLETE	7/28/78		4-14-94									

ENGINEERING CHECK

T-REPORTS	✓
OPERATOR'S NAME	✓
WELL DESIGNATION	✓
LOC & ELEV	✓
SIGNATURE	✓
SURFACE INSPECTION	✓
FINAL LETTER OK	

CLERICAL CHECK

POSTED TO 121 _____ 170 MAILED _____ FINAL LETTER MAILED _____

RELEASED BOND _____

REMARKS: Sfc insp OK 4-12-94 PRV

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator Exxon Corporation **Field** Castaic Junctio **County** Los Angeles
Well Newhall Land & Farming Co. #9, **Sec.** 14, **T** 4N, **R** 17W S.B. B. & M.
A.P.I. No. 037-16480 **Name** Julie H. Mitchell (Person submitting report) **Title** Staff Office Assist. (President, Secretary or Agent)
Date October 28, 19 93.

Signature Julie H. Mitchell

Environmental & Regulatory Affairs, P.O. Box 1600, Midland, TX. 79702 915/688-7888
(Address) (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date

(see attached)

DIVISION OF OIL AND GAS
RECEIVED
NOV 7 1995
VENTURA, CALIFORNIA

OG103 (6/91/GSR1/5M)

10/27/93 MORNING REPORT 5:38PM

NEWHALL LAND & FARMING CO - 0009 Lease# 061590 Job# 60007687
Field Supt R. O. Storey CMP# 4037164800001 AFE# 00039455
PLUG AND ABANDON

Expected Buildup oil/gas /
Estimated PI

--- 10/26/93
Safety mtg. Open well. Rih, tag cement @ 615 ft. Ran to 120 ft. Rig up Halliburton, test lines. Mix and Pump 50 sx class G neat cement from 120 to surface. 10-3/4 and 7 in csg. Rig out Halliburton. Rig out all equipment.
Div of Oil & Gas, Peter R. Wygle witnessed and approved tag of top of cement at 615 ft. Also witnessed pumping of surface plug from 120 ft to surface in 10-3/4 and 7 in casings.

--- 10/21/93
Attend safety mtg. Rih tag cement @ 3476. 37 ft above holes. Rig up Halliburton with tbg hung at 3470. Mix and pump 20 sx, of class G neat cement 1.15 yield = 103 cuft displaced with 19 bbls water. Rig out Halliburton. Pull and lay down 86 Jts. Stood back 760 ft of tbg. Rig up MMI shot 80 holes between 7 and 10-3/4 in csg from 740 - 760 ft. Rig out MMI. Mud up down 7 in and up 10-3/4. Rih with tbg to 760 ft. Rig up Halliburton. Mix and Pump 87 sx, 100 cuft, Class G cement with 2% CACL2 displaced with 3.7 bbls. Rig out Halliburton. Calculated top of cement at 560 ft, 10-3/4 and 7 in. Pull tbg. Rig up MMI. shot 8 holes from 100 -102 ft. Secure well. eot.
Div of Oil & Gas, Stephen Mulqueen: Tag of cement @ 3476 ft is low. Ok to place 100 linear ft (15 sx) on top of plut @ 3476 ft without having to tag plug.
Div. of Oil & Gas, Stephen Mulqueen gave permission to squeeze fresh water without having to witness.

--- 10/20/93
Safety mtg. Open well. Pull and lay down 99 jts of tbg. Rig up Hallibur ton. Test lines with tbg hung at 3600 ft. Mix and pump 33 sx cement blended with 40% SSA-1, .3% CFR3 and .5% HR7 with a yield of 54 cuft. Displaced with 18.5 bbls. Pulled to 300 ft. Filled hole. Squeezed 20 cuft away at 300 psi, 1/2 bbls per min. Pulled to 2700 ft. Secure well eot.

--- 10/19/93
Safety mtg. Open well. Continue testing for holes in csg. Located holes between 3513 and 3534 ft. Pull out of hole with test packer. Ran tbg openended to 10400 ft. Pull and lay down 133 jts of tbg. Secure well eot.
Notified Div of Oil & Gas of location of holes. Got DOG approval to lay a cement plug from 3645 to 3413.

--- 10/18/93
Safety mtg. Open well. Rih . tag cement @ 10447. Pressured csg to 500 psi. Bleed to 0 psi in 45 seconds. Pulled tbg.-Made up Robinson test pkr. Rih to 1000 ft. Test csg ok. Ran to 2200 ft, ok. Ran to 332, test ok. Secure well, eot
Div of Oil & Gas, Steve Mulqueen, witnessed and approved tag @ 10447.

--- 10/14/93

DIVISION OF OIL AND GAS
RECEIVED
NOV 3 1993
VENTURA, CALIFORNIA

NEWHALL LAND & FARMING CO - 0009 Lease# 061590 Job# 60007687
Field Supt R. O. Storey CMP# 4037164800001 AFE# 00039455
PLUG AND ABANDON

Expected Buildup oil/gas /
Estimated PI
Attend safety mtg. Open well. With tbg hung open ended at 10790 rig up Halliburton. Test lines. Mix and pump 53 sx, 110.42 cuft cement blened with 40% SSA-1, .3% CFR-3, -5% HR-7, displaced with 58 bbls mud Calculated top of cement @ 10390 ft. Pulled to 10090, reversed around twice. Pulled to 9490, secure well. eot.

--- 10/13/93
Attend safety mtg. Open well. Sting into retainer at 10793 ft. Rig up Halliburton. Unable to squeeze thru retainer. Rig out Halliburton. Got DOG approval to cement above retainer. Pooh with setting tool. RIH w/ openended tbg to 10790. Secure well, ready to cement in am.
Div of Oil & Gas, Peter Wygle, gave approval to lay 300 ft cement plug on top of retainer. Also approved change over to 9.3 ppg mud.

--- 10/12/93
Attend safety mtg. Pooh with kill string. Rih with wash pipe and drill collars. Pull and lay down drill collars and wah pipe. Notified DOG of new fish depth. Top of fish at 10809 ft. Make up Halliburton EZ Drill Retainer. Set retainer @ 10793 ft. Secure well, eot.
Div of Oil & Gas, Peter R. Wygle, waived witness, and approved by phone the setting of retainer ant 10809 feet.

--- 10/11/93
Attend safety mtg. Changed well over to 9.2 mud, 400 bbls. Well stopped flowing. Pull all tbg and fishing tools, 10600 ft. Recovered 114 ft of fish. Ran 720 ft kill string, secure well. Eot.

--- 10/09/93

--- 10/07/93
Attend safety mtg. Open well, circulate bottoms up cont pulling tbg. After pulling 10 stands well started flowing our tbg and csg. Hook up Kelly line, circulated around twice, well still flowing. INstall gauge in tbg. Got shut in surface pressure of 17 psi. Notified foreman of conditions. Decided to run back to top of fish at 10665 ft. and change over to mud. Ran tbg to 10170 ft. Secure well, shut down until am.

--- 10/06/93
Attend safety mtg. Open well, RIH circulate bottoms up from 9645 - washed over fish at 10665 to 10878. Stacked out to drive sub. Pulled to 10853. While attempting to cut, cutter let loose. Tried 3 times at 10853. Cutter kept releasing. PUlled to 10821. Attempted to cut. No success. Release cutter, pulled 8000 ft. Secure well. eot

--- 10/05/93
Attend safety mtg. Open well, ran tbg to 9645 ft. Circulate bottoms Clean out heavy contaminated mud to 10636 ft. Circulate clean. REady to make washover and first cut in am.

10/04/93
Attend safety mtg. Open well, ran 7200 ft OE tbg. Tbg tail at 9625 ft.

NEWHALL LAND & FARMING CO - 0009 Lease# 061590 Job# 60007687
Field Supt R. O. Storey CMP# 4037164800001 AFE# 00039455
PLUG AND ABANDON

Expected Buildup oil/gas /
Estimated PI

Rig up to reverse tbg. Unable to reverse. Pulled to 9300 ft. Circulated bottoms up. Got heavy mud returns. Ran to 9625, circulated, pulled to 8881, Secure well, eot.

--- 10/01/93
Attend safety mtg. Start up job. Cont pulling tb. Last 49 jts were gaulded. Had trouble breaking out. Laying down last 49 jts. Made up 250 ft of wash pipe with drill collars and outside cutter. RIH with wash pipe and tbg until eot. Secure well, eot

--- 09/27/93
Attend safety mtg. Open well. Reversed bottoms up form 10500 ft. Pull @ measure tbg. Unload wash pipe and fishing tools. Tbg seat @ 2400 ft, kill string in hole. Secure well, eot.

--- 09/23/93
Attend safety mtg. Open well work stuck packer to 7780 max yield for 2-7/8in N-80 tbg, 111,000 pull. Couldnot get loose. Rig up Dia-Log. Ran free point & collar locator to 11748. Logged collars and packer top at 11727. First collar above packer at 11696, log second collar up at 11665. Determined free point at 10700. Pulled collar locator and free point. Made up chemical cutter. RIH, cut at 11710 ft, 18 ft above pkr Pulled cutter, worked tbg to 11100. Would not come free. Pump fluid away at 500 psi. No returns. RIH with second cut. Cut at 10700 ft. Pipe came free. Rig out Dia-Log. Pull 5 stands. Secure well. eot.

--- 09/22/93
Attend safety mtg. Open well. Rig up Nowcam coil tbg unit. Tested BOP ran in hole with 1-1/2in coil tbg. Clean out mud from 10750 to 11747 ft Pull coil tbg. Rig out Nowcam. Secure well. eot.

--- 09/21/93
Drove to location. Attend safety mtg. Open well. Rig up Dia-Log, test lubricator. Made up 1in sinker bars and 1 in collar locator. Rih, went throug heavy fluid, like mud, to 11,090 ft. Hit fluid @ 10,809. Rig out Dia-Log. Secure well, shut down until am pending arrival of coiled tbg unit.

--- 09/20/93
Attend safety mtg. Open well. Attempt to release Lane Wells Packer at 11,700 ft. Worked at 110,000 pull 77% factor. Could not get loose. Rig up Dia-Log. Test Lubricator. RIH with free point and 1-5/8in sinker bars, Hit heavy fluid at 10,968 ft. Worked down to 10,809 ft. Could not go further. Tbg still free at this point. POOH and secure well. Ready to run 1 in sinker bars and free point in am.

--- 09/17/93
Attend safety mtg. Open well. Attempt to pump through bypass ports on Baker TBS tbg plug. Went to 200 psi with rig pump. Rig up Halliburton Pump truck. Rig up slickline & test lubricator. Held 3410 psi on tbg. Worked tsb plug loose. Pulled plug. Lay down lubricator. Bleed tbg to 0

NEWHALL LAND & FARMING CO - 0009 Lease# 061590 Job# 60007687
Field Supt R. O. Storey CMP# 4037164800001 AFE# 00039455
PLUG AND ABANDON

Expected Buildup oil/gas /
Estimated PI
psi. Rig out Halliburton. Secure well. eot.

--- 09/15/93
Safety mtg. Move all equipment from well 7 to 9. Rig up, guy mast, bleed csg from 250 psi to 0 psi in 10 min. Remove tree, install and test Class III BOP. Secure well, eot.

DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND
GEOTHERMAL RESOURCES

No. T293-266

Report on Operations

EXXON Corporation
Attn: Env. & Req. Affairs
P.O. Box 1600
Midland, Texas 79702

Ventura, California
November 19, 1993

Your operations at well "Newhall Land & Farming Co." 9, API No. 037-16480,
Sec. 14, T. 4N, R. 17W, S.B. B.&M. Castaic Junction Field, in Los Angeles County,
were witnessed on 11-4-93. Pete Wygle, representative of
the supervisor, was present from 1015 to 1030. There were also present

Present condition of well: 10 3/4" cem 760'. 7" cem 11,785, perf 11,055' WSO, cp 11,054', perfs 100', 740'- 760' 11,120' - 11,150' holes 3513' - 3545'; 5 1/2" ld 11,753' - 12,156', perfs @ int. 11,780' - 12,155'. Junk below 10,818'. TD 12,157'. Retainer @ 10,793'. Plugged w/ cem 10,790' - 10,447', 3600' - 3272'+/-, 760' - 615', & 100' - 5'.

The operations were performed for the purpose of abandonment.

DECISION:

The plugging operations as witnessed and reported are approved.

SCV

William F. Guerard, Jr.
State Oil and Gas Supervisor

By _____

Patrick J. Kinnear
Deputy Supervisor

OG109 (Modified 1993)

E3500

DIVISION OF OIL AND GAS
Cementing/Plugging Memo

SP T 2666

Operator EXXON CORP. Well No. "Newhall Land & Farming Co."
API No. 037 - 16480 Sec. 14, T. 04N, R. 17W, SE B&M
Field CASTAIC JUNCTION, County LOS ANGELES. On 11-4-93,
Mr./Ms. P. Wygle, representative of the supervisor, was present from 1015 to 1530.
There were also present

Casing record of well: 10 3/4" cem 760'. 7" cem 11,785, perf 11,055' WSO, cp 11054' perfs 100', 740'-760', 11,120'-11,150', holes 3513'-3545', 5 1/2" to 11,753' - 12,156', perfs @ INT 11,780' - 12,155'. Junk below 10818'. TD 12157'. RETAINER @ 10793'.

The operations were performed for the purpose of ABANDONMENT
Plugged w/ cem 10790'-10447', 3600'-3272'±, 760'-615', & 100'-5'

☑ The plugging/~~cementing~~ operations as witnessed and reported are approved.

☐ The location and hardness of the cement plug @ _____' is approved.

Hole size: _____" fr. _____' to _____', _____" to _____' & _____" to _____'

	Casing				Cemented			Top of Fill		Squeezed Away	Final Press.	Perfs.
	Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			
A	7"	23# -35#	0	11785'	10-14	RETAINER @ 10793' *	53 sx	0	10447'	0	—	THRU. JU @ 10818
B	"	"	"	"	10-20	TBG @ 3600' BRADEN HEAD	54 cf	—	3476'	20 cf	300 psi	3513'-3545' HOLES

* NO BREAK-DOWN PLACED PLUG ON TOP OF RETAINER ONLY (33 sx)

Casing/~~tubing~~ ~~recovered~~ (perf 4 hpf): 7 " shot/cut at 760' (740'-760'), 100', _____' pulled fr. _____';
_____" shot/cut at _____', _____', _____' pulled fr. _____'.

Junk (in hole): 10818' TBG STUB, PACKER BELOW @ 11708'

Hole fluid (bailed to) at _____'. Witnessed by _____

Mudding	Date	Bbls.	Displaced	Poured	Fill	Engr.
9.3#/g CLAY GEL	10-18-93	430	TBG @ 10447'	—	SURFACE	S. MULQUEEN

FOUND HOLES 3513'-3545' IN 7" CASING

	Cement Plugs		Placing	Placing Witnessed		Top Witnessed			
	Date	Sx./cf	MO & Depth	Time	Engr.	Depth	Wt/Sample	Date & Time	Engr.
A'	10/14	53 sx	RETAINER @ 10793' TBG @ 10790' *	—	REPORTED	10447'	5K#	10/18 0930	S. MULQUEEN
B'	10/20	54 cf	TBG @ 3600'	—	"	3476'	10K#	10/21 0830	"
	10/21	20 sx	TBG @ 3470'	—	"	3272'±	CALC.	10/21 —	REPORTED
	10/25	100 cf	Equalized thru perfs 740'-760', Tag 760'	~	"	615'	Wt of Slurry	10/26 0730	PRW
	10/26	60 cf	Fill 7" csg & 10 3/4 annulus thru perfs 100'	0900	PRW	5	YIELD 2!	11/4	

OGD10 (10/90/GSR1/5M)

Form 136

MEMORANDUM OF TELEPHONE OR PERSONAL CONVERSATION

_____, Calif.

_____ 19____

Operator EXXON Well No. "Newhall Land and Farming Co." 9

Field Castaic Junction Sec. 14 T. 4N R. 17W SB B&M

~~personal~~

A telephone conversation was held, concerning above well, with Mr. Ken Kennedy

_____ for above operator on 10-12 19 93 at 1130A M.

Details of the conversation were as follows:

Fishing attempts for the tubing and packer at 11,708' have been unsuccessful. Exxon has attempted to fish with almost the entire budgeted amount of the abandonment of the well. Tubing has been cut at 10,818' and washed over and recut at 11,693'. Unable to recover the second piece of tubing. Top of tubing fish is at 10,818'. Want to set a retainer as close to the top of fish as possible (cem outside of casing is at 10,778') and squeeze cem past fish. OK to proceed.

Wygle visited wellsite at 0700 on Oct 13 to witness squeeze cem operations. Unable to squeeze below ret at 10,800'. No breakdown. Pressure test no good above retainer. OKd 300'+/- plug on top of retainer. 9.3 ppg mud in hole to surface. OK for abandonment mud.

(Signed) Peter E Wygle

Title EMRE

New File

P-31 Rev. D24264

HUMBLE OIL & REFINING COMPANY

WELL RECORD

FIELD Castaic Junction LEASE Newhall Land & Farming Co. WELL NO. 9

COUNTY Los Angeles SURVEY Sec. 14, T 4 N, R 17 W, S.B.B.& M.

JOB ORDER NO. CAL-109 LOCATION OF WELL 1306' N and 5968' E of Corner 11, Rancho San Francisco

OPERATOR Humble Oil & Refining Company ADDRESS Box 2180, Houston, Texas

WELL DATA

ELEV. OF R.D.B. 976 977' ; ELEV. OF TOP FLG. OF OIL STRING CASINGHEAD 963'

DISTANCE BETWEEN TOP OF RTY. DR. BUSHING AND TOP OF TOP FLG. OF OIL STRING CASINGHEAD 14.2'

DISTANCE BETWEEN TOP OF RTY. DR. BUSHING AND TOP OF DERRICK FLOOR 2.6' ; TYPE WELL Potential G Well Standi

COMPLETION FLUID Oil Emulsion Mud ; TOTAL DEPTH 12,157' ; COMPLETION DEPTH (See Note)

FORMATION Miocene ; RESERVOIR Mohnian 21 ; PRODUCING FROM - TO -

COMPLETION DATE 6-26-52 ; HOLE SIZE BEHIND OIL STRING CSG. 9-7/8" ; SIZE OF OPEN HOLE BELOW CSG. 9-7/8"

PRODUCTION TESTS

INTL OR PDT	DATE	SIZE CHOKE OR PLUNGER	HOURS TESTED	BBLS/DAY FLUID	BBLS/DAY OIL	% BS & W	GAS M C F /DAY	GAS OIL RATIO	TBG PR OR F F M	CSG PR OR L STROKE	COR GRAV
NONE											

DRILL STEM TESTS

DATE	TYPE OF TEST OPEN HOLE OR PERF CSG	FORMATION TESTED FROM	FORMATION TESTED TO	SIZE CHOKE TOP	SIZE CHOKE BOTTOM	TOOL OPEN MIN.	FORMATION PRESSURE FLOWING	FORMATION PRESSURE SHUT-IN	RECOVERY - FEET OIL	WATER	MUD	W.C. OTHER	WAS TEST SATIS.
4-5-52	OH	10437	10452	1"	1/4"	60	1460	5015	-			2500	Yes
4-17-52	OH	11119	11139	1	1/4	60	1250	4980	30	123	60	2500	Yes
4-18-52	OH	11136	11159	1	1/4	60	1235	5015	10	140	60	2500	Yes
4-20-52	OH	11149	11189	1	1/4	Tool failed to open							No
4-21-52	OH	11149	11189	1	1/4	Packer failed							No
4-22-52	OH	11158	11189	1	1/4	60	1240	4660	30	183	30	2500	Yes

CASING, SCREEN AND LINER RECORD (Continued on page 2)

SIZE	GRADE AND KIND	WT/FT	NO. AND FORM THREADS	CLASS	MANUFACTURER	JOINTS	AMOUNT SET FEET	DEPTH SET AT
10-3/4"	B	40.5	8	1	J & L	28	743.85*	760.3
*Includes guide shoe and float collar.								
7" O.D.	N-80 LJ	26	8R	1	J&L	22	791.39	
7	N-80 LJ	23	8R	1	J&L	72	2793.60	
7	N-80	26	8R	1	J&L	82	3231.49	
7	N-80	29	8R	1	National	54	2109.54	9030.65
7	N-80	32	8R	1	National	56	2021.53	11052.18
7 Float Collar			8R	1	HOWCO	16	607.59	
7	N-80	35	8R	1	National		1.23	11741.0
7 Guide Shoe			8R	1	HOWCO	1	42.85	
							1.63	
							11770.85	11785.0

NOTE: 7" Baker "K" Magnesium retainer set @ 11091' with cement plug in casing to bottom of perforations @ 11120-50'. Float Collar and assembly has not been drilled out.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF WELL PLUGGING AND ABANDONMENT

Ventura, California

September 21, 1994

EXXON Corporation
Attn: Env. & Reg. Affairs
P.O. Box 1600
Midland, TX 79702

Your report of the plugging and abandonment of well "Newhall Land & Farming Co." 77, A.P.I. No. 037-22047, Section 14, T. 4N, R. 17W, S.B. B.& M., Castaic Junction field, Los Angeles County, dated 09-28-93, received 10-06-93, has been examined in conjunction with records filed in this office. We have determined that all of the requirements of this Division have been fulfilled relative to plugging and abandonment of the well, removal of well equipment and junk, and the filing of well records.

svl

William F. Guerard, Jr
State Oil and Gas Supervisor

By
Patrick J. Kinnear
Deputy Supervisor

cc: Conservation Committee
Update

Modified OG159 (4/94)

OPERATOR Exxon
LSE & NO Nh+F 77
MAP 253

	(1)	(2)	( )	( )	( )	( )
INTENTION	Drill & Supp	Supp. to drill C	alter casing	ABANDON		
NOTICE DATED	10-10-79	1-21-80	9-11-81	5-10-93		
P-REPORT NUMBER	279-317	280-24	291-371	293-158		
CHECKED BY/DATE		4/14/80				
MAP LETTER DATED	→			12/15/93		
SYMBOL	→			80-1200?		

	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED
NOTICE	10-12-79		1-23-80				5-13-93					
HISTORY	→	→	2-20-81				10-6-93					
SUMMARY	→	→	2-20-81									
DISFL IES/ELECTRIC LOG	→	→	2-20-81									
DIRECTIONAL SURV			2-20-81									
CORE/SWS DESCRIP			2-20-81									
OTHER CNFD												
RECORDS COMPLETE	→		done 4/14/80				FMN 2/28/94					

ENGINEERING CHECK

T-REPORTS	✓
OPERATOR'S NAME	✓
WELL DESIGNATION	✓
LOC & ELEV	✓
SIGNATURE	✓
SURFACE INSPECTION	2/28/94 FMN
FINAL LETTER OK	

CLERICAL CHECK

POSTED TO 121 _____ 170 MAILED _____ FINAL LETTER MAILED _____

RELEASED BOND _____

REMARKS: _____

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator Exxon Corporation **Field** Castaic Junction **County** Los Angeles
Well Newhall Land & Farming Co. #77, **Sec.** 14, **T** 4 N., **R** 17W, **S.B. & M.**
A.P.I. No. 037-22047 **Name** Donna R. Devience (Person submitting report) **Title** Sr. Geological Asst (President, Secretary or Agent)
Date September 28, 19 93.

Signature Donna R. Devience

Environmental & Regulatory Affairs P.O. Box 1600 Midland, Tx. 79702 (915) 688-7882
(Address) (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date

(See Attachment)

DIVISION OF OIL AND GAS
RECEIVED
OCT 6 1993
VENTURA, CALIFORNIA

OG103 (8/91/GSR1/SM)

NEWHALL LAND & FARMING CO - 0077 Lease# 061590 Job# 60008763
Field Supt R. O. Storey CMP# 4037220470003 AFE# 00039513
PLUG AND ABANDON

Expected Buildup oil/gas /
Estimated PI

--- 09/14/93 Daily
Attend safety mtg. Open well, Tag fresh water plug @ 403 ft. Pulled and layed down tbg. Ran tbg to 125 ft. Attempt to circulate down 7 in and up 9-5/8in and 13-3/8 in. Unable to get good enough circulating rate for total anulus top plug. Mix and pump 25 sx class G cement with 2% CACL2. Got DOG approval, Peter R. Wygle, on tag of plug @ 403 ft and cmt in 7in from 130 feet to surface.
Note: DOG approved cementing down in tbg between csg strings after well head cut off

--- 09/13/93 Daily
Attend safety mtg. Open well. Pull and lay down all tbg. Filled tbg displacement with 9.8 mud. Rig up MMI wireline. Shot 80 holes from 488 feet to 508 feet. Rig out wireline. Rig up Halliburton. Ran 2-7/8in tbg tail to 514 ft. Tested lines. Mix & pump balanced plug between 7 in and 9-5/8in anules using class G cement with 2% CACL2 as per program. Calculated top of plug 403ft. Rig out Halliburton. Pull tbg. Rig up shooters. Shot 8 holes between all 3 string from 121-123 ft. Rig out shooters. Secure well. eot.

--- 09/10/93 Daily
Drove to job, attend safety mtg. Open well, ran tbg. Tag top of cement at 10423 ft. Performed csg test @ 500 psi. Changed well over ot 9.8 lb mud, pumped 388 bbls. Pulled and layed down 175 jts. Secure well, eot..
* Steve Mulqueen, Div of Oil & Gas, witnessed and approved:
Csg test to 500 psi.
Tag cement plug at 10,423 feet.
388 bbls mud, 9.8 change over.

--- 09/09/93 Daily
Attend safety mtg. Open well, run tbg, tag TOC @ 10900 ft. Rig up Halliburton. Test lines. Mix & pump 68 sx blended cement with 40% SSA-1 + .5% HR7 and .75% CFR-3. Displaced with 60 bbls water. Pulled 5 stds above calculated top of cement at 10400 ft. Reversed around twice. Pulled 5 more stands. Rig out Halliburton. Secure well, rig up to lay down tbg in am, shut down.

--- 09/08/93 Daily
Drove to job, attend safety mtg. Open well (25 psi, csg & tbg). Ran tbg tag fill at 11570. Notified DOG. Got approval to cement with tbg hung @ 11500. Rig up Halliburton. Test lines. Mix & pump 80 sx cement, blended with 40% SSA-1, .5% HR7, and .75% CFR-3, displaced with 63.6 bbls water. Max psi 3500. Pulled 5 stands above calculated TOC at 10900 feet. Reversed around twice. Pull 5 more stds. Secure well, rig out cementers. shut down until am.

--- 09/07/93 Daily
Drove to job, attend safety mtg. Open well, 25 psi on csg & tbg. Pulled and measured all tbg. Measure and pick up 1.9 string 702 ft. Ran tbg until eot. Secure well, shut down.

MORNING REPORT

NEWHALL LAND & FARMING CO - 0077 Lease# 061590 Job# 60008763
Field Supt R. O. Storey CMP# 4037220470003 AFE# 00039513
PLUG AND ABANDON

Expected Buildup oil/gas /
Estimated PI

--- 09/02/93 Daily
Drove to job. Attend safety mtg. Open well (0 psi csg & tbg). Remove tree, install and test class III BOP, Rig up working floor. Spot lay down trailers. PUlled ot of seal assembly. Rig up slickline. Tested lubricator to 3000 psi. RIH with slickline, latch onto plug @ 325 ft. Could not get loose, due to bottom hole pressure. Rig up pump to lubricator, pressured to 500 psi, got loose. Pulled tbg plug. Rig out slickline & circulated, bottoms up, with lease water. Changed completely over. Secure well. eot

--- 09/01/93 Daily
Drove to job. Attend safety mtg. Open well, 50 psi csg. Bleed to 0 in 2 min. 2150 psi on tbg. Rig up slick line. Test lubricator with 2300 psi on tbg with pump. RIH to 5260 ft with slickline. Hit heavy fluid, could go no further. Rig out slickline. Bleed well to 0 psi into blow down tank. Loaded tbg backside with lease water. Set DD plug at 325 ft Secure well. EOT

--- 08/31/93 Daily
Attend safety mtg. Move equipment from well # 8 to well # 77. Rig up guy mast, spot & rig up pump & manifold. Open well to manifold. Tbg side 2000# psi. Pumped 66 bbls lease water down tbg. Pressure still 2000# psi. Closed tbg in. Bled csg from 100 psi to 0 psi in 10 min. Close well in, eot.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T293-314

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Report on Operations

EXXON Corporation
Attn: Env. & Req. Affairs
P.O. Box 1600
Midland, Texas 79702

Ventura, California
December 21, 1993

Your operations at well "Newhall Land & Farming Co." 77, API No. 037-22047, Sec. 14, T. 4N, R. 17W, S.B. B.&M. Castaic Junction Field, in Los Angeles County, were witnessed on 9-14-93. Pete Wygle, representative of the supervisor, was present from 1100 to 1200. There were also present Dan Mullins

Present condition of well: 20" ld 40'; 13 3/8" cem 503'; 9 5/8" cem 4015'; 7" cem 11,895', perf & sqz 121'-123', 488'-508', & 10,550;, perf @ ints 10,630'-10,710' (sqz off), perf @ ints 11,272'-11,490'. TD 12,000'. Plugged w/cem 11,500'-10,423', 514'-403', & 130'-5'.

The operations were performed for the purpose of abandonment.

DECISION:

The plugging operations as witnessed and reported are approved.

scv

William F. Guerard, Jr.
State Oil and Gas Supervisor

By

Patrick J. Kinnear
Deputy Supervisor

OG109 (Modified 1993)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS
AND GEOTHERMAL RESOURCES

No. P293-158
Field Code 126
Area Code 00
New Pool Code ---
Old Pool Code 20

PERMIT TO CONDUCT WELL OPERATIONS

EXXON Corporation
Attn: Env. & Reg. Affairs
P.O. Box 1600
Midland, Texas 79702

Ventura, California
May 28, 1993

Your proposal to abandon well "Newhall Land & Farming Co." 77, A.P.I. No. 037-22047, Section 14, T. 4 N, R. 17W, S.B. B.&M., Castaic Junction field, --- area, 21 Del Valle pool, Los Angeles County, dated 5-10-93, received 5-13-93, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Blowout prevention equipment conforming to DOG Class II 2M requirements shall be installed and maintained in operating condition at all times.
2. Hole fluid of a quality and in sufficient quantity is used to control all subsurface conditions in order to prevent blowouts.
3. A diligent effort shall be made to clean out the well to at least 11,486'.
4. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of 72 lbs./cu. ft. and a minimum gel-shear strength (10 min.) of 25 lbs./100 sq. ft.
5. This office shall be consulted before deviating from the proposed abandonment program.

Continued on Page 2

Blanket Bond
PK:SF:nr

Engineer Steve Fields

Phone (805) 654-4761

WILLIAM F. GUERARD, Jr.
Acting State Oil and Gas Supervisor

By
Patrick J. Kinnear
Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
OG111

6. THIS DIVISION SHALL BE NOTIFIED:
   a. To witness the location and hardness of the cement plug at 10,450'.
   b. To witness the mudding of the well.
   c. To witness the location and hardness of the cement plug at 403'.
   d. To witness the placing of cement inside the 7" casing and all annuli.
   e. To inspect and approve the cleanup of the well site before approval of abandonment will be issued.

STATE OF CALIFORNIA-RESOURCES AGENCY
GEORGE DEUKMEJIAN, Governor
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS
SOUTH OJAI STREET, P. O. BOX 67
SANTA PAULA, CALIFORNIA 93060
(805) 525-2105

May 21, 1984

Mr. L. M. Smedley, Agent
Exxon Corporation
P.O. Box DO
Ventura, CA 93002

Re: "NEWHALL LAND & FARMING CO."77
CASTAIC JUNCTION FIELD

Records on file with this office indicate that the above mentioned well has been suspended since 10-11-80 . Please respond by 6-29-84 , in writting any reasons why the well should not be immediately ordered abandoned pursuant to Section 3237 of the Public Resources Code.

Mike Kratovil

MIKE KRATOVIL
Division Engineer

cc: Newhall Land & Farming Co.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

REPORT OF CORRECTION OR CANCELLATION

Santa Paula, California

Oct. 18, 1983

Mr. L. M. Smedley, Agent
Exxon Corporation
P.O. Box DO
Ventura, CA 93002

In accordance with Sec. 3203, Div. 3, of the PRC requiring proposed operations commence within one year

the following change pertaining to your well No. "Newhall Land & Farming Co." 77, Sec. 14, T. 4N, R. 17W, SB B. & M., Castaic Junction field, Los Angeles County, District No. 2, is being made in our records:

☐ The corrected location is

☐ The corrected elevation is

☐ Report No. , dated , has been corrected as follows:

☒ Your notice to alter casing (Drill, abandon, etc.) dated Sept. 11, 1981, and our report No. P281-336, issued in answer thereto, are hereby cancelled inasmuch as the work will not be done. If you have a drilling bond on file covering this notice it will be returned. No request for such return is necessary.

☐ Other:

MAP	MAP BOOK	CARDS	BOND	FORMS 414	FORMS 121
				EDP	
				N/A	

MS/b

State Oil and Gas Supervisor

For By Murray W. Dosch, Deputy Supervisor

OGD165 (8-75, CSPI—3M)

FORM OG111 (11/80/DWRR/5M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P 281-336

REPORT ON PROPOSED OPERATIONS

126 (field code)
00 (area code)
20 (new pool code)
30 (old pool code)

E. C. Hutchinson, Agent
Exxon Corporation
P.O. Box DO
Ventura, CA 93002

Santa Paula, California
Sept. 29, 1981

Your proposal to alter casing well "Newhall Land & Farming Co." 77, A.P.I. No. 037-22047, Section 14, T. 4N, R. 17W, SB B. & M., Castaic Junction field, any area, 21 Del Valle pool, Los Angeles County, dated 9/11/81, received 9/15/81 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Hole fluid of sufficient quality and quantity shall be maintained in the hole to control any subsurface condition, and a reserve supply shall be on hand for emergencies.
2. Unlined sumps, if they contain harmful waters, shall not be located over fresh water bearing aquifers.
3. Any sump used during these operations shall be thoroughly cleaned and filled with earth as soon as operations are completed.
4. Blowout prevention equipment of at least DOG Class II 3M, with a hydraulic actuating system, shall be installed and maintained in operating condition at all times.

Blanket Bond
MD:b

M. G. MEFFERD, State Oil and Gas Supervisor

By John L. Hardoin, Deputy Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

RECEIVED
SEP 15 1981
DIVISION OF OIL & GAS
BAKERSFIELD

DIVISION OF OIL AND GAS

Notice of Intention to Rework Well

This notice and indemnity or cash bond shall be filed and approval given, before rework begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

DIVISION OF OIL AND GAS
SEP 21 1981
SANTA PAULA, CALIFORNIA

FOR DIVISION USE ONLY		
BOND	OGD114	OGD121
BB	✓	✓

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well No. "Newhall Land & Farming Co; "77, API No. 037-22047

Sec. 14, T. 4N, R. 17W, S.B.B. & M., Castaic Junction Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 12,000'
   Casing shoe @ 11,895'. PBTD @ 11,816'.
2. Complete casing record, including plugs and perforations:
   See Attached.

3. Present producing zone name 21 DelValle Zone in which well is to be recompleted Same
4. Present zone pressure 3850 psi @ 10400 s.s New zone pressure same
5. Last produced 31 Jul 80 (Date) ---- (Oil, B/D) ----- (Water, B/D) 115 (Gas, Mcf/D)
   or
6. Last injected N/A (Date) (Water, B/D) (Gas, Mcf) (Surface pressure, psig.)

The proposed work is as follows:

See Attached

Cancelled

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address P.O. Box D.O. (Street)
Ventura, (City) CA (State) 93002 (Zip)
Telephone Number (805) 654-6800

Exxon Company, U.S.A. (Name of Operator)
By J.E. Garrison (Name) 9-11-81 (Date)
Type of Organization Corporation (Corporation, Partnership, Individual, etc.)

(1-78-GSRI-15M)

Attchment I
"Newhall Land & Farming Co." 77
API NO. 037-22047

2. Complete casing record, including plugs and perforations:

1. 13-3/8", 54.5# K-55 Buttress to 503'. Cemented to surface.

2. 9-5/8", 40# K-55 LT&C to 4015' cemented w/715 sacks in 12¼" open hole. Calculated TOC @ 230'±.

3. 7", 29# & 32# K-55 LT&C to 11895' cemented w/984 sacks in 8½" open hole. Calculated TOC @ 9500'±. PBTD @ 11816'. Selectively perfed 10,630' - 10,710 @ 2 spf (sqzd). Reperfed selectively 11,272' - 11,490' @ 2 spf.

4. 2-7/8", 6.5 tubing to 11,149'. Packer @ 11,149'.

The proposed work is as follows:

1. Run baseline temperature survey.

2. Install and test Class III 5,000 psi BOP for DOG.

3. Kill well and POH with tubing and packer.

4. Resqueeze cement perforations at 10,630' - 10,710'.

5. Drill out cement.

6. Set permanent packer @ 11,200'± and RIH with 3½" frac string. Test string to 15,000 psi.

7. Pump 85,000 gallons fracturing fluid with 135,000 lbs. of ceramic proppant at 11,000 psi±.

8. Run temperature logs to determine fracture height and proppant placement.

9. Drill out permanent packer.

10. RIH with production tubing and packer to 11,200'±.

11. Unload well with coiled tubing and nitrogen.

12. Put well on production. Run pressure buildup test.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

ORIGINAL

DIVISION OF OIL AND GAS
RECEIVED
FEB 20 1981

API No. 037-22047

WELL SUMMARY REPORT

SANTA PAULA, CALIFORNIA

Operator: Exxon Corporation	Well: Newhall Land & Farming #77				
Field: Castaic Junction	County: Los Angeles	Sec. 14	T. 4N	R. 17N	B.&M. SB
Location (Give surface location from property or section corner, street center line and/or California coordinates): 1228' North along section line and 5977' East at right angles from Corner 11, RSF of Section 14.	Elevation of ground above sea level: 964'				

Commenced drilling (date): 1-8-80	Total depth (1st hole): 12,000'	(2nd):	(3rd):
Completed drilling (date): 3-4-80	Present effective depth: 11,816'		
Commenced producing (date): 5-6-80	Junk:		
☒ Flowing ☐ Pumping ☐ Gas lift			
Name of producing zone(s): 21 Zone			

Depth measurements taken from top of: ☐ Derrick Floor ☐ Rotary Table ☒ Kelly Bushing
Which is 15 feet above ground

GEOLOGICAL MARKERS	DEPTH
15 Zone	10,037'
21 Zone	11,270'

Formation and age at total depth: 21 Zone - Miocene

	Clean Oil (bbl per day)	Gravity Clean Oil	Percent Water including emulsion	Gas (Mcf per day)	Tubing Pressure	Casing Pressure
Initial Production	0			125	325	
Production After 30 days	6 bbls of fluid			282	370	

CASING RECORD (Present Hole)

Size of Casing (API)	Top of Casing	Depth of Shoe	Weight of Casing	Grade and Type of Casing	New or Second Hand	Size of Hole Drilled	Number of Sacks or Cubic Feet of Cement	Depth of Cementin (if through perforations)
20"	Surface	40'		Conductor	New	Driven		
13 3/8"	Surface	503'	54.5#	K-55 BT	New	17 1/2"	630 sx	
9 5/8"	Surface	4015'	40.0#	K-55 LT&C	New	12 1/4"	1200 sx	
7"	Surface	11,895'	29#, 32#	N-80 LT&C	New	8 1/2"	984 sx	

PERFORATED CASING (Size, top, bottom, perforated intervals, size and spacing of perforation and method.)

Perfed: 2 SPF: 11,486'-11,466'; 11466'-11,450'; 11,441'-11,424'; 11420'-11,400'; 11,394'-11,374'; 11,374'-11,362'; 11,352'-11,332'; 11,332'-11,313'; 11,308'-11,299'; 11,292'-11,284'; 10,710'-10,680'; 10,655'-10,630'

Was the well directionally drilled? If yes, show coordinates at total depth
☒ Yes ☐ No 633.66' S and 430.87' W

Electrical log depths: Compensated Density: 11,888'-4015'. Formation Factor: 11,888'-4015'. DISFL: 11,993'-510'. Shale Density: 12,000'-9940'. Dipmeter: 11,883'-4015'. Cement Log: 11,700'-9000'.

Other surveys: Deviation Survey, Direction 1 Survey, Core Analysis.

In compliance with Sec. 3215, Division 3 of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Name: D. Daly	Title: Revenue & Regulatory Acctg. Section Head		
Address: 1800 Ave. of the Stars	City: Los Angeles, Ca	Zip Code: 90067	
Telephone Number: (213) 552-5400	Signature: D. Daly	Date: 2/13/81	

SUBMIT IN DUPLICATE

DIVISION OF OIL AND GAS
Cementing/Plugging Memo

Operator EXXON CORPORATION **Well No.** "N.L.F." 77
API No. 037 - 22047 **Sec.** 14, **T.** 04N, **R.** 17W, SB **B&M**
Field CASTAIC JUNCTION, **County** LOS ANGELES. **On** 9-14-93,
Mr./Ms. P Wyatt, **representative of the supervisor, was present from** 1100 **to** 1200.
There were also present DAN MULLINS

CASING RECORD OF WELL: 20" ld 40': 13-3/8" cem 503': 9-5/8" cem 4015': 7" cem 11,895', perf & sqz 121'-123', 488'-508', & 10,550', perf @ ints 10,630'-10,710' (sqz off), perf @ ints 11,272-11,490'. TD 12,000'. Plugged w/cem 11,500'-10,423', 514'-403', & 130'-5'.

The operations were performed for the purpose of ABANDONMENT

☐ **The plugging/~~cementing~~ operations as witnessed and reported are approved.**

☐ **The location and hardness of the cement plug @_____' is approved.**

Hole size:_____" fr._____' to_____', _____" to_____' & _____" to_____'

Casing				Cemented			Top of Fill		Squeezed Away	Final Press.	Perfs.
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			

Casing/~~tubing~~ ~~recovered~~: perf 4 hpf 7 **" shot/~~cut~~ at** 488-508', 121-123', **_____' pulled fr._____';**
_____" shot/cut at_____', _____', _____' pulled fr._____'.

Junk (in hole):

Hole fluid (bailed to) at_____'. Witnessed by_____

Mudding	Date	Bbls.	Displaced	Poured	Fill	Engr.
CLAY-GEL 9.8 #/g	9-10-93	388±	TBG @ 10423'	—	SURFACE	S. MULQUEEN

CLEAN OUT @ 11570'

Cement Plugs		Placing	Placing Witnessed		Top Witnessed			
Date	Sx./cf	MO & Depth	Time	Engr.	Depth	Wt/Sample	Date & Time	Engr.
9/9	148 sx	TBG @ 11500'	—	REPORTED	10,423'	5K#	9/10 0800	S. MULQUEEN
9/13	148 cf	✓ 514	~	✓	403	wt of tbg	9/14 0730	PERRY
9/14	30 cf	✓ 130	1200	PERRY	Surf	WITNESS	9/14 1100	PERRY
9/15	50 cf	Pump to annulus thru (illegible)	~	RP/L	5'	✓	9/23 1000	PERRY

OGD10 (10/90/GSR1/5M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

REPORT OF WELL PLUGGING AND ABANDONMENT

Ventura, California
May 19, 1994

EXXON Corporation
Attn: Env. & Reg. Affairs
P.O. Box 1600
Midland, Texas 79702

Your report of plugging and abandonment of well "Newhall Land & Farming Co." 1, A.P.I. No. 037-16472, Section 23, T. 4N, R. 17W, SB B.&M., Castaic Junction field, Los Angeles County, dated October 15, 1993, received October 22, 1993, has been examined in conjunction with operations witnessed and records filed in this office. We have determined that all of the requirements of this Division have been fulfilled.

tkc
cc: Conservation Committee
Update

WILLIAM F. GUERARD, Jr.
State Oil and Gas Supervisor

By
Patrick J. Kinnear, Deputy Supervisor

OGD159 (6/92)

OPERATOR Exxon Corp.
WELL NO. "Newhall Land & Farming Co." 1
MAP

INTENTION	ABANDON	Supp. Add.				
NOTICE DATED	10-29-92	10-15-93				
P-REPORT NUMBER	292-319	293-393				
CHECKED BY/DATE		9M 2-19-94				
MAP LETTER DATED						
SYMBOL						

	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED
NOTICE	11-4-92		10-22-93									
HISTORY			1-21-94									
SUMMARY												
E-LOG												
MUD LOG												
DIPMETER												
DIRECTIONAL												
CORE/SWS												
CBL												

ENGINEERING CHECK

T-REPORTS		✓				
OPERATOR'S NAME		✓				
WELL NO.		✓				
LOC & ELEV		—				
SIGNATURE		—				
SURFACE INSP.						
DRILL CARD		✓				

RECORD'S COMPLETE 2-15-94 SAM

FINAL LETTER OK
MAILED
RELEASED BOND

INJECTION BOOK
IDLE WELL LIST
SURFACE INSP. CARD

REMARKS: Sfc insp OK 4-12-93 PBW

TO RELEASE FROM CONFIDENTIAL
ANDONED-REMOVED FROM E.D.P.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND
GEOTHERMAL RESOURCES

No. T294-43

Report on Operations

EXXON Corporation
Attn: Env. & Req. Affairs
P.O. Box 1600
Midland, Texas 79702

Ventura, California
February 15, 1994

Your operations at well "Newhall Land & Farming Co." 1, API No. 037-16472, Sec. 23, T. 4N, R. 17W, S.B. B.&M. Castaic Juncion Field, in Los Angeles County, were witnessed on 12-28-93. Steve Mulqueen, representative of the supervisor, was present from 0800 to 1100. There were also present C. Ballard, Operator's Rep.
Present condition of well: 20" cem 70'; 13 3/8" cem 1591'; 7" cem 11,792', perf 11,608' WSO, cp 100' & 1570', perfs 11,636'-11,778'. TD 11,952'. Plugged w/ cem 11,952'-11,783', 11,634'- 10,702', 1617'-1452' & 124'-5'.

The operations were performed for the purpose of abandonment.

DECISION:

The plugging operations as witnessed and reported are approved.

scv

William F. Guerard, Jr.
State Oil and Gas Supervisor

By Patrick J. Kinnear

Patrick J. Kinnear
Deputy Supervisor

OG109 (Modified 1993)

DIVISION OF OIL AND GAS
Cementing/Plugging Memo

T 24 T294-43

Operator Exxon Corp. Well No. "Newhall Land & Farming Co" 1
API No. 037-16472 Sec. 23, T. 4N, R. 17W, SB B&M
Field Castaic Jct, County LA. On 12-28-93,
Mr./~~Ms.~~ S. MULQUEEN, representative of the supervisor, was present from 0800 to 1100.
There were also present C. Ballard operator's rep.
Casing record of well: 20" cem 70'; 13 3/8" cem 1591'; 7" cem 11792', perf 11608' WSO, sp 100' & 1570', perfs 11636'-11778'. TD 11952'. Plugged w/ cem 11952'-11783', 11634'-10702', 1617'-1452' & 124'-5'.
The operations were performed for the purpose of abandonment

☒ The plugging/~~cementing~~ operations as witnessed and reported are approved.

☐ The location and hardness of the cement plug @_____' is approved.

Hole size:_____" fr._____' to_____', _____" to_____' & _____" to_____'

Casing				Cemented			Top of Fill		Squeezed Away	Final Press.	Perfs.
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			
7"				12-27	TBG @ 1617' BRADEN HD.	99 sx	—	1452'	78 cf		1570'-1590'
7"				12-28	TBG @ 124'	113 cf	5'	5'	—		100'-102'

Casing/tubing recovered: 7 " shot/cut at 1570' PERFORATE TO 1590', _____' pulled fr._____';
7 " shot/cut at 100' PERFORATE TO 102', _____' pulled fr._____'.
Junk (in hole):_____
Hole fluid (bailed to) at_____'. Witnessed by_____

Mudding	Date	Bbls.	Displaced	Poured	Fill	Engr.
10 # gel	12-22-93	345	to 10,702	—	to 1592	PRW

CO 11,686'

Cement Plugs		Placing	Placing Witnessed		Top Witnessed			
Date	Sx./cf	MO & Depth	Time	Engr.	Depth	Wt/Sample	Date & Time	Engr.
12/22	128 cf	tbg 11,634	~	rptd	10,702	6k tbg	12-23 1800	PRW
12/27	99 sx	TBG @ 1617'	—	"	1452	ALL TBG WEIGHT	12/28 0830	S. MULQUEEN
12/28	113 cf	TBG @ 124'	1030	S. MULQUEEN	5'	VISUAL	12/28 1100	"

Pressure tested csg 10,702'-sf @ 750 psi 10 min.

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

RECEIVED
JAN 21 1994
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
VENTURA, CALIFORNIA

23-4-17

Operator Exxon Corporation **Field** Castaic Junction **County** Los Angeles
Well Newhall Land & Farming Co. 1, **Sec.** 8, **T** 4N, **R** 16W, **S.B. & M.**
A.P.I. No. 037-16472 **Name** Julie H. Mitchell (Person submitting report) **Title** Staff Office Assist. (President, Secretary or Agent)
Date January 14, 19 94.

Signature Julie H. Mitchell

Environmental and Regulatory Affairs, PO Box 1600, Midland, TX 79702 915/688-7888
(Address) (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date	
12/09/93	Move in rig up. Guy rig out, rig up tubing racking platform, rig up blow down line.
12/10/93	Rig up hard line, pump hoses to rig pump. Rig up plate steel on tubing platform and weld tubing basket to platform. Make stand from outrigger and weld on well. Hook up pump hoses to line coil tubing and 2-7/8 inch tubing. Pump down line coil tubing (plug). Pump down 2-7/8 inch tubing. Pump 2 barrels (pressure up). Rig up pump hose to 7 inch casing. Casing pressure 950 psi. Bled down 7 inch casing to blow down tank. Fill 7 inch casing with 150 barrels water. Latch on liner coil tubing. Remove packer, pull coil tubing, found cut at master valve. Recover 4 foot piece. Ran in hole with 1-3/4 inch jars on sand line. Tag up @ 13 feet. Pull out of hole, close in well.
12/11/93	Check well, tubing 0 psi, casing 250 psi. Bleed casing, fill well with 5 barrels fresh water. Fill tubing with 1 barrel fresh water. Well dead. Nipple down production tree. Nipple up Class III BOP and BOE, tested okay. Rig up working floor and tubing equipment. Close well in due to bad weather.

RECEIVED
JAN 21 1994
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
VENTURA, CALIFORNIA

12/13/93 Open well, no pressure. Work stuck tubing. Rotate and work to 110,000#. Tubing parted after 20 minutes @ 110,000 approximately 90 feet down 2-7/8 tubing. Make up line grapple on 1-3/16 overshot. Ran in hole to 29 feet latch on 1 inch coil tubing. Pull up. Wait on coil tubing unit. Pull up on coil tubing. Parted @ 11000#. Fish tubing with comb overshots 4 times. Parted all 4 times - 1 inch to 4 inch. Lay down fishing tool and rod subs. Raise floor and haul in 3500 feet 1-1/4 inch tubing. Close well in.

12/14/93 Open well (no psi). Make up 1-5/16 inch overshot with line grapple. Ran in hole with 6 joints 1-1/4 inch tubing. Pull coil tubing. Parted. Pull out of hole standing back 1-1/4 inch tubing. Pull line tubing out bottom of stand, cutting tubing. Recovered about 240 feet. Make up 5-3/4 X 3-1/16 inch overshot on 2-7/8 inch tubing. Ran in hole to 180 feet. Latch on fish. Rig up for 1-1/4 BOP. Make up overshot with line grapple. Ran in hole to 180 feet. Could not get 2-7/8 inch tubing. Pull out of hole, close in well.

12/15/93 Open well, no pressure. Rig up Dia-Log. Ran in hole with 1-11/16 sinker bars and 2-1/8 chemical cutter to 178 feet. Could not get in fish. Pull out of hole. Ran in hole with 1-3/8 sinker bars, could not get in fish. Pull out of hole. Ran in hole with line sinker bar. Could get in fish. Rig out Dia-Log. Work 2-7/8 tubing, tubing moved 20 feet. Work tubing free - 2 hours @ 10000#. String weight 94000#. Pull out of hole to 5-3/4 inch fishing tool. Lay down tools. Lay down 6 joints 1-1/4 inch in derrick. Fill casing with 1 barrel fresh water. Rig up plastic around working floor. Pull out of hole, wet with 2-7/8 inch and 1 inch tubing. Lay down 60 feet in ct and 2 joints 2-7/8 inch tubing. Close in well.

12/16/93 Open well, no pressure. Continue laying down and cutting line coil tubing while pulling out of hole with 2-7/8 inch N-80 tubing, wet with water. Pull 35+0 stands. Came to mud. Rig up tubing basket and skid to lay down all tubing. Lay down 3 joints in H&H tank. Close in well.

12/17/93 Open well, no pressure. Continue pulling out of hole laying down 2-7/8 N-80 tubing with 1 inch coil tubing inside, wet with mud inside H&H tubing transfer tank. Fill casing with 30 barrels fresh water. Displace for 3937 feet, tubing is 24-1/2 barrel, well took 5 barrels. Lay down 62 joints, haul trailer to pipe yard. Unload tubing on racks.

12/18/93 Open well, no pressure. Continue pulling out of hole laying down 2-7/8 inch tubing with line coil tubing inside wet with mud. Lay down 80 joints. Fill well with 20 barrels tubing displacement 16 barrels. Close in well.

12/19/93 Open well, no pressure. Continue pulling out of hole with 2-7/8 inch N-80 tubing with line coil tubing inside and wet with mud. Stand back 26+0 laying down line out bottom. Came to heavy mud, start laying down singles in tubing bagkit on trailer. Lay down 25 joints. Fill well with 20 barrels displacement of tubing is 17 barrels. Close in well.

12/20/93 Open well, no pressure. Continue pulling out of hole with 2-7/8 inch N-80 tubing with line coil tubing inside and wet with mud. Lay down 53 joints and stand back 40+0. Pipe very tight. Lay down packer and perforated stub. Ran in hole with 10+0 stand kill string. Close in well.

12/21/93 Open well, no pressure. Lower working floor. Clean floor and working area. Measure in hole with 67 stands, 134 joints out of derrick. Circulate out mud every 40 joints. Due to heavy mud in tubing, lay down 18 joints bad tubing. Measure and pick up 382 joints tubing (work string). With tubing tail @ 10800 feet, reverse circulate well. Ran in hole, tag @ 11686 feet. Pull to 11364 - 300. Break circulation @ 2700# @ 1.3 barrels per minute. Ran in hole back to 11674. Rig up Halliburton. Circulate well @ 2500# @ 1.5 barrels per minute. Formation taking water. Close well in.

12/22/93 Continue pumping well with Halliburton. Circulate heavy mud out of casing. Surface equipment plugging up with mud. Pumped 1000 barrels fresh water. Recover 375 barrels mud and water due to weak zone. Well cleaned up. Mix and pump 128 cubic feet, 91 sacks class G cement @ 1400# maximum. Displace with 61 barrels fresh water. Pull 40 joints to 10434 feet. Cement from 11674 to 10674 estimated. Reverse out 40 minutes. Wait on cement for 5 hours. Ran in hole tag cement @ 10702 feet, okay. Test 7 inch casing from 10702 t surface @ 500# for 5 minutes, okay. Rig to pump 9.7 ppg P&H mud. Circulate 400 barrels mud. Pull out of hole with 11+0 stands. Close in well. Steve Field, Div of Oil and Gas, gave verbal approval to pump 1000# cement plug from 11674 to 10674. Peter R. Wygle, Div of Oil and Gas, witnessed and approved tag of plug @ 10702 feet, pressure test casing and mud operations from 10702 to 1590 feet.

12/23/93 Open well, no pressure. Continue laying down 2-7/8 inch N-80 workstring. Lay down 170 joints. Close in well.

12/27/93 Open well, no pressure. Continue laying down 2-7/8 inch N-80 work string. Lay down 40 joints. Had to lay down 134 joints 2-7/8 inch N-80 junk pipe. Had to lay down 40 joints in doubles because of tight pipe. Fill hole with 30 barrels 9.7 ppg P&A mud. Rig up kill line to 10-3/4 inch casing. Bleed casing 10-3/4 inch. Rig up MMI, ran in hole with 20 feet perf gun, 4 shots per foot. Shoot hole from 1570 to 1590 feet. Pull out of hole circulate 60 barrels mud down 7 inch and up 10-3/4 casing. Ran in hole with 54 joints 2-7/8 inch tubing. With tubing tail @ 1617 feet, rig up Halliburton. Test lines. Mix and pump 114 cubic feet, 99 sacks neat cement down 2-7/8 inch tubing and up 10-3/4 casing. Displace with 8 barrels lease water. Open 7 inch casing to gravitate in cement. Pull out of hole with 2-7/8 tubing. Rig up MMI, ran in hole with 2 inch perf gun 4 shots per foot to 100 feet. Shoot from 100 to 102 feet, pull out of hole. Close in well.

12/28/93 Open well. Ran in hole, tag cement @ 1452 feet. Pull out of hole laying down 50 joints 2-7/8 tubing. Rig up Halliburton with tubing tail @ 124 feet. Mix and pump 109 cubic feet, 95 sacks, neat cement down 2-7/8, up 7 & 10-3/4 inch casing to surface. Pull out of hole laying down 4 joints. Clean up BOPE and working floor and tubing equipment. Nipple down BOP, load out BOP. Rig out pump and miscellaneous equipment. Load out BOE. Load out 100 joints junk tubing. Cut 30 stands of tubing in half. Clean out Baker tank and mud pit. Stephen Mulqueen, Div of Oil and Gas, witnessed tag of bfw plug @ 1452 feet and approved placement of surface plug from 124 to surface in 7 inch and 10-3/4 inch annulus.

12/29/93 Rig down move out. Load out junk 2-7/8 tubing. Haul rig and tubing to upper lease. Off load tubing, return to location, load up flow lines and miscellaneous equipment. Load up rig mats.

DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND
GEOTHERMAL RESOURCES

No. P293-393

PERMIT TO CONDUCT WELL OPERATIONS

126 (field code)
00 (area code)
-- (new pool code)
00 (old pool code)

EXXON Corporation
Attn: Env. & Reg. Affairs
P.O. Box 1600
Midland, Texas 79702

Ventura, California
October 25, 1993

Your supplementary proposal to abandon well "Newhall Land & Farming Co." 1, A.P.I. No. 037-16472, Section 23, T. 4N, R. 17W, S.B. B.&M., Castaic Junction field, ---- area, Main pool, Los Angeles County, dated 10/15/93, received 10/22/93, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Requirements specified in permit No. P292-319 dated November, 1993 shall apply.

Fields/Kennard
c/o 10 11,674
OK

Blanket Bond
SAF:sf

Engineer Steven A. Fields

Phone (805) 654-4761

William F. Guerard, Jr.
State Oil and Gas Supervisor

By

Patrick J. Kinnear
Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

OG111 (Modified 1993)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

SUPPLEMENTARY NOTICE

FOR DIVISION USE ONLY			
BOND	FORMS		EDP WELL
	OGD114	OGD121	FILE
FBB	—	✓	

A notice to the Division of Oil and Gas dated October 29, 19 92, stating the intention to abandon (Drill, rework, abandon) well "Newhall Land & Farming Co." 1 (Well designation), API No. 037-16472,

Sec. 23, T. 4N, R. 17W, S.B. B.& M., Castaic Junction Field,

Kern County, should be amended because of changed conditions.

1. The complete casing record of the well (present hole), including plugs and perforations, is as follows:

2. The total depth is: _____ feet. The effective depth is: _____ feet.

3. Present completion zone (s): _____ (Name). Anticipated completion zone (s): _____ (Name).

4. Present zone pressure: _____ psi. Anticipated/existing new zone pressure: _____ psi.

We now propose: *(A complete program is preferred and may be attached.)*

Please extend P292-319 dated November 6, 1992 for one year.

RECEIVED
OCT 20 1993
DIVISION OF OIL & GAS
BAKERSFIELD

DIVISION OF OIL AND GAS
RECEIVED
OCT 2? 1993

VENTURA, CALIFORNIA

Note: If the well is to be redrilled, show proposed bottom-hole coordinates and estimated true vertical depth.
The Division must be notified if changes to this plan become necessary.

Name of Operator	Telephone Number	
Exxon Corporation	915/688-7888	
Address	City	Zip Code
P.O. Box 1600 ML 14	Midland, TX	79702
Name of Person Filing Notice	Signature	Date
Julie H. Mitchell	Julie H. Mitchell	10/15/93

File In Duplicate

OG123 (3/90/GSR1/5M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P292-319
Field Code 126
Area Code 00
New Pool Code --
Old Pool Code 25

PERMIT TO CONDUCT WELL OPERATIONS

EXXON Corporation
Attn: Env. & Reg. Affairs
P.O. Box 1600
Midland, Texas 79702

Ventura, California
November 6, 1992

Your proposal to abandon well "Newhall Land & Farming Co." 1, A.P.I. No. 037-16472, Section 23, T. 4 N, R. 17W, S.B. B.&M., Castaic Junction field, --- area, Main pool, Los Angeles County, dated 10-29-92, received 11-04-92, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Blowout prevention equipment conforming to DOG Class II 2M requirements shall be installed and maintained in operating condition at all times.
2. Hole fluid of a quality and in sufficient quantity is used to control all subsurface conditions in order to prevent blowouts.
3. A diligent effort shall be made to clean out the well to at least 11,778'.
4. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of 72 lbs./cu. ft. and a minimum gel-shear strength (10 min.) of 25 lbs./100 sq. ft.
5. The cement plug proposed to be placed from 11,783' to 11,783' extends from 11,783' to at least 11,508'
6. The well shall be plugged with cement from 324' to 224'to cover a high pressure water zone encountered during drilling.

Blanket Bond
SF:nr

Engineer Steve Fields

Phone (805) 654-4761

WILLIAM F. GUERARD, Jr.
Acting State Oil and Gas Supervisor

By Patrick J. Kinnear
Patrick J. Kinnear
Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
OG111

7. This office shall be consulted before deviating from the proposed abandonment program.
8. THIS DIVISION SHALL BE NOTIFIED:
   a. To witness the location and hardness of the cement plug at 11,508' and 1470'.
   b. To witness the mudding of the well.
   c. To witness the placing of the surface plug or to verify its location.
   d. To inspect and approve the cleanup of the well site before approval of abandonment will be issued.

DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

NOTICE OF INTENTION TO ABANDON WELL

This notice must be given at least five days before work is to begin.

DIVISION OF OIL AND GAS
RECEIVED
NOV 0 4 1992
VENTURA, CALIFORNIA

FOR DIVISION USE ONLY			
CARDS	BOND	FORMS	
		OGD114	OGD121
	BB	11-4-92	✓

DIVISION OF OIL AND GAS

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon well No. Newhall Land & Farming Co 1 (Well designation), API No. 037-16472

Sec. 8, T. 4N, R. 16W, S.B. B. & M., Castaic Junction Field, Los Angeles County.

commencing work on 10/26, 19 92.

The present condition of the well is:

1. Total depth 11952'

2. Complete casing record, including plugs and perforations
   20" 48# conductor 0'-70'
   13 3/8" 54.5# csg 0'-1591'
   7" 23/26/29/32# csg 0'-11952'
   perfs: 11636'-11744' (4 SPF)
   11670'-11778' (8 SPF)
   Bottom Hole Plug 11,952'-11,783'

3. Last produced 1986 (Date) 1 (Oil, B/D) 60 (Water, B/D) 5 (Gas, Mcf/D)

OR

4. Last injected _____ (Date) _____ (Water, B/D) _____ (Gas, Mcf/D) _____ (Surface pressure)

Addtional Data for dry hole (show depths)

5. Uppermost productive zone:
   Top of 10 Sand: 10,630'

6. Stratigraphic markers:

7. Formation and age at total depth:

8. Base of fresh water sands: 1580'

The proposed work is as follows:

1. MIRU. Install and test a DOG class III 5M BOPE.
2. Clean out to the bottom of the 7" casing 11,783'.
3. Place a Class "G" cement plug from 11783'-11536'. DOG to witness.
4. Shoot 20'of 4 SPF @ 1590-1570', place class "G" cement plug from 1590' to 1470' to cover fresh water base. DOG to witness.
5. Shoot 4 holes @ 100'. Circulate cement plug from 100' to surface getting returns in casing/conductor annulus.
6. Cut off casing @ 5' and weld plate with well identifier.
8. Clean location. DOG will inspect.

It is understood that if changes in this plan become necessary, we are to notify you immediately

Address 25 Desta Drive P.O. Box 1600 (Street)
Midland, TX 79702 (City) (State) (Zip)
Telephone Number 915-688-7888

Exxon Corp. (Name of Operator)
By Judy M. Bagwell (Name-Printed)
Judy Bagwell 10-29-92 (Name-Signature) (Date)
Type of Organization Corporation

Forms\Abandon.DOG

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
NOV - 1 1978
SANTA PAULA, CALIFORNIA

History of Oil or Gas Well

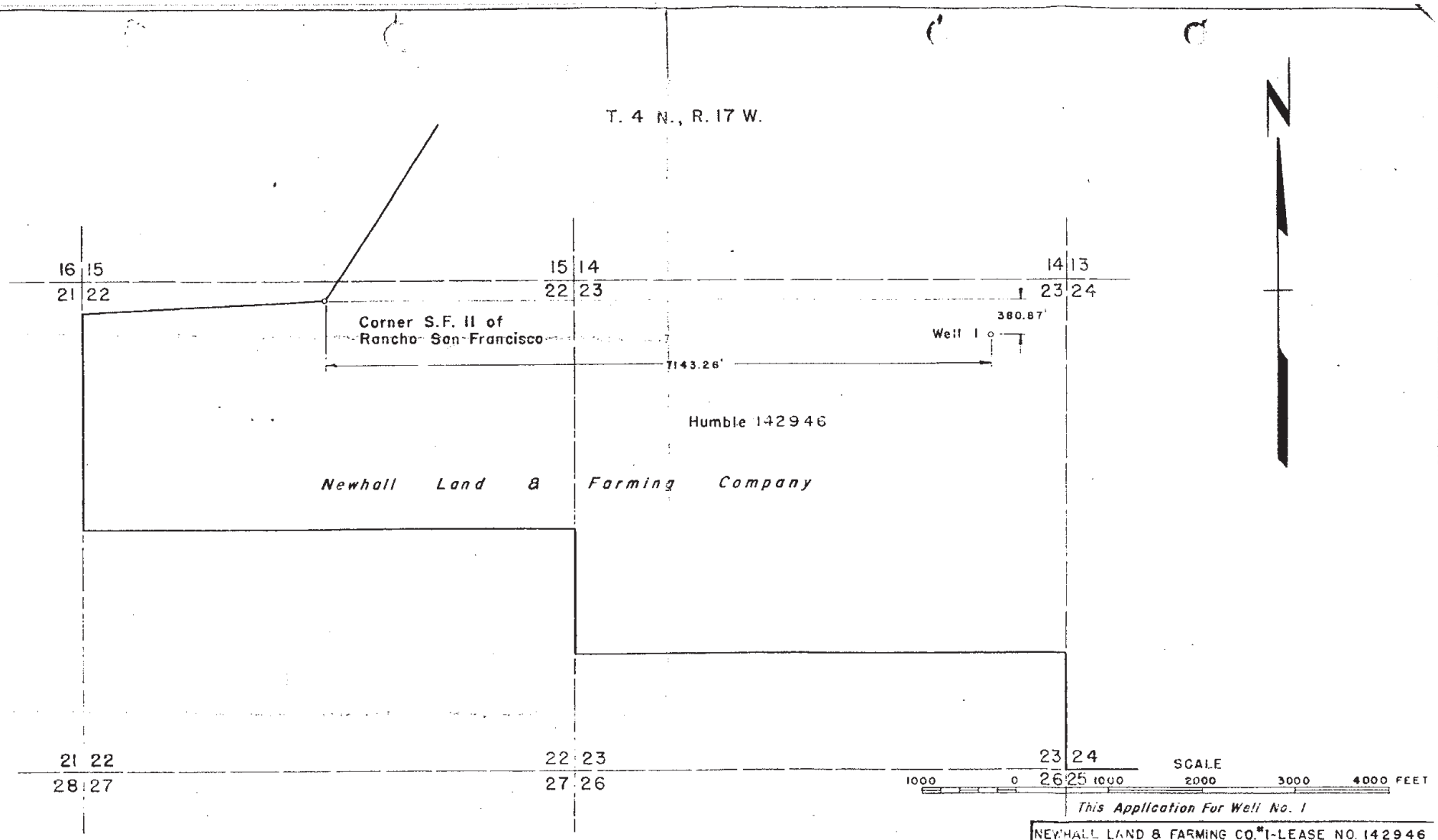
Operator EXXON CORPORATION Field or County Castaic Junction
Well "Newhall Land & Farming Co." 1, Sec. 23, T 4N, R 17W, S.B. & M.
A.P.I. No. 037-16472 Name E. L. McBee (Person submitting report) Title Operations Supt. (President, Secretary or Agent)
Date October 20, 19 78

Signature M. E. McBee

2755 Orange Avenue, Long Beach, CA 90807 (Address) (213) 426-8844 (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date	
9-1-76	MIRU. Installed lubricator and perforated with 2 spf from 11,744' to 11,636' using 2-1/8" link jet gun. Tagged bottom at 11,764' prior to perforating. Hit fluid at 6300' on first perf run and fluid at 3500' on last run. Had no pressure on tbg.
9-2-76	Well shut-in for 12 hrs with 250# tbg pressure. Opened well to tank. Flowed 1 Bbl of oil to tank in 30 min then died. Shut-in to pressure back up.
-76	Shut in for 20 hrs. Tbg pressure 450#. Opened to tank and bled to zero in 15 min (no fluid).
9-4-76	Pressured up with gas lift gas to 1,425#. Shut in for 20 hrs. Opened well to tank and bled to zero in 22 min (no fluid). Shut-in pressure 550#.
9-5-76	Well shut-in.



NEWHALL LAND & FARMING CO. #1-LEASE NO. 142946
LOS ANGELES COUNTY, CALIFORNIA
CALIFORNIA DISTRICT

HUMBLE OIL & REFINING COMPANY
CIVIL ENGINEERING DIVISION
GULF COAST DIVISION

DRAWN Bomb	SCALE 1" = 1000'	FILE NO.
CHECKED	DATE 7-7-49	STB-1445
APPR.	REVISED	

FORM 159 (9-49)

(17)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

REPORT OF WELL ABANDONMENT

Los Angeles, California

April 9 1956

Mr. J E Cox Agent
Humble Oil & Refining Co
613 San Fernando Road
Newhall California

Dear Sir

Your report of abandonment of Well No. "Newhall Land & Farming Co." 54, Sec. 23, T. 4 N, R. 17 W, S B B. & M., Castaic Junction field, Los Angeles County, dated April 2, 1956, has been examined in conjunction with records filed in this office.

A review of the reports and records shows that the requirements of this Division, which are based on all information filed with it, have been fulfilled.

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
18A N.W. cor of Sec. 23	ok				

Orig - Company, L.A.
cc - Mr E H Musser
Company, Newhall (2)
Newhall Land & Farming Co
Conservation Committee
Mr L A Dutton
Fire Prevention Bureau
es

E. H. MUSSER
State Oil and Gas Supervisor

By R. W. Walling
Deputy Supervisor

17601 8-55 11,200 SPC

WORK PERFORMED:

Drill_____ Redrill_____ Deepen_____

Plug_____ Alter casing_____

Water flood_____ Water disposal_____

Abandon_____

Other_____

STATUS: (Date)

Producing_____

Recomp. prod._____

Water flood_____

Water disposal_____

Abandoned_____

Other_____

MAP AND BOOK_____

RECORDS FILED & DATE: Clerk_____

Summary (dup.)_____

Log & Core (dup.)_____

History (dup.)_____

E-log_____

Radio log_____

D. Survey Surf-12077 "Ok"

Other_____

(Check records for signature and correct name of operator or well, S.T.R. and field.)

Location____ Notice states_____

Elevation_____ Notice states_____

Production Reports_____

(If production reports not received, make notation and inform Sr. Steno. when rec'd.)

If stimulation or disposal well:
Form 121_____ Folder_____

RECORDS & REQUIREMENTS CHECKED: Eng.____

OK

Surface inspection_____

Data needed_____

Request records_____

Correct records_____
(Specify)

CARDS_____

BOND: Cl. I.T.

Hold___ Reason_____

Release___ Date elig._____

End premium year___
Release requested___ (Check one)
Bond superseded___
Well abandoned___

FINAL LETTER_____
and
FILE CLEARED_____

Clerk:
F 170____
F 165____
165A___
F 150b
F 159___
F 121___

Form 100.

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
APR 5 1956
LOS ANGELES, CALIFORNIA

WELL SUMMARY REPORT

Operator Humble Oil & Refining Company

Well No. "Newhall Land & Farming Co." #54

Location 969' South and 3727' East from Corner 11, Rancho San Francisco, Los Angeles County.

Date April 2, 1956

Geologist Rex M. Smith

Field Castaic Junction Proj.

Sec. 23, T. 4-N, R. 17-W, S.B. B.&M.
Elevation above sea level 929 feet.
All depth measurements taken from top of Rotary Drive Bushing, which is 12.70 feet above ground.

Signed S. D. McCarty

S. D. McCarty

Title District Superintendent (Agent)

Commenced drilling 12-19-55 Completed drilling 2-29-56 Drilling tools-Rotary

Total depth 12077 Plugged depth --

Junk None

Commenced producing - Dry Hole

GEOLOGICAL MARKERS	DEPTH
Top of Miocene (E. Log)	7600'

Initial Production - None

CASING RECORD

Size of Casing	Depth of Shoe	Top Csg	Weight	New Used	Seamless Lapweld	Grade	Size Hole	Sacks Cemt.	Depth Perfs.
10-3/4	831'	17	40.5	New	SS	J-55	16"	500	-

PERFORATIONS

None

Electrical Log Depths 10648, 10941, 11960, 12062, 12077'.

Form 103.

DIVISION OF OIL AND GAS

HISTORY OF OIL OR GAS WELL

Operator Humble Oil & Refining Company

Well No. Newhall Land & Farming Co. #54

Field Castaic Junction

Proj.

Sec. 23, T. 4-N, R. 17-W, S.B. B.&M.

Signed S. D. McCarty

S. D. McCarty

Date April 2, 1956

Title District Superintendent (Agent)

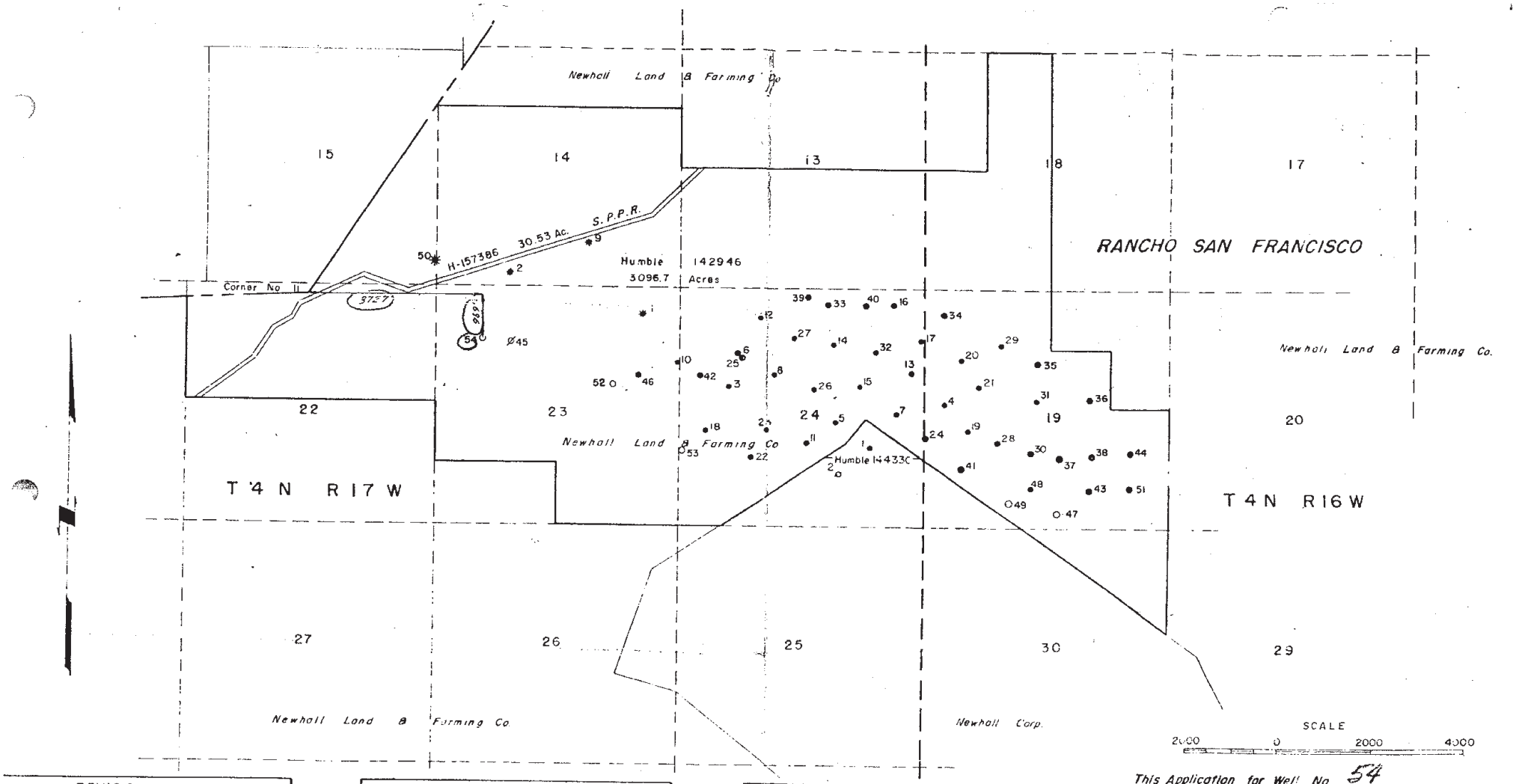
Date	Depth	Description
12-19-55	-	Moving in and rigging up.
12-20 thru 12-21	852	Spudded 11" hole at 12:01 AM, 12-20-56 and drilled to 852'. Opened 11" hole to 16" to 840'. Ran and set 814' of 10 3/4" casing at 831'. Cemented with 500 sacks of cement. Waiting on cement.
12-22 thru 12-23	2560	Drilled 9 7/8" hole to 1931' and twisted off. Ran fishing tools and recovered fish. Drilling 9 7/8" hole.
12-24 thru 1-13-56	8886	Drilled to 2563' and twisted off. Ran fishing tools and recovered fish. Drilling 9 7/8" hole.
1-14 thru 1-17	8942	Drilled 9 7/8" hole to 8921'. Circulated and cleaned hole. Ran and set whipstock at 8921'. Drilled off face of whipstock from 8921' to 8932' with 7 5/8" bit. Opened 7 5/8" hole to 9 7/8" from 8921 to 8932'. Drilling 9 7/8" hole.
1-18 thru 1-19	8999	Drilled 9 7/8" hole to 8972'. Ran and set whipstock at 8972'. Drilled off face of whipstock from 8972' to 8984' with 7 1/2" bit. Opened 7 1/2" hole to 9 7/8" from 8972' to 8984'. Drilling 9 7/8" hole.
1-20 thru 1-22	9032	Drilled 9 7/8" hole to 9016' and ran and set whipstock. Drilled off face of whipstock from 9016' to 9022' with 7 1/2" bit. Opened 7 1/2" hole to 9 7/8" from 9016' to 9022'. Ran and set whipstock at 9022' and drilled off face to 9032' with 7 1/2" bit.
1-23 thru 1-24	9077	Opened 7 1/2" hole to 9 7/8" from 9022' to 9032' and drilled to 9067'. Ran and set whipstock at 9067'. Drilled off face of whipstock to 9077' with 7 1/2" bit. Opened 7 1/2" hole to 9 7/8" from 9067' to 9077'.
1-25 thru 1-27	9160	Drilled 9 7/8" hole to 9106' and ran and set whipstock. Drilled off face of whipstock to 9116' with 7 1/2" bit. Opened 7 1/2" hole to 9 7/8" from 9106' to 9116'. Drilling 9 7/8" hole.
1-28	9184	Drilled 9 7/8" hole to 9174' and ran and set whipstock. Drilled off face of whipstock from 9174' to 9184' with 7 1/2" bit.

Form 103.

DIV. OF OIL AND GAS
RECEIVED
APR 6 19
LOS ANGELES, CALIFORNIA

WELL HISTORY (Cont'd)
Humble Oil & Refining Co.
Newhall Land & Farming Co. #54

Date	Depth	Description
1-29 thru 2-10	10348	Opened 7 1/2" hole to 9 7/8" from 9174' to 9184'. Drilled 9 7/8" hole to 9204' and ran and set whipstock. Drilled off face of whipstock to 9212' with 7 1/2" bit. Opened 7 1/2" hole to 9 7/8" from 9204' to 9212'. Drilled 9 7/8" hole to 10348'.
2-11 thru 2-12	10564	Reduced 9 7/8" hole to 8 3/4" at 10348'. Drilling 8 3/4" hole.
2-13 thru 2-17	10940	Drilled to 10650' and ran electric log to 10648'. Drilling 8 3/4" hole.
2-18 thru 2-23	11883	Ran electric log to 10941'. Drilling 9 7/8" hole.
2-24	11960	Drilled to 11960' and ran electric log to 11960'.
2-25	12020	Drilled 8 3/4" hole to 12000'. Cored from 12000' to 12020' with 6 1/4" core head.
2-26	12077	Opened 6 1/4" hole to 8 3/4" from 12000' to 12020' and drilled to 12077'. Ran electric log to 12062'.
2-27	12077 TD	Placed cement plug #1 from 11998' to 11798' with 75 sacks of cement. Placed plug #2 from 10967' to 10767' with 75 sacks of cement. Placed plug #3 from 3400' to 3170' with 100 sacks of cement. Top of plug #3 witnessed by the Division of Oil and Gas.
2-28	12077	Placed plug #4 from 930' to 730' with 100 sacks of cement. Released rig at 12:00 Noon, 2-28-56. Tearing out rig.
2-29		Placed plug #5 from 20' to surface with 20 sacks of cement. Welded steel plate on top of 10 3/4" casing. Finished tearing out rig. Well dry and abandoned. Final report for rig and well.



This Application for Well No. 54

NEWHALL LAND & FARMING CO.
LEASE NO 142946
CASTAIC JUNCTION DIST. LOS ANGELES CO.

HUMBLE OIL & REFINING COMPANY
CIVIL ENGINEERING DIVISION
CALIFORNIA AREA

DRAWN KDS
CHECKED
APPR
SCALE 1" = 2000'
DATE 8-18-54
REVISED
FILE NO. CAB 44

SUPERCEDES DRWG NO CAB 23

REVISIONS

DATE	DESCRIPTION	BY	CHK	APPR
5-20-55	ADD WELL NO. 51	KDS		
8-25-55	" " " 52	"		
10-12-55	" " " 53	"		
55	" " " 54	"		

REVISIONS

NO	DATE	DESCRIPTION	BY	CHK	APPR
7	1-28-55	ADD WELL NO 45	K.D.S.		
8	2-2-55	" " " 46	"		
9	3-29-55	" " " 47	N.D.C.		
10	3-7-55	" " " 48	K.D.S.		
11	11-21-55	" " " 49	"		
12	4&25-55	" " " 50	"		

REVISIONS

NO	DATE	DESCRIPTION	BY	CHK	APPR
1	8-18-54	ADD WELL NO 40	KDS		
2	8-30-54	" " " 38	NDC		
3	9-2-54	" " " 41	NDC		
4	9-28-54	" " " 42	KDS		
5	12-14-54	" " " 43	KDS		
6	12-21-54	" " " 44	KDS		

ORM 105

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

037-16511

3

(D)

DIVISION OF OIL AND GAS
RECEIVED
FEB 1 1955

Notice of Intention to Drill New Well

This notice and surety bond must be filed before drilling begins

Los Angeles, Calif. January 27, 1955

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division III, Article 4, Public Resources Code, notice is hereby given that it is our intention to commence the work of drilling well No. Newhall Land & Farming Co. No. 45, Sec. 23, T. 4-N, R. 17-W, SB B. & M., Castaic Junction Field, Los Angeles, County.

Legal description of lease: See attached Plat.
(Attach map or plat to scale)

Location of Well: 835 feet South (Direction) from the North line and 4269 feet East (Direction) at right angles to said line from the corner 11,

Rancho San Francisco, Los Angeles, County, California. Also located 1,020 feet South and 3,698 feet West from the Northeast corner of Projected Section 23, T-4-N, R-17-W, SBB&M.

Elevation of ground above sea level feet To be submitted Later datum.

All depth measurements taken from top of Kelly Bushing which is 12 feet above ground.
(Derrick Floor, Rotary Table or Kelly Bushing)

PROPOSED CASING PROGRAM

SIZE OF CASING INCHES A.P.I.	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS
10-3/4"	40.5#	J-55	0	800	Cemented to surface
5-1/2"	17 -20 & 23#	N-80	0	12000	Cemented 1000 feet above shoe

Intended zone or zones of completion: Zone 21, Upper Miocene, 12000'

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
9L-18A	2 pp	6/3	Blanket	E&GB	

It is understood that if changes in this plan become necessary we are to notify you before running casing.

Address 612 South Flower Street
Los Angeles 17, California
Telephone Number MA 6-7701

Humble Oil & Refining Co.
(Name of Operator)
By James R. Cox

SEND ONE COPY OF NOTICE TO DIVISION OFFICE IN DISTRICT WHERE WELL IS LOCATED

FORM 111 (1-49)

D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

No. P 155-198

Mr. J E Cox
Newhall
California
Agent for HUMBLE OIL & REFINING CO

Los Angeles 15 California
February 7 1955

12-1

DEAR SIR:

"Newhall Land & Farming Co."

Your proposal to drill Well No. 45,

Section 23, T. 4 N, R. 17 W, S B B. & M., Castaic Junction Field, Los Angeles County,

dated Jan. 27 19 55, received Feb. 1 1955, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES

"Legal description of lease See attached Plat.
Location of Well: 835 feet South and 4269 feet East at right angles to said line from corner 11, Rancho San Francisco, Los Angeles, County, California. Also located 1,020 feet South and 3,698 feet West from the Northeast corner of Projected Section 23, T-4-N, R-17-W, SBB&M
Elevation of ground above sea level To be submitted Later
All depth measurements taken from top of Kelly Bushing which is 12 feet above ground."

PROPOSAL

"PROPOSED CASING PROGRAM

Size of Casing Inches A.P.I.	Weight	Grade and Type	Top	Bottom	Cementing Depths
10-3/4"	40.5#	J-55	0	800	Cemented to surface
5-1/2" 17 -20 & 23#		N-80	0	12000	Cemented 1000 feet above shoe

Intended zone or zones of completion: Zone 21, Upper Miocene, 12000'
It is understood that if changes in this plan become necessary we are to notify you before running casing."

DECISION

THE PROPOSAL IS APPROVED PROVIDED THAT

1. Mud fluid consistent with good drilling practice shall be used and the column of mud fluid maintained at all times to the surface, particularly while pulling the drill pipe.
2. Adequate blowout prevention equipment shall be installed and maintained in operating condition at all times.
3. THIS DIVISION SHALL BE NOTIFIED AS FOLLOWS:
   (a) To inspect the installed blowout prevention equipment before drilling below 2000'.
   (b) To witness a test of the effectiveness of the 5½" shut-off.

FEK:OH

cc Company (2)
Newhall Land & Farming Co

Orig Company Los Angeles

Blanket bond.

E. H. MUSSER
State Oil and Gas Supervisor

By R. M. Walling Deputy

98406 5-54 25M SPO

FORM 109-D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 155-682

Mr. J E Cox
613 San Fernando Road
Newhall California
Agent for HUMBLE OIL & REFINING CO

Los Angeles 15 Calif.
March 29 19 55

DEAR SIR:

Operations at your well No. "Newhall Land & Farming Co." 45 Sec. 23, T. 4 N, R. 17 W, S B B. & M., Castaic Junction Field, in Los Angeles County, were witnessed on March 21, 19 55. Mr. G. Y. Lee, Engineer, representative of the supervisor was present from 9:30 A.M. to 10:00 A.M. There were also present J. Ortega, Drilling Foreman G. Micheli, Driller

Present condition of well: 10 3/4" cem. 824'; T.D. 7435'

The operations were performed for the purpose of inspecting blowout prevention equipment and installation

Mr. Ortega reported:

1. A 16" rotary hole was drilled from the surface to 824'.
2. On March 6, 1955, 10 3/4", 40 lb. casing was cemented at 824' with 450 sacks of cement.
3. Cement returned to the surface.
4. A 9 7/8" rotary hole was drilled from 824' to 7435'.

THE ENGINEER NOTED THAT the well was equipped with the following blowout prevention equipment:

1. A Shaffer double cellar control gate for closing in the well with the drill pipe out of the hole, and for closing around the 4 1/2" drill pipe.
2. A G. K. Hydril Blowout Preventer for closing around the 4 1/2" drill pipe.
3. The controls for the above equipment were located outside the derrick.
4. A 2" mud fill-up line with a 2" high pressure Nordstrom stopcock into the 10 3/4" casing below the above equipment.
5. A high pressure stopcock on the kelly.

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

GYL:lg

cc Company (2)
Newhall Land & Farming Co.

Orig Company Los Angeles

E. H. MUSSER
State Oil and Gas Supervisor

By R. N. Nelson Deputy

12362 2-55 16,100 © SPO

FORM 108. 57613 2-52 20M ⓢ SFO

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
MAY 4 1955
LOS ANGELES, CALIFORNIA

Notice of Intention to Abandon Well

This notice must be given at least five days before work is to begin; one copy only

Newhall, Calif. May 2, 19 55

DIVISION OF OIL AND GAS
1015 West Olympic Blvd.
Los Angeles 15, Calif.

In compliance with Secs. 3228, 3229, 3230, 3231 and 3232, Ch. 93, Stat. 1939, notice is hereby given that it is our intention to abandon well No. Newhall Land & Farming Co. #45

Sec. 23, T. 4-N, R. 17-W, S.B. B. & M. Castaic Junction Field,

Los Angeles County, commencing work on the 2nd day

of May 19 55.

The present condition of the well is as follows:

1. Total depth. 11,947' - Drilled 9-7/8" hole to TD without encountering any commercial oil or gas shows. Approximate top of 21-zone - 11,700', top of 15-zone - 10,690', base of fresh water sand 3300'.
2. Complete casing record.

10-3/4" 40.50 J-55 Casing set at 824'.

3. Last produced. Dry Hole _____ _____ _____

Date | Net oil | Gravity | Cut

The proposed work is as follows: Place cement plugs as follows:

#1 - from 11,800 to 11,600, using 100 sacks cement
#2 - from 10,750 to 10,550, using 100 sacks cement
#3 - from 3,300 to 3,100, using 100 sacks cement
DOG will be notified to witness location and hardness of plug #3 which is at base of fresh water sand.
#4 - from 925 to 725 using 100 sacks cement
#5 - from 20 to 0 using 10 sacks cement
and weld steel plate on top of casing.

abandon

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
		EB	blanket	EB	EB

HUMBLE OIL & REFINING COMPANY
(Name of Operator)

By James E. Cox
James E. Cox

ADDRESS ONE COPY OF NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

FORM 111 (1-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

No. P 155-800

Mr J E Cox
613 San Fernando Road
Newhall California
Agent for HUMBLE OIL & REFINING CO

Los Angeles 15
May 5 Calif. 55
19

DEAR SIR:

Your proposal to abandon Well No. "Newhall Land & Farming Co." 45,
Section 23, T. 4 N, R. 17 W, S B B. & M., Castaic Junction Field, Los Angeles County,
dated May 2 19 55, received May 4 19 55, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES

"The present condition of the well is as follows:

1. Total depth. 11,947' - Drilled 9-7/8" hole to TD without encountering any commercial oil or gas shows. Approximate top of 21-zone - 11,700', top of 15-zone - 10,690', base of fresh water sand 3300'.
2. Complete casing record.
   10-3/4" 40.50 J-55 Casing set at 824'.
3. Last produced. Dry Hole."

PROPOSAL

"The proposed work is as follows: Place cement plugs as follows:

#1 - from 11,800 to 11,600, using 100 sacks cement
#2 - from 10,750 to 10,550, using 100 sacks cement
#3 - from 3,300 to 3,100, using 100 sacks cement
DOG will be notified to witness location and hardness of plug #3 which is at base of fresh water sand.
#4 - from 925 to 725 using 100 sacks cement
#5 - from 20 to 0 using 10 sacks cement and weld steel plate on top of casing."

DECISION

THE PROPOSAL, COVERING WORK ALREADY COMPLETED IN ACCORDANCE WITH PRIOR AGREEMENT, IS APPROVED.

FEK:OH

2 cc Humble Oil & Refining Co
P O Box 1196
Newhall California

Newhall Land & Farming Co
Route 3 Box 77
Saugus California

Orig. Humble Oil & Refining Co
612 South Flower Street
LOS ANGELES 17

Blanket bond.

E. H. MUSSER, State Oil and Gas Supervisor

By G. H. Walling, Deputy

FORM 109-D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 155-1146

Mr. J E Cox
613 San Fernando Road
Newhall California
Agent for HUMBLE OIL & REFINING CO

Los Angeles 15 Calif.
May 20 1955

DEAR SIR: "Newhall Land & Farming Co."

Operations at your well No. 45 Sec. 23, T. 4 N, R. 17 W, S B B. & M., Castaic Junction Field, in Los Angeles County, were witnessed on May 4, 1955. Mr. R. Ybarra, Engineer, representative of the supervisor was present from 1:00 to 2:00 p.m. There were also present J. Walvoord, Engineer; J. Ortega, Drilling Foreman.

Present condition of well: 10-3/4" cem. 824'. T.D. 11,947', plugged with cement 11,800'-11,600', 10,750'-10,550', 3300'-3095', 914'-714', and 27'-7'.

The operations were performed for the purpose of witnessing the plugging operations in the process of abandonment.

Mr. xxxxxx reported:

ENGINEER YBARRA VISITED THE WELL FROM 8:30 - 9:30 A.M., MAY 4, 1955, AND MR. WALVOORD REPORTED: 1. A 9-7/8" rotary hole was drilled from 824' to 11,947'.

2. No commercial showings of oil or gas were encountered.
3. On May 2, 1955, 100 sacks of cement was pumped into the hole through 4½" drill pipe hanging at 11,600', filling to 11,600'.
4. On May 2, 1955, 100 sacks of cement was pumped into the hole through 4½" drill pipe hanging at 10,750', filling to 10,550'.
5. On May 3, 1955, 100 sacks of cement was pumped into the hole through 4½" drill pipe hanging at 3,300', filling to 3,095'.

THE ENGINEER NOTED THAT the cement plug at the reported depth of 3,095' supported 15 point of the weight of the 4½" drill pipe.

THE ENGINEER ARRIVED AT THE WELL AT 1:00 P.M. AND MR. ORTEGA REPORTED:

1. On May 4, 1955, 100 sacks of cement was pumped into the hole through 4½" drill pipe hanging at 914', calculated to fill to 714'.
2. A wooden plug was driven to 27'.
3. Seven sacks of cement was poured into the hole.

THE ENGINEER NOTED THAT the top of the cement in the 10-3/4" casing was at the cellar floc 7' below the ground level.

THE PLUGGING OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED.

RY:OH

(2) cc Humble Oil & Refining Co.
P O Box 1196
Newhall California

Newhall Land & Farming Co.
Route 3 Box 77
Saugus California

E. H. MUSSER
State Oil and Gas Supervisor

By R. V. Nelling Deputy

Orig. Humble Oil & Refining Co.
612 South Flower Street
LOS ANGELES 17

12302 2-55 18,100 SPO

FORM 159 (9-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

(25)

REPORT OF WELL ABANDONMENT

Los Angeles 15, California

June 27, 1955

Mr J E Cox Agent
Humble Oil & Refining Co
613 San Fernando Road
Newhall California

Dear Sir

Your report of abandonment of Well No. "Newhall Land & Farming Co." 45 Sec. 23, T. 4 N, R. 17 W, S B B. & M., Castaic Junction field, Los Angeles County, dated May 31, 1955, has been examined in conjunction with records filed in this office.

A review of the reports and records shows that the requirements of this Division, which are based on all information filed with it, have been fulfilled.

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
Cayl 18A	WDP		Blanket		

M.J.

Yours truly

E. H. MUSSER
State Oil and Gas Supervisor

By R. W. Walling
Deputy Supervisor

cc Mr E H Musser
Company
Newhall Land & Farming Co
Mr L A Dutton
Fire Prevention Bureau
Conservation Committee

es

88061 4-54 11,200 SPO

Form 100.

DIVISION OF OIL AND GAS

WELL SUMMARY REPORT

RECEIVED
JUL 24 1955
LOS ANGELES, CALIFORNIA

Operator Humble Oil & Refining Company

Field Castaic Junction

Well No. Newhall Land & Farming Co. #45

Location 835' South and 4269' East at right angles to said line from corner 11, Rancho San Francisco, Los Angeles County.

Sec. 23, T. 4-N, R. 17-W, S. B. B.&M.
Elevation above sea level 943 feet.
All depth measurements taken from top of Rotary Drive Bushing, which is 955 feet above ground.

Date May 31, 1955

Signed James E. Cox

Geologist Paul H Dudley Jr

Title James E. Cox
District Superintendent

Commenced drilling 3-4-55 Completed drilling 5-5-55 Rotary Drilling tools

Total depth 11947' Plugged depth -

Junk None

~~Commenced producing~~ Dry Hole

Initial production None

GEOLOGICAL MARKERS	DEPTH
Top of Miocene(E.Log)	7700(?)

CASING RECORD

Size of Casing	Depth Shoe	Top Csg	Weight	New Used	Seamless Lapweld	Grade	Size Hole	Cemt.	Depth Perfs.
10-3/4"	824'	16'	40.5#	New	SS	J-55	16"	450	-

PERFORATIONS - None

Plug To Abandon:

No. 1	11800-11600	Using 100 sacks Hi-Temp Cement
No. 2	10750-10550	Using 100 sacks Hi-Temp Cement
No. 3	3300- 3100	Using 100 sacks Construction Cement
No. 4	914- 714	Using 100 sacks Construction Cement

Top plug from bottom of cellar down 20'.

Electrical Log Depths 10737' and 11947'

Form 103.

DIVISION OF OIL AND GAS

HISTORY OF OIL OR GAS WELL

Operator Humble Oil & Refining Company Field Castaic Junction

Well No. Newhall Land & Farming Co. #45 Sec. 23, T. 4-N, R. 17-W, S. B. B.&M.

Signed James E. Cox

Date May 31, 1955 Title District Superintendent

Date	Depth	Description
3-4-55	-	Moved in and rigged up.
3-5-55	811	Spudded 11" hole @ 12:01 A.M. and drilled to 811'.
3-6-55	871	Drilled 11" hole to 871'. Opened 11" hole to 16" from 0 to 835'. Ran and set 807' of 10-3/4" casing at 824'. Cemented with 450 sacks of construction cement mixed with 8% gel. Waiting on cement to set.
3-7-55	1153	Tested surface casing w/500 lbs. for 1/2 hour. Drilled 9-7/8" hole to 1153'.
3-8-55 thru 3-9-55	2433	Drilling 9-7/8" hole.
3-10-55	2937	Drilled 9-7/8" hole to 2514'. Twisted off, leaving 3 drill collars in hole. Ran in with socket, bumper sub, and jars. Recovered fish. Drilled 9-7/8" hole to 2937'.
3-11-55 thru 4-12-55	10701	Drilling 9-7/8" hole. Placed Baroid mud logging unit on well on 3-16-55 and ran to total depth (11947').
4-13-55	10726	Coring 7-5/8" hole.
4-14-55	10726	Ran 9-7/8" string reamer and reamed tight hole from 4150' to 4658'.
4-15-55	10726	Reamed 9-7/8" hole to bottom. Set pipe on bottom and backed off at 5223'.
4-16-55	10726	Screwed into fish and pulled same out of hole. Preparing to run drill stem test.
4-17-55	10736	Ran in hole for HOWCO DST #1 to test from 10706' to 10726'. Packer failed - no test resulted. Cored 7-5/8" hole to 10736'. Preparing to run drill stem test.
4-18-55	10737	Ran HOWCO DST #2 from 10711' to 10736' using 1" top and 1/4" bottom chokes. Tool open 80 minutes with flowing pressure of 1435#. Shut-in pressure 3760#. Recovered 350' salt water, 8500 ppm chloride, and 100' drilling fluid. Open 7-5/8" hole to 9-7/8" and drilled one foot to 10737'.

Form 103.

RECEIVED
JUN 24 1955
LOS ANGELES, CALIFORNIA

WELL HISTORY (Cont'd)
Humble Oil & Refining Company
Newhall Land & Farming Co. #45

Date	Depth	Description
4-19-55	10814	Ran electric log to 10737'. Drilled 9-7/8" hole to 10814".
4-20-55	10844	Cored 7-5/8" hole to 10844'.
4-21-55	10903	Ran HOWCO DST #3 from 10819' to 10844' using 1" top and 1/4" bottom chokes. Tool open 60 minutes with flowing pressure of 1470#. Shut-in pressure 5105#. Recovered 315' salt water, 1200 ppm chloride, 30' drilling fluid, and 15' thin black oil. Opened 7-5/8" hole to 9-7/8" and drilled to 10903'.
4-22-55 thru 4-29-55	11879	Drilling 9-7/8" hole.
4-30-55	11947	Completed drilling 9-7/8" hole. Ran Caliper Log from 6993' to 11947', Contact Log from 10500' to 11947', Dipmeter from 7000' to 11947', and Electric Log to 11947'.
5-1-55		Preparing to run drill stem test.
5-2-55		Planned to test from 10718' to 10765' but packers failed to hold. Placed Plug No. 1 from 11800' to 11600' using 100 sacks Colton Hi-Temp Cement. Placed Plug No. 2 from 10750' to 10550' using 100 sacks Colton Hi-Temp Cement.
5-3-55		Placed Plug No. 3 from 3300' to 3100' using 100 sacks Construction Cement. Found top at 3095'. Witnessed and approved by representative from Division of Oil and Gas. Placed Plug No. 4 from 914' to 714' using 100 sacks Construction Cement.
5-4-55		Placed top plug from bottom of cellar down 20'. Witnessed and approved by representative from Division of Oil and Gas. Tearing down and moving out rig.
5-5-55		Finished moving out. Well abandoned as dry hole.

Form 101.

RECEIVED
JUL 24 1955
LOS ANGELES, CALIFORNIA

DIVISION OF OIL AND GAS

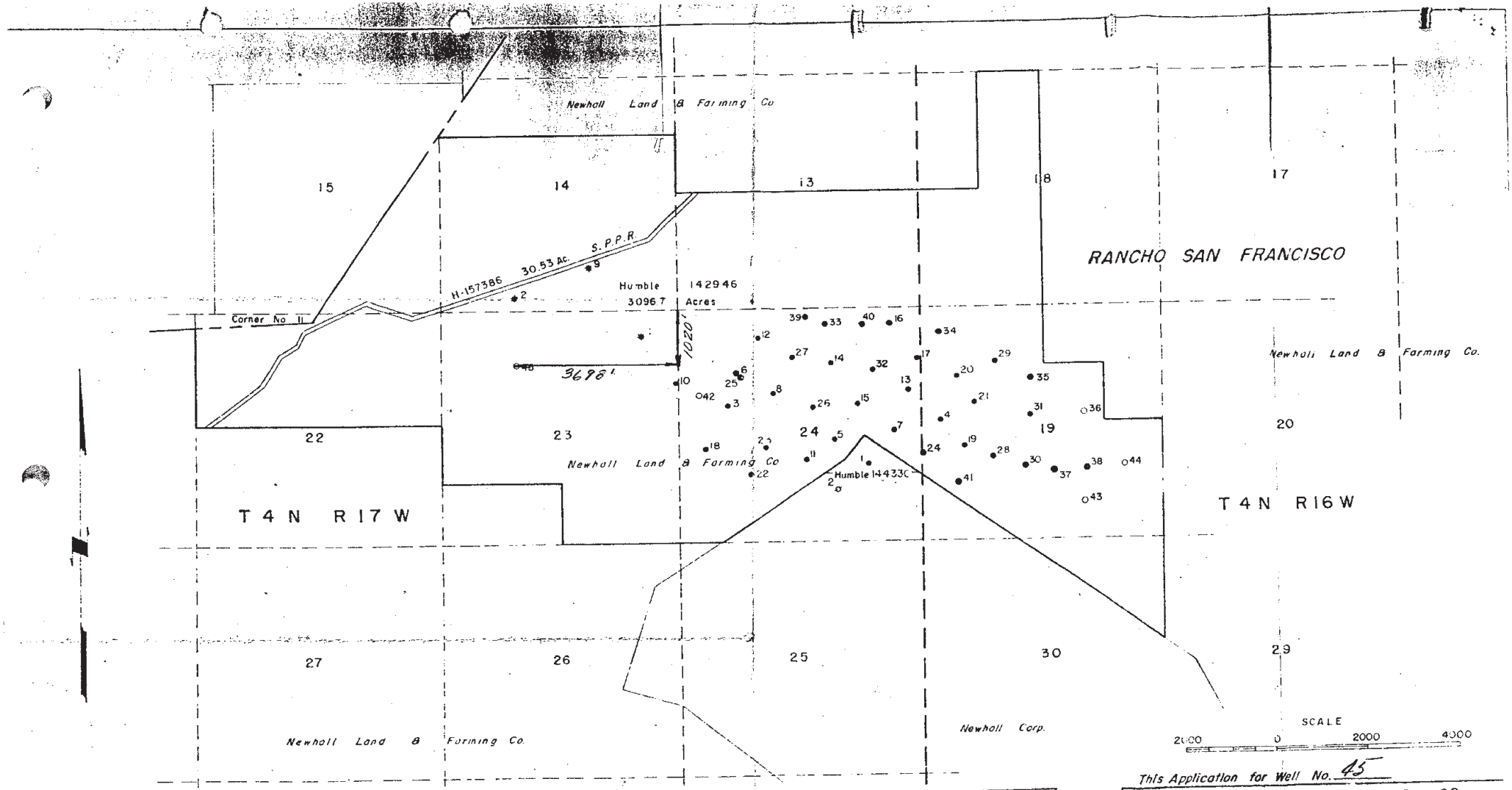
LOG AND CORE RECORD OF OIL OR GAS WELL

Operator Humble Oil & Refining Company Field Castaic Junction

Well No. Newhall Land & Farming Co. #45 Sec. 23, T. 4-N, R. 17-W, S. B. B.&M.

FORMATIONS PENETRATED BY WELL

Depth To Top of Formation	Depth To Bottom of Formation	Drilled or Cored	Description
0	871	D	Sand, boulders, and gravel
871	3655	D	Sand
3655	5478	D	Shale
5478	7714	D	Shale and sand
7714	10701	D	Shale
10701	10736	C	See core description attached
10736	10814	D	Shale
10814	10844	C	See core description attached
10844	11947	D	Shale



This Application for Well No. 45

REVISIONS					
NO	DATE	DESCRIPTION	BY	CHK	APPR

REVISIONS					
NO	DATE	DESCRIPTION	BY	CHK	APPR
7	1-28-55	ADD WELL NO 45	K.D.S		

REVISIONS					
NO	DATE	DESCRIPTION	BY	CHK	APPR
1	8-18-54	ADD WELL NO 40	KDS		
2	8-30-54	" " " 38	NDC		
3	9-2-54	" " " 41	NDC		
4	9-28-54	" " " 42	KDS		
5	12-14-54	" " " 43	KDS		
6	12-21-54	" " " 44	KDS		

NEWHALL LAND & FARMING CO.
LEASE NO 142946
CASTAIC JUNCTION DIST. LOS ANGELES CO.

HUMBLE OIL & REFINING COMPANY
CIVIL ENGINEERING DIVISION
CALIFORNIA AREA

DRAWN KDS	SCALE 1" = 2000'	FILE NO.
CHECKED	DATE 8-18-54	CAB 44
APPR	REVISED	

SUPERCEDES DRWG NO CAB 23

APPENDIX F:

DOGGR Well Abandonment Procedures

DEPARTMENT OF CONSERVATION'S

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

District 2-Ventura

CONSTRUCTION PROJECT SITE REVIEW

AND

WELL ABANDONMENT PROCEDURE

12 - 9 - 03

OIL AND GAS WELL REVIEW PROCEDURE

Applicant _____ Permitting Office _____

Address _____ _____

City _____ Zip _____ Mailing Address _____

Date _____ City _____ Zip _____

Plan Check No. _____

Plan Checker _____
Print or Type Name Signature Phone Number

The proposed construction site is located at _____

_____

_____

There is/are _____ (number) active, idle, or abandoned well(s) located on or adjacent to the site; therefore, before a building/grading permit should be issued, The Division of Oil and Gas (Division) recommends that a site-plan review be obtained. The Division will determine if affected wells have been abandoned to current standards. Wells that are not abandoned to current standards may require abandonment/reabandonment. Cost of the required abandonment/reabandonment shall be the responsibility of the landowner or developer. (PRC Section 3208.1)

THE DIVISION OF OIL AND GAS RECOMMENDS THAT A DILIGENT EFFORT BE MADE TO AVOID BUILDING NEAR ANY WELL.

SITE REVIEW PROCEDURE TO BE FOLLOWED BY PROJECT APPLICANT

1. Contact and make an appointment with the Division at:

   California Department of Conservation
   Division of Oil, Gas, and Geothermal Resources
   1000 S. Hill Road Suite 116
   Ventura, CA. 93003-4458

2. Provide the following information: (EXAMPLE)

   a. Area, location.....Section, Township, and Range
   b. Oil field/County.....Placerita Oil Field, L.A. County
   c. Company/Operator.....XYZ Oil Company
   d. Well Designation....."Gusher" 1
   e. Section-Township-Range: 35-T5N-R17W
   f. Major Cross streets..Main Street and X street
      (or other identifier)

3. The Division will provide you with the location or record for each well. Using this information, uncover the well(s) and have the well locations(s) surveyed by a licensed surveyor. If any well cannot be located using the original description on file, a diligent effort, including excavation, must be made to locate it.

4. The following procedures are to be used to locate wells on site plans and to verify that an adequate search was completed.

Step 1. The developer/landowner shall survey the well locations using the "location of record". If the well cannot be found then excavate at least 15 feet long, 15 feet wide, and 12 feet dig. If any indications of an oil well (i.e. cellar, oilfield debris, oil- saturated soil) are observed, or if any information available that original conditions have changed since "location of record" was determined, a larger hole may be required.

Step 2. If the well is not located using the procedures listed in step #1, a metal detector should be used to survey the area (inside and outside the excavation).

Step 3. The developer/landowner shall excavate all indicated metal detector locations by digging a hole that is at least 10 feet long, 10 feet wide, and 12 feet deep, if necessary. If any indications of an oil well are observed upon completion of the excavation, or if there is any information available that original conditions have changed since the well was drilled, a larger hole may be required.

Step 4. The developer/landowner shall notify the Division to witness all completed excavations before they are refilled. Pictures shall be taken of all excavations. The survey of the well shall be available to the Division engineer for review.

Step 5. If the well search efforts prove unsuccessful, the Division engineer and the developer shall prepare written report describing the search procedures and attach the excavation pictures.

5. **All accessible previously plugged and abandoned wells located on the project site shall be tested for gas leakage and inspected for fluid leakage.** The testing/inspection shall be done by Division personnel or the developer. If the developer performs the test, the Division shall be notified to witness the test.

If there is any indication of fluid or gas leakage, the well condition shall be remedied, even if the well will not be located nearby a structure. The cost of the reabandonment shall be the responsibility of the landowner or developer. (PRC Section 3208.1)

6. The location of each well must be plotted on the site plan. The well survey description must reference a point on the site plan which in turn must reference a point on existing Division maps. (Section corner, Rancho corner, latitude/longitude, etc.) Identify each well with the name of the company/operator and well designation. Submit <u>THREE</u> copies of the site plan and three copies of each well-location survey to the Division.

If a developer/landowner locates a well within a 4-foot radius of the wells "location of record", there is no need to survey the actual well location. However, the developer/landowner must verify that the well was found within 4 feet of the "location of record".

The site plans should indicate the property boundaries, an area of at least 25 feet outward from the perimeter of the property, any proposed or existing structures, and any existing or proposed roads or streets that pass through or are immediately adjacent to the property. The site plan should also include a plot (to scale) of all existing and proposed oilfield facilities (tanks, processing equipment, pipelines, etc.) that will be operating on the site after completion of the proposed development and include a description of the existing type and height of all oilfield enclosures and list any facility modifications that are part of the development plans.

If a structure is proposed within 10 feet of an abandoned/reabandoned well, the site plans should include an approved well-vent system designed to vent natural gases to the atmosphere. If a structure is within 25 feet of a structure and the permitting agency is Los Angeles County then an approval letter from Los Angeles County Environmental Programs Division must be submitted.

7. A Division engineer will review the submitted plans. The Division will prepare a "Plan Review" (Form OG190), which will indicate the wells on the project site and our recommendations with respect to the wells.

After the review is complete, the reviewing engineer will affix the Division certification stamp to the three copies of the site plans and three copies of the FORM OG190. One copy will be returned to the applicant and one copy will be forwarded to the permitting agency. The remaining copy will be retained by the Division.

PLUGGING AND ABANDONMENT PERMIT PROCESS

1. Before any well operations are commenced, an application to plug and abandon or reabandon or extend casing for each well must be filed with the Division. (FORM OG108 or FORM OG123) This application must be outline the work proposed to upgrade the well to current requirements.

2. The Division will respond with a "Permit to Conduct Well Operations" that sets forth the conditions and requirements to be met.

3. When the well work is completed and all records received the Report of Well Plugging and Abandonment or Reabanonment will be issued.

IF, DURING THE CONSTRUCTION/GRADING PROCESS, ANY PREVIOUSLY UNKNOWN WELL IS DISCOVERED, THE DIVISION MUST BE NOTIFIED IMMEDIATELY, SO PLUGGING AND ABANDONMENT REQUIREMENTS CAN BE DETERMINED.

ONSHORE ABANDONMENT/REABANDONMENT REQUIREMENTS
DISTRICT 2

General

Plugging is required to protect life, health, property, deposits of oil, gas, or fresh water from loss or damage. A written notice (OG108) stating in detail the proposed method of abandonment, must be filed. For reabandonments, a written notice (OG1123) stating in detail, the proposed method of reabandonment, must be filed. All required downhole cement plugs shall use cement that has a minimum compressive strength of 1000 psi and a maximum liquid permeability of .1 md. No more than a 4% gel mixture shall be allowed. The sand/cement ratio for downhole muds is limited to 2:1.

Mudding

All portions of the hole not occupied by cement shall be filled with good quality, water-base mud fluid having proper weight and consistency to prevent movement of other fluids into the wellbore. Under "normal" conditions, proper weight and consistency is 72 lbs./cf with a minimum gel-shear strength (10 min.) 25 lbs./100 sq. ft.

Surface Pour

No aggregate concrete (NO ROCKS) may be used for surface plugs. The maximum sand/cement ration that is acceptable is 4:1. When there is more than one string of casing at the surface, cement shall be placed between. The preferred alliterative is to cut and pull all inside strings before the surface plug is placed. A surface cement-pour is permitted only in an empty hole with a diameter of not less than 5 inches. Depth limitations shall be determined on an individual well basis.

Bailers

Bailer placed cement plugs are limited to 3000' or less.

Junk in Hole

Diligent effort shall be made to recover junk when such junk may prevent proper abandonment. In the event that the junk cannot be removed and fresh-water or oil and gas zones penetrated below cannot therefore be properly abandoned, cement shall be down-squeezed through or past the junk and a 100-foot cement plug shall be placed on top of the junk. In the event that a retainer is used, then 100 foot plug shall be placed on top of the retainer.

Recovery of Casing

Approval to recover all casing possible will be given in the abandonment of wells where subsurface plugging can be done to the satisfaction of the Division.

Extending Casing

The final grade of the well shall be no greater than 5 feet below ground. In the event that the casing is to be extended, it shall be extended with adequate casing of the same size of the casing that is found at the surface. In addition, the casing shall be filled with cement.

Open Hole

Oil and Gas Zones- Cement plug shall be place from total depth or at least 100 feet below the bottom of each oil and gas zone, whichever is less, to at least 100 feet above the top of each zone.

Freshwater Zones- A minimum 200 foot cement plug shall be placed across all fresh-saltwater interfaces. An interface plug may be placed wholly within a thick shale if such a shale separates the freshwater sands from the brackish or saltwater sands.

Cased Hole

Oil and Gas zones- All perforations shall be plugged with cement and the plug shall extend at least 100 feet above the top of a landed liner, the uppermost perforations, the casing cementing point or the water shut-off holes, whichever is highest. (See CCR for special requirements)

Bridge plugs- A bridge plug above the lowermost zone in a multiple-zone completion my be allowed in lieu of cement through the lowermost zone if such lowermost zone is isolated from the upper zone by cement behind casing.

Fresh water zones- a 100 feet cement plug across the fresh water interface opposite cemented casing; in un-cemented casing, squeeze cementing sufficient cement to fill 200 feet behind casing and plug 100 feet above the perforations; or cavity shot immediately below the fresh water and cemented to 100 feet above the shot.

Surface Plugging

The well and all annuli shall be plugged from 30 feet to 5 feet. All casing shall be cut off 5 feet below the surface or the ground. In urban areas, a steel plate shall be welded on top of all casings.

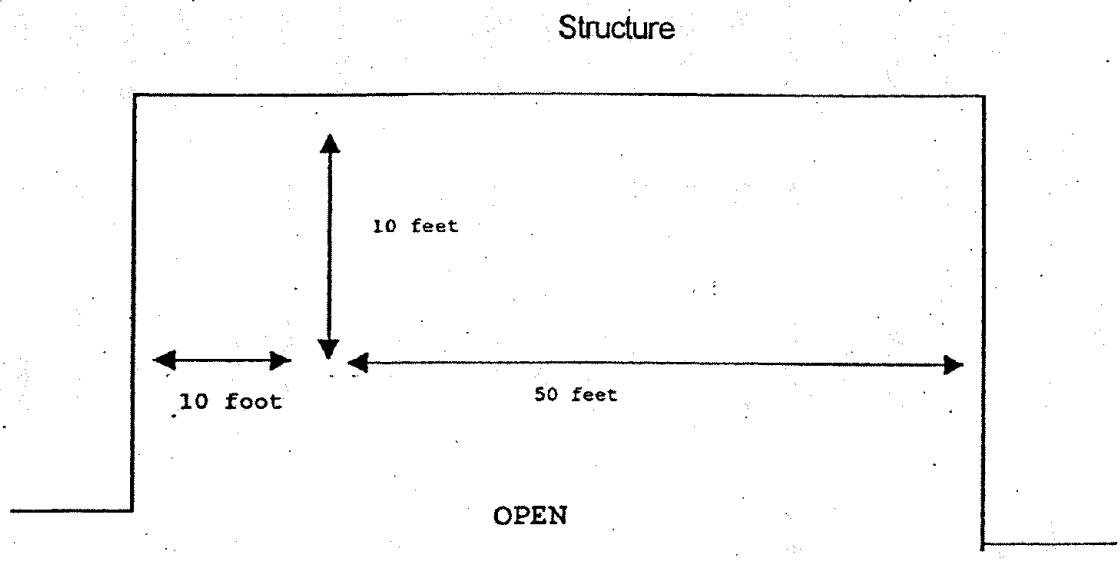
In the event that fill is proposed over the well, then the casing may have to be extended to have the top of the casing 5 feet below ground level.

Cleanup

Return surface to original condition as practical. Property owner with good reason may apply for exceptions. Contact Regional Water Quality Control Board for ground contamination problems. The cleanup must be performed within 60 days after the completion of the work.

NEARBY

Nearby is defined as being within 10 feet from the structure and/or property line, limited to any two adjacent sides of the well, and within 50 feet from the property line and/or structure on the third side of the well. The fourth side of the well shall always have open access.



Well Abandonment Contractors--District 2

Company Name	*Contact*	*Address*	*City*	*State*	*Phone #*	*License Number*
AATR Entertprises	Willie Smith	3249 South La Clenega Blvd	Los Angeles	CA	(213) 752-0055	629460
ACCES	Hamid Assadi	2034 Cotner Avenue 2nd Floor	Los Angeles	CA		557581
Access Drilling	E. Abill	2893 E La Palma Avenue	Anaheim	CA	(714)237-1187	763494
Accurate Excavating Inc	Kevin Hodges	27241 Burbank	Foothill Ranch	CA	(949) 598-7311	654063
Allan Walker Inc	Ed Levin	P O Box 82531	Bakersfield	CA	(661) 391-9152	493118
Allwaste Transportation & Remediation Inc	Jeff Bertoni	P O Box 431	San Ardo	CA	(831) 627-2595	534002
Arbor Services	Jim Staley	9155 Brown Deer Road Suite 1	San Diego	CA	(619) 687-5475	688532
Bud's Equipment Inc	Joe Lowry	P O Box 558	Coalinga	CA	(559) 935-2672	422391
CEDA Mechnical Services	Chris Davis	2756 St Louis Avenue	Signal Hill	CA	(562) 989-3650	722902
Clark Engineering Construction	Don Clark	2235 N Ventura Avenue	Ventura	CA	(805) 643-8119	627891
CMH Environmental Group Inc	Property Valuation	2501 E Chapman Avenue Suite 100	Fullerton	CA	(714) 447-4345	678295
DPH Contracting Services	Daniel Hencey	28101 Langside Avenue	Canyon Country	CA	(805) 298-4540	730421
Ecology Control Industries	Larry Hartzell	19500 Normandie Avenue	Torrance	CA	(310) 320-2555	741611
El Capitan Environmental Services Inc		722 W Wilson Avenue	Glendale	CA	(818) 265-1222	640045
Engineering Remediation Resource Group Inc	Randy Randall	4070 Nelson Avenue Suite B	Concord	CA	(925) 969-0750	743750
Env America Incorporated	Jim Larwood	16 Technology Drive Suite 154	Irvine	CA	(949) 453-9191	648559
EPS Engineering Services	Patrick Mbaba	P O Box 64365	Los Angeles	CA	(310) 826-9733	597765
First Energy Services	Mark Sterbenk	3143 Petrol Road	Bakersfield	CA	(661) 387-9300	756192
Fleet Cementers Inc	Ken Moon	1355 West Kern Street	Taft	CA	(661) 763-1859	727918
Foss Environmental Services	Robert Russell	909 East Harbor Drive	San Diego	CA	(619) 234-3677	716581
Frost Equipment Rentals L.P.	Owen Clark	250 South Hallock Drive	Santa Paula	CA	(805) 933-3334	763960
Gary Drilling Company	Troy Azlin	7001 Charity Avenue	Bakersfield	CA	(800) 443-5925	222619

Company Name	Contact	Address	City	State	Phone #	License Number
GCE Technologies	Sharon Bison	17244 Darwin Suite J	Hesperia	CA	(714) 632-9969	724889
Gradient Engineers Inc	Nick Berzins	17781 Cowan Suite 140	Irvine	CA	(949) 477-0555	734297
Grayson Service Inc	Bob Grayson	4004 South Enos Lane	Bakersfield	CA	(661) 399-6300	287659
Halliburton Energy Services Inc	Kyle Holden	5500 Ming Avenue Suite 365	Bakersfield	CA	(661) 837-2971	256183
Jensen Drilling Co	Nancy Butler	1775 Henderson Avenue	Eugene	OR	(541) 726-7435	340115
KM Scrivner Inc	Jerry Deverick	P O Box 1075	Coalinga	CA	(559) 935-0815	485655
Minco Construction	Refaat Mina	P O Box 1273	Redondo Beach	CA	(310) 376-2929	612429
MMI Services Inc	David Knoeb	6400 Price Way	Bakersfield	CA	(661) 589-9366	684884
Oil Well Service Company	Paul Braden	1241 E Burnett Street	Long Beach	CA	(562) 595-4501	178480
PC Exploration Inc	Parris Baker	1780 Vernon Street Suite 3	Roseville	CA	(916) 783-9733	265556
Pool California Energy Services Inc	Tim Barman	1025 Earthmover Court	Bakersfield	CA	(661) 588-6140	115753
Protec Engineering Services Inc	Kay Akinrele	11288 Ventura Blvd Suite 284	Studio City	CA	(818) 704-6331	716350
QST Environmental	Tom Gibbons	235 East Clark Ave	Orcutt	CA	(805) 938-7952	658022
Randoph Construction	Don Randolph	P O Box 430	Santa Maria	CA	(805) 349-1275	693014
Redi Rental and Leasing	Thurman Rock	841 E. Washington Avenue	Santa Ana	CA	(714) 547-9012	630433
RMR Inc	Mario Perea	P O Box 1715	Santa Maria	CA	(805) 928-4013	535800
SI Nor Inc	Silas Ugorji	1345 Fitzgerald Avenue Suite F	Rialto	CA	(909) 820-4010	717123
Suma Pacific Corp	Rich Steward	P O Box 1251	Grants Pass	OR	(541) 479-1461	461280
Tetra Tech Inc	Dennis Zafuto	3201 Airpark Drive Suite 108	Santa Maria	CA	(805) 739-2600	551555
The Reynolds Group		250 El Camino Real Suite 204	Tustin	CA	(714) 730-5397	659765
Tidelands Oil Production Company	Mark Kapelke	P O Box 1330	Long Beach	CA	(562) 436-9918	681859
Trak Environmental Group Inc	Bradford Newman	4125 Market Street Suite 19	Ventura	CA	(805) 650-5333	709623
Wayne Perry Inc	Richard Kreis	11230 Gold Express Drive, Suite 31	Gold Rive	CA	(916) 635-6719	300345
Western Colima Corporation	David Nowel	1780 E McFadden Avenue Suite 11	Santa Ana	CA	(714) 542-2644	638004
WZI Inc.	Tom Gibbons	235 E. Clark Avenue, Suite C	Orcutt	CA	(805) 937-2040	629898

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CARDS ☐
BOND ☐
OGD114 ☐
OGD121 ☐

Notice of Intention to Abandon Well

File in Duplicate

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon

Well _____ **API No.** _____ **Sec.** _____ **T.** _____ **R.** _____ _____ **B.&M.**

_____ **Field** _____ **County, starting work on** _____

The present condition of the well is

1. Total depth:

2. Complete casing record, with plugs and perforations (present hole):

3. Date last produced or injected:

Additional data for dry hole (show depths)

1. Oil or gas shows:

2. Stratigraphic markers:

3. Formation and age at total depth:

4. Base of freshwater sands:

Is this a critical well according to the definition on the reverse side of this form (or on page 2 if you are using the Internet)?

☐ Yes ☐ No

The proposed work is as follows:

It is understood that if changes in this plan become necessary, we are to notify you immediately.

Address _____ (Street)

_____ (City) (State) (Zip)

Telephone Number _____ (Area Code) (Number)

_____ (Name of Operator)

By _____ (Print Name)

_____ (Signature) (Date)

OG108 (9/00)

CRITICAL WELL

As defined in the California Administrative Code, Title 14, Section 1720 (a), "Critical well" means a well within:

(1) 300 feet of the following:
   (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
   (B) Any airport runway.

(2) 100 feet of the following:
   (A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
   (B) Any navigable body of water or watercourse perennially covered by water;
   (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
   (D) Any officially recognized wildlife preserve.

Exceptions or additions to this definition may be established by the supervisor upon his own judgment or upon written request of an operator. This written request shall contain justification for such an exception.

APPENDIX G:

Government Records Report

The EDR Radius Map
with GeoCheck®

Tentative Tract Map No. 53108
Wolcott Way/Henry Mayo Drive
Valencia, CA 91355

Inquiry Number: 1108642.4s

January 08, 2004

Environmental Data Resources, Inc.

The Source For Environmental Risk Management Data

3530 Post Road
Southport, Connecticut 06890

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	6
EDR Proprietary Historical Map Findings	70
Orphan Summary	71
Government Records Searched/Data Currency Tracking	GR-1
GEOCHECK ADDENDUM	
Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting Source Map	A-11
Physical Setting Source Map Findings	A-12
Physical Setting Source Records Searched	A-106

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer
Copyright and Trademark Notice

This report contains information obtained from a variety of public and other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL EDR BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES.

Entire contents copyright 2003 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and the edr logos are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

FEDERAL ASTM STANDARD

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRIS-LQG list, as provided by EDR, and dated 09/10/2003 has revealed that there are 3 RCRIS-LQG sites within approximately 1.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
T A MANUFACTURING CO	*28065 W FRANKLIN PKWY*	*1/2 - 1 NE*	*10*	*15*
DEL WEST ENGINEERING	*28128 W LIVINGSTON AVE*	*1 - 2 NNE*	*E28*	*31*
PHARMAVITE LLC	*28305 W LIVINGSTON AVE*	*1 - 2 NNE*	*G35*	*36*

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRIS-SQG list, as provided by EDR, and dated 09/10/2003 has revealed that there are 4 RCRIS-SQG sites within approximately 1.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CHIQUITA CANYON SANITARY LANDF	*29201 HENRY MAYO DRIVE*	*1/2 - 1 W*	*B9*	*15*
R A H INDUSTRIES	*28035 HARRISON PKWY*	*1 - 2 NNE*	*E25*	*29*
TIME AVIATION SERVICES INC	*28402 W LIVINGSTON AVE*	*1 - 2 N*	*F32*	*34*
KIMBALL MICROELECTRONICS	*28575 LIVINGSTON AVE*	*1 - 2 N*	*37*	*39*

STATE ASTM STANDARD

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e., accidental releases or spills. The source is the California Office of Emergency Services.

A review of the CHMIRS list, as provided by EDR, and dated 12/31/2002 has revealed that there are 8

CHMIRS sites within approximately 2.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
Not reported	27900 CHIQUITO CANYON R	1 - 2 W	13	17
Not reported	*28201 FRANKLIN PARKWAY*	*1 - 2 NE*	*D23*	*25*
Not reported	28201 FRANKLIN PKWY, B	1 - 2 NE	D24	28
Not reported	27353 SAN MARTINEZ GRAN	1 - 2 W	53	53
Not reported	*29300 THE OLD ROAD*	*>2 NE*	*K54*	*54*
Not reported	29300 THE OLD ROAD	>2 NE	K55	59
Not reported	N/B I-5, CASTAIC INSP F	>2 NE	59	67
Not reported	HASELY CYN 1MI NORTH OF	>2 NNE	61	68

CORTESE: This database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release and all solid waste disposal facilities from which there is known migration. The source is the California Environmental Protection Agency/Office of Emergency Information.

A review of the Cortese list, as provided by EDR, has revealed that there are 9 Cortese sites within approximately 2.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
LA CO FD FIRE TRAINING CN	28101 CHIQUITO CNYN	1 - 2 W	C19	24
SCHWARTZ OIL CO.	*27241 HENRY MAYO DR*	*1 - 2 NE*	*I44*	*44*
LA CO FD FIRE STA #076	*27223 W HENRY MAYO DR*	*1 - 2 NE*	*I47*	*47*
NEWHALL LAND & FARMING	*27230 HENRY MAYO RD*	*1 - 2 ENE*	*J52*	*51*
DIXIE DIESEL STATION	*29471 THE OLD ROAD*	*>2 NE*	*56*	*60*
NEWHALL LAND & FARMING CO	*28760 N CASTAIC CANYON*	*>2 ENE*	*L57*	*62*
TRI-R-TRUCKING	*28748 CASTAIC CANYON RD*	*>2 ENE*	*L58*	*65*
CHEVRON STATION 9 1899	*28805 THE OLD RD*	*>2 ENE*	*60*	*68*

Lower Elevation	Address	Dist / Dir	Map ID	Page
NEWHALL LAND & FARMING	*3003 WALNUT ORCHARD RD*	*1 - 2 WSW*	*14*	*18*

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, has revealed that there are 2 SWF/LF sites within approximately 2 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CHIQUITA CANYON LANDFILL INC	*29201 HENRY MAYO DRIVE*	*1/2 - 1 W*	*B4*	*7*
CHIQUITA CANYON LANDFILL	*29201 HENRY MAYO DR*	*1/2 - 1 W*	*B6*	*10*

WMUDS/SWAT: The Waste Management Unit Database System is used for program tracking and inventory of waste management units. The source is the State Water Resources Control Board.

A review of the WMUDS/SWAT list, as provided by EDR, has revealed that there are 2 WMUDS/SWAT sites

EXECUTIVE SUMMARY

WDS: California Water Resources Control Board - Waste Discharge System.

A review of the CA WDS list, as provided by EDR, and dated 09/22/2003 has revealed that there is 1 CA WDS site within approximately 1.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CHIQUITA CANYON LANDFILL	***29201 HENRY MAYO DR***	***1/2 - 1 W***	***B6***	***10***

Emissions Inventory Data: Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies

A review of the EMI list, as provided by EDR, and dated 12/31/2001 has revealed that there are 3 EMI sites within approximately 1.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CHIQUITA CANYON LANDFILL	***29201 HENRY MAYO DR***	***1/2 - 1 W***	***B6***	***10***
US POSTAL SERVICE, SANTA CLARI	28201 FRANKLIN PKY	1 - 2 NE	D21	25
SCHWARTZ OIL CO	***27241 HENRY MAYO DR***	***1 - 2 NE***	***I43***	***43***

CA SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the CA SLIC list, as provided by EDR, has revealed that there are 2 CA SLIC sites within approximately 2 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
UNOCAL - LINCOLN LEASE	28101 CHIQUITO CYN	1 - 2 W	C18	24
PROPOSED SCHOOL BUS STOP	28300 LIVINGSTON	1 - 2 NNE	G34	36

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency

A review of the HAZNET list, as provided by EDR, has revealed that there are 19 HAZNET sites within approximately 1.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CHIQUITA CANYON LANDFILL INC	***29201 HENRY MAYO DRIVE***	***1/2 - 1 W***	***B4***	***7***
CHIQUITA CANYON LANDFILL	***29201 HENRY MAYO DR***	***1/2 - 1 W***	***B6***	***10***
T A MANUFACTURING CO	***28065 W FRANKLIN PKWY***	***1/2 - 1 NE***	***10***	***15***
BLOOMERS METAL STAMPINGS INC	28615 BRAXTON AVE	1 - 2 NE	12	17
LA CTY FIRE DEPT/DELVAL TRG CT	28101 CHIQUITO CANYON R	1 - 2 W	C16	21
Not reported	***28201 FRANKLIN PARKWAY***	***1 - 2 NE***	***D23***	***25***
R A H INDUSTRIES	***28035 HARRISON PKWY***	***1 - 2 NNE***	***E25***	***29***
EMCO	28045 W HARRISON PKWY	1 - 2 NNE	E26	30
JERRY AVALOS TRUCKING	28459 CHIQUITO CANYON R	1 - 2 WNW	27	30
DEL WEST ENGINEERING	***28128 W LIVINGSTON AVE***	***1 - 2 NNE***	***E28***	***31***
20TH CENTURY FOX,PAPI CHULO	28455 LIVINGSTON AVE	1 - 2 N	30	32
REGENT AEROSPACE INC	28110 HARRISON PKWY	1 - 2 NNE	E31	33
TIME AVIATION SERVICES	28402 W LIVINGSTON AVE	1 - 2 N	F33	34
PHARMAVITE LLC	***28305 W LIVINGSTON AVE***	***1 - 2 NNE***	***G35***	***36***

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
PHARMAVITE LLC	***28310 W LIVINGSTON AVE***	***1 - 2 NNE***	***G36***	***37***
KIMBALL MICROELECTRONICS	***28575 LIVINGSTON AVE***	***1 - 2 N***	***37***	***39***
WALT DISNEY PICTURES & TELEVIS	28150 W HARRISON PARKWA	1 - 2 NNE	38	40
THE VALENCIA TRAVEL VILLAGE	27946 HENRY MAYO ROAD,	1 - 2 NE	H41	42
SCHWARTZ OIL CO	***27241 HENRY MAYO DR***	***1 - 2 NE***	***I43***	***43***

HMS: Los Angeles County Industrial Waste and Underground Storage Tank Sites.

A review of the LOS ANGELES CO. HMS list, as provided by EDR, has revealed that there are 8 LOS ANGELES CO. HMS sites within approximately 1.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CHIQUITA CANYON LANDFILL	29201 W HENRY MAYO DR	1/4 - 1/2 WNW	A1	6
LAIDLAW WASTE SYSTEMS INC	29201 W HENRY MAYO DR	1/4 - 1/2 WNW	A2	6
L A COUNTY FIRE DEPT	***28101 N CHIQUITO CANYON***	***1 - 2 W***	***C17***	***22***
DEL WEST ENGINEERING	28128 W LIVINGSTON AVE	1 - 2 NNE	E29	32
PHARMAVITE LLC	***28310 W LIVINGSTON AVE***	***1 - 2 NNE***	***G36***	***37***
FIESTA RESORTS	27946 W HENRY MAYO DR	1 - 2 ENE	H39	41
VALENCIA TRAVEL VILLAGE	27946 W HENRY MAYO DR	1 - 2 ENE	H40	41
LA CO FD FIRE STA #076	***27223 W HENRY MAYO DR***	***1 - 2 NE***	***I47***	***47***

Site Mitigation Complaint Control Log: The Los Angeles County Site Mitigation Log comes from Community Health Services.

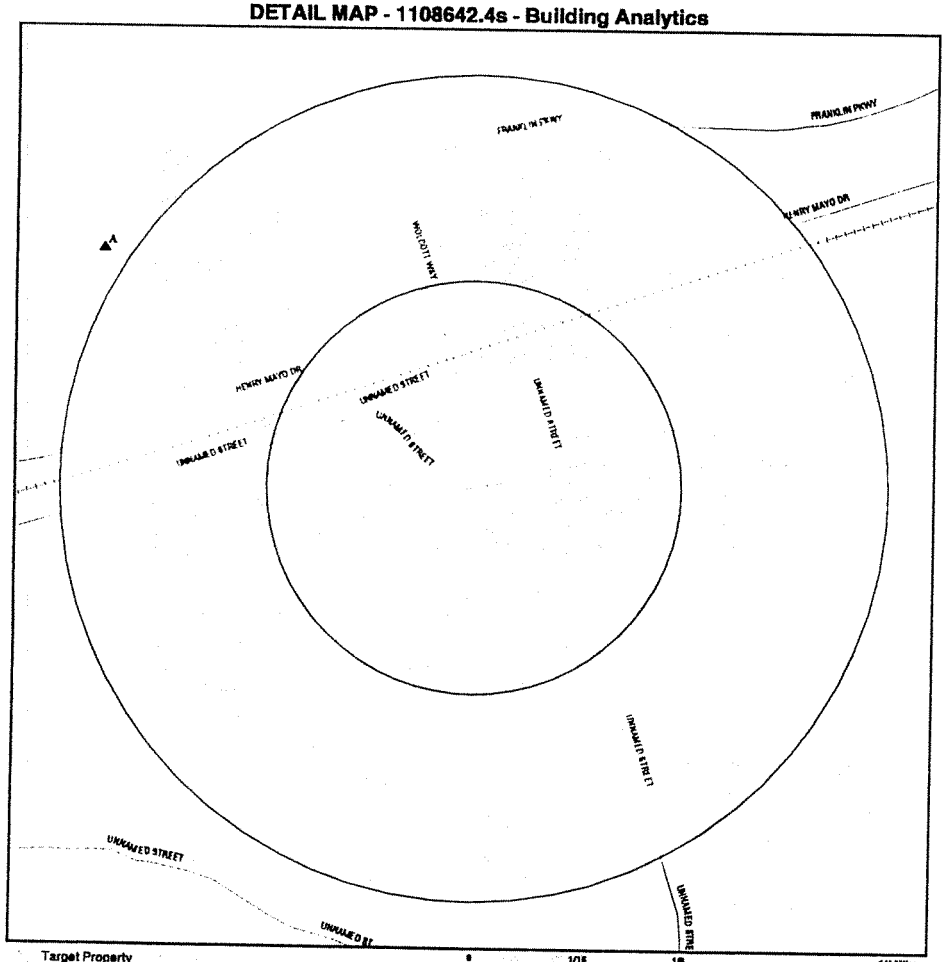
A review of the LA Co. Site Mitigation list, as provided by EDR, has revealed that there is 1 LA Co. Site Mitigation site within approximately 1.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
DEL VALLE TRAINING CENTER	28101 CHIQUITO CANYON R	1 - 2 W	C15	21

EDR PROPRIETARY HISTORICAL DATABASES

See the EDR Proprietary Historical Database Section for details

DETAIL MAP - 1108642.4s - Building Analytics



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Historical Gas Stations / Historical Dry Cleaners See the EDR Proprietary Historical Map Findings
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

TARGET PROPERTY:	Tentative Tract Map No. 53108	CUSTOMER:	Building Analytics
ADDRESS:	Wolcott Way/Henry Mayo Drive	CONTACT:	Joe Montoya
CITY/STATE/ZIP:	Valencia CA 91355	INQUIRY #:	1108642.4s
LAT/LONG:	34.4243 / 118.6373	DATE:	January 08, 2004 12:47 pm

Copyright © 2003 EDR, Inc. © 2003 EDR, Inc. Rel. 07/2003 All Rights Reserved.

MAP FINDINGS SUMMARY

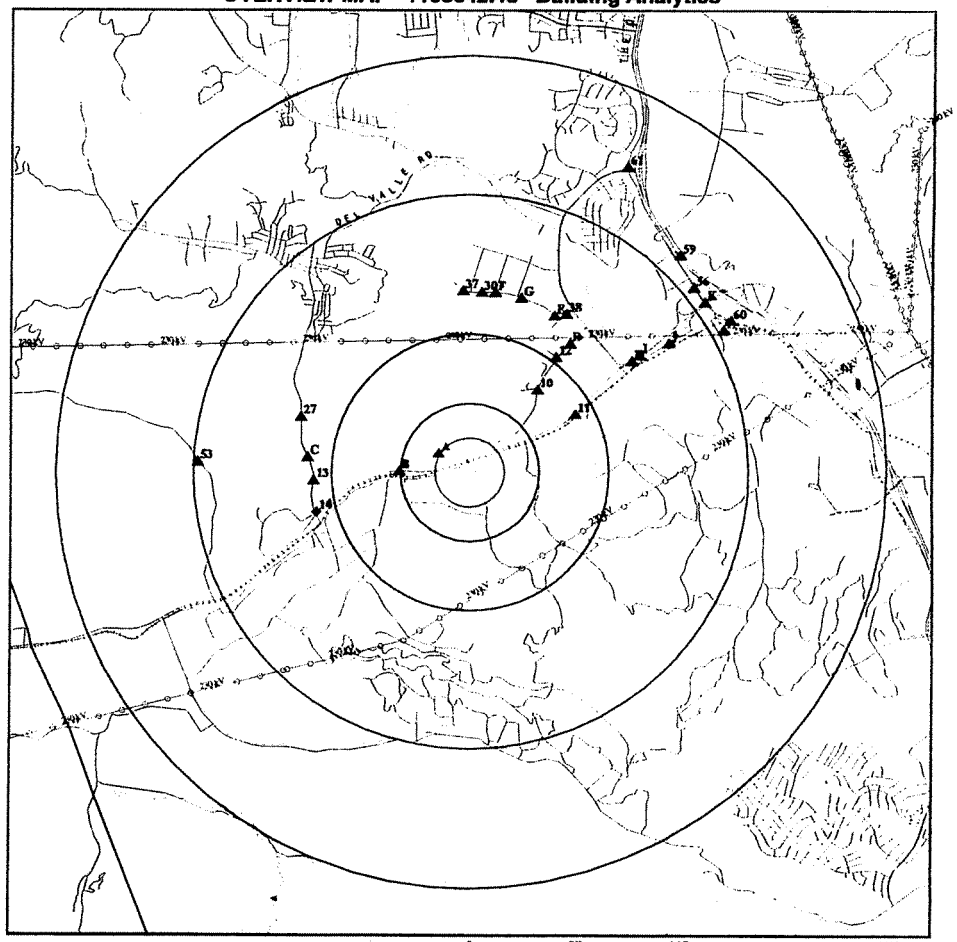
Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL ASTM STANDARD								
NPL		2.500	0	0	0	0	0	0
Proposed NPL		2.500	0	0	0	0	0	0
CERCLIS		2.000	0	0	0	0	0	0
CERC-NFRAP		1.750	0	0	0	0	0	0
CORRACTS		2.500	0	0	0	0	0	0
RCRIS-TSD		2.000	0	0	0	0	0	0
RCRIS Lg. Quan. Gen.		1.750	0	0	0	1	2	3
RCRIS Sm. Quan. Gen.		1.750	0	0	0	1	3	4
ERNS		1.500	0	0	0	0	0	0
STATE ASTM STANDARD								
AWP		2.500	0	0	0	0	0	0
Cal-Sites		2.500	0	0	0	0	0	0
CHMIRS		2.500	0	0	0	0	8	8
Cortese		2.500	0	0	0	0	9	9
Notify 65		2.500	0	0	0	0	0	0
Toxic Pits		2.500	0	0	0	0	0	0
State Landfill		2.000	0	0	0	2	0	2
WMUDS/SWAT		2.000	0	0	1	1	0	2
LUST		2.000	0	0	0	0	5	5
CA Bond Exp. Plan		2.500	0	0	0	0	0	0
UST		1.750	0	0	0	1	2	3
VCP		2.000	0	0	0	0	0	0
INDIAN UST		1.750	0	0	0	0	0	0
CA FID UST		1.750	0	0	0	1	3	4
HIST UST		1.750	0	0	0	1	3	4
FEDERAL ASTM SUPPLEMENTAL								
CONSENT		2.500	0	0	0	0	0	0
ROD		2.500	0	0	0	0	0	0
Delisted NPL		2.500	0	0	0	0	0	0
FINDS		1.500	0	0	0	2	6	8
HMIRS		1.500	0	0	0	0	0	0
MLTS		1.500	0	0	0	0	0	0
MINES		1.750	0	0	0	0	0	0
NPL Liens		1.500	0	0	0	0	0	0
PADS		1.500	0	0	0	0	0	0
DOD		2.500	0	0	0	0	0	0
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
RAATS		1.500	0	0	0	0	0	0
TRIS		1.500	0	0	0	0	0	0
TSCA		1.500	0	0	0	0	0	0
SSTS		1.500	0	0	0	0	0	0
FTTS		1.500	0	0	0	0	0	0
STATE OR LOCAL ASTM SUPPLEMENTAL								
AST		1.500	0	0	0	0	2	2

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
PPG INDUSTRIES INC WORKS 24	RCRIS-SQG, RCRIS-TSD, FINDS, CORRACTS, CERC-NFRAP, LOS ANGELES CO. HMS
BERTH 70, LONG BEACH HARBOUR	CHMIRS, HAZNET
BERTH 30 LONG BEACH HARBOUR	CHMIRS, HAZNET
FLORENCE AVE / TELEGRAPH RD WHITTIER	CHMIRS, LUST
CSI CRIME SCENE INVESTIGATION	HAZNET
CALIFORNIA INSTITUTE OF THE ARTS	HAZNET
PRODUCTION GOODBYE LOVER	HAZNET
LOS ANGELES COUNTY FIRE DEPT	HAZNET
TECHNICAL TROUBLE SHOOTING	HAZNET
HOWARD CUSTOM BOATS INCORPORATED	FINDS, EMI, HAZNET
DEPARTMENT OF TRANSPORTATION	RCRIS-SQG, FINDS
TWO WATER WELLS RESTORATION	CA WDS
COMMERCE CENTER BRIDGE	CA WDS
CASTAIC CREEK CHANNEL LINING	CA WDS
HWY. 126 BRIDGE	CA WDS
GOLDEN VALLEY ROAD EXTENSION	CA WDS
WATER WELL NO. W-11	CA WDS
GRUBER SYSTEMS, INC	REF
SCHOOL ON 18 ACRE SITE	SCH

OVERVIEW MAP - 1108642.4s - Building Analytics



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- County Boundary
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

TARGET PROPERTY:	Tentative Tract Map No. 53108	CUSTOMER:	Building Analytics
ADDRESS:	Wolcott Way/Henry Mayo Drive	CONTACT:	Joe Montoya
CITY/STATE/ZIP:	Valencia CA 91355	INQUIRY #:	1108642.4s
LAT/LONG:	34.4243 / 118.6373	DATE:	January 08, 2004 12:46 pm

Copyright © 2003 EDR, Inc. © 2003 EDT, Inc. Rel. 07/2003 All Rights Reserved.

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CLEANERS		1.750	0	0	0	0	0	0
CA WDS		1.500	0	0	0	1	0	1
DEED		1.500	0	0	0	0	0	0
SCH		1.750	0	0	0	0	0	0
NFA		1.750	0	0	0	0	0	0
EMI		1.500	0	0	0	1	2	3
REF		1.750	0	0	0	0	0	0
NFE		1.750	0	0	0	0	0	0
CA SLIC		2.000	0	0	0	0	2	2
HAZNET		1.750	0	0	0	3	16	19
Los Angeles Co. HMS		1.500	0	0	2	0	6	8
LA Co. Site Mitigation		1.500	0	0	0	0	1	1
AOCONCERN		2.500	0	0	0	0	0	0
EDR PROPRIETARY HISTORICAL DATABASES								
Gas Stations/Dry Cleaners		0.250	0	0	NR	NR	NR	0
Coal Gas		2.500	0	0	0	0	0	0
BROWNFIELDS DATABASES								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
VCP		2.000	0	0	0	0	0	0

NOTES:

See the EDR Proprietary Historical Database Section for details

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Map ID / Direction / Distance / Distance (ft.) / Elevation — Site — Database(s) — EDR ID Number / EPA ID Number

A1
WNW
1/4-1/2
1402 ft.

CHIQUITA CANYON LANDFILL — LOS ANGELES CO. HMS — 1001865073 / N/A
29201 W HENRY MAYO DR
UNINCORPORATED, CA

Site 1 of 3 in cluster A

Relative: Higher

Actual: 1034 ft.

HMS:

Facility Id:	005897-I06111		
Area:	7		
Facility Type:	I08		
Permit Number:	174	Permit Status:	Closed
Facility Status:	Permit		
Region:	Los Angeles County:		
Facility Id:	005897-037921		
Area:	7		
Facility Type:	I09		
Permit Number:	174	Permit Status:	Permit
Facility Status:	Permit		
Region:	Los Angeles County:		
Facility Id:	005897-037920		
Area:	7		
Facility Type:	T0		
Permit Number:	174	Permit Status:	Permit
Facility Status:	Permit		
Region:	Los Angeles County:		

A2
WNW
1/4-1/2
1402 ft.

LAIDLAW WASTE SYSTEMS INC — LOS ANGELES CO. HMS — S102064584 / N/A
29201 W HENRY MAYO DR
UNINCORPORATED, CA

Site 2 of 3 in cluster A

Relative: Higher

Actual: 1034 ft.

HMS:

Facility Id:	005897-006111		
Area:	7		
Facility Type:	T0		
Permit Number:	174	Permit Status:	Closed
Facility Status:	Permit		
Region:	Los Angeles County:		

A3
WNW
1/4-1/2
1402 ft.

UNIVERSAL BY-PRODUCTS-VALENCIA — WMUDS/SWAT — S103441396 / N/A
29201 SAUGUS-VENTURA ROAD
VALENCIA, CA

Site 3 of 3 in cluster A

Relative: Higher

Actual: 1034 ft.

WMUDS:

Region:	4
Date of Last Facility Edit:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System ID:	4 190133NUR
Solid Waste Information ID:	Not reported
Waste Discharge System:	False
Solid Waste Assessment Test Program:	True
Facility Name:	Not reported
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act Program:	False
Department of Defense:	False

UNIVERSAL BY-PRODUCTS-VALENCIA (Continued) S103441396

Open to Public:	False
Number of WMUDS at Facility:	1
Facility Telephone:	Not reported
Primary Standard Industrial Classification:	Not reported
Secondary Standard Industrial Classification:	Not reported
Solid Waste Assessment Test Program Name:	UNIVERSAL BY-PRODUCTS
NPID:	Not reported
Tonnage:	0
Regional Board ID:	Not reported
Municipal Solid Waste:	False
Superorder:	False
Sub Chapter 15:	False
Reg. Board Project Officer:	LT
Section Range:	Not reported
RCRA Facility:	Not reported
Waste Discharge Requirements:	Not reported
Base Meridian:	Not reported
Waste List:	False
Facility Description:	Not reported
Self-Monitoring Rept. Frequency:	Not reported

Threat to Water Quality:Not reported

Agency:	UNIVERSAL BY-PRODUCTS
Address:	Not reported
Department:	Not reported
Contact:	Not reported
Telephone:	Not reported
Landowner:	Not reported
Address:	CA
Telephone:	Not reported
Contact:	Not reported

B4
West
1/2-1
2690 ft.

Relative:
Higher

Actual:
974 ft.

CHIQUITA CANYON LANDFILL INC HAZNET S100932492
29201 HENRY MAYO DRIVE SWF/LF N/A
VALENCIA, CA 91355

Site 1 of 6 in cluster B

LF:

Facility ID:	19-AA-0052
Operator:	Republic Services Of California I, L.L.C
Operator Phone:	(661) 257-3655
Operator Addr:	29201 Henry Mayo Drive Valencia, CA 91355
Owner:	Republic Services Of California I, L.L.C
Owner Address:	Not reported 29201 Henry Mayo Drive Valencia, CA 91355
Owner Telephone:	(661) 257-3655
Activity:	Solid Waste Landfill
Operator's Status:	Active
Regulation Status:	Permitted
Region:	STATE
Lat/Long:	34 / -119
Permit Date:	Not reported
Accepted Waste:	Construction/demolition,Green Materials,Industrial,Inert,Mixed municipal
Restrictions:	
Status :	Not reported
Swisnumber :	Not reported
Site Type :	Not reported

CHIQUITA CANYON LANDFILL INC (Continued) S100932492

Aka :	Not reported
Type Of Waste :	Not reported
Disposal Area :	Not reported
SWFP Date :	Not reported
WDR Number :	Not reported
Dates Of Operation :	Not reported
Closure Approved :	Not reported
Date Of Field Units :	Not reported
Surface Condition :	Not reported
Landfill Gas :	Not reported
Leachate :	Not reported
Emergency Response :	Not reported
Other Recommendation :	Not reported
Reassess Site :	Not reported
Priority For Site Assessment :	Not reported
Lea Date :	Not reported
Explanation:	Not Reported
No Further Action:	Not Reported
Permitted Throughput with Units:	6000
Permitted Throughput with Units:	6000
Permitted Throughput with Units:	6000
Actual Throughput with Units:	Tons/day
Actual Capacity with Units:	45889550
Permitted Capacity with Units:	45889550
Remaining Capacity with Units:	Cubic Yards
Permitted Total Acreage:	592
Inspection Frequency:	Monthly
Landuse Name:	Residential,Recreational,Industrial,Agricultural
GIS Source:	Map
Permit Status:	Permitted
Category:	Disposal
Unit Number:	01
Last Waste Tire Inspection Count :	Not reported
Last Waste Tire Inspection Date:	Not reported
Original Waste Tire Count:	Not reported
Original Waste Tire Count Date:	Not reported
Closure Date:	11/24/2019
Closure Type:	Estimated
Disposal Acreage:	257
Remaining Capacity:	26024360

HAZNET:

Gepaid:	CAL000035857
TSD EPA ID:	AZD049318009
Gen County:	Los Angeles
Tsd County:	99
Tons:	.4250
Waste Category:	Laboratory waste chemicals
Disposal Method:	Transfer Station
Contact:	CHIQUITA CANYON LANDFILL INC
Telephone:	(805) 257-3655
Mailing Address:	29201 HENRY MAYO DR VALENCIA, CA 91355
County	Los Angeles

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	CHIQUITA CANYON LANDFILL INC (Continued)		S100932492

Gepaid: CAL000035857
TSD EPA ID: AZD049318009
Gen County: Los Angeles
Tsd County: 99
Tons: .5000
Waste Category: Unspecified organic liquid mixture
Disposal Method: Transfer Station
Contact: CHIQUITA CANYON LANDFILL INC
Telephone: (805) 257-3655
Mailing Address: 29201 HENRY MAYO DR
VALENCIA, CA 91355
County Los Angeles

Gepaid: CAL000035857
TSD EPA ID: CAT000613893
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: .2400
Waste Category: Unspecified organic liquid mixture
Disposal Method: Transfer Station
Contact: CHIQUITA CANYON LANDFILL INC
Telephone: (805) 257-3655
Mailing Address: 29201 HENRY MAYO DR
VALENCIA, CA 91355
County Los Angeles

Gepaid: CAL000035857
TSD EPA ID: CAT000613893
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: .1542
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Transfer Station
Contact: CHIQUITA CANYON LANDFILL INC
Telephone: (805) 257-3655
Mailing Address: 29201 HENRY MAYO DR
VALENCIA, CA 91355
County Los Angeles

Gepaid: CAL000035857
TSD EPA ID: CAD099452708
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 2.0850
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Contact: CHIQUITA CANYON LANDFILL INC
Telephone: (805) 257-3655
Mailing Address: 29201 HENRY MAYO DR
VALENCIA, CA 91355
County Los Angeles

The CA HAZNET database contains 16 additional records for this site.
Please click here or contact your EDR Account Executive for more information.

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	CHIQUITA CANYON LANDFILL INC (Continued)		S100932492

B5 **LAIDLAW WASTE SYSTEMS INC** — CA FID UST — S101586012
West **29201 HENRY MAYO DR** — N/A
1/2-1 **VALENCIA, CA 91355**
2690 ft.

Site 2 of 6 in cluster B

Relative: Higher
Actual: 974 ft.

FID:
Facility ID: 19036223 — Regulate ID: Not reported
Reg By: Active Underground Storage Tank Location
Cortese Code: Not reported — SIC Code: Not reported
Status: Active — Facility Tel: (805) 257-3655
Mail To: Not reported
29201 HENRY MAYO DR
VALENCIA, CA 91355
Contact: Not reported — Contact Tel: Not reported
DUNs No: Not reported — NPDES No: Not reported
Creation: 10/22/93 — Modified: 00/00/00
EPA ID: Not reported
Comments: Not reported

B6 **CHIQUITA CANYON LANDFILL** — CA WDS — 1002687338
West **29201 HENRY MAYO DR** — EMI — N/A
1/2-1 **VALENCIA, CA 91310** — HAZNET
2690 ft. — SWF/LF

Site 3 of 6 in cluster B

Relative: Higher
Actual: 974 ft.

LF:
Facility ID: Not reported
Operator: Not reported
Operator Phone: Not reported
Operator Addr:
Owner: Not reported
Owner Address: Not reported
Not reported
Owner Telephone: Not reported
Activity: Not reported
Operator's Status: Not reported
Regulation Status: Not reported
Region: LOS ANGELES
Lat/Long: Not reported
Permit Date: Not reported
Accepted Waste:
Restrictions:
Status : Not reported
Swisnumber : Not reported
Site Type : Not reported
Aka : Not reported
Type Of Waste : Not reported
Disposal Area : Not reported
SWFP Date : Not reported
WDR Number : Not reported
Dates Of Operation : Not reported
Closure Approved : Not reported
Date Of Field Units : Not reported
Surface Condition : Not reported
Landfill Gas : Not reported
Leachate : Not reported

CHIQUITA CANYON LANDFILL (Continued) 1002687338

Emergency Response : Not reported
Other Recommendation : Not reported
Reassess Site : Not reported
Priority For Site Assessment : Not reported
Lea Date : Not reported
Explanation: Not Reported
No Further Action: Not Reported
Permitted Throughput with Units: Not reported
Permitted Throughput with Units: Not reported
Permitted Throughput with Units: Not reported
Actual Throughput with Units: Not reported
Actual Capacity with Units: Not reported
Permitted Capacity with Units: Not reported
Remaining Capacity with Units: Not reported
Permitted Total Acreage: Not reported
Inspection Frequency: Not reported
Landuse Name: Not reported
GIS Source: Not reported
Permit Status: Not reported
Category: Not reported
Unit Number: Not reported
Last Waste Tire Inspection Count : Not reported
Last Waste Tire Inspection Date: Not reported
Original Waste Tire Count: Not reported
Original Waste Tire Count Date: Not reported
Closure Date: / /
Closure Type: Not reported
Disposal Acreage: Not reported
Remaining Capacity: Not reported

HAZNET:

Gepaid: CAL000196316
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.00
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Transfer Station
Contact: MATT TERRELL
Telephone: (661) 257-3655
Mailing Address: 29201 HENRY MAYO DR
VALENCIA, CA 91355
County Not reported

Gepaid: CAL000196316
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.14
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Recycler
Contact: MATT TERRELL
Telephone: (661) 257-3655
Mailing Address: 29201 HENRY MAYO DR
VALENCIA, CA 91355
County Not reported

CHIQUITA CANYON LANDFILL (Continued) 1002687338

Gepaid: CAL000196316
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 1.66
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Contact: MATT TERRELL
Telephone: (661) 257-3655
Mailing Address: 29201 HENRY MAYO DR
VALENCIA, CA 91355
County Not reported

Gepaid: CAL000196316
TSD EPA ID: CAD008252405
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.0166
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Recycler
Contact: REPUBLIC SERVICES OF CA I LLC
Telephone: (661) 257-3655
Mailing Address: 29201 HENRY MAYO DR
VALENCIA, CA 91355
County Los Angeles

Gepaid: CAL000196316
TSD EPA ID: CAT000613893
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.0625
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Not reported
Contact: REPUBLIC SERVICES OF CA I LLC
Telephone: (661) 257-3655
Mailing Address: 29201 HENRY MAYO DR
VALENCIA, CA 91355
County Los Angeles

The CA HAZNET database contains 8 additional records for this site.
Please click here or contact your EDR Account Executive for more information.

WDS:

Facility ID: 0
Facility Contact Mike Dean (General manager) Facility Telephone (661) 257-3655
SIC Code: 4953 SIC Code 2: Not reported
Agency Name: A REPUBLIC WASTE SERVICES CO.
Agency Address: 0
Agency Contact: Not reported Agency Phone: Not reported
Design Flow: 0 Million Gal/Day Baseline Flow: 0 Million Gal/Day
Facility Type: Solid Waste Site-Class III - Landfills for non hazardous solid wastes.
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
Agency Type: Private
Waste Type: Solid Wastes - Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).

CHIQUITA CANYON LANDFILL (Continued) 1002687338

Threat to Water: Not reported
Complexity: Category B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marinas with petroleum products, solid wastes, and sewage pump out facilities.
Reclamation: No reclamation requirements associated with this facility.
POTW: The facility is not a POTW.
NPDES Number: Not reported
Subregion: 4

EMISSIONS :

Facility ID :	61029
Air District Code :	SC
SIC Code :	4959
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SC
Air District Name :	SOUTH COAST AQMD
Community Health Air Pollution Info System :	Not reported
Consolidated Emission Reporting Rule :	Not reported
Total Organic Hydrocarbon Gases :	2
Reactive Organic Gases :	1
Carbon Monoxide Emissions :	6
NOX Gas Emissions (Nitrogen - Oxygen) :	5
SOX Gas Emissions (Sulphur - Oxygen) :	3

Facility ID :	61029
Air District Code :	SC
SIC Code :	4959
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SC
Air District Name :	SOUTH COAST AQMD
Community Health Air Pollution Info System :	Not reported
Consolidated Emission Reporting Rule :	Not reported
Total Organic Hydrocarbon Gases :	Not reported
Reactive Organic Gases :	Not reported
Carbon Monoxide Emissions :	Not reported
NOX Gas Emissions (Nitrogen - Oxygen) :	Not reported
SOX Gas Emissions (Sulphur - Oxygen) :	Not reported

B7
West
1/2-1
2690 ft.

Relative:
Higher

Actual:
974 ft.

CHIQUITA CANYON LANDFILL WMUDS/SWAT 1001526767
29201 HENRY MAYO DR N/A
VALENCIA CA, CA 91310

Site 4 of 6 in cluster B

WMUDS:

Region:	4
Date of Last Facility Edit:	11/22/1996
Last Facility Editors:	JHM, JHM, JHM
Waste Discharge System ID:	4A190359001
Solid Waste Information ID:	19-AA-0052
Waste Discharge System:	True
Solid Waste Assessment Test Program:	True

CHIQUITA CANYON LANDFILL (Continued) 1001526767

Facility Name:	LAIDLAW WASTE SYSTEMS CHIQUITA, INC.
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act Program:	False
Department of Defense:	False
Open to Public:	False
Number of WMUDS at Facility:	5
Facility Telephone:	(805) 257-3655
Primary Standard Industrial Classification:	4953
Secondary Standard Industrial Classification:	Not reported
Solid Waste Assessment Test Program Name:	LAIDLAW WASTE SYSTEMS CHIQUITA, INC
NPID:	Not reported
Tonnage:	5000
Regional Board ID:	67-20
Municipal Solid Waste:	True
Superorder:	True
Sub Chapter 15:	True
Reg. Board Project Officer:	Not reported
Section Range:	04N17W14
RCRA Facility:	No
Waste Discharge Requirements:	A
Base Meridian:	SB
Waste List:	True
Facility Description:	Not reported
Self-Monitoring Rept. Frequency:	Quarterly Submittal

Threat to Water Quality: Major Threat to Water Quality. A violation could render unusable a ground water or surface water resource used as a significant drink water supply, require closure of an area used for contact recreation, result in long-term deleterious effects on shell fish spawning or growth areas of aquatic resources, or directly expose the public to toxic substances.
Facility Type: Solid Waste Site-Class III - Landfills for non hazardous solid wastes.
Complexity: Category B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marinas with petroleum products, solid wastes, and sewage pump out facilities.
Prime Waste: Solid Wastes - Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
Agency: USA WASTE
Address: 29201 HENRY MAYO DRIVE
VALENCIA CA 91310
Department: REGIONAL ENGINEER
Contact: RYAN WURGLER
Telephone: (805) 257-3655
Type: Private
Landowner: NEWHALL LAND & FARMING
Address: 27050 HENRY MAYO DR.
CASTAIC, CA 91310
Telephone: (805) 255-4000
Contact: Not reported
Comments: REGIONAL BOARD SAYS 3500 TONS PER DAY...

CHIQUITA CANYON LANDFILL (Continued) — **1001526767**

B8 **LAIDLAW WASTE SYSTEMS INC** — **UST** — **U003776127**
West **29201 HENRY MAYO DR** — **N/A**
1/2-1 **CASTAIC, CA 91384**
2690 ft.

Site 5 of 6 in cluster B

Relative: **Higher**

Actual: **974 ft.**

State UST:
Facility ID: 6111
Region: STATE
Local Agency: 19000

B9 **CHIQUITA CANYON SANITARY LANDFILL** — **RCRIS-SQG** — **1000820545**
West **29201 HENRY MAYO DRIVE** — **FINDS** — **CAD983666041**
1/2-1 **CASTAIC, CA 91384**
2690 ft.

Site 6 of 6 in cluster B

Relative: **Higher**

Actual: **974 ft.**

RCRIS:
Owner: LAIDLAW WASTE SYSTEMS INC
(805) 257-3655
EPA ID: CAD983666041
Contact: SONNY STAATS
(805) 257-3655
Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
AIRS/AIRS Facility Subystem (AIRS/AFS)
National Emissions Inventory (NEI)
National Emissions Trends (NET)
National Toxics Inventory (NTI)
Resource Conservation and Recovery Act Information system (RCRAINFO)
Solid Waste Inventory System (California sub-system of landfills) (SWIS)

---

10 **T A MANUFACTURING CO** — **RCRIS-LQG** — **1001231332**
NE **28065 W FRANKLIN PKWY** — **FINDS** — **CAR000039230**
1/2-1 **VALENCIA, CA 91355** — **HAZNET**
4090 ft.

Relative: **Higher**

Actual: **983 ft.**

RCRIS:
Owner: T A MANUFACTURING CO
(805) 775-1100
EPA ID: CAR000039230
Contact: DAVID SCHMIDT
(805) 775-1100
Classification: Large Quantity Generator
TSDF Activities: Not reported

T A MANUFACTURING CO (Continued) — **1001231332**

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
Resource Conservation and Recovery Act Information system (RCRAINFO)

HAZNET:
Gepaid: CAR000039230
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: 99
Tons: 0.00
Waste Category: Other inorganic solid waste
Disposal Method: Treatment, Incineration
Contact: ERIC BENFORD
Telephone: (661) 775-1100
Mailing Address: 28065 W FRANKLIN PKWY
VALENCIA, CA 91355
County Not reported

Gepaid: CAR000039230
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: 99
Tons: 0.10
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Disposal, Land Fill
Contact: ERIC BENFORD
Telephone: (661) 775-1100
Mailing Address: 28065 W FRANKLIN PKWY
VALENCIA, CA 91355
County Not reported

Gepaid: CAR000039230
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: 99
Tons: 0.04
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Recycler
Contact: ERIC BENFORD
Telephone: (661) 775-1100
Mailing Address: 28065 W FRANKLIN PKWY
VALENCIA, CA 91355
County Not reported

Gepaid: CAR000039230
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 3.62
Waste Category: Unspecified oil-containing waste
Disposal Method: Recycler
Contact: ERIC BENFORD
Telephone: (661) 775-1100
Mailing Address: 28065 W FRANKLIN PKWY
VALENCIA, CA 91355
County Not reported

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	T A MANUFACTURING CO (Continued)		**1001231332**

Gepaid: CAR000039230
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.40
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Contact: ERIC BENFORD
Telephone: (661) 775-1100
Mailing Address: 28065 W FRANKLIN PKWY
VALENCIA, CA 91355
County: Not reported

The CA HAZNET database contains 55 additional records for this site.
Please click here or contact your EDR Account Executive for more information.

---

11 **ENE** **1/2-1** **4583 ft.**	**TRAVEL VILLAGE** **27946 HENRY MAYO DR** **CASTAIC, CA 91355**	**HIST UST**	**U001567876** **N/A**
Relative: **Higher**			
Actual: **984 ft.**			

UST HIST:
Facility ID: 41379
Total Tanks: 1
Owner Name: NEWHALL INVESTMENT PROPERTIES
Owner Address: 23823 VALENCIA BOULEVARD
VALENCIA, CA 91355
Facility Status: Not reported
Region: STATE
Box Number: Not reported

---

12 **NE** **> 1** **5500 ft.**	**BLOOMERS METAL STAMPINGS INC** **28615 BRAXTON AVE** **VALENCIA, CA 91355**	**HAZNET**	**S105724739** **N/A**
Relative: **Higher**			
Actual: **1020 ft.**			

HAZNET:
Gepaid: CAL000214634
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Kings
Tons: 4.21
Waste Category: Other inorganic solid waste
Disposal Method: Disposal, Land Fill
Contact: PERRY BLOOMER / VICE PRESIDENT
Telephone: (661) 257-2955
Mailing Address: 28615 BRAXTON AVE
VALENCIA, CA 91355
County: Not reported

---

13 **West** **> 1** **5954 ft.**	**27900 CHIQUITO CANYON ROAD** **UNINC, CA**	**CHMIRS**	**S100216887** **N/A**
Relative: **Higher**			
Actual: **962 ft.**			

CHMIRS:
OES Control Number: 8904996
Chemical Name: Not reported
Extent of Release: Not reported
Property Use: Petroleum Refinery

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	(Continued)		**S100216887**

Incident Date: 23-FEB-89
Date Completed: 23-FEB-89
Time Completed : 2035
Agency Id Number : 19110
Agency Incident Number : 52
OES Incident Number : 8904996
Time Notified : 1915
Surrounding Area : 946
Estimated Temperature : Not reported
Property Management : P
More Than Two Substances Involved? : N
Special Studies 1 : Not reported
Special Studies 2 : Not reported
Special Studies 3 : Not reported
Special Studies 4 : Not reported
Special Studies 5 : Not reported
Special Studies 6 : Not reported
Responding Agency Personel # Of Injuries : 0
Responding Agency Personel # Of Fatalities : 0
Resp Agncy Personel # Of Decontaminated : 0
Others Number Of Decontaminated : 0
Others Number Of Injuries : 0
Others Number Of Fatalities : 0
Vehicle Make/year : Not reported
Vehicle License Number : Not reported
Vehicle State : Not reported
Vehicle Id Number : Not reported
CA/DOT/PUC/ICC Number : Not reported
Company Name : Not reported
Reporting Officer Name/ID : CAPT. JOHN W. EVERETT
Report Date : 26-FEB-89
Comments : Not reported
Facility Telephone Number : 213 267-2485
Waterway Involved : Not reported
Waterway : Not reported
Spill Site : Not reported
Cleanup By : Not reported
Containment : Not reported
What Happened : Not reported
Type : Not reported
Other : Not reported
Chemical 1 : Not Reported
Chemical 2 : Not Reported
Chemical 3 : Not Reported
Date/Time : Not reported
Evacuations : Not reported

---

14 **WSW** **> 1** **6031 ft.**	**NEWHALL LAND & FARMING** **3003 WALNUT ORCHARD RD** **VALENCIA, CA 91350**	**Cortese** **LUST**	**S102434348** **N/A**
Relative: **Lower**			
Actual: **949 ft.**			

State LUST:
Cross Street: HENRY MAYO DRIVE
Qty Leaked: Not reported
Case Number I-14101
Reg Board: 4
Chemical: Gasoline
Lead Agency: Regional Board

NEWHALL LAND & FARMING (Continued) S102434348

Local Agency : 19000
Case Type: Soil only
Status: Case Closed
Review Date: Not reported
Workplan: 3/9/90
Pollution Char: Not reported
Remed Action: Not reported
Monitoring: Not reported
Close Date: 06/27/1996
Release Date: 03/09/1990
Cleanup Fund Id : Not reported
Discover Date : 01/25/1989
Enforcement Dt : Not reported
Enf Type: Not reported
Enter Date : 03/05/1990
Funding: Federal Funds
Staff Initials: Not reported
How Discovered: Tank Closure
How Stopped: Not reported
Interim : Not reported
Leak Cause: UNK
Leak Source: UNK
MTBE Date : / /
Max MTBE GW : 0 Parts per Billion
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Priority: Not reported
Local Case # : Not reported
Beneficial: Not reported
Staff : JLC
GW Qualifier : Not reported
Max MTBE Soil : Not reported
Soil Qualifier : Not reported
Hydr Basin #: Not reported
Operator : JONES, ROGER ALSO SEE I-14100
Oversight Prgm: RB Lead Underground Storage Tank
Oversight Prgm : UST
Review Date : 07/22/1998
Stop Date : 01/25/1989
Work Suspended : Not reported
Responsible Party: NEWHALL LAND AND FARM
RP Address: 23823 VALENCIA BLVD., VAKENCIA, 91355 C
Global Id: T0603704137
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 1
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported

Confirm Leak: Not reported
Prelim Assess: 3/9/90
Remed Plan: Not reported

LUST Region 4:
Report Date: 3/9/1990
Lead Agency: Regional Board
Local Agency: 19000
Case Number: I-14101
Substance: Gasoline

NEWHALL LAND & FARMING (Continued) S102434348

Case Type: Soil
Status: Case Closed
Region: 4
Staff: Not reported
Source of Cleanup Funding: Federal Funds
Date the Leak was Discovered: 1/25/1989
How the Leak was Discovered: Tank Closure
How the Leak was Stopped: Close Tank
Cause of Leak: Unknown
Leak Source: Unknown
Date The Leak was Stopped: 1/25/1989
Date Confirmation Leak Began: Not reported
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: 3/9/1990
Pollution Characterization Began: Not reported
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: Not reported
Date the Case was Closed: 6/27/1996
Date Case Last Changed on Database: 7/22/1998
Enforcement Action Date: Not reported
Date Leak First Reported: 3/9/1990
Enforcement Type: Not reported
Global ID : T0603704137
Organization : Not reported
Historical Max MTBE Data: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil : Not reported
County: Los Angeles
Regional Board: 04
Owner Contact: Not reported
Responsible Party: NEWHALL LAND AND FARM
RP Address: 23823 VALENCIA BLVD., VAKENCIA, 91355 C
Significant Interim Remedial Action Taken: Not reported
Program : UST
Lat / Long : 34.4200613 / -118.6567124
MTBE Counts : 0
MTBE Fuel : 1
MTBE Tested : NT
Local Agency Staff: UNK
Summary : Not reported
Hydrologic Basin # : Not reported
Beneficial Use : Not reported
Priority : Not reported
Cleanup Fund Id : Not reported
Suspended : Not reported
Local Case No : Not reported
Substance Quantity : Not reported
Abatement Method Used at the Site: Not reported
Operator : JONES, ROGER ALSO SEE I-14100
Water System : WALNUT HILL
Well Name : WELL C-6
Approx. Dist To Production Well (ft) : 8339.414175864259907788982 95
W Global ID : W0603709014
Assigned Name : 04N/17W-14Q07 S

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	NEWHALL LAND & FARMING (Continued)		**S102434348**
	MTBE Class : Not reported		
	CORTESE:		
	Region: CORTESE		
	Fac Address 2: 3003 WALNUT ORCHARD RD		
C15 **West** **> 1** **6207 ft.** **Relative: Higher** **Actual: 994 ft.**	**DEL VALLE TRAINING CENTER** **28101 CHIQUITO CANYON RD** **SCV, CA 91350**	**LA Co. Site Mitigation**	**S103697023** **N/A**
	Site 1 of 6 in cluster C		
	Site Mitigation Log:		
	Case Number: 91S259		
	Abatement Date: 08/12/97		
	Thomas Guide Page Numbers: 4549C2		
C16 **West** **> 1** **6207 ft.** **Relative: Higher** **Actual: 994 ft.**	**LA CTY FIRE DEPT/DELVAL TRG CTR** **28101 CHIQUITO CANYON ROAD** **CASTAIC, CA 91384**	**HAZNET**	**S103649248** **N/A**
	Site 2 of 6 in cluster C		
	HAZNET:		
	Gepaid: CAL000100193		
	TSD EPA ID: CAT080013352		
	Gen County: Los Angeles		
	Tsd County: Los Angeles		
	Tons: .6255		
	Waste Category: Waste oil and mixed oil		
	Disposal Method: Recycler		
	Contact: COUNTY OF LOS ANGELES-FIRE DEP		
	Telephone: (818) 448-0161		
	Mailing Address: 1320 N EASTERN AVE		
	LOS ANGELES, CA 90063 - 3294		
	County Los Angeles		
	Gepaid: CAL000100193		
	TSD EPA ID: CAD000088252		
	Gen County: Los Angeles		
	Tsd County: Los Angeles		
	Tons: .5293		
	Waste Category: Other inorganic solid waste		
	Disposal Method: Transfer Station		
	Contact: COUNTY OF LOS ANGELES-FIRE DEP		
	Telephone: (818) 448-0161		
	Mailing Address: 1320 N EASTERN AVE		
	LOS ANGELES, CA 90063 - 3294		
	County Los Angeles		
	Gepaid: CAL000100193		
	TSD EPA ID: CAD000088252		
	Gen County: Los Angeles		
	Tsd County: Los Angeles		
	Tons: .3880		
	Waste Category: Other inorganic solid waste		
	Disposal Method: Transfer Station		
	Contact: COUNTY OF LOS ANGELES-FIRE DEP		
	Telephone: (818) 448-0161		
	Mailing Address: 1320 N EASTERN AVE		

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	LA CTY FIRE DEPT/DELVAL TRG CTR (Continued)		**S103649248**
	LOS ANGELES, CA 90063 - 3294		
	County Los Angeles		
C17 **West** **> 1** **6207 ft.** **Relative: Higher** **Actual: 994 ft.**	**L A COUNTY FIRE DEPT** **28101 N CHIQUITO CANYON RD** **CASTAIC, CA 91384**	**LOS ANGELES CO. HMS** **LUST**	**S102064540** **N/A**
	Site 3 of 6 in cluster C		
	State LUST:		
	Cross Street: SAN MARTINEZ CYN RD		
	Qty Leaked: Not reported		
	Case Number R-00003		
	Reg Board: 4		
	Chemical: Hydrocarbons		
	Lead Agency: Local Agency		
	Local Agency : 19000		
	Case Type: Soil only		
	Status: Leak being confirmed		
	Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site		
	Review Date: 04/10/1991 Confirm Leak: 04/10/1991		
	Workplan: Not reported Prelim Assess: Not reported		
	Pollution Char: Not reported Remed Plan: Not reported		
	Remed Action: Not reported		
	Monitoring: Not reported		
	Close Date: Not reported		
	Release Date: 12/03/1997		
	Cleanup Fund Id : Not reported		
	Discover Date : 04/10/1991		
	Enforcement Dt : Not reported		
	Enf Type: Not reported		
	Enter Date : 02/18/1998		
	Funding: Not reported		
	Staff Initials: Not reported		
	How Discovered: OM		
	How Stopped: Not reported		
	Interim : Not reported		
	Leak Cause: Not reported		
	Leak Source: Tank		
	MTBE Date : / /		
	Max MTBE GW : 0 Parts per Billion		
	MTBE Tested: Not Required to be Tested.		
	Priority: Not reported		
	Local Case # : Not reported		
	Beneficial: Not reported		
	Staff : JLC		
	GW Qualifier : Not reported		
	Max MTBE Soil : Not reported		
	Soil Qualifier : Not reported		
	Hydr Basin #: Not reported		
	Operator : Not reported		
	Oversight Prgm: Local Implementing Agency UST (includes non-LOP cases within LOP jurisdiction)		
	Oversight Prgm : LIA		
	Review Date : 12/03/1997		
	Stop Date : / /		
	Work Suspended :Not reported		
	Responsible PartyUNOCAL CORP		

L A COUNTY FIRE DEPT (Continued) **S102064540**

RP Address: 2125 KNOLL DR., P.O. BOX 6176, VENTURA, CA 93003
Global Id: T0603704507
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 0
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported

LUST Region 4:
Report Date: 12/3/1997
Lead Agency: Local Agency
Local Agency: 19000
Case Number: R-00003
Substance: Hydrocarbons
Case Type: Soil
Status: Leak being confirmed
Region: 4
Staff: Not reported
Source of Cleanup Funding: Not reported
Date the Leak was Discovered: 4/10/1991
How the Leak was Discovered: Other Means
How the Leak was Stopped: Close Tank
Cause of Leak: Not reported
Leak Source: Tank
Date The Leak was Stopped: Not reported
Date Confirmation Leak Began: 4/10/1991
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: Not reported
Date the Case was Closed: Not reported
Date Case Last Changed on Database: 12/3/1997
Enforcement Action Date: Not reported
Date Leak First Reported: 12/3/1997
Enforcement Type: Not reported
Global ID : T0603704507
Organization : Not reported
Historical Max MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil : Not reported
County: Los Angeles
Regional Board: 04
Owner Contact: Not reported
Responsible Party: UNOCAL CORP
RP Address: 2125 KNOLL DR., P.O. BOX 6176, VENTURA, CA 93003
Significant Interim Remedial Action Taken: Not reported
Program : LIA
Lat / Long : 34.4358266 / -118.6591324
MTBE Counts : 0
MTBE Fuel : 0

L A COUNTY FIRE DEPT (Continued) **S102064540**

MTBE Tested : NRQ
Local Agency Staff: UNK
Summary : TPH 17000 PPM, 36000 PPM & 20000 PPM IN SOIL DEPTH TO GW 300 FT BGS.
Hydrologic Basin # : Not reported
Beneficial Use : Not reported
Priority : Not reported
Cleanup Fund Id : Not reported
Suspended : Not reported
Local Case No : Not reported
Substance Quantity : Not reported
Abatement Method Used at the Site: Excavate and Dispose
Operator : Not reported
Water System : WALNUT HILL
Well Name : WELL C-6
Approx. Dist To Production Well (ft) : 9199.31482410373742409151O048
W Global ID : W0603709014
Assigned Name : 04N/17W-14Q07 S
MTBE Class : Not reported

HMS:
Facility Id: 000003-I00003
Area: 7
Facility Type: I09
Permit Number: 174 Permit Status: Removed
Facility Status: Removed
Region: Los Angeles County:

Facility Id: 000003-000003
Area: 7
Facility Type: T0
Permit Number: 174 Permit Status: Removed
Facility Status: Removed
Region: Los Angeles County:

C18 **UNOCAL - LINCOLN LEASE** **CA SLIC** **S104404774**
West **28101 CHIQUITO CYN** **N/A**
> 1 **CASTAIC, CA 91384**
6207 ft.

Site 4 of 6 in cluster C

Relative: Higher

Actual: 994 ft.

SLIC Region 4:
Facility Status: Closure
Region: 4
SLIC 0520B
Staff: Manjulika Chakarbarti
Substance: TPH

C19 **LA CO FD FIRE TRAINING CN** **Cortese** **S105023127**
West **28101 CHIQUITO CNYN** **N/A**
> 1 **CASTAIC, CA 91384**
6212 ft.

Site 5 of 6 in cluster C

Relative: Higher

Actual: 994 ft.

CORTESE:
Region: CORTESE
Fac Address 2: Not reported

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	LA CO FD FIRE TRAINING CN (Continued)		**S105023127**
C20 **West** **> 1** **6212 ft.** **Relative:** **Higher** **Actual:** **994 ft.**	**DEL VALLE REGIONAL EMERGENCY TRAINING CTR** **28101 CHIQUITO CANYON RD** **CASTAIC, CA 91384** **Site 6 of 6 in cluster C** AST: Owner: LOS ANGELES COUNTY FIRE DEPT Total Gallons: 2000	**AST**	**A100210954** **N/A**
D21 **NE** **> 1** **6222 ft.** **Relative:** **Higher** **Actual:** **1022 ft.**	**US POSTAL SERVICE, SANTA CLARI** **28201 FRANKLIN PKY** **SANTA CLARITA, CA 91383** **Site 1 of 4 in cluster D** EMISSIONS : Facility ID : 100544 Air District Code : SC SIC Code : 4300 Total Priority Score : Not reported Health Risk Assessment : Not reported Non-cancer Chronic Haz Index : Not reported Non-cancer Acute Haz Index : Not reported Air Basin : SC Air District Name : SOUTH COAST AQMD Community Health Air Pollution Info System : Not reported Consolidated Emission Reporting Rule : Not reported Total Organic Hydrocarbon Gases : Not reported Reactive Organic Gases : Not reported Carbon Monoxide Emissions : Not reported NOX Gas Emissions (Nitrogen - Oxygen) : Not reported SOX Gas Emissions (Sulphur - Oxygen) : Not reported	**EMI**	**S105940246** **N/A**
D22 **NE** **> 1** **6222 ft.** **Relative:** **Higher** **Actual:** **1022 ft.**	**US POSTAL - SANTA CLARITA P&DC** **28201 FRANKLIN PKWY** **SANTA CLARITA, CA 91383** **Site 2 of 4 in cluster D** State UST: Facility ID: 17066 Region: STATE Local Agency: 19000	**UST**	**U003777338** **N/A**
D23 **NE** **> 1** **6222 ft.** **Relative:** **Higher** **Actual:** **1022 ft.**	**28201 FRANKLIN PARKWAY** **SANTA CLARITA, CA 02584** **Site 3 of 4 in cluster D**	**CHMIRS** **HAZNET**	**S103993337** **N/A**

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	(Continued)		**S103993337**

HAZNET:
Gepaid: CAL000157107
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Not reported
Tons: 0.33
Waste Category: Polychlorinated biphenyls and material containing PCB's
Disposal Method: Recycler
Contact: KEN GONZALES/MAINT ENG SP
Telephone: (661) 775-7975
Mailing Address: 28201 FRANKLIN PKWY
SANTA CLARITA, CA 91383 - 9735
County Not reported

Gepaid: CAL000157107
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.04
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Contact: KEN GONZALES/MAINT ENG SP
Telephone: (661) 775-7975
Mailing Address: 28201 FRANKLIN PKWY
SANTA CLARITA, CA 91383 - 9735
County Not reported

Gepaid: CAL000157107
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: San Bernardino
Tons: 3.28
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Transfer Station
Contact: KEN GONZALES/MAINT ENG SP
Telephone: (661) 775-7975
Mailing Address: 28201 FRANKLIN PKWY
SANTA CLARITA, CA 91383 - 9735
County Not reported

Gepaid: CAL000157107
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: San Bernardino
Tons: 0.22
Waste Category: Waste oil and mixed oil
Disposal Method: Transfer Station
Contact: KEN GONZALES/MAINT ENG SP
Telephone: (661) 775-7975
Mailing Address: 28201 FRANKLIN PKWY
SANTA CLARITA, CA 91383 - 9735
County Not reported

(Continued) S103993337

Gepaid: CAL000157107
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: San Bernardino
Tons: 0.20
Waste Category: Unspecified oil-containing waste
Disposal Method: Transfer Station
Contact: KEN GONZALES/MAINT ENG SP
Telephone: (661) 775-7975
Mailing Address: 28201 FRANKLIN PKWY
SANTA CLARITA, CA 91383 - 9735
County Not reported

The CA HAZNET database contains 39 additional records for this site.
Please click here or contact your EDR Account Executive for more information.

CHMIRS:

OES Control Number:	97-2033
Chemical Name:	Ink
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	97-2033
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	Yes
Waterway :	Drain
Spill Site :	Other

(Continued) S103993337

Cleanup By : Not being accomplished
Containment : Unknown
What Happened : Dumped by employees, weekley into drain
Type : OTHER, CHEMICAL
Other : Ink
Chemical 1 : Solvent
Quantity Released : 15 Gal(s)
Chemical 2 : Not Reported
Chemical 3 : Not Reported
Date/Time : 5/21/97
Evacuations : 0

D24
NE
> 1
6222 ft.

28201 FRANKLIN PKWY, BMF
SANTA CLARITA, CA 91387

CHMIRS S105882989
N/A

Site 4 of 4 in cluster D

Relative:
Higher

Actual:
1022 ft.

CHMIRS:

OES Control Number:	02-1417
Chemical Name:	Motor Oil
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	02-1417
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	Yes
Waterway :	storm drain
Spill Site :	Other

(Continued) S105882989

Cleanup By : Reporting Party
Containment : Unknown
What Happened : A vehicle leaked oil into a storm drain
Type : Oil(s)
Other : Not reported
Chemical 1 : Not Reported
Chemical 2 : Not Reported
Chemical 3 : Not Reported
Date/Time : 3/14/2002 1330
Evacuations : 0

E25 | R A H INDUSTRIES | RCRIS-SQG 1004677606
NNE | 28035 HARRISON PKWY | FINDS CAR000099523
> 1 | VALENCIA, CA 91355 | HAZNET
6527 ft.

Site 1 of 5 in cluster E

Relative: Higher
Actual: 1054 ft.

RCRIS:
Owner: R A H INDUSTRIES INC
(661) 295-5190
EPA ID: CAR000099523
Contact: RICHARD CRESPO
(661) 295-5190
Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
Resource Conservation and Recovery Act Information system (RCRAINFO)

HAZNET:
Gepaid: CAR000099523
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 1.27
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Contact: Richard Crespo
Telephone: (661) 295-5190
Mailing Address: 28035 Harrison Pkwy
Valencia, CA 91355
County Not reported

Gepaid: CAR000099523
TSD EPA ID: Not reported
Gen County: Not reported
Tsd County: Not reported
Tons: 0.69
Waste Category: Waste oil and mixed oil
Disposal Method: Not reported
Contact: Richard Crespo
Telephone: (661) 295-5190
Mailing Address: 28035 Harrison Pkwy
Valencia, CA 91355
County Not reported

R A H INDUSTRIES (Continued) 1004677606

Gepaid: CAR000099523
TSD EPA ID: Not reported
Gen County: Not reported
Tsd County: Not reported
Tons: 0.69
Waste Category: Waste oil and mixed oil
Disposal Method: Transfer Station
Contact: Richard Crespo
Telephone: (661) 295-5190
Mailing Address: 28035 Harrison Pkwy
Valencia, CA 91355
County Not reported

E26 | EMCO | HAZNET S106092383
NNE | 28045 W HARRISON PKWY | N/A
> 1 | VALENCIA, CA 91355
6578 ft.

Site 2 of 5 in cluster E

Relative: Higher
Actual: 1053 ft.

HAZNET:
Gepaid: CAL000229937
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.34
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Transfer Station
Contact: MATT HAY
Telephone: (661) 294-9966
Mailing Address: 28045 W HARRISON PKWY
VALENCIA, CA 91355
County Not reported

27 | JERRY AVALOS TRUCKING | HAZNET S105724410
WNW | 28459 CHIQUITO CANYON RD | N/A
> 1 | VAL VERDE, CA 91350
6784 ft.

Relative: Higher
Actual: 1046 ft.

HAZNET:
Gepaid: CAL000207708
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.02
Waste Category: Unspecified organic liquid mixture
Disposal Method: Not reported
Contact: ROBERT AVALOS
Telephone: (818) 367-8415
Mailing Address: 28459 CHIQUITO CANYON RD
VAL VERDE, CA 91350
County Not reported

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
E28 NNE > 1 6790 ft. Relative: Higher Actual: 1063 ft.	**DEL WEST ENGINEERING** **28128 W LIVINGSTON AVE** **VALENCIA, CA 91355**	RCRIS-LQG FINDS HAZNET	1001459707 CAR000048694

Site 3 of 5 in cluster E

RCRIS:
- Owner: DEL WEST ENGINEERING (805) 295-5700
- EPA ID: CAR000048694
- Contact: BEN MC CABE (805) 295-5700
- Classification: Large Quantity Generator
- TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
Resource Conservation and Recovery Act Information system (RCRAINFO)

HAZNET:
- Gepaid: CAR000048694
- TSD EPA ID: Not reported
- Gen County: Los Angeles
- Tsd County: Los Angeles
- Tons: 5.00
- Waste Category: Unspecified oil-containing waste
- Disposal Method: Not reported
- Contact: R J SOUKUP/FACILITIES MGR
- Telephone: (661) 295-5700
- Mailing Address: 28128 W LIVINGSTON AVE VALENCIA, CA 91355
- County: Not reported

- Gepaid: CAR000048694
- TSD EPA ID: Not reported
- Gen County: Los Angeles
- Tsd County: Los Angeles
- Tons: 4.17
- Waste Category: Unspecified oil-containing waste
- Disposal Method: Recycler
- Contact: R J SOUKUP/FACILITIES MGR
- Telephone: (661) 295-5700
- Mailing Address: 28128 W LIVINGSTON AVE VALENCIA, CA 91355
- County: Not reported

- Gepaid: CAR000048694
- TSD EPA ID: Not reported
- Gen County: Los Angeles
- Tsd County: Los Angeles
- Tons: 0.01
- Waste Category: Liquids with pH <UN-> 2
- Disposal Method: Recycler
- Contact: R J SOUKUP/FACILITIES MGR
- Telephone: (661) 295-5700
- Mailing Address: 28128 W LIVINGSTON AVE VALENCIA, CA 91355
- County: Not reported

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	DEL WEST ENGINEERING (Continued)		1001459707

- Gepaid: CAR000048694
- TSD EPA ID: Not reported
- Gen County: Los Angeles
- Tsd County: San Bernardino
- Tons: 7.50
- Waste Category: Other inorganic solid waste
- Disposal Method: Transfer Station
- Contact: R J SOUKUP/FACILITIES MGR
- Telephone: (661) 295-5700
- Mailing Address: 28128 W LIVINGSTON AVE VALENCIA, CA 91355
- County: Not reported

- Gepaid: CAR000048694
- TSD EPA ID: Not reported
- Gen County: Los Angeles
- Tsd County: San Bernardino
- Tons: 14.63
- Waste Category: Other organic solids
- Disposal Method: Transfer Station
- Contact: R J SOUKUP/FACILITIES MGR
- Telephone: (661) 295-5700
- Mailing Address: 28128 W LIVINGSTON AVE VALENCIA, CA 91355
- County: Not reported

The CA HAZNET database contains 41 additional records for this site.
Please click here or contact your EDR Account Executive for more information.

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
E29 NNE > 1 6795 ft. Relative: Higher Actual: 1063 ft.	**DEL WEST ENGINEERING** **28128 W LIVINGSTON AVE** **UNINCORPORATED, CA**	LOS ANGELES CO. HMS	1001472911 N/A

Site 4 of 5 in cluster E

HMS:
- Facility Id: 017610-024096
- Area: 7
- Facility Type: I09
- Permit Number: 174 Permit Status: Permit
- Facility Status: Permit
- Region: Los Angeles County:

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
30 North > 1 6873 ft. Relative: Higher Actual: 1173 ft.	**20TH CENTURY FOX,PAPI CHULO** **28455 LIVINGSTON AVE** **VALENCIA, CA 91355**	HAZNET	S106088596 N/A

HAZNET:
- Gepaid: CAC002555271
- TSD EPA ID: Not reported
- Gen County: Los Angeles
- Tsd County: Los Angeles
- Tons: 0.31
- Waste Category: Latex waste
- Disposal Method: Recycler
- Contact: ORLANDO PEREZ, PAINTER
- Telephone: (818) 800-0454

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	20TH CENTURY FOX,PAPI CHULO (Continued)		S106088596
	Mailing Address: 805 S SAN FERNANDO RD BURBANK, CA 91502		
	County Not reported		
E31 **NNE** **> 1** **6895 ft.**	**REGENT AEROSPACE INC** **28110 HARRISON PKWY** **VALENCIA, CA 91355**	**HAZNET**	**S105725099** **N/A**
Relative: **Higher**	**Site 5 of 5 in cluster E**		
Actual: **1042 ft.**	HAZNET: Gepaid: CAL000220147 TSD EPA ID: Not reported Gen County: Los Angeles Tsd County: Los Angeles Tons: 0.02 Waste Category: Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.) Disposal Method: Recycler Contact: MIKE VARGAS Telephone: (661) 257-3000 Mailing Address: 28110 HARRISON PKWY VALENCIA, CA 91355 County Not reported		
	Gepaid: CAL000220147 TSD EPA ID: Not reported Gen County: Los Angeles Tsd County: Los Angeles Tons: 0.24 Waste Category: Unspecified solvent mixture Waste Disposal Method: Treatment, Tank Contact: MIKE VARGAS Telephone: (661) 257-3000 Mailing Address: 28110 HARRISON PKWY VALENCIA, CA 91355 County Not reported		
	Gepaid: CAL000220147 TSD EPA ID: Not reported Gen County: Los Angeles Tsd County: Los Angeles Tons: 0.06 Waste Category: Off-specification, aged, or surplus organics Disposal Method: Transfer Station Contact: MIKE VARGAS Telephone: (661) 257-3000 Mailing Address: 28110 HARRISON PKWY VALENCIA, CA 91355 County Not reported		
	Gepaid: CAL000220147 TSD EPA ID: Not reported Gen County: Los Angeles Tsd County: Los Angeles Tons: 0.91 Waste Category: Waste oil and mixed oil Disposal Method: Recycler Contact: MIKE VARGAS Telephone: (661) 257-3000 Mailing Address: 28110 HARRISON PKWY		

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	REGENT AEROSPACE INC (Continued)		S105725099
	VALENCIA, CA 91355 County Not reported		
	Gepaid: CAL000220147 TSD EPA ID: Not reported Gen County: Los Angeles Tsd County: Sacramento Tons: 1.17 Waste Category: Other organic solids Disposal Method: Disposal, Other Contact: MIKE VARGAS Telephone: (661) 257-3000 Mailing Address: 28110 HARRISON PKWY VALENCIA, CA 91355 County Not reported		
	The CA HAZNET database contains 4 additional records for this site. Please click here or contact your EDR Account Executive for more information.		
F32 **North** **> 1** **6913 ft.**	**TIME AVIATION SERVICES INC** **28402 W LIVINGSTON AVE** **VALENCIA, CA 91355**	**RCRIS-SQG** **FINDS**	**1001967326** **CAR000067363**
Relative: **Higher**	**Site 1 of 2 in cluster F**		
Actual: **1151 ft.**	RCRIS: Owner: JOHN W BUTLER (661) 702-0800 EPA ID: CAR000067363 Contact: LARRY COLLINS (661) 702-7311 Classification: Small Quantity Generator TSDF Activities: Not reported Violation Status: No violations found		
	FINDS: Other Pertinent Environmental Activity Identified at Site: Resource Conservation and Recovery Act Information system (RCRAINFO)		
F33 **North** **> 1** **6913 ft.**	**TIME AVIATION SERVICES** **28402 W LIVINGSTON AVE** **VALENCIA, CA 91355**	**HAZNET**	**S105094017** **N/A**
Relative: **Higher**	**Site 2 of 2 in cluster F**		
Actual: **1151 ft.**	HAZNET: Gepaid: CAR000067363 TSD EPA ID: Not reported Gen County: Los Angeles Tsd County: Los Angeles Tons: 0.42 Waste Category: Aqueous solution with less than 10% total organic residues Disposal Method: Transfer Station Contact: LARRY COLLINGS - DIR OF QUALIT Telephone: (661) 702-7311 Mailing Address: 28402 W LIVINGSTON AVE VALENCIA, CA 91355 - 1415		

TIME AVIATION SERVICES (Continued) S105094017

County: Not reported

Gepaid: CAR000067363
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.12
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Transfer Station
Contact: LARRY COLLINGS - DIR OF QUALIT
Telephone: (661) 702-7311
Mailing Address: 28402 W LIVINGSTON AVE
VALENCIA, CA 91355 - 1415
County: Not reported

Gepaid: CAR000067363
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.06
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Transfer Station
Contact: LARRY COLLINGS - DIR OF QUALIT
Telephone: (661) 702-7311
Mailing Address: 28402 W LIVINGSTON AVE
VALENCIA, CA 91355 - 1415
County: Not reported

Gepaid: CAR000067363
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: San Bernardino
Tons: 1.04
Waste Category: Unspecified organic liquid mixture
Disposal Method: Transfer Station
Contact: LARRY COLLINGS - DIR OF QUALIT
Telephone: (661) 702-7311
Mailing Address: 28402 W LIVINGSTON AVE
VALENCIA, CA 91355 - 1415
County: Not reported

Gepaid: CAR000067363
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.8
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Transfer Station
Contact: LARRY COLLINGS - DIR OF QUALIT
Telephone: (661) 702-7311
Mailing Address: 28402 W LIVINGSTON AVE
VALENCIA, CA 91355 - 1415
County: Not reported

The CA HAZNET database contains 4 additional records for this site.
Please click here or contact your EDR Account Executive for more information.

TIME AVIATION SERVICES (Continued) S105094017

G34 **PROPOSED SCHOOL BUS STOP** CA SLIC S103878798
NNE **28300 LIVINGSTON** N/A
> 1 **CASTAIC, CA 91384**
6923 ft.

Site 1 of 3 in cluster G

Relative: Higher

Actual: 1102 ft.

SLIC Region 4:
Facility Status: Closure
Region: 4
SLIC: 0834
Staff: Jenny Au
Substance: TPH

G35 **PHARMAVITE LLC** RCRIS-LQG 1001815586
NNE **28305 W LIVINGSTON AVE** FINDS CAR000057190
> 1 **VALENCIA, CA 91355** HAZNET
6924 ft.

Site 2 of 3 in cluster G

Relative: Higher

Actual: 1103 ft.

RCRIS:
Owner: OTSUKA AMERICA INC
(415) 986-5300
EPA ID: CAR000057190
Contact: TIM COFFMAN
(818) 837-3633
Classification: Large Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
Resource Conservation and Recovery Act Information system (RCRAINFO)

HAZNET:
Gepaid: CAR000057190
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 1.08
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Recycler
Contact: TIM COFFMAN MGR REG COMPLIANCE
Telephone: (818) 221-6200
Mailing Address: PO BOX 9606
MISSION HILLS, CA 91346
County: Not reported

Gepaid: CAR000057190
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: 99
Tons: 107.84
Waste Category: Baghouse waste
Disposal Method: Disposal, Land Fill
Contact: TIM COFFMAN MGR REG COMPLIANCE
Telephone: (818) 221-6200

PHARMAVITE LLC (Continued) **1001815586**

Mailing Address: PO BOX 9606
MISSION HILLS, CA 91346
County: Not reported

Gepaid: CAR000057190
TSD EPA ID: NVT330010000
Gen County: Los Angeles
Tsd County: 99
Tons: 17.6988
Waste Category: Baghouse waste
Disposal Method: Disposal, Land Fill
Contact: OTSUKA AMERICA INC
Telephone: (000) 000-0000
Mailing Address: 15451 SAN FERNANDO MISSION BLV
MISSION HILLS, CA 91345
County: Los Angeles

Gepaid: CAR000057190
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: 99
Tons: 143.69
Waste Category: Baghouse waste
Disposal Method: Disposal, Land Fill
Contact: TIM COFFMAN MGR REG COMPLIANCE
Telephone: (818) 221-6200
Mailing Address: PO BOX 9606
MISSION HILLS, CA 91346
County: Not reported

Gepaid: CAR000057190
TSD EPA ID: NVT330010000
Gen County: Los Angeles
Tsd County: 99
Tons: 18.5416
Waste Category: Baghouse waste
Disposal Method: Not reported
Contact: OTSUKA AMERICA INC
Telephone: (000) 000-0000
Mailing Address: 15451 SAN FERNANDO MISSION BLV
MISSION HILLS, CA 91345
County: Los Angeles

The CA HAZNET database contains 1 additional record for this site.
Please click here or contact your EDR Account Executive for more information.

G36 **PHARMAVITE LLC** **LOS ANGELES CO. HMS** **1001959798**
NNE **28310 W LIVINGSTON AVE** **HAZNET** **N/A**
> 1 **VALENCIA, CA 91355**
6927 ft.

Site 3 of 3 in cluster G

Relative:
Higher

Actual:
1106 ft.

PHARMAVITE LLC (Continued) **1001959798**

HAZNET:
Gepaid: CAR000064444
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.62
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Recycler
Contact: TIM COFFMAN MGR REG COMPLIANCE
Telephone: (818) 221-6200
Mailing Address: PO BOX 9606
MISSION HILLS, CA 91346
County: Not reported

Gepaid: CAR000064444
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.54
Waste Category: Unspecified solvent mixture Waste
Disposal Method: Recycler
Contact: TIM COFFMAN MGR REG COMPLIANCE
Telephone: (818) 221-6200
Mailing Address: PO BOX 9606
MISSION HILLS, CA 91346
County: Not reported

Gepaid: CAR000064444
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: San Bernardino
Tons: 0.03
Waste Category: Other organic solids
Disposal Method: Not reported
Contact: TIM COFFMAN MGR REG COMPLIANCE
Telephone: (818) 221-6200
Mailing Address: PO BOX 9606
MISSION HILLS, CA 91346
County: Not reported

Gepaid: CAR000064444
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 12.50
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Recycler
Contact: TIM COFFMAN MGR REG COMPLIANCE
Telephone: (818) 221-6200
Mailing Address: PO BOX 9606
MISSION HILLS, CA 91346
County: Not reported

PHARMAVITE LLC (Continued) 1001959798

Gepaid: CAR000064444
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: 99
Tons: 8.42
Waste Category: Baghouse waste
Disposal Method: Disposal, Land Fill
Contact: TIM COFFMAN MGR REG COMPLIANCE
Telephone: (818) 221-6200
Mailing Address: PO BOX 9606
MISSION HILLS, CA 91346
County Not reported

The CA HAZNET database contains 9 additional records for this site.
Please click here or contact your EDR Account Executive for more information.

HMS:
Facility Id: 020797-037829
Area: 7
Facility Type: I01
Permit Number: 174 Permit Status: Permit
Facility Status: Permit
Region: Los Angeles County:

37
North
> 1
6928 ft.

KIMBALL MICROELECTRONICS RCRIS-SQG 1004677121
28575 LIVINGSTON AVE FINDS CAR000093468
VALENCIA, CA 91355 HAZNET

Relative: Higher

Actual: 1252 ft.

RCRIS:
Owner: KIMBALL INTL INC
(812) 482-1600
EPA ID: CAR000093468
Contact: FRANK FABIANO
(661) 775-3500
Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
Resource Conservation and Recovery Act Information system (RCRAINFO)

HAZNET:
Gepaid: CAR000093468
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.44
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Recycler
Contact: KENT DAVIS
Telephone: (661) 775-3500
Mailing Address: 28575 LIVINGSTON AVE
VALENCIA, CA 91355
County Not reported

KIMBALL MICROELECTRONICS (Continued) 1004677121

Gepaid: CAR000093468
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.67
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Recycler
Contact: KENT DAVIS
Telephone: (661) 775-3500
Mailing Address: 28575 LIVINGSTON AVE
VALENCIA, CA 91355
County Not reported

38
NNE
> 1
7080 ft.

WALT DISNEY PICTURES & TELEVISION HAZNET S104581097
28150 W HARRISON PARKWAY N/A
VALENCIA, CA 91355

Relative: Higher

Actual: 1046 ft.

HAZNET:
Gepaid: CAL000180976
TSD EPA ID: CAD050806850
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.2085
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Transfer Station
Contact: WALT DISNEY PICTURES & TV
Telephone: (000) 000-0000
Mailing Address: 500 S. BUENA VISTA ST.
BURBANK, CA 91521 - 2663
County Los Angeles

Gepaid: CAL000180976
TSD EPA ID: CAD050806850
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.9875
Waste Category: Other organic solids
Disposal Method: Transfer Station
Contact: WALT DISNEY PICTURES & TV
Telephone: (000) 000-0000
Mailing Address: 500 S. BUENA VISTA ST.
BURBANK, CA 91521 - 2663
County Los Angeles

Gepaid: CAL000180976
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.86
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Transfer Station
Contact: DEBBIE GONZALEZ ENVIRONMENTAL
Telephone: (818) 553-4061
Mailing Address: 500 S. BUENA VISTA ST.
BURBANK, CA 91521 - 6015
County Not reported

WALT DISNEY PICTURES & TELEVISION (Continued) — S104581097

Gepaid: CAL000180976
TSD EPA ID: CAD050806850
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: .6255
Waste Category: Waste oil and mixed oil
Disposal Method: Transfer Station
Contact: WALT DISNEY PICTURES & TV
Telephone: (000) 000-0000
Mailing Address: 500 S. BUENA VISTA ST.
BURBANK, CA 91521 - 2663
County: Los Angeles

Gepaid: CAL000180976
TSD EPA ID: CAD050806850
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: .3000
Waste Category: Other organic solids
Disposal Method: Transfer Station
Contact: WALT DISNEY PICTURES & TV
Telephone: (000) 000-0000
Mailing Address: 500 S. BUENA VISTA ST.
BURBANK, CA 91521 - 2663
County: Los Angeles

The CA HAZNET database contains 1 additional record for this site.
Please click here or contact your EDR Account Executive for more information.

H39 | ENE | > 1 | 7331 ft. | Relative: Higher | Actual: 1001 ft.

FIESTA RESORTS — LOS ANGELES CO. HMS — S102064533 / N/A
27946 W HENRY MAYO DR
UNINCORPORATED, CA

Site 1 of 4 in cluster H

HMS:
Facility Id: 014852-015631
Area: 7
Facility Type: T0
Permit Number: 174 — Permit Status: Closed
Facility Status: Closed
Region: Los Angeles County:

H40 | ENE | > 1 | 7331 ft. | Relative: Higher | Actual: 1001 ft.

VALENCIA TRAVEL VILLAGE — LOS ANGELES CO. HMS — S102064534 / N/A
27946 W HENRY MAYO DR
UNINCORPORATED, CA

Site 2 of 4 in cluster H

HMS:
Facility Id: 014852-021889
Area: 7
Facility Type: T0
Permit Number: 174 — Permit Status: Removed
Facility Status: Removed
Region: Los Angeles County:

VALENCIA TRAVEL VILLAGE (Continued) — S102064534

H41 | NE | > 1 | 7485 ft. | Relative: Higher | Actual: 998 ft.

THE VALENCIA TRAVEL VILLAGE — HAZNET — S103991139 / N/A
27946 HENRY MAYO ROAD, RTE 126
VALENCIA, CA 91384

Site 3 of 4 in cluster H

HAZNET:
Gepaid: CAC001485192
TSD EPA ID: CAD982484933
Gen County: Los Angeles
Tsd County: 7
Tons: .2500
Waste Category: Other empty containers 30 gallons or more
Disposal Method: Recycler
Contact: STEWART BLAIR
Telephone: (805) 257-3333
Mailing Address: 27946 HENRY MAYO ROAD, RTE 126
VALENCIA, CA 91384
County: Los Angeles

Gepaid: CAC001485192
TSD EPA ID: CAD028409019
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: .4170
Waste Category: Aqueous solution with 10% or more total organic residues
Disposal Method: Treatment, Tank
Contact: STEWART BLAIR
Telephone: (805) 257-3333
Mailing Address: 27946 HENRY MAYO ROAD, RTE 126
VALENCIA, CA 91384
County: Los Angeles

H42 | NE | > 1 | 7485 ft. | Relative: Higher | Actual: 998 ft.

FIESTA RESORT TRAVEL VILLAGE — CA FID UST — S101584732 / N/A
27946 HENRY MAYO RD
VALENCIA, CA 91384

Site 4 of 4 in cluster H

FID:
Facility ID: 19014937 — Regulate ID: Not reported
Reg By: Active Underground Storage Tank Location
Cortese Code: Not reported — SIC Code: Not reported
Status: Active — Facility Tel: (805) 257-1135
Mail To: Not reported
27946 HENRY MAYO DR
VALENCIA, CA 91384
Contact: Not reported — Contact Tel: Not reported
DUNs No: Not reported — NPDES No: Not reported
Creation: 10/22/93 — Modified: 00/00/00
EPA ID: Not reported
Comments: Not reported

I43
NE
> 1
7816 ft.

SCHWARTZ OIL CO — UST U001567874
27241 HENRY MAYO DR — EMI N/A
VALENCIA, CA 91355 — HIST UST
HAZNET

Site 1 of 8 in cluster I

Relative: Higher

Actual: 996 ft.

HAZNET:
Gepaid: CAL000171310
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 1.14
Waste Category: Tank bottom waste
Disposal Method: Recycler
Contact: GINNY OSTROVE-OFFICE MGR
Telephone: (661) 259-4000
Mailing Address: 27241 HENRY MAYO DR
VALENCIA, CA 91355
County Not reported

Gepaid: CAL000171310
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 15.01
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Recycler
Contact: GINNY OSTROVE-OFFICE MGR
Telephone: (661) 259-4000
Mailing Address: 27241 HENRY MAYO DR
VALENCIA, CA 91355
County Not reported

Gepaid: CAL000171310
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 10.42
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Contact: GINNY OSTROVE-OFFICE MGR
Telephone: (661) 259-4000
Mailing Address: 27241 HENRY MAYO DR
VALENCIA, CA 91355
County Not reported

Gepaid: CAC001421632
TSD EPA ID: CAD028409019
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 1.8556
Waste Category: Unspecified oil-containing waste
Disposal Method: Treatment, Tank
Contact: TRUDY EMETERIO
Telephone: (000) 000-0000
Mailing Address: 27241 HENRY MAYO
VALENCIA, CA 00000
County Los Angeles

SCHWARTZ OIL CO (Continued) — U001567874

Gepaid: CAC001421632
TSD EPA ID: CAD982484933
Gen County: Los Angeles
Tsd County: 7
Tons: .5000
Waste Category: Empty containers less than 30 gallons
Disposal Method: Disposal, Other
Contact: TRUDY EMETERIO
Telephone: (000) 000-0000
Mailing Address: 27241 HENRY MAYO
VALENCIA, CA 00000
County Los Angeles

The CA HAZNET database contains 1 additional record for this site.
Please click here or contact your EDR Account Executive for more information.

UST HIST:
Facility ID: 5275 — Facility Status: Not reported
Total Tanks: 4 — Region: STATE
Owner Name: SCHWARTZ OIL COMPANY INC. — Box Number: Not reported
Owner Address: 27241 HENRY MAYO RD.
VALENCIA, CA 91355

EMISSIONS :
Facility ID : 35743
Air District Code : SC
SIC Code : 5171
Total Priority Score : Not reported
Health Risk Assessment : Not reported
Non-cancer Chronic Haz Index : Not reported
Non-cancer Acute Haz Index : Not reported
Air Basin : SC
Air District Name : SOUTH COAST AQMD
Community Health Air Pollution Info System : Not reported
Consolidated Emission Reporting Rule : Not reported
Total Organic Hydrocarbon Gases : Not reported
Reactive Organic Gases : Not reported
Carbon Monoxide Emissions : Not reported
NOX Gas Emissions (Nitrogen - Oxygen) : Not reported
SOX Gas Emissions (Sulphur - Oxygen) : Not reported

State UST:
Facility ID: 16425
Region: STATE
Local Agency: 19000

I44
NE
> 1
7816 ft.

SCHWARTZ OIL CO. — Cortese S104160064
27241 HENRY MAYO DR — LUST N/A
VALENCIA, CA 91355

Site 2 of 8 in cluster I

Relative: Higher

Actual: 996 ft.

State LUST:
Cross Street: THE OLD ROAD
Qty Leaked: Not reported
Case Number I-16425
Reg Board: 4
Chemical: Gasoline
Lead Agency: Regional Board
Local Agency : 19000

SCHWARTZ OIL CO. (Continued) S104160064

Case Type: Other ground water affected
Status: Case Closed
Review Date: Not reported — Confirm Leak: Not reported
Workplan: 4/14/92 — Prelim Assess: 4/14/92
Pollution Char: Not reported — Remed Plan: Not reported
Remed Action: Not reported
Monitoring: Not reported
Close Date: 08/30/1996
Release Date: 04/14/1992
Cleanup Fund Id : Not reported
Discover Date : 01/23/1992
Enforcement Dt : Not reported
Enf Type: Not reported
Enter Date : 05/26/1992
Funding: Federal Funds
Staff Initials: Not reported
How Discovered: OM
How Stopped: Not reported
Interim : Not reported
Leak Cause: UNK
Leak Source: Tank
MTBE Date : / /
Max MTBE GW : 0 Parts per Billion
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Priority: Not reported
Local Case # : Not reported
Beneficial: Not reported
Staff : JLC
GW Qualifier : Not reported
Max MTBE Soil : Not reported
Soil Qualifier : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: RB Lead Underground Storage Tank
Oversight Prgm : UST
Review Date : 09/24/1996
Stop Date : / /
Work Suspended Not reported
Responsible PartySCHWARTZ OIL CO.
RP Address: 2615 NUTMEG ST., MORRO BAY, 93442 D
Global Id: T0603704411
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 1
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported

LUST Region 4:
Report Date: 4/14/1992
Lead Agency: Regional Board
Local Agency: 19000
Case Number: I-16425
Substance: Gasoline
Case Type: Groundwater

SCHWARTZ OIL CO. (Continued) S104160064

Status: Case Closed
Region: 4
Staff: Not reported
Source of Cleanup Funding: Federal Funds
Date the Leak was Discovered: 1/23/1992
How the Leak was Discovered: Other Means
How the Leak was Stopped: Not reported
Cause of Leak: Unknown
Leak Source: Tank
Date The Leak was Stopped: Not reported
Date Confirmation Leak Began: Not reported
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: 4/14/1992
Pollution Characterization Began: Not reported
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: Not reported
Date the Case was Closed: 8/30/1996
Date Case Last Changed on Database: 9/24/1996
Enforcement Action Date: Not reported
Date Leak First Reported: 4/14/1992
Enforcement Type: Not reported
Global ID : T0603704411
Organization : Not reported
Historical Max MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil : Not reported
County: Los Angeles
Regional Board: 04
Owner Contact: Not reported
Responsible Party: SCHWARTZ OIL CO.
RP Address: 2615 NUTMEG ST., MORRO BAY, 93442 D
Significant Interim Remedial Action Taken: Not reported
Program : UST
Lat / Long : 34.4391864 / -118.609307
MTBE Counts : 0
MTBE Fuel : 1
MTBE Tested : NT
Local Agency Staff: UNK
Summary : Not reported
Hydrologic Basin # : Not reported
Beneficial Use : Not reported
Priority : Not reported
Cleanup Fund Id : Not reported
Suspended : Not reported
Local Case No : Not reported
Substance Quantity : Not reported
Abatement Method Used at the Site: Not reported
Operator : Not reported
Water System : PETER PITCHESS HONOR RANCHO, LAC SHERIFF
Well Name : WELL 01A - INACTIVE
Approx. Dist To Production Well (ft) : 4770.981732651974542165717283 1
W Global ID : W0603700046
Assigned Name : 1900046-008
MTBE Class : Not reported

SCHWARTZ OIL CO. (Continued) S104160064

CORTESE:
Region: CORTESE
Fac Address 2: 27241 HENRY MAYO DR

I45 **SCHWARTZ OIL CO INC** FINDS 1006306954
NE **27241 HENRY MAYO DR** 110012435551
> 1 **VALENCIA, CA 91355**
7816 ft.

Site 3 of 8 in cluster I

Relative: **Higher**

FINDS:
Other Pertinent Environmental Activity Identified at Site:
National Emissions Inventory (NEI)
National Toxics Inventory (NTI)

Actual: **996 ft.**

I46 **LA COUNTY FIRE DEPT STATION 75** AST A100211166
NE **27223 HENRY MAYO DR** N/A
> 1 **VALENCIA, CA 91355**
7839 ft.

Site 4 of 8 in cluster I

Relative: **Higher**

AST:
Owner: LOS ANGELES COUNTY FIRE DEPT
Total Gallons: 1000

Actual: **996 ft.**

I47 **LA CO FD FIRE STA #076** LOS ANGELES CO. HMS S102064489
NE **27223 W HENRY MAYO DR** Cortese N/A
> 1 **VALENCIA, CA 91355** LUST
7839 ft.

Site 5 of 8 in cluster I

Relative: **Higher**

State LUST:
Cross Street: CASTAIC CANYON RD
Qty Leaked: Not reported
Case Number R-12547
Reg Board: 4
Chemical: Hydrocarbons
Lead Agency: Local Agency
Local Agency : 19000
Case Type: Soil only
Status: Case Closed
Abate Method: Other Means
Review Date: Not reported
Workplan: Not reported
Pollution Char: Not reported
Remed Action: Not reported
Monitoring: Not reported
Close Date: 08/13/1997
Release Date: 06/26/1997
Cleanup Fund Id : Not reported
Discover Date : 06/04/1997
Enforcement Dt : Not reported
Enf Type: Not reported
Enter Date : 07/17/1997
Funding: Not reported
Staff Initials: Not reported
How Discovered: Tank Closure
Confirm Leak: Not reported
Prelim Assess: Not reported
Remed Plan: Not reported

Actual: **996 ft.**

LA CO FD FIRE STA #076 (Continued) S102064489

How Stopped: Not reported
Interim : Not reported
Leak Cause: UNK
Leak Source: Tank
MTBE Date : / /
Max MTBE GW : 0 Parts per Billion
MTBE Tested: Not Required to be Tested.
Priority: Not reported
Local Case # : Not reported
Beneficial: Not reported
Staff : JLC
GW Qualifier : Not reported
Max MTBE Soil : Not reported
Soil Qualifier : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Implementing Agency UST (includes non-LOP cases within LOP jurisdiction)
Oversight Prgm : LIA
Review Date : 08/13/1997
Stop Date : / /
Work Suspended : Not reported
Responsible Party: LA COUNTY FIRE DEPARTMENT
RP Address: 1320 N. EASTERN AVE., LOS ANGELES CA 90063-3294
Global Id: T0603705143
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 0
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported

LUST Region 4:
Report Date: 6/26/1997
Lead Agency: Local Agency
Local Agency: 19000
Case Number: R-12547
Substance: Hydrocarbons
Case Type: Soil
Status: Case Closed
Region: 4
Staff: Not reported
Source of Cleanup Funding: Not reported
Date the Leak was Discovered: 6/4/1997
How the Leak was Discovered: Tank Closure
How the Leak was Stopped: Close Tank
Cause of Leak: Unknown
Leak Source: Tank
Date The Leak was Stopped: Not reported
Date Confirmation Leak Began: Not reported
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported

LA CO FD FIRE STA #076 (Continued) — **S102064489**

Post Remedial Action Monitoring Began: Not reported
Date the Case was Closed: 8/13/1997
Date Case Last Changed on Database: 8/13/1997
Enforcement Action Date: Not reported
Date Leak First Reported: 6/26/1997
Enforcement Type: Not reported
Global ID : T0603705143
Organization : Not reported
Historical Max MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil : Not reported
County: Los Angeles
Regional Board: 04
Owner Contact: Not reported
Responsible Party: LA COUNTY FIRE DEPARTMENT
RP Address: 1320 N. EASTERN AVE., LOS ANGELES CA 90063-3294
Significant Interim Remedial Action Taken: Not reported
Program : LIA
Lat / Long : 34.4391864 / -118.609307
MTBE Counts : 0
MTBE Fuel : 0
MTBE Tested : NRQ
Local Agency Staff: UNK
Summary : DEPTH TO G.W. 25TH. BGS. FURTHER ASSESSMENT REQ'D. POTENTIAL G.W. CONTAMINATION.
Hydrologic Basin # : Not reported
Beneficial Use : Not reported
Priority : Not reported
Cleanup Fund Id : Not reported
Suspended : Not reported
Local Case No : Not reported
Substance Quantity : Not reported
Abatement Method Used at the Site: OT
Operator : Not reported
Water System : PETER PITCHESS HONOR RANCHO, LAC SHERIFF
Well Name : WELL 01A - INACTIVE
Approx. Dist To Production Well (ft) : 4770.981732651974542165717283 1
W Global ID : W0603700046
Assigned Name : 1900046-008
MTBE Class : Not reported

CORTESE:
Region: CORTESE
Fac Address 2: 27223 HENRY MAYO DR

HMS:
Facility Id: 012416-012547
Area: 7
Facility Type: TO
Permit Number: 174 Permit Status: Removed
Facility Status: Removed
Region: Los Angeles County:

LA CO FD FIRE STA #076 (Continued) — **S102064489**

I48 — **HIST UST** — **U001562296** / **N/A**
NE
> 1
7839 ft.
FIRE STATION #76
27223 HENRY MAYO DR
VALENCIA, CA 90063

Site 6 of 8 in cluster I

Relative: Higher
Actual: 996 ft.

UST HIST:
Facility ID: 20631 Facility Status: Not reported
Total Tanks: 2 Region: STATE
Owner Name: LOS ANGELES COUNTY MECHANICAL Box Number: Not reported
Owner Address: 1100 N. EASTERN AVE.
LOS ANGELES, CA 90063

I49 — **CA FID UST** — **S101587195** / **N/A**
NE
> 1
7839 ft.
LA CO FD FIRE STA #076
27223 HENRY MAYO DR
NEWHALL, CA 91321

Site 7 of 8 in cluster I

Relative: Higher
Actual: 996 ft.

FID:
Facility ID: 19055062 Regulate ID: 00020631
Reg By: Active Underground Storage Tank Location
Cortese Code: Not reported SIC Code: Not reported
Status: Active Facility Tel: (818) 000-0000
Mail To: Not reported
1320 N EASTERN AVE
NEWHALL, CA 91321
Contact: Not reported Contact Tel: Not reported
DUNs No: Not reported NPDES No: Not reported
Creation: 10/22/93 Modified: 00/00/00
EPA ID: Not reported
Comments: Not reported

I50 — **HIST UST** — **U001567871** / **N/A**
NE
> 1
7857 ft.
R.M. PYLES BOYS CAMP, INC.
27211 HENRY MAYO DR
VALENCIA, CA 91355

Site 8 of 8 in cluster I

Relative: Higher
Actual: 996 ft.

UST HIST:
Facility ID: 55879 Facility Status: Not reported
Total Tanks: 1 Region: STATE
Owner Name: R.M. PYLES BOYS CAMP, INC. Box Number: Not reported
Owner Address: 27211 HENRY MAYO DRIVE
VALENCIA, CA 91355

J51 — **CA FID UST** — **S101583389** / **N/A**
ENE
> 1
8897 ft.
SCHUARTI OIL CO. INC.
27241 HENRY MAYO RD
VALENCIA, CA 91355

Site 1 of 2 in cluster J

Relative: Higher
Actual: 1009 ft.

SCHUARTI OIL CO. INC. (Continued) S101583389

FID:
Facility ID: 19003595 Regulate ID: Not reported
Reg By: Active Underground Storage Tank Location
Cortese Code: Not reported SIC Code: Not reported
Status: Active Facility Tel: (805) 259-4000
Mail To: Not reported
6215 NUTMEG ST
VALENCIA, CA 91355
Contact: Not reported Contact Tel: Not reported
DUNs No: Not reported NPDES No: Not reported
Creation: 10/22/93 Modified: 00/00/00
EPA ID: Not reported
Comments: Not reported

J52
ENE
> 1
9015 ft.

Relative:
Higher

Actual:
1010 ft.

NEWHALL LAND & FARMING Cortese S102064490
27230 HENRY MAYO RD LUST N/A
VALENCIA, CA 91355

Site 2 of 2 in cluster J

State LUST:
Cross Street: Not reported
Qty Leaked: Not reported
Case Number I-14698
Reg Board: 4
Chemical: Gasoline
Lead Agency: Local Agency
Local Agency : 19000
Case Type: Soil only
Status: Case Closed
Review Date: Not reported Confirm Leak: Not reported
Workplan: Not reported Prelim Assess: Not reported
Pollution Char: Not reported Remed Plan: Not reported
Remed Action: Not reported
Monitoring: Not reported
Close Date: 01/29/1990
Release Date: 01/29/1990
Cleanup Fund Id : Not reported
Discover Date : / /
Enforcement Dt : Not reported
Enf Type: Not reported
Enter Date : 01/22/1990
Funding: Not reported
Staff Initials: Not reported
How Discovered: Not reported
How Stopped: Not reported
Interim : Not reported
Leak Cause: Not reported
Leak Source: Not reported
MTBE Date : / /
Max MTBE GW : 0 Parts per Billion
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Priority: Not reported
Local Case # : Not reported
Beneficial: Not reported
Staff : JLC
GW Qualifier : Not reported
Max MTBE Soil : Not reported

NEWHALL LAND & FARMING (Continued) S102064490

Soil Qualifier : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Implementing Agency UST (includes non-LOP cases within LOP jurisdiction)
Oversight Prgm : LIA
Review Date : 01/29/1990
Stop Date : / /
Work Suspended : Not reported
Responsible Party: NEWHALL LAND & FARMING CO.
RP Address: 23823 VALENCIA BOULEVARD, VALENCIA, 91355
Global Id: T0603704197
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 1
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported

LUST Region 4:
Report Date: 1/29/1990
Lead Agency: Local Agency
Local Agency: 19000
Case Number: I-14698
Substance: Gasoline
Case Type: Soil
Status: Case Closed
Region: 4
Staff: Not reported
Source of Cleanup Funding: Not reported
Date the Leak was Discovered: Not reported
How the Leak was Discovered: Not reported
How the Leak was Stopped: Not reported
Cause of Leak: Not reported
Leak Source: Not reported
Date The Leak was Stopped: Not reported
Date Confirmation Leak Began: Not reported
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: Not reported
Date the Case was Closed: 1/29/1990
Date Case Last Changed on Database: 1/29/1990
Enforcement Action Date: Not reported
Date Leak First Reported: 1/29/1990
Enforcement Type: Not reported
Global ID : T0603704197
Organization : Not reported
Historical Max MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil : Not reported

NEWHALL LAND & FARMING (Continued) — **S102064490**

County:	Los Angeles
Regional Board:	04
Owner Contact:	Not reported
Responsible Party:	NEWHALL LAND & FARMING CO.
RP Address:	23823 VALENCIA BOULEVARD, VALENCIA, 91355
Significant Interim Remedial Action Taken:	Not reported
Program :	LIA
Lat / Long :	34.4391864 / -118.609307
MTBE Counts :	0
MTBE Fuel :	1
MTBE Tested :	NT
Local Agency Staff:	UNK
Summary :	Not reported
Hydrologic Basin # :	Not reported
Beneficial Use :	Not reported
Priority :	Not reported
Cleanup Fund Id :	Not reported
Suspended :	Not reported
Local Case No :	Not reported
Substance Quantity :	Not reported
Abatement Method Used at the Site:	Not reported
Operator :	Not reported
Water System :	PETER PITCHESS HONOR RANCHO, LAC SHERIFF
Well Name :	WELL 01A - INACTIVE
Approx. Dist To Production Well (ft) :	4770.981732651974542165717283 1
W Global ID :	W0603700046
Assigned Name :	1900046-008
MTBE Class :	Not reported

CORTESE:

Region:	CORTESE
Fac Address 2:	27230 HENRY MAYO RD

---

53 — **CHMIRS** — **S105648719**

West — **27353 SAN MARTINEZ GRANDE CANYON** — **N/A**

> 1 — **SANTA CLARITA, CA 0**

10396 ft.

Relative: Higher

Actual: 1030 ft.

CHMIRS:

OES Control Number:	97-4284
Chemical Name:	crude oil
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	97-4284
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported

(Continued) — **S105648719**

Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	Yes
Waterway :	River Bed
Spill Site :	Road
Cleanup By :	To be determined
Containment :	No
What Happened :	A tanker truck loaded with 1,000 gals of crude oil was involved in a traffic accident an unknown amount of the crude oil was released. The release is ongoing. The substance going into the Santa Clarita River Bed, No flowing water in the riverbed at this
Type :	PETROLEUM
Other :	1,000 Potential
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	10/27/97
Evacuations :	0

K54 — **CHMIRS** — **S100279945**

NE — **29300 THE OLD ROAD** — **EMI** — **N/A**

> 1 — **SAUGUS, CA 91384** — **HAZNET**

11010 ft. — **SWF/LF**

Site 1 of 2 in cluster K

Relative: Higher

Actual: 1018 ft.

LF:

Facility ID:	19-AA-0057
Operator:	County Of Los Angeles Sheriff's Dept
Operator Phone:	(213) 974-4528
Operator Addr:	293000 The Old Road Saugus, CA 90012
Owner:	County Of Los Angeles Sheriff's Dept
Owner Address:	Not reported 293000 The Old Road Saugus, CA 90012
Owner Telephone:	(213) 974-4528
Activity:	Solid Waste Landfill
Operator's Status:	Closed
Regulation Status:	Permitted
Region:	STATE
Lat/Long:	34 / -118
Permit Date:	Not reported
Accepted Waste:	Agricultural,Construction/demolition,Mixed municipal,Other hazardous,Tires

(Continued) S100279945

Restrictions:
Status : Not reported
Swisnumber : Not reported
Site Type : Not reported
Aka : Not reported
Type Of Waste : Not reported
Disposal Area : Not reported
SWFP Date : Not reported
WDR Number : Not reported
Dates Of Operation : Not reported
Closure Approved : Not reported
Date Of Field Units : Not reported
Surface Condition : Not reported
Landfill Gas : Not reported
Leachate : Not reported
Emergency Response : Not reported
Other Recommendation : Not reported
Reassess Site : Not reported
Priority For Site Assessment : Not reported
Lea Date : Not reported
Explanation: Not Reported
No Further Action: Not Reported
Permitted Throughput with Units: 154
Permitted Throughput with Units: 154
Permitted Throughput with Units: 154
Actual Throughput with Units: Cu Yards/day
Actual Capacity with Units: Not reported
Permitted Capacity with Units: Not reported
Remaining Capacity with Units: Not reported
Permitted Total Acreage: 54
Inspection Frequency: Quarterly
Landuse Name: Not reported
GIS Source: External
Permit Status: Permitted
Category: Disposal
Unit Number: 01
Last Waste Tire Inspection Count : Not reported
Last Waste Tire Inspection Date: Not reported
Original Waste Tire Count: Not reported
Original Waste Tire Count Date: Not reported
Closure Date: 01/01/1992
Closure Type: Actual
Disposal Acreage: 0
Remaining Capacity: Not reported

HAZNET:
Gepaid: CAL000022055
TSD EPA ID: CAD000088252
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: .6000
Waste Category: Contaminated soil from site clean-ups
Disposal Method: Transfer Station
Contact: LA CNTY SHERIFFS DEPT
Telephone: (213) 526-5541
Mailing Address: 4700 RAMONA BLVD
MONTEREY PARK, CA 91754 - 2169
County Los Angeles

(Continued) S100279945

Gepaid: CAL000022055
TSD EPA ID: CAD008252405
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 6.1090
Waste Category: Paint sludge
Disposal Method: Recycler
Contact: LA CNTY SHERIFFS DEPT
Telephone: (213) 526-5541
Mailing Address: 4700 RAMONA BLVD
MONTEREY PARK, CA 91754 - 2169
County Los Angeles

Gepaid: CAL000022055
TSD EPA ID: CAD008252405
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 2.2935
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Contact: LA CNTY SHERIFFS DEPT
Telephone: (213) 526-5541
Mailing Address: 4700 RAMONA BLVD
MONTEREY PARK, CA 91754 - 2169
County Los Angeles

Gepaid: CAL000022055
TSD EPA ID: CAD008252405
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 1.0425
Waste Category: Unspecified solvent mixture Waste
Disposal Method: Recycler
Contact: LA CNTY SHERIFFS DEPT
Telephone: (213) 526-5541
Mailing Address: 4700 RAMONA BLVD
MONTEREY PARK, CA 91754 - 2169
County Los Angeles

Gepaid: CAL000022055
TSD EPA ID: CAD099452708
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: .3335
Waste Category: Tank bottom waste
Disposal Method: Recycler
Contact: LA CNTY SHERIFFS DEPT
Telephone: (213) 526-5541
Mailing Address: 4700 RAMONA BLVD
MONTEREY PARK, CA 91754 - 2169
County Los Angeles

The CA HAZNET database contains 131 additional records for this site.
Please click here or contact your EDR Account Executive for more information.

CHMIRS:
OES Control Number: 9014303
Chemical Name: Not reported
Extent of Release: Not reported

(Continued) S100279945

Property Use:	Industrial, Utility
Incident Date:	05-DEC-90
Date Completed:	05-DEC-90
Time Completed :	1935
Agency Id Number :	19110
Agency Incident Number :	51
OES Incident Number :	9014303
Time Notified :	1835
Surrounding Area :	099
Estimated Temperature :	60
Property Management :	C
More Than Two Substances Involved? :	N
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	0
Others Number Of Decontaminated :	0
Others Number Of Injuries :	0
Others Number Of Fatalities :	0
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	CAPT. LYNN MOHR #124351
Report Date :	05-DEC-90
Comments :	Yes
Facility Telephone Number :	213 267-2401
Waterway Involved :	Not reported
Waterway :	Not reported
Spill Site :	Not reported
Cleanup By :	Not reported
Containment :	Not reported
What Happened :	Not reported
Type :	Not reported
Other :	Not reported
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	Not reported
Evacuations :	Not reported

EMISSIONS :

Facility ID :	6488
Air District Code :	SC
SIC Code :	9223
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SC
Air District Name :	SOUTH COAST AQMD

(Continued) S100279945

Community Health Air Pollution Info System :	Not reported
Consolidated Emission Reporting Rule :	Not reported
Total Organic Hydrocarbon Gases :	1
Reactive Organic Gases :	1
Carbon Monoxide Emissions :	1
NOX Gas Emissions (Nitrogen - Oxygen) :	4
SOX Gas Emissions (Sulphur - Oxygen) :	0
Facility ID :	58949
Air District Code :	SC
SIC Code :	9223
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SC
Air District Name :	SOUTH COAST AQMD
Community Health Air Pollution Info System :	Y
Consolidated Emission Reporting Rule :	Not reported
Total Organic Hydrocarbon Gases :	65
Reactive Organic Gases :	6
Carbon Monoxide Emissions :	5
NOX Gas Emissions (Nitrogen - Oxygen) :	28
SOX Gas Emissions (Sulphur - Oxygen) :	1
Facility ID :	6488
Air District Code :	SC
SIC Code :	9223
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SC
Air District Name :	SOUTH COAST AQMD
Community Health Air Pollution Info System :	Not reported
Consolidated Emission Reporting Rule :	Not reported
Total Organic Hydrocarbon Gases :	Not reported
Reactive Organic Gases :	Not reported
Carbon Monoxide Emissions :	Not reported
NOX Gas Emissions (Nitrogen - Oxygen) :	Not reported
SOX Gas Emissions (Sulphur - Oxygen) :	Not reported
Facility ID :	58949
Air District Code :	SC
SIC Code :	9223
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SC
Air District Name :	SOUTH COAST AQMD
Community Health Air Pollution Info System :	Y
Consolidated Emission Reporting Rule :	Not reported
Total Organic Hydrocarbon Gases :	Not reported
Reactive Organic Gases :	Not reported
Carbon Monoxide Emissions :	Not reported
NOX Gas Emissions (Nitrogen - Oxygen) :	Not reported

(Continued) S100279945

SOX Gas Emissions (Sulphur - Oxygen) : Not reported

K55
NE
> 1
11010 ft.

29300 THE OLD ROAD
VALENCIA, CA 91384

CHMIRS S100279260
N/A

Relative:
Higher

Actual:
1016 ft.

Site 2 of 2 in cluster K

CHMIRS:

OES Control Number:	8905392
Chemical Name:	Not reported
Extent of Release:	Not reported
Property Use:	099
Incident Date:	29-MAR-89
Date Completed:	29-MAR-89
Time Completed :	1606
Agency Id Number :	19110
Agency Incident Number :	27
OES Incident Number :	8905392
Time Notified :	1446
Surrounding Area :	099
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	N
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	0
Others Number Of Decontaminated :	0
Others Number Of Injuries :	0
Others Number Of Fatalities :	0
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	CAPT. JOHN W. EVERETT
Report Date :	29-MAR-89
Comments :	Not reported
Facility Telephone Number :	213 267-2485
Waterway Involved :	Not reported
Waterway :	Not reported
Spill Site :	Not reported
Cleanup By :	Not reported
Containment :	Not reported
What Happened :	Not reported
Type :	Not reported
Other :	Not reported
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	Not reported
Evacuations :	Not reported

(Continued) S100279260

56
NE
> 1
11020 ft.

DIXIE DIESEL STATION
29471 THE OLD ROAD
SAUGUS, CA 91350

Cortese S102428845
LUST N/A

Relative:
Higher

Actual:
1020 ft.

State LUST:

Cross Street:	Not reported		
Qty Leaked:	Not reported		
Case Number	I-12830		
Reg Board:	4		
Chemical:	Diesel		
Lead Agency:	Local Agency		
Local Agency :	19000		
Case Type:	Other ground water affected		
Status:	Case Closed		
Abate Method:	Excavate and Dispose - remove contaminated soil and dispose in approved site		
Review Date:	Not reported	Confirm Leak:	Not reported
Workplan:	2/3/87	Prelim Assess:	2/3/87
Pollution Char:	Not reported	Remed Plan:	Not reported
Remed Action:	6/20/30		
Monitoring:	Not reported		
Close Date:	11/30/1993		
Release Date:	04/06/1987		
Cleanup Fund Id :	Not reported		
Discover Date :	/ /		
Enforcement Dt :	1/1/65		
Enf Type:	Informal Enforcement Actions,including Notices of Violations and Staff Enforcement Letters		
Enter Date :	/ /		
Funding:	Federal Funds		
Staff Initials:	Not reported		
How Discovered:	Subsurface Monitoring		
How Stopped:	Not reported		
Interim :	Not reported		
Leak Cause:	UNK		
Leak Source:	UNK		
MTBE Date :	/ /		
Max MTBE GW :	0 Parts per Billion		
MTBE Tested:	Not Required to be Tested.		
Priority:	Not reported		
Local Case # :	Not reported		
Beneficial:	Not reported		
Staff :	JLC		
GW Qualifier :	Not reported		
Max MTBE Soil :	Not reported		
Soil Qualifier :	Not reported		
Hydr Basin #:	Not reported		
Operator :	Not reported		
Oversight Prgm:	Local Implementing Agency UST (includes non-LOP cases within LOP jurisdiction)		
Oversight Prgm :	LIA		
Review Date :	11/30/1993		
Stop Date :	/ /		
Work Suspended :	Not reported		
Responsible Party	GORTIKOV/HASLEY PARTNERS, LTD		
RP Address:	15165 VENTURA BLVD, #230, SHERMAN OAKS, 91403		
Global Id:	T0603704004		
Org Name:	Not reported		

DIXIE DIESEL STATION (Continued) S102428845

Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 0
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported

LUST Region 4:
Report Date: 4/6/1987
Lead Agency: Local Agency
Local Agency: 19000
Case Number: I-12830
Substance: Diesel
Case Type: Groundwater
Status: Case Closed
Region: 4
Staff: Not reported

Source of Cleanup Funding:	Federal Funds
Date the Leak was Discovered:	Not reported
How the Leak was Discovered:	Subsurface Monitoring
How the Leak was Stopped:	Not reported
Cause of Leak:	Unknown
Leak Source:	Unknown
Date The Leak was Stopped:	Not reported
Date Confirmation Leak Began:	Not reported
Preliminary Site Assessment Workplan Submitted:	Not reported
Preliminary Site Assessment Began:	2/3/1987
Pollution Characterization Began:	Not reported
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	6/20/1930
Post Remedial Action Monitoring Began:	Not reported
Date the Case was Closed:	11/30/1993
Date Case Last Changed on Database:	11/30/1993
Enforcement Action Date:	Not reported
Date Leak First Reported:	4/6/1987
Enforcement Type:	IEA
Global ID :	T0603704004
Organization :	Not reported
Historical Max MTBE Date:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil :	Not reported
County:	Los Angeles
Regional Board:	04

Owner Contact: Not reported
Responsible Party: GORTIKOV/HASLEY PARTNERS, LTD
RP Address: 15165 VENTURA BLVD, #230, SHERMAN OAKS, 91403

Significant Interim Remedial Action Taken:	Not reported
Program :	LIA
Lat / Long :	34.4680232 / -118.4689948
MTBE Counts :	0
MTBE Fuel :	0
MTBE Tested :	NRQ
Local Agency Staff:	UNK
Summary :	2215 MG/KG TPH IN SOIL AT 10'. 5 MG/L TPH IN WATER

DIXIE DIESEL STATION (Continued) S102428845

2ND LEAK REPORTED 1/29/91

OLD CASE #021089-08

Hydrologic Basin # :	Not reported
Beneficial Use :	Not reported
Priority :	Not reported
Cleanup Fund Id :	Not reported
Suspended :	Not reported
Local Case No :	Not reported
Substance Quantity :	Not reported
Abatement Method Used at the Site:	Excavate and Dispose
Operator :	Not reported
Water System :	CLEVELAND NATIONAL FOREST
Well Name :	LPA REPORTED PRIMARY SOURCE
Approx. Dist To Production Well (ft) :	1452.033932136087145347 1030342
W Global ID :	W0607300028
Assigned Name :	3700028-001GEN
MTBE Class :	Not reported

CORTESE:
Region: CORTESE
Fac Address 2: 29471 THE OLD ROAD

L57
ENE
> 1
11058 ft.

Relative:
Higher

Actual:
1016 ft.

NEWHALL LAND & FARMING CO LOS ANGELES CO. HMS S102064571
28760 N CASTAIC CANYON RD Cortese N/A
VALENCIA, CA 91355 LUST

Site 1 of 2 in cluster L

State LUST:

Cross Street:	Not reported		
Qty Leaked:	Not reported		
Case Number	I-05310		
Reg Board:	4		
Chemical:	Gasoline		
Lead Agency:	Local Agency		
Local Agency :	19000		
Case Type:	Soil only		
Status:	Case Closed		
Review Data:	Not reported	Confirm Leak:	Not reported
Workplan:	Not reported	Prelim Assess:	Not reported
Pollution Char:	Not reported	Remed Plan:	Not reported
Remed Action:	Not reported		
Monitoring:	Not reported		
Close Date:	01/10/1990		
Release Date:	01/10/1990		
Cleanup Fund Id :	Not reported		
Discover Date :	/ /		
Enforcement Dt :	Not reported		
Enf Type:	Not reported		
Enter Date :	01/22/1990		
Funding:	Not reported		
Staff Initials:	Not reported		
How Discovered:	Not reported		
How Stopped:	Not reported		
Interim :	Not reported		
Leak Cause:	Not reported		
Leak Source:	Not reported		
MTBE Date :	/ /		

NEWHALL LAND & FARMING CO (Continued) **S102064571**

Max MTBE GW : 0 Parts per Billion
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Priority: Not reported
Local Case # : Not reported
Beneficial: Not reported
Staff : JLC
GW Qualifier : Not reported
Max MTBE Soil : Not reported
Soil Qualifier : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Implementing Agency UST (Includes non-LOP cases within LOP jurisdiction)
Oversight Prgm : LIA
Review Date : 01/29/1990
Stop Date : / /
Work Suspended :Not reported
Responsible PartyNEWHALL LAND & FARMING
RP Address: 23823 VALENCIA BOULEVARD, VALENCIA, 91355
Global Id: T0603703062
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 1
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported

LUST Region 4:
Report Date: 1/10/1990
Lead Agency: Local Agency
Local Agency: 19000
Case Number: I-05310
Substance: Gasoline
Case Type: Soil
Status: Case Closed
Region: 4
Staff: Not reported
Source of Cleanup Funding: Not reported
Date the Leak was Discovered: Not reported
How the Leak was Discovered: Not reported
How the Leak was Stopped: Not reported
Cause of Leak: Not reported
Leak Source: Not reported
Date The Leak was Stopped: Not reported
Date Confirmation Leak Began: Not reported
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: Not reported
Date the Case was Closed: 1/10/1990
Date Case Last Changed on Database: 1/29/1990
Enforcement Action Date: Not reported
Date Leak First Reported: 1/10/1990

NEWHALL LAND & FARMING CO (Continued) **S102064571**

Enforcement Type: Not reported
Global ID : T0603703062
Organization : Not reported
Historical Max MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil : Not reported
County: Los Angeles
Regional Board: 04
Owner Contact: Not reported
Responsible Party: NEWHALL LAND & FARMING
RP Address: 23823 VALENCIA BOULEVARD, VALENCIA, 91355
Significant Interim Remedial Action Taken: Not reported
Program : LIA
Lat / Long : 34.4392614 / -118.6062849
MTBE Counts : 0
MTBE Fuel : 1
MTBE Tested : NT
Local Agency Staff: UNK
Summary : Not reported
Hydrologic Basin # : Not reported
Beneficial Use : Not reported
Priority : Not reported
Cleanup Fund Id : Not reported
Suspended : Not reported
Local Case No : Not reported
Substance Quantity : Not reported
Abatement Method Used at the Site: Not reported
Operator : Not reported
Water System : PETER PITCHESS HONOR RANCHO, LAC SHERIFF
Well Name : WELL 01A - INACTIVE
Approx. Dist To Production Well (ft) : 5154.170056466850371916246237 5
W Global ID : W0603700046
Assigned Name : 1900046-008
MTBE Class : Not reported

CORTESE:
Region: CORTESE
Fac Address 2: 28760 CASTAIC CANYON RD

HMS:
Facility Id: 005116-005310
Area: 7
Facility Type: Not reported
Permit Number: 174 Permit Status: Not reported
Facility Status: Removed
Region: Los Angeles County:

Facility Id: 014173-014696
Area: 7
Facility Type: Not reported
Permit Number: 174 Permit Status: Not reported
Facility Status: Removed
Region: Los Angeles County:

NEWHALL LAND & FARMING CO (Continued) S102064571

L58 TRI-R-TRUCKING Cortese S101298311
ENE 28748 CASTAIC CANYON RD LUST N/A
> 1 VALENCIA, CA 91355
11175 ft.

Site 2 of 2 in cluster L

Relative: Higher

Actual: 1016 ft.

State LUST:

Cross Street:	THE OLD RD		
Qty Leaked:	Not reported		
Case Number	I-15245		
Reg Board:	4		
Chemical:	Diesel		
Lead Agency:	Local Agency		
Local Agency :	19000		
Case Type:	Soil only		
Status:	Case Closed		
Review Date:	Not reported	Confirm Leak:	Not reported
Workplan:	Not reported	Prelim Assess:	Not reported
Pollution Char:	Not reported	Remed Plan:	Not reported
Remed Action:	Not reported		
Monitoring:	Not reported		
Close Date:	10/11/1994		
Release Date:	10/29/1990		
Cleanup Fund Id :	Not reported		
Discover Date :	12/08/1989		
Enforcement Dt :	Not reported		
Enf Type:	Not reported		
Enter Date :	12/05/1990		
Funding:	Federal Funds		
Staff Initials:	Not reported		
How Discovered:	Tank Closure		
How Stopped:	Not reported		
Interim :	Not reported		
Leak Cause:	UNK		
Leak Source:	UNK		
MTBE Date :	/ /		
Max MTBE GW :	0 Parts per Billion		
MTBE Tested:	Not Required to be Tested.		
Priority:	Not reported		
Local Case # :	Not reported		
Beneficial:	Not reported		
Staff :	JLC		
GW Qualifier :	Not reported		
Max MTBE Soil :	Not reported		
Soil Qualifier :	Not reported		
Hydr Basin #:	Not reported		
Operator :	JAMES, ED OLD CASE#120690-17		
Oversight Prgm:	Local Implementing Agency UST (includes non-LOP cases within LOP jurisdiction)		
Oversight Prgm :	LIA		
Review Date :	10/11/1994		
Stop Date :	12/08/1989		
Work Suspended :	Not reported		
Responsible Party	TRI-R TRUCKING		
RP Address:	28748 CASTIAC CYN RD, VALENCIA CA 91355		
Global Id:	T0603704280		
Org Name:	Not reported		
Contact Person:	Not reported		

TRI-R-TRUCKING (Continued) S101298311

MTBE Conc:	0		
Mtbe Fuel:	0		
Water System Name:	Not reported		
Well Name:	Not reported		
Distance To Lust:	0		
Waste Discharge Global ID:	Not reported		
Waste Disch Assigned Name:	Not reported		

LUST Region 4:

Report Date:	10/29/1990
Lead Agency:	Local Agency
Local Agency:	19000
Case Number:	I-15245
Substance:	Diesel
Case Type:	Soil
Status:	Case Closed
Region:	4
Staff:	Not reported
Source of Cleanup Funding:	Federal Funds
Date the Leak was Discovered:	12/8/1989
How the Leak was Discovered:	Tank Closure
How the Leak was Stopped:	Close Tank
Cause of Leak:	Unknown
Leak Source:	Unknown
Date The Leak was Stopped:	12/8/1989
Date Confirmation Leak Began:	Not reported
Preliminary Site Assessment Workplan Submitted:	Not reported
Preliminary Site Assessment Began:	Not reported
Pollution Characterization Began:	Not reported
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Date the Case was Closed:	10/11/1994
Date Case Last Changed on Database:	10/11/1994
Enforcement Action Date:	Not reported
Date Leak First Reported:	10/29/1990
Enforcement Type:	Not reported
Global ID :	T0603704280
Organization :	Not reported
Historical Max MTBE Date:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil :	Not reported
County:	Los Angeles
Regional Board:	04
Owner Contact:	Not reported
Responsible Party:	TRI-R TRUCKING
RP Address:	28748 CASTIAC CYN RD, VALENCIA CA 91355
Significant Interim Remedial Action Taken:	Not reported
Program :	LIA
Lat / Long :	34.4389004 / -118.6060599
MTBE Counts :	0
MTBE Fuel :	0
MTBE Tested :	NRQ
Local Agency Staff:	UNK
Summary :	Not reported
Hydrologic Basin # :	Not reported

TRI-R-TRUCKING (Continued) S101298311

Beneficial Use :	Not reported
Priority :	Not reported
Cleanup Fund Id :	Not reported
Suspended :	Not reported
Local Case No :	Not reported
Substance Quantity :	Not reported
Abatement Method Used at the Site:	Not reported
Operator :	JAMES, ED OLD CASE#120890-17
Water System :	PETER PITCHESS HONOR RANCHO, LAC SHERIFF
Well Name :	WELL 01A - INACTIVE
Approx. Dist To Production Well (ft) :	5301.736465194323767948137824 3
W Global ID :	W0603700046
Assigned Name :	1900046-008
MTBE Class :	Not reported

CORTESE:

Region:	CORTESE
Fac Address 2:	28748 CASTAIC CANYON RD

59
NE
> 1
11470 ft.

N/B I-5, CASTAIC INSP FACILITY CHMIRS S100279769
SANTA CLARITA, CA N/A

Relative:
Higher

Actual:
1039 ft.

CHMIRS:

OES Control Number:	9010073
Chemical Name:	Not reported
Extent of Release:	Not reported
Property Use:	099
Incident Date:	09-FEB-90
Date Completed:	09-FEB-90
Time Completed :	645
Agency Id Number :	66
Agency Incident Number :	90-027
OES Incident Number :	9010073
Time Notified :	15
Surrounding Area :	099
Estimated Temperature :	Not reported
Property Management :	S
More Than Two Substances Involved? :	N
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	0
Others Number Of Decontaminated :	0
Others Number Of Injuries :	0
Others Number Of Fatalities :	0
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	L. ACEVEDO #8721

(Continued) S100279769

Report Date :	20-MAR-90
Comments :	Not reported
Facility Telephone Number :	916 327-3310
Waterway Involved :	Not reported
Waterway :	Not reported
Spill Site :	Not reported
Cleanup By :	Not reported
Containment :	Not reported
What Happened :	Not reported
Type :	Not reported
Other :	Not reported
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	Not reported
Evacuations :	Not reported

60
ENE
> 1
11471 ft.

CHEVRON STATION 9 1899 RCRIS-SQG 1000886345
28805 THE OLD RD FINDS CA0000138552
VALENCIA, CA 91355 Cortese

Relative:
Higher

Actual:
1019 ft.

RCRIS:

Owner:	CHEVRON U S A PRODUCTS CO (310) 694-7452
EPA ID:	CA0000138552
Contact:	RAMON J CRESSALL (805) 257-2584
Classification:	Small Quantity Generator
TSDF Activities:	Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:
Resource Conservation and Recovery Act Information system (RCRAINFO)

CORTESE:

Region:	CORTESE
Fac Address 2:	Not reported

61
NNE
> 1
13061 ft.

HASELY CYN 1MI NORTH OF THE OLD ROAD CHMIRS S100275931
CASTAIC, CA 91355 N/A

Relative:
Higher

Actual:
1047 ft.

CHMIRS:

OES Control Number:	9012379
Chemical Name:	Not reported
Extent of Release:	Not reported
Property Use:	Vacant Lot
Incident Date:	13-AUG-90
Date Completed:	13-AUG-90
Time Completed :	2115
Agency Id Number :	19110
Agency Incident Number :	A-65
OES Incident Number :	9012379
Time Notified :	1956

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s)

EDR ID Number
EPA ID Number

(Continued) S100275931

Surrounding Area :	936
Estimated Temperature :	80
Property Management :	P
More Than Two Substances Involved? :	Y
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Y
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	0
Others Number Of Decontaminated :	0
Others Number Of Injuries :	0
Others Number Of Fatalities :	0
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	MARTIN L. SCOTT #081235
Report Date :	13-AUG-90
Comments :	Yes
Facility Telephone Number :	213 267-2401
Waterway Involved :	Not reported
Waterway :	Not reported
Spill Site :	Not reported
Cleanup By :	Not reported
Containment :	Not reported
What Happened :	Not reported
Type :	Not reported
Other :	Not reported
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	Not reported
Evacuations :	Not reported

MAP FINDINGS - EDR PROPRIETARY HISTORICAL DATABASES

YEAR NAME ADDRESS CITY ST DIR. DIST. ELEV. TYPE

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.
EDR Historical Gas Station & Dry Cleaner Search: No mapped sites were found in EDR's search of the EDR Historical Gas Station & Dry Cleaner Database within 0.250 mile of the Target Property.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CANYON COUNTRY	S105774538	TWO WATER WELLS RESTORATION	SIERRA HWY. / ARLINE ST.	91355	CA WDS
CASTAIC	S105628449	SCHOOL ON 18 ACRE SITE	RIDGE ROUTE ROAD	91384	SCH
LOS ANGELES COUNTY	S105637568		BERTH 70, LONG BEACH HARBOUR		CHMIRS, HAZNET
LOS ANGELES COUNTY	S105641187		BERTH 30 LONG BEACH HARBOUR		CHMIRS, HAZNET
LOS ANGELES COUNTY	S105630661		FLORENCE AVE / TELEGRAPH RD WHITTIER		CHMIRS, LUST
SANTA CLARITA	S105774545	COMMERCE CENTER BRIDGE	HWY 126 / THE OLD ROAD	91355	CA WDS
SANTA CLARITA	S105774543	CASTAIC CREEK CHANNEL LINING	HWY. 126 / THE OLD ROAD	91355	CA WDS
SANTA CLARITA	S105774544	HWY. 126 BRIDGE	HWY. 126 / CASTAIC CREEK	91355	CA WDS
SANTA CLARITA	1005441285	DEPARTMENT OF TRANSPORTATION	RTE 5 MAGIC MOUNTAIN PKWY EXIT	91355	RCRIS-SQG, FINDS
SANTA CLARITA	S105774585	GOLDEN VALLEY ROAD EXTENSION	BETWEEN SIERRA HWY / SOLEDAD CYN RD	91355	CA WDS
SANTA CLARITA	S106085278	CSI CRIME SCENE INVESTIGATION	3 MILES N OF TEMPLIN HWY ON	91355	HAZNET
VALENCIA	S106089351	CALIFORNIA INSTITUTE OF THE ARTS	VY #147 MCBEAN PRKWY / HWY 5	91355	HAZNET
VALENCIA	1000119892	PPG INDUSTRIES INC WORKS 24	25663 W AVE STANFORD	91355	RCRIS-SQG, RCRIS-TSD, FINDS, CORRACTS, CERC-NFRAP, LOS ANGELES CO. HMS
VALENCIA	S103646510	PRODUCTION GOODBYE LOVER	25135 AVENUE ANZA	91355	HAZNET
VALENCIA	S103648520	LOS ANGELES COUNTY FIRE DEPT	27223 HENRY MAYO DR- STATION 76	91355	HAZNET
VALENCIA	S105090242	TECHNICAL TROUBLE SHOOTING	24932 KEARNY AVENUE	91355	HAZNET
VALENCIA	S105774562	WATER WELL NO. W-11	S MCBEAN / COPPERHILL DR	91355	CA WDS
VALENCIA	1006839028	HOWARD CUSTOM BOATS INCORPORATED	28113 STANFORD AVENUE	91355	FINDS, EMI, HAZNET
VALENCIA	S101480564	GRUBER SYSTEMS, INC	25636 STANFORD AVENUE	91355	REF

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL ASTM STANDARD RECORDS

NPL: National Priority List
Source: EPA
Telephone: N/A
National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/21/03
Date Made Active at EDR: 12/08/03
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 11/03/03
Elapsed ASTM days: 35
Date of Last EDR Contact: 11/03/03

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 8
Telephone: 303-312-6774

EPA Region 4
Telephone 404-562-8033

Proposed NPL: Proposed National Priority List Sites
Source: EPA
Telephone: N/A

Date of Government Version: 10/14/03
Date Made Active at EDR: 12/08/03
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 12/01/03
Elapsed ASTM days: 7
Date of Last EDR Contact: 11/03/03

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA
Telephone: 703-413-0223
CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 09/11/03
Date Made Active at EDR: 10/29/03
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 09/24/03
Elapsed ASTM days: 35
Date of Last EDR Contact: 12/22/03

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned
Source: EPA
Telephone: 703-413-0223
As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 09/11/03
Date Made Active at EDR: 10/29/03
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 09/24/03
Elapsed ASTM days: 35
Date of Last EDR Contact: 12/22/03

CORRACTS: Corrective Action Report
Source: EPA
Telephone: 800-424-9346
CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/17/03
Date Made Active at EDR: 11/11/03
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 10/01/03
Elapsed ASTM days: 41
Date of Last EDR Contact: 12/08/03

RCRIS: Resource Conservation and Recovery Information System
Source: EPA
Telephone: 800-424-9346
Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/10/03
Date Made Active at EDR: 10/01/03
Database Release Frequency: Varies

Date of Data Arrival at EDR: 09/11/03
Elapsed ASTM days: 20
Date of Last EDR Contact: 11/18/03

ERNS: Emergency Response Notification System
Source: National Response Center, United States Coast Guard
Telephone: 202-260-2342
Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/02
Date Made Active at EDR: 02/03/03
Database Release Frequency: Annually

Date of Data Arrival at EDR: 01/27/03
Elapsed ASTM days: 7
Date of Last EDR Contact: 10/27/03

FEDERAL ASTM SUPPLEMENTAL RECORDS

BRS: Biennial Reporting System
Source: EPA/NTIS
Telephone: 800-424-9346
The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/01/01
Database Release Frequency: Biennially

Date of Last EDR Contact: 12/16/03
Date of Next Scheduled EDR Contact: 03/15/04

CONSENT: Superfund (CERCLA) Consent Decrees
Source: EPA Regional Offices
Telephone: Varies
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: N/A
Database Release Frequency: Varies

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ROD: Records Of Decision
Source: EPA
Telephone: 703-416-0223
Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/09/03
Database Release Frequency: Annually

Date of Last EDR Contact: 10/08/03
Date of Next Scheduled EDR Contact: 01/05/04

DELISTED NPL: National Priority List Deletions
Source: EPA
Telephone: N/A
The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/21/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 11/03/03
Date of Next Scheduled EDR Contact: 02/02/04

FINDS: Facility Index System/Facility Identification Initiative Program Summary Report
Source: EPA
Telephone: N/A
Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 10/23/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 10/07/03
Date of Next Scheduled EDR Contact: 01/05/04

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4555
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 08/11/03
Database Release Frequency: Annually

Date of Last EDR Contact: 10/23/03
Date of Next Scheduled EDR Contact: 01/19/04

MLTS: Material Licensing Tracking System
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/16/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 10/07/03
Date of Next Scheduled EDR Contact: 01/05/04

MINES: Mines Master Index File
Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959

Date of Government Version: 08/27/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 12/29/03
Date of Next Scheduled EDR Contact: 03/29/04

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 202-564-4267
Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 11/21/03
Date of Next Scheduled EDR Contact: 02/23/04

PADS: PCB Activity Database System
Source: EPA
Telephone: 202-564-3887
PCB Activity Database. PADS identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 09/30/03
Database Release Frequency: Annually

Date of Last EDR Contact: 11/12/03
Date of Next Scheduled EDR Contact: 02/09/04

DOD: Department of Defense Sites
Source: USGS
Telephone: 703-648-5920
This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 10/01/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/12/03
Date of Next Scheduled EDR Contact: 02/09/04

STORMWATER: Storm Water General Permits
Source: Environmental Protection Agency
Telephone: 202 564-0746
A listing of all facilities with Storm Water General Permits.

Date of Government Version: N/A
Database Release Frequency: Quarterly

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

US BROWNFIELDS: A Listing of Brownfields Sites
Source: Environmental Protection Agency
Telephone: 202-566-2777
Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 07/15/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 12/17/03
Date of Next Scheduled EDR Contact: 03/15/04

RMP: Risk Management Plans
Source: Environmental Protection Agency
Telephone: 202-564-8600
When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: N/A
Database Release Frequency: N/A

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

RAATS: RCRA Administrative Action Tracking System
Source: EPA
Telephone: 202-564-4104
RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 12/08/03
Date of Next Scheduled EDR Contact: 03/08/04

TRIS: Toxic Chemical Release Inventory System
Source: EPA
Telephone: 202-260-1531
Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/01
Database Release Frequency: Annually

Date of Last EDR Contact: 12/22/03
Date of Next Scheduled EDR Contact: 03/22/04

TSCA: Toxic Substances Control Act
Source: EPA
Telephone: 202-260-5521
Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/02
Database Release Frequency: Every 4 Years

Date of Last EDR Contact: 10/20/03
Date of Next Scheduled EDR Contact: 01/19/04

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Source: EPA
Telephone: 202-564-2501

Date of Government Version: 10/16/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/22/03
Date of Next Scheduled EDR Contact: 03/22/04

SSTS: Section 7 Tracking Systems
Source: EPA
Telephone: 202-564-5008
Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/01
Database Release Frequency: Annually

Date of Last EDR Contact: 10/20/03
Date of Next Scheduled EDR Contact: 01/19/04

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-564-2501
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/16/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/22/03
Date of Next Scheduled EDR Contact: 03/22/04

STATE OF CALIFORNIA ASTM STANDARD RECORDS

AWP: Annual Workplan Sites
Source: California Environmental Protection Agency
Telephone: 916-323-3400
Known Hazardous Waste Sites. California DTSC's Annual Workplan (AWP), formerly BEP, identifies known hazardous substance sites targeted for cleanup.

Date of Government Version: 11/30/03
Date Made Active at EDR: 01/08/04
Database Release Frequency: Annually

Date of Data Arrival at EDR: 12/01/03
Elapsed ASTM days: 38
Date of Last EDR Contact: 12/01/03

CAL-SITES: Calsites Database
Source: Department of Toxic Substance Control
Telephone: 916-323-3400
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database.

Date of Government Version: 11/30/03
Date Made Active at EDR: 01/08/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 12/01/03
Elapsed ASTM days: 38
Date of Last EDR Contact: 12/01/03

CHMIRS: California Hazardous Material Incident Report System
Source: Office of Emergency Services
Telephone: 916-845-8400
California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/02
Date Made Active at EDR: 08/07/03
Database Release Frequency: Varies

Date of Data Arrival at EDR: 07/11/03
Elapsed ASTM days: 27
Date of Last EDR Contact: 11/24/03

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-9100
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 04/01/01
Date Made Active at EDR: 07/26/01
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 05/29/01
Elapsed ASTM days: 58
Date of Last EDR Contact: 10/27/03

NOTIFY 65: Proposition 65 Records
Source: State Water Resources Control Board
Telephone: 916-445-3846
Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/93
Date Made Active at EDR: 11/19/93
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 11/01/93
Elapsed ASTM days: 18
Date of Last EDR Contact: 10/20/03

TOXIC PITS: Toxic Pits Cleanup Act Sites
Source: State Water Resources Control Board
Telephone: 916-227-4364
Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/01/95
Date Made Active at EDR: 09/26/95
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 08/30/95
Elapsed ASTM days: 27
Date of Last EDR Contact: 11/03/03

SWF/LF (SWIS): Solid Waste Information System
Source: Integrated Waste Management Board
Telephone: 916-341-6320
Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/14/03
Date Made Active at EDR: 01/08/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 12/16/03
Elapsed ASTM days: 23
Date of Last EDR Contact: 12/16/03

WMUDS/SWAT: Waste Management Unit Database
Source: State Water Resources Control Board
Telephone: 916-227-4448
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/00
Date Made Active at EDR: 05/10/00
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/10/00
Elapsed ASTM days: 30
Date of Last EDR Contact: 12/09/03

LUST: Leaking Underground Storage Tank Information System
Source: State Water Resources Control Board
Telephone: 916-341-5740
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 04/02/03
Date Made Active at EDR: 04/25/03
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/16/03
Elapsed ASTM days: 9
Date of Last EDR Contact: 10/14/03

CA BOND EXP. PLAN: Bond Expenditure Plan
Source: Department of Health Services
Telephone: 916-255-2118
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/89
Date Made Active at EDR: 08/02/94
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 07/27/94
Elapsed ASTM days: 6
Date of Last EDR Contact: 05/31/94

CA UST:

UST: Active UST Facilities
Source: SWRCB
Telephone: 916-341-5700
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 04/02/03
Date Made Active at EDR: 04/30/03
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 04/16/03
Elapsed ASTM days: 14
Date of Last EDR Contact: 10/14/03

VCP: Voluntary Cleanup Program Properties
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 11/30/03
Date Made Active at EDR: 12/23/03
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 12/01/03
Elapsed ASTM days: 22
Date of Last EDR Contact: 12/01/03

INDIAN UST: Underground Storage Tanks on Indian Land
Source: EPA Region 9
Telephone: 415-972-3368

Date of Government Version: 12/05/03
Date Made Active at EDR: 01/08/04
Database Release Frequency: Varies
Date of Data Arrival at EDR: 12/05/03
Elapsed ASTM days: 34
Date of Last EDR Contact: 11/24/03

CA FID UST: Facility Inventory Database
Source: California Environmental Protection Agency
Telephone: 916-445-6532
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/94
Date Made Active at EDR: 09/29/95
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 09/05/95
Elapsed ASTM days: 24
Date of Last EDR Contact: 12/28/98

HIST UST: Hazardous Substance Storage Container Database
Source: State Water Resources Control Board
Telephone: 916-341-5700
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/90
Date Made Active at EDR: 02/12/91
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 01/25/91
Elapsed ASTM days: 18
Date of Last EDR Contact: 07/26/01

STATE OF CALIFORNIA ASTM SUPPLEMENTAL RECORDS

AST: Aboveground Petroleum Storage Tank Facilities
Source: State Water Resources Control Board
Telephone: 916-341-5712
Registered Aboveground Storage Tanks.

Date of Government Version: 07/01/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 11/03/03
Date of Next Scheduled EDR Contact: 02/02/04

CLEANERS: Cleaner Facilities
Source: Department of Toxic Substance Control
Telephone: 916-225-0873
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 11/26/03
Database Release Frequency: Annually
Date of Last EDR Contact: 01/07/04
Date of Next Scheduled EDR Contact: 04/05/04

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CA WDS: Waste Discharge System
Source: State Water Resources Control Board
Telephone: 916-657-1571
Sites which have been issued waste discharge requirements.

Date of Government Version: 09/22/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 12/22/03
Date of Next Scheduled EDR Contact: 03/22/04

DEED: List of Deed Restrictions
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
The use of recorded land use restrictions is one of the methods the DTSC uses to protect the public from unsafe exposures to hazardous substances and wastes.

Date of Government Version: 10/07/03
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 10/08/03
Date of Next Scheduled EDR Contact: 01/05/04

NFA: No Further Action Determination
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains properties at which DTSC has made a clear determination that the property does not pose a problem to the environment or to public health.

Date of Government Version: 11/30/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 03/01/04

EMI: Emissions Inventory Data
Source: California Air Resources Board
Telephone: 916-322-2990
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/01
Database Release Frequency: Varies
Date of Last EDR Contact: 10/20/03
Date of Next Scheduled EDR Contact: 01/19/04

REF: Unconfirmed Properties Referred to Another Agency
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains properties where contamination has not been confirmed and which were determined as not requiring direct DTSC Site Mitigation Program action or oversight. Accordingly, these sites have been referred to another state or local regulatory agency.

Date of Government Version: 11/30/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 03/01/04

SCH: School Property Evaluation Program
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 11/30/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 03/01/04

NFE: Properties Needing Further Evaluation
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains properties that are suspected of being contaminated. These are unconfirmed contaminated properties that need to be assessed using the PEA process. PEA In Progress indicates properties where DTSC is currently conducting a PEA. PEA Required indicates properties where DTSC has determined a PEA is required, but not currently underway.

Date of Government Version: 11/30/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 03/01/04

HAZNET: Hazardous Waste Information System
Source: California Environmental Protection Agency
Telephone: 916-255-1136
Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/02
Database Release Frequency: Annually

Date of Last EDR Contact: 11/11/03
Date of Next Scheduled EDR Contact: 02/09/04

LOCAL RECORDS

ALAMEDA COUNTY:

Local Oversight Program Listing of UGT Cleanup Sites
Source: Alameda County Environmental Health Services
Telephone: 510-567-6700

Date of Government Version: 12/09/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 10/27/03
Date of Next Scheduled EDR Contact: 01/26/04

Underground Tanks
Source: Alameda County Environmental Health Services
Telephone: 510-567-6700

Date of Government Version: 07/03/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 10/27/03
Date of Next Scheduled EDR Contact: 01/26/04

CONTRA COSTA COUNTY:

Site List
Source: Contra Costa Health Services Department
Telephone: 925-646-2286
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 12/01/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 03/01/04

FRESNO COUNTY:

CUPA Resources List
Source: Dept. of Community Health
Telephone: 559-445-3271
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 10/07/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 10/08/03
Date of Next Scheduled EDR Contact: 02/09/04

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Kern County Sites and Tanks Listing.

Date of Government Version: 07/25/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/22/03
Date of Next Scheduled EDR Contact: 03/08/04

LOS ANGELES COUNTY:

List of Solid Waste Facilities
Source: La County Department of Public Works
Telephone: 818-458-5185

Date of Government Version: 06/03/03
Database Release Frequency: Varies

Date of Last EDR Contact: 11/21/03
Date of Next Scheduled EDR Contact: 02/16/04

City of El Segundo Underground Storage Tank
Source: City of El Segundo Fire Department
Telephone: 310-524-2236

Date of Government Version: 09/11/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/17/03
Date of Next Scheduled EDR Contact: 02/16/04

City of Long Beach Underground Storage Tank
Source: City of Long Beach Fire Department
Telephone: 562-570-2543

Date of Government Version: 03/28/03
Database Release Frequency: Annually

Date of Last EDR Contact: 11/24/03
Date of Next Scheduled EDR Contact: 02/23/04

City of Torrance Underground Storage Tank
Source: City of Torrance Fire Department
Telephone: 310-618-2973

Date of Government Version: 09/03/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/17/03
Date of Next Scheduled EDR Contact: 02/16/04

City of Los Angeles Landfills
Source: Engineering & Construction Division
Telephone: 213-473-7869

Date of Government Version: 03/01/02
Database Release Frequency: Varies

Date of Last EDR Contact: 12/16/03
Date of Next Scheduled EDR Contact: 03/15/04

HMS: Street Number List
Source: Department of Public Works
Telephone: 626-458-3517
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 09/30/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/17/03
Date of Next Scheduled EDR Contact: 02/16/04

Site Mitigation List
Source: Community Health Services
Telephone: 323-890-7806
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/07/03
Database Release Frequency: Annually

Date of Last EDR Contact: 11/17/03
Date of Next Scheduled EDR Contact: 02/16/04

San Gabriel Valley Areas of Concern
Source: EPA Region 9
Telephone: 415-972-3178
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 12/31/98
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 07/06/99
Date of Next Scheduled EDR Contact: N/A

MARIN COUNTY:

Underground Storage Tank Sites
Source: Public Works Department Waste Management
Telephone: 415-499-6647
Currently permitted USTs in Marin County.

Date of Government Version: 08/19/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/03/03
Date of Next Scheduled EDR Contact: 02/02/04

NAPA COUNTY:

Sites With Reported Contamination
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269

Date of Government Version: 10/02/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 12/29/03
Date of Next Scheduled EDR Contact: 03/29/04

Closed and Operating Underground Storage Tank Sites
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269

Date of Government Version: 10/02/03
Database Release Frequency: Annually

Date of Last EDR Contact: 12/29/03
Date of Next Scheduled EDR Contact: 03/29/04

ORANGE COUNTY:

List of Underground Storage Tank Cleanups
Source: Health Care Agency
Telephone: 714-834-3446
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 07/01/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 11/25/03
Date of Next Scheduled EDR Contact: 03/08/04

List of Underground Storage Tank Facilities
Source: Health Care Agency
Telephone: 714-834-3446
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 09/02/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/19/03
Date of Next Scheduled EDR Contact: 03/08/04

List of Industrial Site Cleanups
Source: Health Care Agency
Telephone: 714-834-3446
Petroleum and non-petroleum spills.

Date of Government Version: 10/24/00
Database Release Frequency: Annually

Date of Last EDR Contact: 12/08/03
Date of Next Scheduled EDR Contact: 03/08/04

PLACER COUNTY:

Master List of Facilities
Source: Placer County Health and Human Services
Telephone: 530-889-7312
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 10/16/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 12/22/03
Date of Next Scheduled EDR Contact: 03/22/04

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Source: Department of Public Health
Telephone: 909-358-5055
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 06/03/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 10/20/03
Date of Next Scheduled EDR Contact: 01/19/04

Underground Storage Tank Tank List
Source: Health Services Agency
Telephone: 909-358-5055

Date of Government Version: 05/30/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 10/20/03
Date of Next Scheduled EDR Contact: 01/19/04

SACRAMENTO COUNTY:

CS - Contaminated Sites
Source: Sacramento County Environmental Management
Telephone: 916-875-8406

Date of Government Version: 07/17/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 11/03/03
Date of Next Scheduled EDR Contact: 02/02/04

ML - Regulatory Compliance Master List
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 07/17/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 11/03/03
Date of Next Scheduled EDR Contact: 02/02/04

SAN BERNARDINO COUNTY:

Hazardous Material Permits
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 09/30/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/08/03
Date of Next Scheduled EDR Contact: 03/08/04

SAN DIEGO COUNTY:

Solid Waste Facilities
Source: Department of Health Services
Telephone: 619-338-2209
San Diego County Solid Waste Facilities.

Date of Government Version: 08/01/00
Database Release Frequency: Varies

Date of Last EDR Contact: 11/21/03
Date of Next Scheduled EDR Contact: 02/23/04

Hazardous Materials Management Division Database
Source: Hazardous Materials Management Division
Telephone: 619-338-2268
The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 10/31/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 10/07/03
Date of Next Scheduled EDR Contact: 01/05/04

SAN FRANCISCO COUNTY:

Local Oversite Facilities
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920

Date of Government Version: 12/09/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/08/03
Date of Next Scheduled EDR Contact: 03/08/04

Underground Storage Tank Information
Source: Department of Public Health
Telephone: 415-252-3920

Date of Government Version: 09/11/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/08/03
Date of Next Scheduled EDR Contact: 03/08/04

SAN MATEO COUNTY:

Fuel Leak List
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921

Date of Government Version: 11/24/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 10/27/03
Date of Next Scheduled EDR Contact: 01/26/04

Business Inventory
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 11/13/03
Database Release Frequency: Annually

Date of Last EDR Contact: 10/13/03
Date of Next Scheduled EDR Contact: 01/12/04

SANTA CLARA COUNTY:

Fuel Leak Site Activity Report
Source: Santa Clara Valley Water District
Telephone: 408-265-2600

Date of Government Version: 07/02/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 12/29/03
Date of Next Scheduled EDR Contact: 03/29/04

Hazardous Material Facilities
Source: City of San Jose Fire Department
Telephone: 408-277-4659

Date of Government Version: 10/01/03
Database Release Frequency: Annually

Date of Last EDR Contact: 12/08/03
Date of Next Scheduled EDR Contact: 03/08/04

SOLANO COUNTY:

Leaking Underground Storage Tanks
Source: Solano County Department of Environmental Management
Telephone: 707-421-6770

Date of Government Version: 08/21/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/16/03
Date of Next Scheduled EDR Contact: 03/15/04

Underground Storage Tanks
Source: Solano County Department of Environmental Management
Telephone: 707-421-6770

Date of Government Version: 08/21/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/18/03
Date of Next Scheduled EDR Contact: 03/15/04

SONOMA COUNTY:

Leaking Underground Storage Tank Sites
Source: Department of Health Services
Telephone: 707-565-6565

Date of Government Version: 10/01/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 10/27/03
Date of Next Scheduled EDR Contact: 01/26/04

SUTTER COUNTY:

Underground Storage Tanks
Source: Sutter County Department of Agriculture
Telephone: 530-822-7500

Date of Government Version: 07/01/01
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 01/05/04

VENTURA COUNTY:

Inventory of Illegal Abandoned and Inactive Sites
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 09/01/02 — Date of Last EDR Contact: 11/26/03
Database Release Frequency: Annually — Date of Next Scheduled EDR Contact: 02/23/04

Listing of Underground Tank Cleanup Sites
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 09/26/03 — Date of Last EDR Contact: 12/16/03
Database Release Frequency: Quarterly — Date of Next Scheduled EDR Contact: 03/15/04

Underground Tank Closed Sites List
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 07/30/03 — Date of Last EDR Contact: 10/16/03
Database Release Frequency: Quarterly — Date of Next Scheduled EDR Contact: 01/12/04

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 09/02/03 — Date of Last EDR Contact: 12/16/03
Database Release Frequency: Quarterly — Date of Next Scheduled EDR Contact: 03/15/04

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Source: Yolo County Department of Health
Telephone: 530-666-8646

Date of Government Version: 10/29/03 — Date of Last EDR Contact: 10/20/03
Database Release Frequency: Annually — Date of Next Scheduled EDR Contact: 01/19/04

California Regional Water Quality Control Board (RWQCB) LUST Records

LUST REG 1: Active Toxic Site Investigation
Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-576-2220
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/01 — Date of Last EDR Contact: 11/21/03
Database Release Frequency: No Update Planned — Date of Next Scheduled EDR Contact: 02/23/04

LUST REG 2: Fuel Leak List
Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457

Date of Government Version: 03/28/03 — Date of Last EDR Contact: 10/14/03
Database Release Frequency: Quarterly — Date of Next Scheduled EDR Contact: 01/12/04

LUST REG 3: Leaking Underground Storage Tank Database
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147

Date of Government Version: 05/19/03 — Date of Last EDR Contact: 11/17/03
Database Release Frequency: Quarterly — Date of Next Scheduled EDR Contact: 02/16/04

LUST REG 4: Underground Storage Tank Leak List
Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 08/09/01 — Date of Last EDR Contact: 12/31/03
Database Release Frequency: No Update Planned — Date of Next Scheduled EDR Contact: 03/29/04

LUST REG 5: Leaking Underground Storage Tank Database
Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-255-3125

Date of Government Version: 07/01/03 — Date of Last EDR Contact: 10/16/03
Database Release Frequency: Quarterly — Date of Next Scheduled EDR Contact: 01/05/04

LUST REG 6L: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 916-542-5424
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/03 — Date of Last EDR Contact: 12/08/03
Database Release Frequency: No Update Planned — Date of Next Scheduled EDR Contact: 03/08/04

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-346-7491

Date of Government Version: 11/13/03 — Date of Last EDR Contact: 10/07/03
Database Release Frequency: Quarterly — Date of Next Scheduled EDR Contact: 01/05/04

LUST REG 7: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-346-7491

Date of Government Version: 07/02/02 — Date of Last EDR Contact: 12/29/03
Database Release Frequency: Semi-Annually — Date of Next Scheduled EDR Contact: 03/29/04

LUST REG 8: Leaking Underground Storage Tanks
Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4498
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/16/03 — Date of Last EDR Contact: 11/12/03
Database Release Frequency: No Update Planned — Date of Next Scheduled EDR Contact: 02/09/04

LUST REG 9: Leaking Underground Storage Tank Report
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/01
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 10/20/03
Date of Next Scheduled EDR Contact: 01/19/04

California Regional Water Quality Control Board (RWQCB) SLIC Records

SLIC REG 1: Active Toxic Site Investigations
Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220

Date of Government Version: 04/03/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/21/03
Date of Next Scheduled EDR Contact: 02/23/04

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 03/28/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 10/14/03
Date of Next Scheduled EDR Contact: 01/12/04

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 09/16/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/17/03
Date of Next Scheduled EDR Contact: 02/16/04

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 10/01/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 10/27/03
Date of Next Scheduled EDR Contact: 01/26/04

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-855-3075
Unregulated sites that impact groundwater or have the potential to impact groundwater.

Date of Government Version: 10/20/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 10/07/03
Date of Next Scheduled EDR Contact: 01/05/04

SLIC REG 6L: SLIC Sites
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574

Date of Government Version: 09/09/03
Database Release Frequency: Varies

Date of Last EDR Contact: 12/08/03
Date of Next Scheduled EDR Contact: 03/08/04

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583

Date of Government Version: 05/08/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 10/07/03
Date of Next Scheduled EDR Contact: 01/05/04

SLIC REG 7: SLIC List
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491

Date of Government Version: 05/29/03
Database Release Frequency: Varies

Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 02/23/04

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-3298

Date of Government Version: 04/01/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 10/20/03
Date of Next Scheduled EDR Contact: 01/05/04

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980

Date of Government Version: 12/01/03
Database Release Frequency: Annually

Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 03/04/04

EDR PROPRIETARY HISTORICAL DATABASES

EDR Historical Gas Station and Dry Cleaners: EDR has searched select national collections of business directories and has collected listings of potential dry cleaner and gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning and gas station/filling station/service station establishments. The categories reviewed included, but were not limited to: *gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, dry cleaner, cleaners, laundry, laundromat, cleaning/laundry, wash & dry, etc.*

This information is meant to assist and complement environmental professionals in their conduct of environmental site assessments, and is not meant to be a substitute for a full historical investigation as defined in ASTM E1527. The information provided in this proprietary database may or may not be complete; i.e., the absence of a dry cleaner or gas station/filling station/service station site does not necessarily mean that such a site did not exist in the area covered by this report.

(A note on "dry cleaning" sites: it is not possible for EDR to differentiate between establishments that use PERC on-site as a cleaning solvent and sites that function simply as drop-off and pick-up locations or that are traditional wet cleaning/laundry facilities. Therefore, it is essential for environmental professionals to incorporate professional judgment in the evaluation of each site.)

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

Disclaimer Provided by Real Property Scan, Inc.

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

BROWNFIELDS DATABASES

VCP: Voluntary Cleanup Program Properties
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 11/30/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 03/01/04

US BROWNFIELDS: A Listing of Brownfields Sites
Source: Environmental Protection Agency
Telephone: 202-566-2777
Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: N/A
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: PennWell Corporation
Telephone: (800) 823-6277
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.
Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.
Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.
Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

STREET AND ADDRESS INFORMATION

© 2003 Geographic Data Technology, Inc., Rel. 07/2003. This product contains proprietary and confidential property of Geographic Data Technology, Inc. Unauthorized use, including copying for other than testing and standard backup procedures, of this product is expressly prohibited.

GEOCHECK®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

TENTATIVE TRACT MAP NO. 53108
WOLCOTT WAY/HENRY MAYO DRIVE
VALENCIA, CA 91355

TARGET PROPERTY COORDINATES

Latitude (North):	34.424301 - 34° 25' 27.5"
Longitude (West):	118.637299 - 118° 38' 14.3"
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	349543.9
UTM Y (Meters):	3810222.8
Elevation:	958 ft. above sea level

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

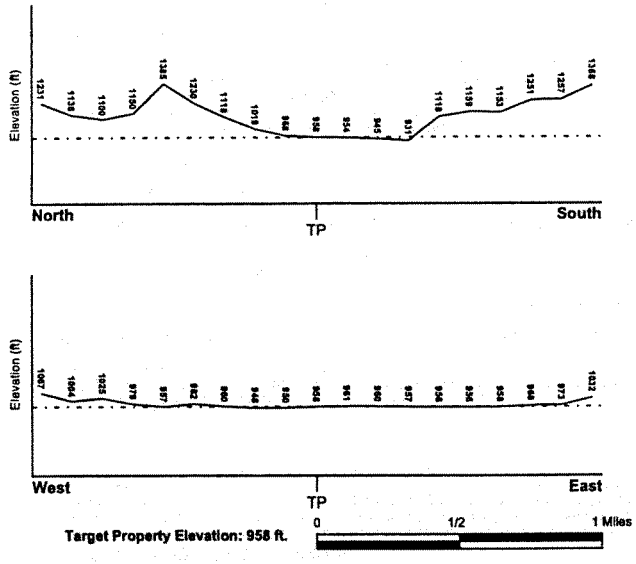
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

USGS Topographic Map:	34118-D6 VAL VERDE, CA
General Topographic Gradient:	General South
Source:	USGS 7.5 min quad index

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
LOS ANGELES, CA	YES - refer to the Overview Map and Detail Map
Flood Plain Panel at Target Property:	0650430340B
Additional Panels in search area:	0650430475B

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
VAL VERDE	Not Available

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Cenozoic
System:	Tertiary
Series:	Pliocene
Code:	Tpc *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Continental Deposits

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	PICO
Soil Surface Texture:	sandy loam
Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel:	HIGH
Depth to Bedrock Min:	> 60 inches
Depth to Bedrock Max:	> 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	14 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 6.00 Min: 2.00	Max: 8.40 Min: 7.90
2	14 inches	54 inches	stratified	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 6.00 Min: 2.00	Max: 8.40 Min: 7.90
3	54 inches	60 inches	stratified	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 20.00 Min: 6.00	Max: 8.40 Min: 7.90

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: clay loam
sand
gravelly - sand
gravelly - sandy loam
loamy sand
loam
silty clay loam

Surficial Soil Types: clay loam
sand
gravelly - sand
gravelly - sandy loam
loamy sand
loam
silty clay loam

Shallow Soil Types: loamy fine sand

Deeper Soil Types: loam
coarse sand

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	4565	1/4 - 1/2 Mile ENE

STATE OIL/GAS WELL INFORMATION

DISTANCE FROM TP (Miles)	DISTANCE FROM TP (Miles)
2 - 3 Miles North	2 - 3 Miles North
2 - 3 Miles North	2 - 3 Miles North
2 - 3 Miles North	2 - 3 Miles North
2 - 3 Miles North	2 - 3 Miles North
2 - 3 Miles North	2 - 3 Miles North
2 - 3 Miles North	2 - 3 Miles North
2 - 3 Miles NNW	2 - 3 Miles North
2 - 3 Miles North	2 - 3 Miles NNW
2 - 3 Miles NNW	2 - 3 Miles NW
2 - 3 Miles NNE	2 - 3 Miles NNW
1 - 2 Miles North	2 - 3 Miles NNW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE OIL/GAS WELL INFORMATION

DISTANCE FROM TP (Miles)
2 - 3 Miles NNW
2 - 3 Miles NE
1 - 2 Miles NNW
1 - 2 Miles NNW
1 - 2 Miles NNW
1 - 2 Miles North
1 - 2 Miles North
1 - 2 Miles NNE
1 - 2 Miles NNW
1 - 2 Miles NW
1 - 2 Miles WNW
1 - 2 Miles WNW
2 - 3 Miles WNW
2 - 3 Miles WNW
1/2 - 1 Mile NNW
1 - 2 Miles WNW
1 - 2 Miles ENE
1 - 2 Miles WNW
1 - 2 Miles WNW
1 - 2 Miles WNW
1 - 2 Miles ENE
2 - 3 Miles East
1 - 2 Miles East
2 - 3 Miles West
1 - 2 Miles West
1 - 2 Miles West
2 - 3 Miles West
2 - 3 Miles West
2 - 3 Miles West
1/2 - 1 Mile ENE
1 - 2 Miles West
2 - 3 Miles West
2 - 3 Miles West
2 - 3 Miles West
2 - 3 Miles West
1 - 2 Miles West
2 - 3 Miles West
1 - 2 Miles West
2 - 3 Miles West
2 - 3 Miles West
1 - 2 Miles West
2 - 3 Miles West
1 - 2 Miles East
1 - 2 Miles West
1 - 2 Miles West
1 - 2 Miles West
1/4 - 1/2 Mile East
2 - 3 Miles East
2 - 3 Miles West
1 - 2 Miles East
2 - 3 Miles West
1 - 2 Miles West
1 - 2 Miles West
1/4 - 1/2 Mile West

DISTANCE FROM TP (Miles)
2 - 3 Miles NNW
2 - 3 Miles NW
1 - 2 Miles NNW
2 - 3 Miles NNW
1 - 2 Miles NNW
2 - 3 Miles NE
1 - 2 Miles North
2 - 3 Miles WNW
2 - 3 Miles ENE
1 - 2 Miles NE
1 - 2 Miles WNW
1 - 2 Miles WNW
1/2 - 1 Mile NNW
1 - 2 Miles WNW
1 - 2 Miles ENE
2 - 3 Miles WNW
1 - 2 Miles WNW
1 - 2 Miles WNW
1/2 - 1 Mile NE
2 - 3 Miles West
1 - 2 Miles WNW
1/2 - 1 Mile ENE
1 - 2 Miles West
1 - 2 Miles East
2 - 3 Miles West
1 - 2 Miles West
1 - 2 Miles West
1 - 2 Miles West
1 - 2 Miles East
1 - 2 Miles West
1 - 2 Miles West
2 - 3 Miles West
2 - 3 Miles West
1 - 2 Miles West
2 - 3 Miles West
1 - 2 Miles West
1 - 2 Miles East
1 - 2 Miles West
1 - 2 Miles East
1 - 2 Miles West
1 - 2 Miles East
2 - 3 Miles West
1/4 - 1/2 Mile ENE
1 - 2 Miles West
1 - 2 Miles West
2 - 3 Miles West
1 - 2 Miles West
2 - 3 Miles West
1 - 2 Miles West
2 - 3 Miles West
1/2 - 1 Mile East
2 - 3 Miles West
2 - 3 Miles West
2 - 3 Miles West
1/2 - 1 Mile West

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE OIL/GAS WELL INFORMATION

DISTANCE FROM TP (Miles)
1/2 - 1 Mile West
1 - 2 Miles West
1 - 2 Miles West
2 - 3 Miles West
1 - 2 Miles West
2 - 3 Miles West
2 - 3 Miles West
2 - 3 Miles West
1 - 2 Miles East
1 - 2 Miles East
1 - 2 Miles ESE
2 - 3 Miles East
1/4 - 1/2 Mile South
1 - 2 Miles ESE
1 - 2 Miles ESE
1 - 2 Miles ESE
2 - 3 Miles West
1 - 2 Miles ESE
2 - 3 Miles ESE
1 - 2 Miles ESE
2 - 3 Miles WSW
1/2 - 1 Mile SE
1 - 2 Miles ESE
1/2 - 1 Mile SE
1 - 2 Miles ESE
1 - 2 Miles ESE
1 - 2 Miles ESE
2 - 3 Miles ESE
1 - 2 Miles ESE
1 - 2 Miles ESE
1 - 2 Miles SE
1 - 2 Miles SE
2 - 3 Miles ESE
1 - 2 Miles SE
2 - 3 Miles ESE
1 - 2 Miles SE
1 - 2 Miles ESE
1 - 2 Miles ESE
2 - 3 Miles ESE
2 - 3 Miles ESE
1 - 2 Miles SW
1 - 2 Miles SSW
1 - 2 Miles SSW
1 - 2 Miles SW
1 - 2 Miles SW
1 - 2 Miles SW
1 - 2 Miles SSW
1 - 2 Miles SSW
1 - 2 Miles SW
1 - 2 Miles SW
1 - 2 Miles SW
1 - 2 Miles South
1 - 2 Miles SSW
1 - 2 Miles SW
1 - 2 Miles SSW

DISTANCE FROM TP (Miles)
2 - 3 Miles West
0 - 1/8 Mile SSW
2 - 3 Miles West
1 - 2 Miles West
2 - 3 Miles West
2 - 3 Miles West
1 - 2 Miles East
1 - 2 Miles East
1 - 2 Miles East
1/2 - 1 Mile ESE
2 - 3 Miles West
2 - 3 Miles West
2 - 3 Miles West
1 - 2 Miles East
1/4 - 1/2 Mile SSW
2 - 3 Miles West
1/2 - 1 Mile ESE
1 - 2 Miles ESE
1/2 - 1 Mile SE
1 - 2 Miles ESE
2 - 3 Miles WSW
2 - 3 Miles WSW
1/2 - 1 Mile SE
1 - 2 Miles ESE
1/2 - 1 Mile SE
1/2 - 1 Mile SSE
1 - 2 Miles ESE
2 - 3 Miles ESE
1 - 2 Miles SW
1 - 2 Miles ESE
2 - 3 Miles WSW
1 - 2 Miles ESE
1 - 2 Miles ESE
2 - 3 Miles ESE
1 - 2 Miles SE
1 - 2 Miles SE
1 - 2 Miles SSW
1 - 2 Miles WSW
1 - 2 Miles WSW
1 - 2 Miles South
1 - 2 Miles SW
1 - 2 Miles SW
1 - 2 Miles SSW
1 - 2 Miles SW
1 - 2 Miles South
1 - 2 Miles South
1 - 2 Miles SE
1 - 2 Miles SW
1 - 2 Miles SSE
1 - 2 Miles SW
1 - 2 Miles SSW
1 - 2 Miles South
1 - 2 Miles SSW
1 - 2 Miles SSW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE OIL/GAS WELL INFORMATION

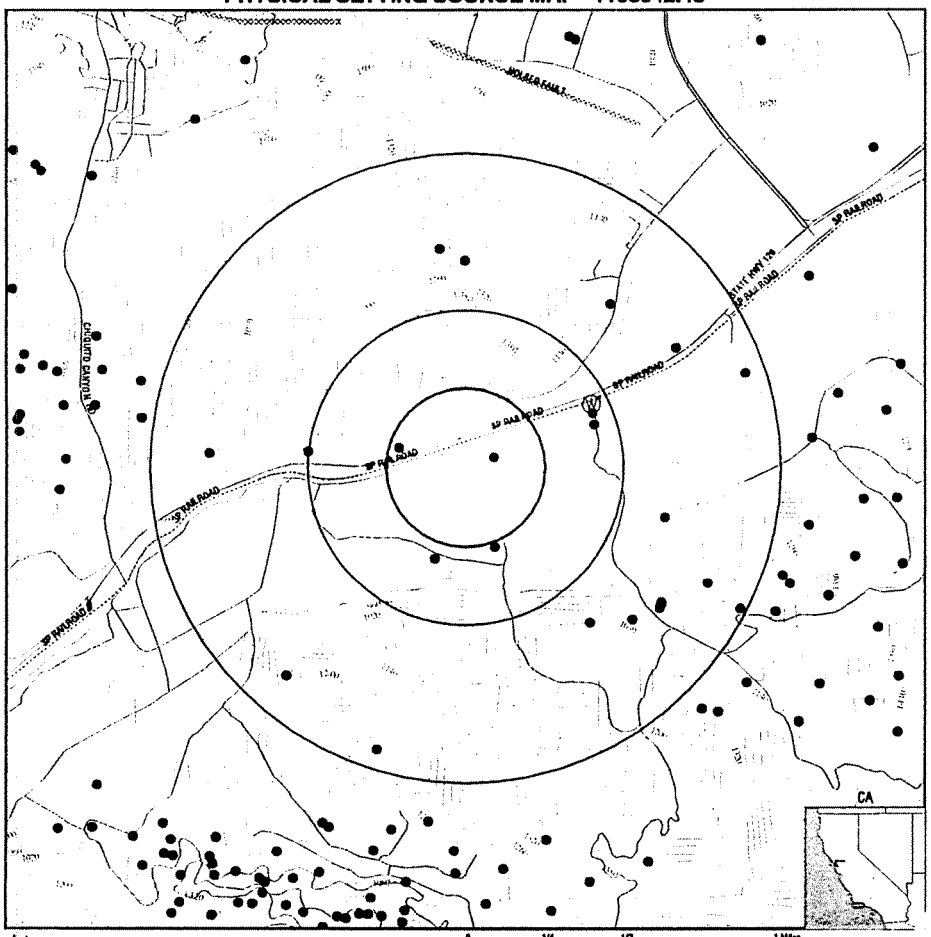
DISTANCE FROM TP (Miles)	DISTANCE FROM TP (Miles)
1 - 2 Miles SSE	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles SSW
1 - 2 Miles SE	1 - 2 Miles SSW
1 - 2 Miles SW	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles South
1 - 2 Miles SSW	1 - 2 Miles SSW
1 - 2 Miles South	1 - 2 Miles SSW
1 - 2 Miles SW	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles South
1 - 2 Miles SSE	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles South
1 - 2 Miles SSW	1 - 2 Miles SSE
1 - 2 Miles South	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles SSW
1 - 2 Miles South	1 - 2 Miles SSW
1 - 2 Miles South	1 - 2 Miles South
1 - 2 Miles SSW	1 - 2 Miles South
1 - 2 Miles South	2 - 3 Miles SW
1 - 2 Miles South	1 - 2 Miles SSW
1 - 2 Miles South	1 - 2 Miles SSW
1 - 2 Miles SSE	1 - 2 Miles SSW
1 - 2 Miles South	1 - 2 Miles South
1 - 2 Miles SSW	1 - 2 Miles South
1 - 2 Miles South	1 - 2 Miles SSW
1 - 2 Miles South	1 - 2 Miles South
1 - 2 Miles South	1 - 2 Miles South
1 - 2 Miles SSW	1 - 2 Miles SSE
1 - 2 Miles South	1 - 2 Miles South
1 - 2 Miles SSE	1 - 2 Miles South
1 - 2 Miles South	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles South
1 - 2 Miles South	1 - 2 Miles South
1 - 2 Miles South	1 - 2 Miles South
1 - 2 Miles South	1 - 2 Miles South
1 - 2 Miles South	1 - 2 Miles South
2 - 3 Miles SSE	1 - 2 Miles SSE
1 - 2 Miles South	1 - 2 Miles South
1 - 2 Miles South	2 - 3 Miles SSW
2 - 3 Miles South	1 - 2 Miles South
1 - 2 Miles South	2 - 3 Miles South
2 - 3 Miles SSE	2 - 3 Miles South
2 - 3 Miles South	2 - 3 Miles SSE
2 - 3 Miles SSE	2 - 3 Miles SSE
2 - 3 Miles South	2 - 3 Miles South
2 - 3 Miles South	2 - 3 Miles South
2 - 3 Miles SSE	2 - 3 Miles South
2 - 3 Miles South	2 - 3 Miles SSE
2 - 3 Miles South	2 - 3 Miles SSE
2 - 3 Miles SSE	2 - 3 Miles South
2 - 3 Miles South	2 - 3 Miles South
2 - 3 Miles SSE	2 - 3 Miles South

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE OIL/GAS WELL INFORMATION

DISTANCE FROM TP (Miles)	DISTANCE FROM TP (Miles)
2 - 3 Miles SSE	2 - 3 Miles South
2 - 3 Miles South	2 - 3 Miles SSE
2 - 3 Miles South	2 - 3 Miles SSE
2 - 3 Miles South	2 - 3 Miles South
2 - 3 Miles South	2 - 3 Miles SSW
2 - 3 Miles SSE	2 - 3 Miles SSE
2 - 3 Miles SSE	2 - 3 Miles SSE

PHYSICAL SETTING SOURCE MAP - 1108642.4s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

TARGET PROPERTY:	Tentative Tract Map No. 53108	CUSTOMER:	Building Analytics
ADDRESS:	Wolcott Way/Henry Mayo Drive	CONTACT:	Joe Montoya
CITY/STATE/ZIP:	Valencia CA 91355	INQUIRY #:	1108642.4s
LAT/LONG:	34.4243 / 118.6373	DATE:	January 08, 2004 12:47 pm

Copyright © 2003 EDR, Inc. © 2003 EDT, Inc. Rel. 07/2003 All Rights Reserved.

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
1 **ENE** **1/4 - 1/2 Mile** **Higher**	**CA WELLS**	**4565**

Water System Information:

Prime Station Code:	04N/17W-14Q07 S	User ID:	19C
FRDS Number:	1909014001	County:	Los Angeles
District Number:	49	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	342538.0 1183746.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL C-6		
System Number:	1909014		
System Name:	WALNUT HILL		
Organization That Operates System:	23823 VALENCIA VALENCIA, CA 91355		
Pop Served:	50	Connections:	10
Area Served:	Not Reported		

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

North
2 - 3 Miles | **OIL_GAS** | **CA00010927**

Well Number:	5	Status:	Completed oil- directional
API Number:	03722953	Operator:	Petrominerals Corporation
Latitude:	34.459921	Longitude:	-118.636642
Region:	2	Lease:	Sadd
Section:	02	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles | **OIL_GAS** | **CA00010926**

Well Number:	4	Status:	Completed oil- directional
API Number:	03722948	Operator:	Petrominerals Corporation
Latitude:	34.459793	Longitude:	-118.636673
Region:	2	Lease:	Sadd
Section:	02	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles | **OIL_GAS** | **CA00011006**

Well Number:	7	Status:	Completed oil
API Number:	03722750	Operator:	Petrominerals Corporation
Latitude:	34.459727	Longitude:	-118.640970
Region:	2	Lease:	Burns Crist
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles | **OIL_GAS** | **CA00011004**

Well Number:	5	Status:	001
API Number:	03724193	Operator:	Petrominerals Corporation
Latitude:	34.459573	Longitude:	-118.640939
Region:	2	Lease:	Burns Crist
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

North
2 - 3 Miles | **OIL_GAS** | **CA00010953**

Well Number:	1	Status:	Completed oil- directional
API Number:	03722739	Operator:	Petrominerals Corporation
Latitude:	34.458657	Longitude:	-118.639917
Region:	2	Lease:	Sadd
Section:	02	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles | **OIL_GAS** | **CA00011005**

Well Number:	6	Status:	Completed oil
API Number:	03722740	Operator:	Petrominerals Corporation
Latitude:	34.458523	Longitude:	-118.641679
Region:	2	Lease:	Burns Crist
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles | **OIL_GAS** | **CA00010925**

Well Number:	2	Status:	Completed oil
API Number:	03722940	Operator:	Petrominerals Corporation
Latitude:	34.458479	Longitude:	-118.639731
Region:	2	Lease:	Sadd
Section:	02	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles | **OIL_GAS** | **CA00010950**

Well Number:	3	Status:	Completed oil- directional
API Number:	03722747	Operator:	Petrominerals Corporation
Latitude:	34.457277	Longitude:	-118.639759
Region:	2	Lease:	McGillivrae
Section:	02	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

North
2 - 3 Miles | OIL_GAS | CA00010948

Well Number:	9	Status:	001
API Number:	03724195	Operator:	Petrominerals Corporation
Latitude:	34.456633	Longitude:	-118.641273
Region:	2	Lease:	Mabel Strawn
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles | OIL_GAS | CA00010941

Well Number:	10	Status:	001
API Number:	03724196	Operator:	Petrominerals Corporation
Latitude:	34.456607	Longitude:	-118.641520
Region:	2	Lease:	Mabel Strawn
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles | OIL_GAS | CA00010946

Well Number:	7	Status:	Completed oil
API Number:	03722727	Operator:	Petrominerals Corporation
Latitude:	34.456428	Longitude:	-118.641365
Region:	2	Lease:	Mabel Strawn
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles | OIL_GAS | CA00010947

Well Number:	8	Status:	001
API Number:	03724194	Operator:	Petrominerals Corporation
Latitude:	34.456353	Longitude:	-118.641056
Region:	2	Lease:	Mabel Strawn
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

NNW
2 - 3 Miles | OIL_GAS | CA00013454

Well Number:	17	Status:	Plugged and abandoned oil
API Number:	03707260	Operator:	G. R. Nance Co., Inc
Latitude:	34.456041	Longitude:	-118.656948
Region:	2	Lease:	Towle
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles | OIL_GAS | CA00010949

Well Number:	2	Status:	Completed oil
API Number:	03722349	Operator:	Petrominerals Corporation
Latitude:	34.455897	Longitude:	-118.639788
Region:	2	Lease:	McGillivrae
Section:	02	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles | OIL_GAS | CA00010945

Well Number:	6	Status:	Completed oil
API Number:	03722340	Operator:	Petrominerals Corporation
Latitude:	34.455253	Longitude:	-118.641239
Region:	2	Lease:	Mabel Strawn
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
2 - 3 Miles | OIL_GAS | CA00010966

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03721689	Operator:	Petrominerals Corporation
Latitude:	34.455147	Longitude:	-118.656791
Region:	2	Lease:	Hilgenfeld
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

NNW
2 - 3 Miles — OIL_GAS — CA00013495

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03707259	Operator:	Federal Oil Company
Latitude:	34.454320	Longitude:	-118.652337
Region:	2	Lease:	Federal-Towle
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NW
2 - 3 Miles — OIL_GAS — CA00010784

Well Number:	88-4	Status:	Plugged and abandoned oil
API Number:	03707261	Operator:	Porsco Operating Company
Latitude:	34.454295	Longitude:	-118.659325
Region:	2	Lease:	Claiborne
Section:	04	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNE
2 - 3 Miles — OIL_GAS — CA00015458

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03707262	Operator:	British-American Oil Prod Co
Latitude:	34.454254	Longitude:	-118.613133
Region:	2	Lease:	Wayside Honor Farm
Section:	01	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
2 - 3 Miles — OIL_GAS — CA00010943

Well Number:	4	Status:	Completed oil
API Number:	03722060	Operator:	Petrominerals Corporation
Latitude:	34.454010	Longitude:	-118.645937
Region:	2	Lease:	Mabel Strawn
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

North
1 - 2 Miles — OIL_GAS — CA00010967

Well Number:	1	Status:	Completed oil
API Number:	03707258	Operator:	Petrominerals Corporation
Latitude:	34.453848	Longitude:	-118.641113
Region:	2	Lease:	Mabel E. Strawn
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
2 - 3 Miles — OIL_GAS — CA00010944

Well Number:	5	Status:	Plugged and abandoned-dry hole
API Number:	03722072	Operator:	Petrominerals Corporation
Latitude:	34.453826	Longitude:	-118.647420
Region:	2	Lease:	Mabel Strawn
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
2 - 3 Miles — OIL_GAS — CA00010940

Well Number:	2	Status:	Completed oil
API Number:	03721715	Operator:	Petrominerals Corporation
Latitude:	34.453634	Longitude:	-118.643833
Region:	2	Lease:	Mabel E. Strawn
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
2 - 3 Miles — OIL_GAS — CA00010942

Well Number:	3	Status:	Completed oil- directional
API Number:	03721805	Operator:	Petrominerals Corporation
Latitude:	34.453607	Longitude:	-118.644112
Region:	2	Lease:	Mabel Strawn
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

NE
2 - 3 Miles — OIL_GAS — CA00007344

Well Number:	27	Status:	Plugged and abandoned-dry hole
API Number:	03707281	Operator:	Vintage Petroleum Inc
Latitude:	34.453190	Longitude:	-118.610317
Region:	2	Lease:	Honor Rancho 'A' (NCT-1)
Section:	01	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NW
2 - 3 Miles — OIL_GAS — CA00013497

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03705395	Operator:	Fernando Oil Company
Latitude:	34.452872	Longitude:	-118.657065
Region:	2	Lease:	Wel No.
Section:	10	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
1 - 2 Miles — OIL_GAS — CA00012074

Well Number:	81X	Status:	Plugged and abandoned-dry hole
API Number:	03721466	Operator:	Montara Petroleum Company
Latitude:	34.452826	Longitude:	-118.641111
Region:	2	Lease:	Sterling
Section:	10	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
1 - 2 Miles — OIL_GAS — CA00010933

Well Number:	2-10	Status:	Completed oil
API Number:	03721816	Operator:	Petrominerals Corporation
Latitude:	34.452744	Longitude:	-118.642502
Region:	2	Lease:	Sterling
Section:	10	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

NNW
1 - 2 Miles — OIL_GAS — CA00010932

Well Number:	1-10	Status:	Completed oil
API Number:	03721801	Operator:	Petrominerals Corporation
Latitude:	34.452663	Longitude:	-118.643893
Region:	2	Lease:	Sterling
Section:	10	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
2 - 3 Miles — OIL_GAS — CA00008486

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706205	Operator:	U. S. Natural Gas C & Manning
Latitude:	34.452622	Longitude:	-118.648222
Region:	2	Lease:	Strawn
Section:	10	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
1 - 2 Miles — OIL_GAS — CA00015649

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03705148	Operator:	Atlantic Oil Company
Latitude:	34.452428	Longitude:	-118.645253
Region:	2	Lease:	Strawn
Section:	10	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
1 - 2 Miles — OIL_GAS — CA00013952

Well Number:	3-10	Status:	Plugged and abandoned oil
API Number:	03721871	Operator:	Decalta International Corp
Latitude:	34.450949	Longitude:	-118.644354
Region:	2	Lease:	Sterling
Section:	10	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

North
1 - 2 Miles | **OIL_GAS** | **CA00009001**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706082	Operator:	Texaco E & P Inc
Latitude:	34.450430	Longitude:	-118.639127
Region:	2	Lease:	Fernando
Section:	11	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NE
2 - 3 Miles | **OIL_GAS** | **CA00008942**

Well Number:	D-3	Status:	Plugged and abandoned-dry hole
API Number:	03707300	Operator:	Texaco E & P Inc
Latitude:	34.447757	Longitude:	-118.604933
Region:	2	Lease:	Newhall
Section:	07	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
1 - 2 Miles | **OIL_GAS** | **CA00008939**

Well Number:	B-1	Status:	Plugged and abandoned-dry hole
API Number:	03706107	Operator:	Texaco E & P Inc
Latitude:	34.444225	Longitude:	-118.630643
Region:	2	Lease:	Newhall
Section:	11	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
1 - 2 Miles | **OIL_GAS** | **CA00008940**

Well Number:	D-1	Status:	Plugged and abandoned-dry hole
API Number:	03706108	Operator:	Texaco E & P Inc
Latitude:	34.444098	Longitude:	-118.630303
Region:	2	Lease:	Newhall
Section:	11	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

NNE
1 - 2 Miles | **OIL_GAS** | **CA00008941**

Well Number:	D-2	Status:	Plugged and abandoned-dry hole
API Number:	03706109	Operator:	Texaco E & P Inc
Latitude:	34.444058	Longitude:	-118.619976
Region:	2	Lease:	Newhall
Section:	12	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
2 - 3 Miles | **OIL_GAS** | **CA00009857**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03705882	Operator:	Shell Western E. & P. Inc.
Latitude:	34.443227	Longitude:	-118.667094
Region:	2	Lease:	Daugherty
Section:	09	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
1 - 2 Miles | **OIL_GAS** | **CA00008973**

Well Number:	1	Status:	Plugged and abandoned-dry hole-directional
API Number:	03706091	Operator:	Texaco E & P Inc
Latitude:	34.443164	Longitude:	-118.648605
Region:	2	Lease:	Malis
Section:	10	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ENE
2 - 3 Miles | **OIL_GAS** | **CA00008944**

Well Number:	F-1	Status:	Plugged and abandoned-dry hole
API Number:	03706111	Operator:	Texaco E & P Inc
Latitude:	34.440622	Longitude:	-118.601451
Region:	2	Lease:	Newhall
Section:	07	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

NW
1 - 2 Miles — **OIL_GAS** — **CA00012519**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03705621	Operator:	Marathon Oil Co
Latitude:	34.440369	Longitude:	-118.651382
Region:	2	Lease:	Mabel S. Henderson
Section:	10	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NE
1 - 2 Miles — **OIL_GAS** — **CA00013561**

Well Number:	B-1	Status:	Plugged and abandoned-dry hole
API Number:	03705490	Operator:	Exxon Corp
Latitude:	34.439071	Longitude:	-118.613720
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	12	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
1 - 2 Miles — **OIL_GAS** — **CA00008923**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706117	Operator:	Texaco E & P Inc
Latitude:	34.438953	Longitude:	-118.661520
Region:	2	Lease:	Seaboard-So Cal Pet. Daugherty
Section:	09	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
1 - 2 Miles — **OIL_GAS** — **CA00010509**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706664	Operator:	Rothschild Oil Company
Latitude:	34.438293	Longitude:	-118.660282
Region:	2	Lease:	Barbour
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

WNW
1 - 2 Miles — **OIL_GAS** — **CA00011095**

Well Number:	1-16	Status:	Plugged and abandoned-dry hole-directional
API Number:	03722947	Operator:	Pancandian Petroleum Co
Latitude:	34.437987	Longitude:	-118.659972
Region:	2	Lease:	N. L. & F.
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
1 - 2 Miles — **OIL_GAS** — **CA00014987**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706671	Operator:	Chevron USA, Inc.
Latitude:	34.437767	Longitude:	-118.657127
Region:	2	Lease:	Boobier
Section:	15	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
2 - 3 Miles — **OIL_GAS** — **CA00008784**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706631	Operator:	The British American Oil Prod
Latitude:	34.437578	Longitude:	-118.667330
Region:	2	Lease:	Kinler-So. Cal
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
1/2 - 1 Mile — **OIL_GAS** — **CA00010300**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03722056	Operator:	Santa Fe Energy Resources
Latitude:	34.434360	Longitude:	-118.637827
Region:	2	Lease:	N. L. & F.
Section:	14	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

WNW
2 - 3 Miles — **OIL_GAS** — **CA00010278**

Well Number:	16-1	Status:	Plugged and abandoned-dry hole
API Number:	03706666	Operator:	Scope Industries
Latitude:	34.434221	Longitude:	-118.669889
Region:	2	Lease:	Kinler
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
1 - 2 Miles — **OIL_GAS** — **CA00016378**

Well Number:	1	Status:	Plugged and abandoned oil-directional
API Number:	03706629	Operator:	Amax Petroleum Corporation
Latitude:	34.434002	Longitude:	-118.666890
Region:	2	Lease:	Kinler
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
1/2 - 1 Mile — **OIL_GAS** — **CA00013589**

Well Number:	55	Status:	Plugged and abandoned-dry hole
API Number:	03716518	Operator:	Exxon Corp
Latitude:	34.433828	Longitude:	-118.636435
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	14	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ENE
1 - 2 Miles — **OIL_GAS** — **CA00013576**

Well Number:	69	Status:	135
API Number:	03716528	Operator:	Exxon Corp
Latitude:	34.433372	Longitude:	-118.605058
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	18	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

WNW
1 - 2 Miles — **OIL_GAS** — **CA00016403**

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03706626	Operator:	Amax Petroleum Corporation
Latitude:	34.433315	Longitude:	-118.665961
Region:	2	Lease:	Barbour
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
2 - 3 Miles — **OIL_GAS** — **CA00013452**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03721365	Operator:	G. R. Nance Co., Inc
Latitude:	34.433214	Longitude:	-118.672732
Region:	2	Lease:	Gallagher
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ENE
1 - 2 Miles — **OIL_GAS** — **CA00013538**

Well Number:	2	Status:	230
API Number:	03716535	Operator:	Exxon Corp
Latitude:	34.433129	Longitude:	-118.617295
Region:	2	Lease:	Newhall Land & Farming Co. 12
Section:	13	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
1 - 2 Miles — **OIL_GAS** — **CA00016404**

Well Number:	2	Status:	Plugged and abandoned oil
API Number:	03706627	Operator:	Amax Petroleum Corporation
Latitude:	34.432941	Longitude:	-118.663301
Region:	2	Lease:	Barbour
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

WNW
1 - 2 Miles — OIL_GAS — CA00016405

Well Number:	3	Status:	Plugged and abandoned oil
API Number:	03706628	Operator:	Amax Petroleum Corporation
Latitude:	34.432538	Longitude:	-118.661569
Region:	2	Lease:	Barbour
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
1 - 2 Miles — OIL_GAS — CA00015495

Well Number:	1-16	Status:	Plugged and abandoned-dry hole-directional
API Number:	03722707	Operator:	Black Hawk Resources Corp
Latitude:	34.432378	Longitude:	-118.663455
Region:	2	Lease:	N. L. & F.
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
1 - 2 Miles — OIL_GAS — CA00016379

Well Number:	2	Status:	Plugged and abandoned-dry hole
API Number:	03706630	Operator:	Amax Petroleum Corporation
Latitude:	34.432286	Longitude:	-118.667690
Region:	2	Lease:	Kinler
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NE
1/2 - 1 Mile — OIL_GAS — CA00013578

Well Number:	70	Status:	Plugged and abandoned oil-directional
API Number:	03716529	Operator:	Exxon Corp
Latitude:	34.431838	Longitude:	-118.628381
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	14	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

WNW
1 - 2 Miles — OIL_GAS — CA00011714

Well Number:	10	Status:	Completed oil
API Number:	03706728	Operator:	Nuevo Energy Company
Latitude:	34.430692	Longitude:	-118.663235
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00014523

Well Number:	5	Status:	Plugged and abandoned-dry hole
API Number:	03706681	Operator:	Chevron USA, Inc.
Latitude:	34.430390	Longitude:	-118.676467
Region:	2	Lease:	Sepulveda
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ENE
1 - 2 Miles — OIL_GAS — CA00013556

Well Number:	76	Status:	Plugged and abandoned oil-directional
API Number:	03716534	Operator:	Exxon Corp
Latitude:	34.430373	Longitude:	-118.608880
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	13	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
1 - 2 Miles — OIL_GAS — CA00014985

Well Number:	5	Status:	Plugged and abandoned-dry hole
API Number:	03706668	Operator:	Chevron USA, Inc.
Latitude:	34.430357	Longitude:	-118.656865
Region:	2	Lease:	Blair
Section:	15	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

East
2 - 3 Miles — OIL_GAS — CA00013553

Well Number:	73	Status:	137
API Number:	03716531	Operator:	Exxon Corp
Latitude:	34.429852	Longitude:	-118.596595
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	18	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ENE
1/2 - 1 Mile — OIL_GAS — CA00013575

Well Number:	68	Status:	Plugged and abandoned oil
API Number:	03716527	Operator:	Exxon Corp
Latitude:	34.429832	Longitude:	-118.624709
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	14	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles — OIL_GAS — CA00013573

Well Number:	66	Status:	Plugged and abandoned oil
API Number:	03701977	Operator:	Exxon Corp
Latitude:	34.429748	Longitude:	-118.604609
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	18	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — OIL_GAS — CA00011698

Well Number:	4	Status:	Completed oil
API Number:	03706722	Operator:	Nuevo Energy Company
Latitude:	34.429525	Longitude:	-118.660914
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

West
2 - 3 Miles — OIL_GAS — CA00012525

Well Number:	20	Status:	Completed gas
API Number:	03722026	Operator:	Marathon Oil Co
Latitude:	34.429188	Longitude:	-118.676589
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles — OIL_GAS — CA00013580

Well Number:	72	Status:	Plugged and abandoned oil
API Number:	03716530	Operator:	Exxon Corp
Latitude:	34.429084	Longitude:	-118.612185
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	13	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — OIL_GAS — CA00011687

Well Number:	13	Status:	Completed oil
API Number:	03706731	Operator:	Nuevo Energy Company
Latitude:	34.429017	Longitude:	-118.659861
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00011929

Well Number:	3	Status:	Completed oil
API Number:	03706698	Operator:	Nuevo Energy Company
Latitude:	34.428991	Longitude:	-118.674486
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

West
1 - 2 Miles | OIL_GAS | CA00011700

Well Number:	6	Status:	Completed oil
API Number:	03706724	Operator:	Nuevo Energy Company
Latitude:	34.428895	Longitude:	-118.665581
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles | OIL_GAS | CA00011691

Well Number:	17	Status:	Completed oil
API Number:	03706735	Operator:	Nuevo Energy Company
Latitude:	34.428859	Longitude:	-118.661129
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles | OIL_GAS | CA00011906

Well Number:	9	Status:	Completed oil
API Number:	03706704	Operator:	Nuevo Energy Company
Latitude:	34.428846	Longitude:	-118.672105
Region:	2	Lease:	Barnes
Section:	18	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles | OIL_GAS | CA00008178

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03706717	Operator:	Union Oil Company, Operator
Latitude:	34.428825	Longitude:	-118.656553
Region:	2	Lease:	Liebhart
Section:	15	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

West
2 - 3 Miles | OIL_GAS | CA00012669

Well Number:	4-17	Status:	Completed oil
API Number:	03706643	Operator:	LBth Inc
Latitude:	34.428772	Longitude:	-118.678721
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles | OIL_GAS | CA00011672

Well Number:	7	Status:	Completed oil
API Number:	03706725	Operator:	Nuevo Energy Company
Latitude:	34.428739	Longitude:	-118.659057
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles | OIL_GAS | CA00012675

Well Number:	8-17	Status:	Completed oil
API Number:	03706647	Operator:	LBth Inc
Latitude:	34.428703	Longitude:	-118.676495
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles | OIL_GAS | CA00013579

Well Number:	71	Status:	169
API Number:	03706299	Operator:	Exxon Corp
Latitude:	34.428699	Longitude:	-118.601974
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	18	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

ENE
1/2 - 1 Mile — **OIL_GAS** — **CA00013574**

Well Number:	67	Status:	Plugged and abandoned oil
API Number:	03716526	Operator:	Exxon Corp
Latitude:	34.428670	Longitude:	-118.620842
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	13	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — **OIL_GAS** — **CA00011945**

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03706696	Operator:	Nuevo Energy Company
Latitude:	34.428605	Longitude:	-118.668116
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — **OIL_GAS** — **CA00011713**

Well Number:	1	Status:	Completed oil
API Number:	03706719	Operator:	Nuevo Energy Company
Latitude:	34.428597	Longitude:	-118.663200
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — **OIL_GAS** — **CA00011686**

Well Number:	12	Status:	Completed oil
API Number:	03706730	Operator:	Nuevo Energy Company
Latitude:	34.428564	Longitude:	-118.665148
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

West
2 - 3 Miles — **OIL_GAS** — **CA00012691**

Well Number:	12-17	Status:	Completed oil
API Number:	03706651	Operator:	LBth Inc
Latitude:	34.428471	Longitude:	-118.677020
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00011946**

Well Number:	10	Status:	Plugged and abandoned-dry hole
API Number:	03706705	Operator:	Nuevo Energy Company
Latitude:	34.428430	Longitude:	-118.674083
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00011925**

Well Number:	19	Status:	Completed oil- directional
API Number:	03706714	Operator:	Nuevo Energy Company
Latitude:	34.428406	Longitude:	-118.673743
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00011920**

Well Number:	14	Status:	Completed oil- directional
API Number:	03706709	Operator:	Nuevo Energy Company
Latitude:	34.428353	Longitude:	-118.674392
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

West
2 - 3 Miles — OIL_GAS — CA00011923

Well Number:	17	Status:	Completed oil
API Number:	03706712	Operator:	Nuevo Energy Company
Latitude:	34.428316	Longitude:	-118.670310
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — OIL_GAS — CA00008179

Well Number:	2	Status:	Plugged and abandoned-dry hole
API Number:	03706718	Operator:	Union Oil Company, Operator
Latitude:	34.428295	Longitude:	-118.654387
Region:	2	Lease:	Liebhart
Section:	15	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00011931

Well Number:	5	Status:	Completed oil- directional
API Number:	03706700	Operator:	Nuevo Energy Company
Latitude:	34.428251	Longitude:	-118.674051
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00011947

Well Number:	11	Status:	026
API Number:	03706706	Operator:	Nuevo Energy Company
Latitude:	34.428225	Longitude:	-118.674299
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

West
1 - 2 Miles — OIL_GAS — CA00011696

Well Number:	21	Status:	Completed oil
API Number:	03706739	Operator:	Nuevo Energy Company
Latitude:	34.428035	Longitude:	-118.663044
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — OIL_GAS — CA00011690

Well Number:	16	Status:	Completed oil
API Number:	03706734	Operator:	Nuevo Energy Company
Latitude:	34.427951	Longitude:	-118.665115
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00011927

Well Number:	20	Status:	Completed oil- directional
API Number:	03706715	Operator:	Nuevo Energy Company
Latitude:	34.427846	Longitude:	-118.673216
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles — OIL_GAS — CA00013572

Well Number:	65	Status:	Plugged and abandoned oil-directional
API Number:	03716470	Operator:	Exxon Corp
Latitude:	34.427717	Longitude:	-118.665676
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	13	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance — Database — EDR ID Number

West
1 - 2 Miles — OIL_GAS — CA00011689

Well Number:	15	Status:	Completed oil
API Number:	03706733	Operator:	Nuevo Energy Company
Latitude:	34.427627	Longitude:	-118.662672
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — OIL_GAS — CA00011928

Well Number:	21	Status:	Completed oil- directional
API Number:	03706716	Operator:	Nuevo Energy Company
Latitude:	34.427530	Longitude:	-118.668454
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00011924

Well Number:	18	Status:	Completed oil
API Number:	03706713	Operator:	Nuevo Energy Company
Latitude:	34.427495	Longitude:	-118.671113
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles — OIL_GAS — CA00013570

Well Number:	63	Status:	Plugged and abandoned oil-directional
API Number:	03700147	Operator:	Exxon Corp
Latitude:	34.427308	Longitude:	-118.609028
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	13	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance — Database — EDR ID Number

West
1 - 2 Miles — OIL_GAS — CA00012728

Well Number:	7	Status:	Completed oil
API Number:	03706669	Operator:	LBth Inc
Latitude:	34.427187	Longitude:	-118.656951
Region:	2	Lease:	Blair
Section:	15	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — OIL_GAS — CA00011692

Well Number:	18	Status:	Completed oil
API Number:	03706736	Operator:	Nuevo Energy Company
Latitude:	34.427181	Longitude:	-118.658714
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00012694

Well Number:	15-17	Status:	Completed gas
API Number:	03706654	Operator:	LBth Inc
Latitude:	34.427042	Longitude:	-118.676337
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles — OIL_GAS — CA00013571

Well Number:	64	Status:	Plugged and abandoned oil
API Number:	03718525	Operator:	Exxon Corp
Latitude:	34.428960	Longitude:	-118.612985
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	13	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

West
1 - 2 Miles — OIL_GAS — CA00011673

Well Number:	8	Status:	Completed oil
API Number:	03706726	Operator:	Nuevo Energy Company
Latitude:	34.426952	Longitude:	-118.665577
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00011930

Well Number:	4	Status:	Completed oil
API Number:	03706699	Operator:	Nuevo Energy Company
Latitude:	34.426911	Longitude:	-118.670122
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00012671

Well Number:	5-17	Status:	Plugged and abandoned oil
API Number:	03706644	Operator:	LBth Inc
Latitude:	34.426888	Longitude:	-118.676553
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ENE
1/4 - 1/2 Mile — OIL_GAS — CA00013560

Well Number:	9	Status:	Plugged and abandoned-dry hole
API Number:	03716480	Operator:	Exxon Corp
Latitude:	34.426825	Longitude:	-118.629340
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	14	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

East
1 - 2 Miles — OIL_GAS — CA00013567

Well Number:	60	Status:	Plugged and abandoned oil
API Number:	03705101	Operator:	Exxon Corp
Latitude:	34.426786	Longitude:	-118.600438
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	18	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — OIL_GAS — CA00011688

Well Number:	14	Status:	Completed oil
API Number:	03706732	Operator:	Nuevo Energy Company
Latitude:	34.426778	Longitude:	-118.664989
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — OIL_GAS — CA00011699

Well Number:	5	Status:	Completed oil
API Number:	03706723	Operator:	Nuevo Energy Company
Latitude:	34.426782	Longitude:	-118.663227
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — OIL_GAS — CA00011694

Well Number:	2	Status:	Completed oil
API Number:	03706720	Operator:	Nuevo Energy Company
Latitude:	34.426764	Longitude:	-118.661155
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

West
1 - 2 Miles — OIL_GAS — CA00011926

Well Number:	2	Status:	036
API Number:	03706697	Operator:	Nuevo Energy Company
Latitude:	34.426740	Longitude:	-118.667741
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00012698

Well Number:	19-17	Status:	Completed oil
API Number:	03706658	Operator:	LBth Inc
Latitude:	34.426701	Longitude:	-118.678872
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — OIL_GAS — CA00012727

Well Number:	27	Status:	Completed oil
API Number:	03706670	Operator:	LBth Inc
Latitude:	34.426609	Longitude:	-118.654353
Region:	2	Lease:	Blair
Section:	15	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — OIL_GAS — CA00011715

Well Number:	11	Status:	Completed oil
API Number:	03706729	Operator:	Nuevo Energy Company
Latitude:	34.426508	Longitude:	-118.661309
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

East
1/4 - 1/2 Mile — OIL_GAS — CA00013557

Well Number:	77	Status:	Plugged and abandoned-dry hole-directional
API Number:	03722047	Operator:	Exxon Corp
Latitude:	34.426314	Longitude:	-118.629247
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	14	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00011949

Well Number:	13	Status:	Completed oil
API Number:	03706708	Operator:	Nuevo Energy Company
Latitude:	34.426170	Longitude:	-118.670028
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
2 - 3 Miles — OIL_GAS — CA00013568

Well Number:	61	Status:	Plugged and abandoned oil-directional
API Number:	03716523	Operator:	Exxon Corp
Latitude:	34.425995	Longitude:	-118.595433
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	18	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — OIL_GAS — CA00011693

Well Number:	19	Status:	Completed oil
API Number:	03706737	Operator:	Nuevo Energy Company
Latitude:	34.425971	Longitude:	-118.661185
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

West
2 - 3 Miles — OIL_GAS — CA00011933

Well Number:	7	Status:	Completed oil- directional
API Number:	03706702	Operator:	Nuevo Energy Company
Latitude:	34.425940	Longitude:	-118.669904
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00011921

Well Number:	15	Status:	Completed oil- directional
API Number:	03706710	Operator:	Nuevo Energy Company
Latitude:	34.425719	Longitude:	-118.674696
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles — OIL_GAS — CA00013593

Well Number:	59	Status:	Plugged and abandoned oil
API Number:	03716522	Operator:	Exxon Corp
Latitude:	34.425718	Longitude:	-118.603938
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	18	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1/2 - 1 Mile — OIL_GAS — CA00013592

Well Number:	58	Status:	Plugged and abandoned oil-directional
API Number:	03716521	Operator:	Exxon Corp
Latitude:	34.425693	Longitude:	-118.617125
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	13	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

West
2 - 3 Miles — OIL_GAS — CA00011932

Well Number:	6	Status:	Completed oil
API Number:	03706701	Operator:	Nuevo Energy Company
Latitude:	34.425592	Longitude:	-118.674510
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00012676

Well Number:	9-17	Status:	Completed oil
API Number:	03706648	Operator:	LBth Inc
Latitude:	34.425577	Longitude:	-118.678622
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — OIL_GAS — CA00011695

Well Number:	20	Status:	Completed oil
API Number:	03706738	Operator:	Nuevo Energy Company
Latitude:	34.425524	Longitude:	-118.664770
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00012692

Well Number:	13-17	Status:	Completed oil- directional
API Number:	03706652	Operator:	LBth Inc
Latitude:	34.425457	Longitude:	-118.676674
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

West
1 - 2 Miles

OIL_GAS CA00011934

Well Number:	8	Status:	036
API Number:	03706703	Operator:	Nuevo Energy Company
Latitude:	34.425331	Longitude:	-118.668913
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles

OIL_GAS CA00012693

Well Number:	14-17	Status:	Plugged and abandoned oil
API Number:	03706653	Operator:	LBth Inc
Latitude:	34.425278	Longitude:	-118.676873
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1/4 - 1/2 Mile

OIL_GAS CA00013584

Well Number:	50	Status:	Plugged and abandoned oil
API Number:	03716515	Operator:	Exxon Corp
Latitude:	34.425228	Longitude:	-118.640066
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	14	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1/2 - 1 Mile

OIL_GAS CA00008933

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706695	Operator:	Texaco E & P Inc
Latitude:	34.425057	Longitude:	-118.645105
Region:	2	Lease:	Newhall
Section:	15	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

West
1/2 - 1 Mile

OIL_GAS CA00013672

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706638	Operator:	Exxon Corp
Latitude:	34.424987	Longitude:	-118.650578
Region:	2	Lease:	Castaic Junction Gas Unit #1
Section:	15	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles

OIL_GAS CA00011948

Well Number:	12	Status:	Completed oil
API Number:	03706707	Operator:	Nuevo Energy Company
Latitude:	34.424829	Longitude:	-118.673426
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles

OIL_GAS CA00011674

Well Number:	9	Status:	Plugged and abandoned oil
API Number:	03706727	Operator:	Nuevo Energy Company
Latitude:	34.424807	Longitude:	-118.665325
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
0 - 1/8 Mile

OIL_GAS CA00013634

Well Number:	2	Status:	Plugged and abandoned oil-directional
API Number:	03716473	Operator:	Exxon Corp
Latitude:	34.424787	Longitude:	-118.634809
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	14	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

West
1 - 2 Miles — **OIL_GAS** — **CA00011697**

Well Number:	3	Status:	Plugged and abandoned-dry hole
API Number:	03706721	Operator:	Nuevo Energy Company
Latitude:	34.424703	Longitude:	-118.658585
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00012695**

Well Number:	16-17	Status:	Completed oil
API Number:	03706655	Operator:	LBth Inc
Latitude:	34.424691	Longitude:	-118.676394
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00011922**

Well Number:	16	Status:	Oil well converted to water disposal
API Number:	03706711	Operator:	Nuevo Energy Company
Latitude:	34.424482	Longitude:	-118.670519
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — **OIL_GAS** — **CA00012672**

Well Number:	6	Status:	Completed oil
API Number:	03706694	Operator:	LBth Inc
Latitude:	34.423361	Longitude:	-118.668513
Region:	2	Lease:	Vasquez
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

West
1 - 2 Miles — **OIL_GAS** — **CA00013236**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706634	Operator:	Havenstrite Oil Co
Latitude:	34.423300	Longitude:	-118.658934
Region:	2	Lease:	Vasquez
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00012700**

Well Number:	3	Status:	Completed oil
API Number:	03706691	Operator:	LBth Inc
Latitude:	34.423283	Longitude:	-118.671345
Region:	2	Lease:	Vasquez
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00008995**

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03706633	Operator:	Texaco E & P Inc
Latitude:	34.423258	Longitude:	-118.676515
Region:	2	Lease:	Encinas Fee
Section:	20	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00014377**

Well Number:	4	Status:	Plugged and abandoned oil-directional
API Number:	03706692	Operator:	Chevron USA, Inc.
Latitude:	34.423186	Longitude:	-118.671558
Region:	2	Lease:	Vasquez
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance — Database — EDR ID Number

West
2 - 3 Miles

OIL_GAS CA00012699

Well Number:	2-17	Status:	Completed oil
API Number:	03706690	Operator:	LBth Inc
Latitude:	34.422999	Longitude:	-118.673648
Region:	2	Lease:	Vasquez
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles

OIL_GAS CA00013621

Well Number:	33	Status:	Plugged and abandoned oil
API Number:	03716503	Operator:	Exxon Corp
Latitude:	34.422943	Longitude:	-118.612414
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles

OIL_GAS CA00012670

Well Number:	5	Status:	Completed oil- directional
API Number:	03706693	Operator:	LBth Inc
Latitude:	34.422886	Longitude:	-118.673919
Region:	2	Lease:	Vasquez
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles

OIL_GAS CA00013599

Well Number:	39	Status:	136
API Number:	03706409	Operator:	Exxon Corp
Latitude:	34.422889	Longitude:	-118.614261
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance — Database — EDR ID Number

East
1 - 2 Miles

OIL_GAS CA00013630

Well Number:	16	Status:	Plugged and abandoned oil
API Number:	03716487	Operator:	Exxon Corp
Latitude:	34.422344	Longitude:	-118.608066
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles

OIL_GAS CA00013601

Well Number:	40	Status:	Plugged and abandoned oil
API Number:	03716507	Operator:	Exxon Corp
Latitude:	34.422263	Longitude:	-118.609969
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles

OIL_GAS CA00013622

Well Number:	34	Status:	Plugged and abandoned oil
API Number:	03716504	Operator:	Exxon Corp
Latitude:	34.422208	Longitude:	-118.604877
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1/2 - 1 Mile

OIL_GAS CA00013623

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03716472	Operator:	Exxon Corp
Latitude:	34.422040	Longitude:	-118.625317
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	23	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

ESE
1 - 2 Miles — OIL_GAS — CA00013626

Well Number:	12	Status:	Plugged and abandoned oil
API Number:	03716483	Operator:	Exxon Corp
Latitude:	34.421679	Longitude:	-118.617297
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00014213

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706632	Operator:	Conoco Inc
Latitude:	34.421566	Longitude:	-118.678243
Region:	2	Lease:	Newhall
Section:	20	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
2 - 3 Miles — OIL_GAS — CA00014751

Well Number:	6	Status:	Plugged and abandoned-dry hole
API Number:	03716536	Operator:	Chevron USA, Inc.
Latitude:	34.420819	Longitude:	-118.596350
Region:	2	Lease:	Newhall Land & Farming
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00008706

Well Number:	2	Status:	Plugged and abandoned oil
API Number:	03706663	Operator:	The Newhall Land & Farming Co
Latitude:	34.420664	Longitude:	-118.671385
Region:	2	Lease:	Socal
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

South
1/4 - 1/2 Mile — OIL_GAS — CA00013606

Well Number:	45	Status:	Plugged and abandoned-dry hole
API Number:	03716511	Operator:	Exxon Corp
Latitude:	34.420650	Longitude:	-118.634767
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	23	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00008705

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03706662	Operator:	The Newhall Land & Farming Co
Latitude:	34.420525	Longitude:	-118.673550
Region:	2	Lease:	Socal
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — OIL_GAS — CA00013614

Well Number:	27	Status:	Plugged and abandoned oil
API Number:	03716498	Operator:	Exxon Corp
Latitude:	34.420239	Longitude:	-118.614736
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles — OIL_GAS — CA00013616

Well Number:	29	Status:	136
API Number:	03706300	Operator:	Exxon Corp
Latitude:	34.420225	Longitude:	-118.600935
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

ESE
1 - 2 Miles

OIL_GAS CA00013631

Well Number:	17	Status:	Plugged and abandoned oil
API Number:	03716488	Operator:	Exxon Corp
Latitude:	34.420220	Longitude:	-118.606611
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1/4 - 1/2 Mile

OIL_GAS CA00013588

Well Number:	54	Status:	Plugged and abandoned-dry hole-directional
API Number:	03716517	Operator:	Exxon Corp
Latitude:	34.420122	Longitude:	-118.636090
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	23	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles

OIL_GAS CA00013628

Well Number:	14	Status:	Plugged and abandoned oil
API Number:	03716485	Operator:	Exxon Corp
Latitude:	34.419900	Longitude:	-118.612093
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles

OIL_GAS CA00012701

Well Number:	12-20	Status:	Completed oil- directional
API Number:	03722746	Operator:	LBth Inc
Latitude:	34.419879	Longitude:	-118.678301
Region:	2	Lease:	N. L. & F.
Section:	20	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

West
2 - 3 Miles

OIL_GAS CA00012702

Well Number:	14-20	Status:	Completed oil
API Number:	03729957	Operator:	LBth Inc
Latitude:	34.419675	Longitude:	-118.678146
Region:	2	Lease:	N. L. & F.
Section:	20	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1/2 - 1 Mile

OIL_GAS CA00013594

Well Number:	6	Status:	Plugged and abandoned oil
API Number:	03716477	Operator:	Exxon Corp
Latitude:	34.419343	Longitude:	-118.618768
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles

OIL_GAS CA00013635

Well Number:	20	Status:	Plugged and abandoned oil
API Number:	03716491	Operator:	Exxon Corp
Latitude:	34.419305	Longitude:	-118.603759
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles

OIL_GAS CA00013620

Well Number:	32	Status:	Plugged and abandoned oil
API Number:	03716502	Operator:	Exxon Corp
Latitude:	34.419300	Longitude:	-118.608938
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

ESE
2 - 3 Miles

OIL_GAS CA00013595

Well Number:	35	Status:	Plugged and abandoned oil
API Number:	03716505	Operator:	Exxon Corp
Latitude:	34.419067	Longitude:	-118.598330
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1/2 - 1 Mile

OIL_GAS CA00013624

Well Number:	10	Status:	Plugged and abandoned oil
API Number:	03716481	Operator:	Exxon Corp
Latitude:	34.418972	Longitude:	-118.622942
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	23	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles

OIL_GAS CA00013612

Well Number:	25	Status:	136
API Number:	03716496	Operator:	Exxon Corp
Latitude:	34.418950	Longitude:	-118.618369
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles

OIL_GAS CA00013559

Well Number:	8	Status:	Plugged and abandoned oil
API Number:	03716479	Operator:	Exxon Corp
Latitude:	34.418401	Longitude:	-118.616208
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

WSW
2 - 3 Miles

OIL_GAS CA00007251

Well Number:	8-20	Status:	Completed oil
API Number:	03722323	Operator:	Vintage Petroleum Inc
Latitude:	34.416247	Longitude:	-118.677247
Region:	2	Lease:	N. L. & F.
Section:	20	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WSW
2 - 3 Miles

OIL_GAS CA00007269

Well Number:	11-20	Status:	Completed oil- directional
API Number:	03722738	Operator:	Vintage Petroleum Inc
Latitude:	34.418095	Longitude:	-118.676968
Region:	2	Lease:	N. L. & F.
Section:	20	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1/2 - 1 Mile

OIL_GAS CA00013590

Well Number:	56	Status:	Plugged and abandoned oil-directional
API Number:	03716519	Operator:	Exxon Corp
Latitude:	34.418097	Longitude:	-118.625511
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	23	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WSW
2 - 3 Miles

OIL_GAS CA00007247

Well Number:	4-20	Status:	Drilling-Idle
API Number:	03722308	Operator:	Vintage Petroleum Inc
Latitude:	34.418068	Longitude:	-118.677339
Region:	2	Lease:	N. L. & F.
Section:	20	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

ESE
1 - 2 Miles — OIL_GAS — CA00013627

Well Number:	13	Status:	Plugged and abandoned oil
API Number:	03716484	Operator:	Exxon Corp
Latitude:	34.418069	Longitude:	-118.607116
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1/2 - 1 Mile — OIL_GAS — CA00013607

Well Number:	46	Status:	Plugged and abandoned oil
API Number:	03716512	Operator:	Exxon Corp
Latitude:	34.417857	Longitude:	-118.625595
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	23	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1/2 - 1 Mile — OIL_GAS — CA00013603

Well Number:	42	Status:	Plugged and abandoned gas
API Number:	03716509	Operator:	Exxon Corp
Latitude:	34.417819	Longitude:	-118.621121
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — OIL_GAS — CA00013617

Well Number:	3	Status:	Plugged and abandoned oil
API Number:	03716474	Operator:	Exxon Corp
Latitude:	34.417690	Longitude:	-118.619161
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

ESE
1 - 2 Miles — OIL_GAS — CA00013636

Well Number:	21	Status:	Plugged and abandoned oil
API Number:	03716492	Operator:	Exxon Corp
Latitude:	34.417500	Longitude:	-118.602317
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1/2 - 1 Mile — OIL_GAS — CA00013586

Well Number:	52	Status:	137
API Number:	03716516	Operator:	Exxon Corp
Latitude:	34.417322	Longitude:	-118.627121
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	23	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — OIL_GAS — CA00013629

Well Number:	15	Status:	Plugged and abandoned oil
API Number:	03716486	Operator:	Exxon Corp
Latitude:	34.417226	Longitude:	-118.610494
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
1/2 - 1 Mile — OIL_GAS — CA00013591

Well Number:	57	Status:	Plugged and abandoned-dry hole-directional
API Number:	03716520	Operator:	Exxon Corp
Latitude:	34.417166	Longitude:	-118.629478
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	23	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

ESE
1 - 2 Miles — OIL_GAS — CA00013613

Well Number:	26	Status:	Plugged and abandoned oil
API Number:	03716497	Operator:	Exxon Corp
Latitude:	34.416961	Longitude:	-118.613448
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — OIL_GAS — CA00013600

Well Number:	4	Status:	Plugged and abandoned oil
API Number:	03716475	Operator:	Exxon Corp
Latitude:	34.416748	Longitude:	-118.604866
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
2 - 3 Miles — OIL_GAS — CA00013596

Well Number:	36	Status:	Plugged and abandoned oil
API Number:	03706353	Operator:	Exxon Corp
Latitude:	34.416730	Longitude:	-118.594291
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
2 - 3 Miles — OIL_GAS — CA00013619

Well Number:	31	Status:	Plugged and abandoned oil-directional
API Number:	03716501	Operator:	Exxon Corp
Latitude:	34.416720	Longitude:	-118.598237
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

ESE
1 - 2 Miles — OIL_GAS — CA00013577

Well Number:	7	Status:	Plugged and abandoned oil
API Number:	03716478	Operator:	Exxon Corp
Latitude:	34.416152	Longitude:	-118.608730
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
1 - 2 Miles — OIL_GAS — CA00010738

Well Number:	1	Status:	Plugged and abandoned-dry hole-directional
API Number:	03722352	Operator:	Quintana Petroleum Corp
Latitude:	34.414731	Longitude:	-118.646321
Region:	2	Lease:	NL&F-Trifield
Section:	22	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — OIL_GAS — CA00013583

Well Number:	5	Status:	Plugged and abandoned oil
API Number:	03716476	Operator:	Exxon Corp
Latitude:	34.414706	Longitude:	-118.612305
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — OIL_GAS — CA00013633

Well Number:	19	Status:	Plugged and abandoned oil
API Number:	03716490	Operator:	Exxon Corp
Latitude:	34.414621	Longitude:	-118.603049
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SE
1 - 2 Miles — OIL_GAS — CA00013632

Well Number:	18	Status:	Plugged and abandoned oil
API Number:	03716489	Operator:	Exxon Corp
Latitude:	34.414409	Longitude:	-118.620771
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WSW
2 - 3 Miles — OIL_GAS — CA00010733

Well Number:	1-21	Status:	Plugged and abandoned oil-directional
API Number:	03722347	Operator:	Quintana Petroleum Corp
Latitude:	34.414386	Longitude:	-118.675377
Region:	2	Lease:	N. L. & F.
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1 - 2 Miles — OIL_GAS — CA00013610

Well Number:	23	Status:	Plugged and abandoned oil
API Number:	03716494	Operator:	Exxon Corp
Latitude:	34.414335	Longitude:	-118.616708
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — OIL_GAS — CA00013611

Well Number:	24	Status:	Plugged and abandoned oil
API Number:	03716495	Operator:	Exxon Corp
Latitude:	34.413945	Longitude:	-118.605969
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

ESE
2 - 3 Miles — OIL_GAS — CA00013615

Well Number:	28	Status:	Plugged and abandoned oil
API Number:	03716499	Operator:	Exxon Corp
Latitude:	34.413946	Longitude:	-118.600944
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — OIL_GAS — CA00013646

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03706359	Operator:	Exxon Corp
Latitude:	34.413921	Longitude:	-118.609888
Region:	2	Lease:	Newhall Corporation
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1 - 2 Miles — OIL_GAS — CA00013625

Well Number:	11	Status:	Plugged and abandoned oil
API Number:	03716482	Operator:	Exxon Corp
Latitude:	34.413576	Longitude:	-118.613921
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1 - 2 Miles — OIL_GAS — CA00013558

Well Number:	78	Status:	Plugged and abandoned-dry hole
API Number:	03722728	Operator:	Exxon Corp
Latitude:	34.413208	Longitude:	-118.623247
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	23	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

ESE
2 - 3 Miles — OIL_GAS — CA00013618

Well Number:	30	Status:	Plugged and abandoned oil
API Number:	03716500	Operator:	Exxon Corp
Latitude:	34.413191	Longitude:	-118.598683
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
2 - 3 Miles — OIL_GAS — CA00013597

Well Number:	37	Status:	Plugged and abandoned oil
API Number:	03713506	Operator:	Exxon Corp
Latitude:	34.413175	Longitude:	-118.596309
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1 - 2 Miles — OIL_GAS — CA00013587

Well Number:	53	Status:	136
API Number:	03706358	Operator:	Exxon Corp
Latitude:	34.413070	Longitude:	-118.622358
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1 - 2 Miles — OIL_GAS — CA00013609

Well Number:	22	Status:	136
API Number:	03716493	Operator:	Exxon Corp
Latitude:	34.412628	Longitude:	-118.617868
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

ESE
1 - 2 Miles — OIL_GAS — CA00013602

Well Number:	41	Status:	Plugged and abandoned oil
API Number:	03716508	Operator:	Exxon Corp
Latitude:	34.412374	Longitude:	-118.603543
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1 - 2 Miles — OIL_GAS — CA00013647

Well Number:	2	Status:	Plugged and abandoned-dry hole
API Number:	03716471	Operator:	Exxon Corp
Latitude:	34.412161	Longitude:	-118.612355
Region:	2	Lease:	Newhall Corporation
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — OIL_GAS — CA00013648

Well Number:	3	Status:	Plugged and abandoned oil
API Number:	03706298	Operator:	Exxon Corp
Latitude:	34.411406	Longitude:	-118.606614
Region:	2	Lease:	Newhall Corporation
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — OIL_GAS — CA00011180

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03712619	Operator:	Oryx Energy Co.
Latitude:	34.411341	Longitude:	-118.641297
Region:	2	Lease:	Newhall Land and Farming
Section:	22	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

ESE
2 - 3 Miles — **OIL_GAS** — **CA00013581**

Well Number:	48	Status:	Plugged and abandoned oil
API Number:	03716513	Operator:	Exxon Corp
Latitude:	34.411173	Longitude:	-118.598564
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WSW
1 - 2 Miles — **OIL_GAS** — **CA00008951**

Well Number:	2	Status:	Plugged and abandoned-dry hole
API Number:	03712659	Operator:	Texaco E & P Inc
Latitude:	34.410582	Longitude:	-118.664094
Region:	2	Lease:	N. L. & F.
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
2 - 3 Miles — **OIL_GAS** — **CA00013582**

Well Number:	49	Status:	Plugged and abandoned oil
API Number:	03716514	Operator:	Exxon Corp
Latitude:	34.410224	Longitude:	-118.599815
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WSW
1 - 2 Miles — **OIL_GAS** — **CA00008950**

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03712658	Operator:	Texaco E & P Inc
Latitude:	34.409984	Longitude:	-118.662582
Region:	2	Lease:	N. L. & F.
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SW
1 - 2 Miles — **OIL_GAS** — **CA00008934**

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03712660	Operator:	Texaco E & P Inc
Latitude:	34.409727	Longitude:	-118.656815
Region:	2	Lease:	Newhall
Section:	22	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012400**

Well Number:	152	Status:	Plugged and abandoned oil
API Number:	03712654	Operator:	Medallion Calif Prpts Co
Latitude:	34.408044	Longitude:	-118.638431
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012416**

Well Number:	142	Status:	136
API Number:	03712895	Operator:	Medallion Calif Prpts Co
Latitude:	34.407981	Longitude:	-118.644284
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
1 - 2 Miles — **OIL_GAS** — **CA00011167**

Well Number:	134	Status:	136
API Number:	03712888	Operator:	Oryx Energy Co.
Latitude:	34.407966	Longitude:	-118.653138
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012393**

Well Number:	145	Status:	136
API Number:	03712898	Operator:	Medallion Calif Prpts Co
Latitude:	34.407775	Longitude:	-118.643927
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
1 - 2 Miles — **OIL_GAS** — **CA00011135**

Well Number:	62	Status:	Plugged and abandoned oil
API Number:	03712875	Operator:	Oryx Energy Co.
Latitude:	34.407770	Longitude:	-118.657084
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
1 - 2 Miles — **OIL_GAS** — **CA00011160**

Well Number:	104	Status:	136
API Number:	03713283	Operator:	Oryx Energy Co.
Latitude:	34.407720	Longitude:	-118.658997
Region:	2	Lease:	Rancho San Francisco
Section:	28	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00011168**

Well Number:	135	Status:	Plugged and abandoned oil
API Number:	03712889	Operator:	Oryx Energy Co.
Latitude:	34.407668	Longitude:	-118.640469
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SW
1 - 2 Miles — **OIL_GAS** — **CA00011144**

Well Number:	86	Status:	Plugged and abandoned oil
API Number:	03713265	Operator:	Oryx Energy Co.
Latitude:	34.407367	Longitude:	-118.654801
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
1 - 2 Miles — **OIL_GAS** — **CA00012359**

Well Number:	66	Status:	036
API Number:	03710663	Operator:	Medallion Calif Prpts Co
Latitude:	34.407327	Longitude:	-118.650194
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
1 - 2 Miles — **OIL_GAS** — **CA00012370**

Well Number:	41	Status:	Plugged and abandoned oil
API Number:	03712855	Operator:	Medallion Calif Prpts Co
Latitude:	34.407234	Longitude:	-118.652701
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012396**

Well Number:	148	Status:	Completed oil
API Number:	03710658	Operator:	Medallion Calif Prpts Co
Latitude:	34.407218	Longitude:	-118.631878
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SSW
1 - 2 Miles | OIL_GAS | CA00012402

Well Number:	154	Status:	Completed oil
API Number:	03712656	Operator:	Medallion Calif Prpts Co
Latitude:	34.406719	Longitude:	-118.641473
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | OIL_GAS | CA00012416

Well Number:	144	Status:	036
API Number:	03712897	Operator:	Medallion Calif Prpts Co
Latitude:	34.406710	Longitude:	-118.636999
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles | OIL_GAS | CA00012431

Well Number:	127	Status:	Completed oil
API Number:	03712881	Operator:	Medallion Calif Prpts Co
Latitude:	34.406675	Longitude:	-118.646809
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1 - 2 Miles | OIL_GAS | CA00011122

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706028	Operator:	Oryx Energy Co.
Latitude:	34.406603	Longitude:	-118.608929
Region:	2	Lease:	Sunray-McCulloch NCS
Section:	25	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SW
1 - 2 Miles | OIL_GAS | CA00012442

Well Number:	111	Status:	Completed oil
API Number:	03713290	Operator:	Medallion Calif Prpts Co
Latitude:	34.406594	Longitude:	-118.653065
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
1 - 2 Miles | OIL_GAS | CA00012421

Well Number:	116	Status:	Completed oil
API Number:	03713295	Operator:	Medallion Calif Prpts Co
Latitude:	34.406485	Longitude:	-118.652590
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
1 - 2 Miles | OIL_GAS | CA00012394

Well Number:	146	Status:	Completed oil
API Number:	03712899	Operator:	Medallion Calif Prpts Co
Latitude:	34.406463	Longitude:	-118.650544
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
1 - 2 Miles | OIL_GAS | CA00011172

Well Number:	155	Status:	Plugged and abandoned oil
API Number:	03712657	Operator:	Oryx Energy Co.
Latitude:	34.406209	Longitude:	-118.626209
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SW
1 - 2 Miles — **OIL_GAS** — **CA00012439**

Well Number:	107	Status:	Completed oil
API Number:	03713286	Operator:	Medallion Calif Prpts Co
Latitude:	34.406113	Longitude:	-118.650383
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
1 - 2 Miles — **OIL_GAS** — **CA00011158**

Well Number:	56	Status:	Plugged and abandoned oil
API Number:	03712868	Operator:	Oryx Energy Co.
Latitude:	34.406045	Longitude:	-118.654267
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012415**

Well Number:	141	Status:	Completed oil
API Number:	03712894	Operator:	Medallion Calif Prpts Co
Latitude:	34.405879	Longitude:	-118.634270
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00011162**

Well Number:	110	Status:	Plugged and abandoned oil
API Number:	03713289	Operator:	Oryx Energy Co.
Latitude:	34.405769	Longitude:	-118.649093
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012428**

Well Number:	124	Status:	Completed oil
API Number:	03712878	Operator:	Medallion Calif Prpts Co
Latitude:	34.405729	Longitude:	-118.644447
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012429**

Well Number:	125	Status:	Completed oil
API Number:	03712879	Operator:	Medallion Calif Prpts Co
Latitude:	34.405673	Longitude:	-118.636915
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
1 - 2 Miles — **OIL_GAS** — **CA00012389**

Well Number:	27	Status:	Plugged and abandoned oil
API Number:	03712645	Operator:	Medallion Calif Prpts Co
Latitude:	34.405593	Longitude:	-118.652138
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012391**

Well Number:	29	Status:	Completed oil
API Number:	03712647	Operator:	Medallion Calif Prpts Co
Latitude:	34.405587	Longitude:	-118.650284
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012373**

Well Number:	45	Status:	Completed oil
API Number:	03712858	Operator:	Medallion Calif Prpts Co
Latitude:	34.405456	Longitude:	-118.647783
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012374**

Well Number:	47	Status:	036
API Number:	03712860	Operator:	Medallion Calif Prpts Co
Latitude:	34.405450	Longitude:	-118.645909
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
1 - 2 Miles — **OIL_GAS** — **CA00012395**

Well Number:	147	Status:	036
API Number:	03712900	Operator:	Medallion Calif Prpts Co
Latitude:	34.405297	Longitude:	-118.629468
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012423**

Well Number:	119	Status:	Completed oil
API Number:	03713297	Operator:	Medallion Calif Prpts Co
Latitude:	34.405276	Longitude:	-118.639661
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012419**

Well Number:	114	Status:	Completed oil
API Number:	03713293	Operator:	Medallion Calif Prpts Co
Latitude:	34.405266	Longitude:	-118.647463
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012412**

Well Number:	137	Status:	Completed oil
API Number:	03712890	Operator:	Medallion Calif Prpts Co
Latitude:	34.404787	Longitude:	-118.647592
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1 - 2 Miles — **OIL_GAS** — **CA00012462**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03705637	Operator:	Mcor Oil and Gas Corporation
Latitude:	34.404634	Longitude:	-118.610344
Region:	2	Lease:	McCulloch NC
Section:	25	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00011169**

Well Number:	138	Status:	Plugged and abandoned oil
API Number:	03712891	Operator:	Oryx Energy Co.
Latitude:	34.404547	Longitude:	-118.641614
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SW
1 - 2 Miles — **OIL_GAS** — **CA00011164**

Well Number:	121	Status:	Plugged and abandoned oil
API Number:	03700071	Operator:	Oryx Energy Co.
Latitude:	34.404364	Longitude:	-118.652213
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012411**

Well Number:	136	Status:	Idle oil
API Number:	03706405	Operator:	Medallion Calif Prpts Co
Latitude:	34.404333	Longitude:	-118.648944
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012385**

Well Number:	23	Status:	Idle oil
API Number:	03712642	Operator:	Medallion Calif Prpts Co
Latitude:	34.404289	Longitude:	-118.648162
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012426**

Well Number:	122	Status:	Completed oil
API Number:	03713299	Operator:	Medallion Calif Prpts Co
Latitude:	34.404277	Longitude:	-118.635216
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012436**

Well Number:	102	Status:	Completed oil
API Number:	03713282	Operator:	Medallion Calif Prpts Co
Latitude:	34.404219	Longitude:	-118.646290
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00011132**

Well Number:	59	Status:	136
API Number:	03712871	Operator:	Oryx Energy Co.
Latitude:	34.403982	Longitude:	-118.639738
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012410**

Well Number:	132	Status:	108
API Number:	03712886	Operator:	Medallion Calif Prpts Co
Latitude:	34.403961	Longitude:	-118.631592
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012390**

Well Number:	28	Status:	Completed oil
API Number:	03712646	Operator:	Medallion Calif Prpts Co
Latitude:	34.403889	Longitude:	-118.645343
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SW
1 - 2 Miles — **OIL_GAS** — **CA00011136**

Well Number:	63	Status:	Plugged and abandoned oil
API Number:	03712876	Operator:	Oryx Energy Co.
Latitude:	34.403850	Longitude:	-118.652649
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012443**

Well Number:	112	Status:	036
API Number:	03713291	Operator:	Medallion Calif Prpts Co
Latitude:	34.403810	Longitude:	-118.642229
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00011155**

Well Number:	48	Status:	136
API Number:	03712861	Operator:	Oryx Energy Co.
Latitude:	34.403796	Longitude:	-118.641751
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012387**

Well Number:	25	Status:	108
API Number:	03712644	Operator:	Medallion Calif Prpts Co
Latitude:	34.403766	Longitude:	-118.650434
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012440**

Well Number:	108	Status:	Completed oil
API Number:	03713287	Operator:	Medallion Calif Prpts Co
Latitude:	34.403720	Longitude:	-118.641008
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00011154**

Well Number:	46	Status:	Plugged and abandoned oil
API Number:	03712859	Operator:	Oryx Energy Co.
Latitude:	34.403691	Longitude:	-118.643456
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012355**

Well Number:	58	Status:	Completed oil
API Number:	03712870	Operator:	Medallion Calif Prpts Co
Latitude:	34.403614	Longitude:	-118.643000
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00011138**

Well Number:	75	Status:	Plugged and abandoned oil
API Number:	03713254	Operator:	Oryx Energy Co.
Latitude:	34.403439	Longitude:	-118.639869
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SSW
1 - 2 Miles

OIL_GAS CA00011165

Well Number:	131	Status:	Plugged and abandoned oil
API Number:	03712885	Operator:	Oryx Energy Co.
Latitude:	34.403208	Longitude:	-118.644255
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles

OIL_GAS CA00012332

Well Number:	97	Status:	036
API Number:	03713277	Operator:	Medallion Calif Prpts Co
Latitude:	34.403133	Longitude:	-118.637277
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
1 - 2 Miles

OIL_GAS CA00012417

Well Number:	143	Status:	Completed oil
API Number:	03712896	Operator:	Medallion Calif Prpts Co
Latitude:	34.402996	Longitude:	-118.626936
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles

OIL_GAS CA00012444

Well Number:	113	Status:	108
API Number:	03713292	Operator:	Medallion Calif Prpts Co
Latitude:	34.402974	Longitude:	-118.645075
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SSW
1 - 2 Miles

OIL_GAS CA00012425

Well Number:	120	Status:	Completed oil
API Number:	03713298	Operator:	Medallion Calif Prpts Co
Latitude:	34.402959	Longitude:	-118.639979
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles

OIL_GAS CA00012407

Well Number:	129	Status:	Plugged and abandoned oil
API Number:	03712883	Operator:	Medallion Calif Prpts Co
Latitude:	34.402778	Longitude:	-118.637995
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles

OIL_GAS CA00011170

Well Number:	140	Status:	Plugged and abandoned oil
API Number:	03712893	Operator:	Oryx Energy Co.
Latitude:	34.402426	Longitude:	-118.650340
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
1 - 2 Miles

OIL_GAS CA00011179

Well Number:	6-7	Status:	Plugged and abandoned oil
API Number:	03712618	Operator:	Oryx Energy Co.
Latitude:	34.402421	Longitude:	-118.623989
Region:	2	Lease:	Newhall Corp.-Wolfson
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

South
1 - 2 Miles | OIL_GAS | CA00012377

Well Number:	52	Status:	136
API Number:	03712865	Operator:	Medallion Calif Prpts Co
Latitude:	34.402382	Longitude:	-118.637472
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles | OIL_GAS | CA00012382

Well Number:	20	Status:	Plugged and abandoned oil
API Number:	03712639	Operator:	Medallion Calif Prpts Co
Latitude:	34.402287	Longitude:	-118.646443
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles | OIL_GAS | CA00012383

Well Number:	21	Status:	Completed oil
API Number:	03712640	Operator:	Medallion Calif Prpts Co
Latitude:	34.402204	Longitude:	-118.641034
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles | OIL_GAS | CA00011173

Well Number:	17	Status:	Plugged and abandoned oil
API Number:	03712636	Operator:	Oryx Energy Co.
Latitude:	34.402171	Longitude:	-118.644209
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

South
1 - 2 Miles | OIL_GAS | CA00012365

Well Number:	72	Status:	Completed oil
API Number:	03713251	Operator:	Medallion Calif Prpts Co
Latitude:	34.402078	Longitude:	-118.637615
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles | OIL_GAS | CA00012388

Well Number:	26	Status:	046
API Number:	03700069	Operator:	Medallion Calif Prpts Co
Latitude:	34.402025	Longitude:	-118.650858
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | OIL_GAS | CA00012358

Well Number:	65	Status:	Completed oil
API Number:	03713245	Operator:	Medallion Calif Prpts Co
Latitude:	34.402027	Longitude:	-118.635092
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | OIL_GAS | CA00011142

Well Number:	84	Status:	136
API Number:	03713263	Operator:	Oryx Energy Co.
Latitude:	34.402023	Longitude:	-118.632798
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012386**

Well Number:	24	Status:	Completed oil
API Number:	03712643	Operator:	Medallion Calif Prpts Co
Latitude:	34.401942	Longitude:	-118.648270
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012379**

Well Number:	54	Status:	Completed oil
API Number:	03712866	Operator:	Medallion Calif Prpts Co
Latitude:	34.401892	Longitude:	-118.639475
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012372**

Well Number:	44	Status:	Completed oil
API Number:	03712775	Operator:	Medallion Calif Prpts Co
Latitude:	34.401655	Longitude:	-118.639119
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
2 - 3 Miles — **OIL_GAS** — **CA00011166**

Well Number:	133	Status:	Plugged and abandoned-dry hole
API Number:	03712887	Operator:	Oryx Energy Co.
Latitude:	34.401605	Longitude:	-118.657611
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

South
1 - 2 Miles — **OIL_GAS** — **CA00012420**

Well Number:	115	Status:	Completed oil
API Number:	03713294	Operator:	Medallion Calif Prpts Co
Latitude:	34.401452	Longitude:	-118.635262
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012435**

Well Number:	101	Status:	Completed gas
API Number:	03713281	Operator:	Medallion Calif Prpts Co
Latitude:	34.401368	Longitude:	-118.642110
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012441**

Well Number:	109	Status:	Completed oil
API Number:	03713288	Operator:	Medallion Calif Prpts Co
Latitude:	34.401373	Longitude:	-118.632033
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00011145**

Well Number:	98	Status:	136
API Number:	03713278	Operator:	Oryx Energy Co.
Latitude:	34.401273	Longitude:	-118.647984
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SSE
1 - 2 Miles — **OIL_GAS** — **CA00011174**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03712813	Operator:	Oryx Energy Co.
Latitude:	34.401215	Longitude:	-118.625593
Region:	2	Lease:	Newhall Corp.-Wolfson
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012398**

Well Number:	150	Status:	Completed oil
API Number:	03712652	Operator:	Medallion Calif Prpts Co
Latitude:	34.400628	Longitude:	-118.643242
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00011159**

Well Number:	57	Status:	136
API Number:	03712869	Operator:	Oryx Energy Co.
Latitude:	34.400633	Longitude:	-118.633068
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012378**

Well Number:	53	Status:	Completed oil
API Number:	03700070	Operator:	Medallion Calif Prpts Co
Latitude:	34.400601	Longitude:	-118.639246
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012408**

Well Number:	13	Status:	Completed oil
API Number:	03712632	Operator:	Medallion Calif Prpts Co
Latitude:	34.400556	Longitude:	-118.641637
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012406**

Well Number:	128	Status:	Completed oil
API Number:	03712882	Operator:	Medallion Calif Prpts Co
Latitude:	34.400510	Longitude:	-118.635290
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00011141**

Well Number:	8	Status:	Plugged and abandoned oil
API Number:	03712627	Operator:	Oryx Energy Co.
Latitude:	34.400424	Longitude:	-118.639481
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012380**

Well Number:	19	Status:	Completed oil
API Number:	03712638	Operator:	Medallion Calif Prpts Co
Latitude:	34.400273	Longitude:	-118.643826
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

South
1 - 2 Miles | OIL_GAS | CA00011171

Well Number:	15	Status:	Plugged and abandoned oil
API Number:	03712634	Operator:	Oryx Energy Co.
Latitude:	34.400228	Longitude:	-118.637345
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | OIL_GAS | CA00012344

Well Number:	80	Status:	Completed oil
API Number:	03713259	Operator:	Medallion Calif Prpts Co
Latitude:	34.400233	Longitude:	-118.630250
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | OIL_GAS | CA00012375

Well Number:	50	Status:	Plugged and abandoned oil
API Number:	03712863	Operator:	Medallion Calif Prpts Co
Latitude:	34.400173	Longitude:	-118.635511
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | OIL_GAS | CA00012422

Well Number:	118	Status:	Completed gas
API Number:	03713296	Operator:	Medallion Calif Prpts Co
Latitude:	34.400144	Longitude:	-118.637997
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SSW
1 - 2 Miles | OIL_GAS | CA00012384

Well Number:	22	Status:	Plugged and abandoned oil
API Number:	03712641	Operator:	Medallion Calif Prpts Co
Latitude:	34.400086	Longitude:	-118.646126
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
1 - 2 Miles | OIL_GAS | CA00011143

Well Number:	85	Status:	136
API Number:	03713264	Operator:	Oryx Energy Co.
Latitude:	34.400023	Longitude:	-118.627790
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | OIL_GAS | CA00012364

Well Number:	71	Status:	Completed oil
API Number:	03713250	Operator:	Medallion Calif Prpts Co
Latitude:	34.399995	Longitude:	-118.636071
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | OIL_GAS | CA00011134

Well Number:	61	Status:	Plugged and abandoned oil
API Number:	03712873	Operator:	Oryx Energy Co.
Latitude:	34.399819	Longitude:	-118.633035
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SSE
1 - 2 Miles | OIL_GAS | CA00011175

Well Number:	2-7	Status:	Plugged and abandoned oil
API Number:	03712614	Operator:	Oryx Energy Co.
Latitude:	34.399762	Longitude:	-118.625771
Region:	2	Lease:	Newhall Corp.-Wolfson
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | OIL_GAS | CA00012427

Well Number:	123	Status:	Completed oil
API Number:	03713300	Operator:	Medallion Calif Prpts Co
Latitude:	34.399348	Longitude:	-118.631520
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | OIL_GAS | CA00012437

Well Number:	105	Status:	Completed oil
API Number:	03713284	Operator:	Medallion Calif Prpts Co
Latitude:	34.399089	Longitude:	-118.635275
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles | OIL_GAS | CA00012330

Well Number:	95	Status:	Completed oil
API Number:	03713275	Operator:	Medallion Calif Prpts Co
Latitude:	34.399072	Longitude:	-118.644607
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SSW
1 - 2 Miles | OIL_GAS | CA00011146

Well Number:	30	Status:	Plugged and abandoned oil
API Number:	03712648	Operator:	Oryx Energy Co.
Latitude:	34.398936	Longitude:	-118.643101
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles | OIL_GAS | CA00012346

Well Number:	82	Status:	Oil well converted to water disposal
API Number:	03713261	Operator:	Medallion Calif Prpts Co
Latitude:	34.398705	Longitude:	-118.644657
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles | OIL_GAS | CA00012404

Well Number:	16	Status:	Completed oil
API Number:	03712635	Operator:	Medallion Calif Prpts Co
Latitude:	34.398624	Longitude:	-118.641791
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | OIL_GAS | CA00011161

Well Number:	11	Status:	Plugged and abandoned oil
API Number:	03712630	Operator:	Oryx Energy Co.
Latitude:	34.398612	Longitude:	-118.635003
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

South
1 - 2 Miles | OIL_GAS | CA00012354

Well Number:	55	Status:	134
API Number:	03712867	Operator:	Medallion Calif Prpts Co
Latitude:	34.398571	Longitude:	-118.630682
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | OIL_GAS | CA00011157

Well Number:	5	Status:	Plugged and abandoned oil
API Number:	03712624	Operator:	Oryx Energy Co.
Latitude:	34.398424	Longitude:	-118.637341
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | OIL_GAS | CA00012361

Well Number:	69	Status:	Completed oil
API Number:	03712348	Operator:	Medallion Calif Prpts Co
Latitude:	34.398417	Longitude:	-118.632561
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | OIL_GAS | CA00011140

Well Number:	79	Status:	136
API Number:	03713258	Operator:	Oryx Energy Co.
Latitude:	34.398406	Longitude:	-118.628660
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

South
1 - 2 Miles | OIL_GAS | CA00012405

Well Number:	18	Status:	Plugged and abandoned oil
API Number:	03712637	Operator:	Medallion Calif Prpts Co
Latitude:	34.398318	Longitude:	-118.633195
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | OIL_GAS | CA00012352

Well Number:	90	Status:	Completed oil
API Number:	03713269	Operator:	Medallion Calif Prpts Co
Latitude:	34.398310	Longitude:	-118.640767
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | OIL_GAS | CA00011133

Well Number:	6	Status:	Plugged and abandoned oil
API Number:	03712625	Operator:	Oryx Energy Co.
Latitude:	34.398284	Longitude:	-118.639583
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | OIL_GAS | CA00012341

Well Number:	74	Status:	Completed gas
API Number:	03713253	Operator:	Medallion Calif Prpts Co
Latitude:	34.397992	Longitude:	-118.637507
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SSE
2 - 3 Miles — **OIL_GAS** — **CA00011176**

Well Number:	3-5	Status:	Plugged and abandoned oil
API Number:	03712615	Operator:	Oryx Energy Co.
Latitude:	34.397752	Longitude:	-118.619935
Region:	2	Lease:	Newhall Corp.-Wolfson
Section:	25	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
1 - 2 Miles — **OIL_GAS** — **CA00012347**

Well Number:	83	Status:	Completed oil
API Number:	03713262	Operator:	Medallion Calif Prpts Co
Latitude:	34.397611	Longitude:	-118.625051
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012430**

Well Number:	126	Status:	Completed oil
API Number:	03712880	Operator:	Medallion Calif Prpts Co
Latitude:	34.397520	Longitude:	-118.630159
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00011185**

Well Number:	4	Status:	Plugged and abandoned oil
API Number:	03712823	Operator:	Oryx Energy Co.
Latitude:	34.397141	Longitude:	-118.635448
Region:	2	Lease:	Ranch San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

South
1 - 2 Miles — **OIL_GAS** — **CA00012327**

Well Number:	92	Status:	Completed oil
API Number:	03713272	Operator:	Medallion Calif Prpts Co
Latitude:	34.396986	Longitude:	-118.634592
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
2 - 3 Miles — **OIL_GAS** — **CA00012351**

Well Number:	9	Status:	Plugged and abandoned oil
API Number:	03712628	Operator:	Medallion Calif Prpts Co
Latitude:	34.396931	Longitude:	-118.641918
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles — **OIL_GAS** — **CA00012356**

Well Number:	60	Status:	136
API Number:	03712872	Operator:	Medallion Calif Prpts Co
Latitude:	34.396745	Longitude:	-118.628691
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012376**

Well Number:	51	Status:	Completed oil
API Number:	03712864	Operator:	Medallion Calif Prpts Co
Latitude:	34.396733	Longitude:	-118.630947
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

South
1 - 2 Miles — OIL_GAS — CA00011183

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03712620	Operator:	Oryx Energy Co.
Latitude:	34.396683	Longitude:	-118.637431
Region:	2	Lease:	Ranch San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles — OIL_GAS — CA00012362

Well Number:	7	Status:	Completed oil
API Number:	03712626	Operator:	Medallion Calif Prpts Co
Latitude:	34.396671	Longitude:	-118.639707
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles — OIL_GAS — CA00012366

Well Number:	73	Status:	Completed oil
API Number:	03713252	Operator:	Medallion Calif Prpts Co
Latitude:	34.396613	Longitude:	-118.626457
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles — OIL_GAS — CA00012433

Well Number:	10	Status:	Completed oil
API Number:	03712629	Operator:	Medallion Calif Prpts Co
Latitude:	34.396484	Longitude:	-118.632944
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

South
2 - 3 Miles — OIL_GAS — CA00012409

Well Number:	130	Status:	Completed oil
API Number:	03712884	Operator:	Medallion Calif Prpts Co
Latitude:	34.396445	Longitude:	-118.640268
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles — OIL_GAS — CA00012349

Well Number:	88	Status:	036
API Number:	03713267	Operator:	Medallion Calif Prpts Co
Latitude:	34.396179	Longitude:	-118.621185
Region:	2	Lease:	Rancho San Francisco
Section:	25	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles — OIL_GAS — CA00012333

Well Number:	99	Status:	Completed oil
API Number:	03713279	Operator:	Medallion Calif Prpts Co
Latitude:	34.396163	Longitude:	-118.624061
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles — OIL_GAS — CA00011177

Well Number:	4-5	Status:	Plugged and abandoned oil
API Number:	03712616	Operator:	Oryx Energy Co.
Latitude:	34.395879	Longitude:	-118.617688
Region:	2	Lease:	Newhall Corp.-Wolfson
Section:	25	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

South
2 - 3 Miles | OIL_GAS | CA00012414

Well Number:	14	Status:	Completed oil
API Number:	03712633	Operator:	Medallion Calif Prpts Co
Latitude:	34.395152	Longitude:	-118.631109
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | OIL_GAS | CA00011184

Well Number:	3	Status:	Plugged and abandoned oil
API Number:	03712622	Operator:	Oryx Energy Co.
Latitude:	34.394860	Longitude:	-118.635153
Region:	2	Lease:	Ranch San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | OIL_GAS | CA00012424

Well Number:	12	Status:	Plugged and abandoned oil
API Number:	03712631	Operator:	Medallion Calif Prpts Co
Latitude:	34.394753	Longitude:	-118.637298
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | OIL_GAS | CA00012381

Well Number:	2	Status:	Completed oil
API Number:	03712621	Operator:	Medallion Calif Prpts Co
Latitude:	34.394727	Longitude:	-118.633015
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SSE
2 - 3 Miles | OIL_GAS | CA00011139

Well Number:	78	Status:	Plugged and abandoned oil
API Number:	03713257	Operator:	Oryx Energy Co.
Latitude:	34.394692	Longitude:	-118.624488
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | OIL_GAS | CA00012434

Well Number:	100	Status:	Completed oil
API Number:	03713280	Operator:	Medallion Calif Prpts Co
Latitude:	34.394668	Longitude:	-118.638161
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | OIL_GAS | CA00011153

Well Number:	43	Status:	136
API Number:	03712857	Operator:	Oryx Energy Co.
Latitude:	34.394590	Longitude:	-118.628831
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles | OIL_GAS | CA00012353

Well Number:	91	Status:	Plugged and abandoned-dry hole
API Number:	03713270	Operator:	Medallion Calif Prpts Co
Latitude:	34.394369	Longitude:	-118.618793
Region:	2	Lease:	Rancho San Francisco
Section:	25	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

South
2 - 3 Miles | OIL_GAS | CA00012348

Well Number:	87	Status:	Completed oil
API Number:	03713266	Operator:	Medallion Calif Prpts Co
Latitude:	34.394335	Longitude:	-118.634652
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles | OIL_GAS | CA00011185

Well Number:	91	Status:	Plugged and abandoned oil
API Number:	03713271	Operator:	Oryx Energy Co.
Latitude:	34.394339	Longitude:	-118.619154
Region:	2	Lease:	Ranch San Francisco
Section:	25	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles | OIL_GAS | CA00011178

Well Number:	5-5	Status:	Plugged and abandoned oil
API Number:	03712617	Operator:	Oryx Energy Co.
Latitude:	34.394288	Longitude:	-118.614897
Region:	2	Lease:	Newhall Corp.-Wolfson
Section:	25	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | OIL_GAS | CA00012328

Well Number:	93	Status:	Completed oil
API Number:	03713273	Operator:	Medallion Calif Prpts Co
Latitude:	34.394049	Longitude:	-118.628014
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

South
2 - 3 Miles | OIL_GAS | CA00012345

Well Number:	81	Status:	Completed oil
API Number:	03713260	Operator:	Medallion Calif Prpts Co
Latitude:	34.393239	Longitude:	-118.630727
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | OIL_GAS | CA00011148

Well Number:	34	Status:	Plugged and abandoned oil
API Number:	03712848	Operator:	Oryx Energy Co.
Latitude:	34.393161	Longitude:	-118.633157
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles | OIL_GAS | CA00012343

Well Number:	77	Status:	Completed oil
API Number:	03713256	Operator:	Medallion Calif Prpts Co
Latitude:	34.393159	Longitude:	-118.622675
Region:	2	Lease:	Rancho San Francisco
Section:	36	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | OIL_GAS | CA00012368

Well Number:	36	Status:	Plugged and abandoned oil
API Number:	03712850	Operator:	Medallion Calif Prpts Co
Latitude:	34.393110	Longitude:	-118.630378
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SSE
2 - 3 Miles | **OIL_GAS** | **CA00011150**

Well Number:	37	Status:	136
API Number:	03712851	Operator:	Oryx Energy Co.
Latitude:	34.393077	Longitude:	-118.626334
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | **OIL_GAS** | **CA00012397**

Well Number:	149	Status:	Completed oil
API Number:	03712651	Operator:	Medallion Calif Prpts Co
Latitude:	34.393039	Longitude:	-118.633617
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | **OIL_GAS** | **CA00012392**

Well Number:	31	Status:	Plugged and abandoned oil
API Number:	03712649	Operator:	Medallion Calif Prpts Co
Latitude:	34.392956	Longitude:	-118.628634
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles | **OIL_GAS** | **CA00012331**

Well Number:	96	Status:	Completed oil
API Number:	03713276	Operator:	Medallion Calif Prpts Co
Latitude:	34.392238	Longitude:	-118.616366
Region:	2	Lease:	Rancho San Francisco
Section:	36	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

South
2 - 3 Miles | **OIL_GAS** | **CA00012399**

Well Number:	151	Status:	Completed oil
API Number:	03712653	Operator:	Medallion Calif Prpts Co
Latitude:	34.391926	Longitude:	-118.629748
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles | **OIL_GAS** | **CA00011151**

Well Number:	39	Status:	136
API Number:	03712853	Operator:	Oryx Energy Co.
Latitude:	34.391584	Longitude:	-118.624342
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | **OIL_GAS** | **CA00012357**

Well Number:	64	Status:	Completed oil
API Number:	03712877	Operator:	Medallion Calif Prpts Co
Latitude:	34.391463	Longitude:	-118.628809
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | **OIL_GAS** | **CA00012350**

Well Number:	89	Status:	Completed oil
API Number:	03713268	Operator:	Medallion Calif Prpts Co
Latitude:	34.391404	Longitude:	-118.627480
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

South
2 - 3 Miles — **OIL_GAS** — **CA00012369**

Well Number:	38	Status:	Plugged and abandoned oil
API Number:	03712852	Operator:	Medallion Calif Prpts Co
Latitude:	34.391367	Longitude:	-118.626333
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
2 - 3 Miles — **OIL_GAS** — **CA00008320**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03720085	Operator:	Union Oil Co of Ca
Latitude:	34.391242	Longitude:	-118.645217
Region:	2	Lease:	R.S.F.
Section:	34	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles — **OIL_GAS** — **CA00012413**

Well Number:	139	Status:	Completed oil
API Number:	03712892	Operator:	Medallion Calif Prpts Co
Latitude:	34.391064	Longitude:	-118.622780
Region:	2	Lease:	Rancho San Francisco
Section:	36	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles — **OIL_GAS** — **CA00012342**

Well Number:	76	Status:	Completed oil
API Number:	03713255	Operator:	Medallion Calif Prpts Co
Latitude:	34.390795	Longitude:	-118.620289
Region:	2	Lease:	Rancho San Francisco
Section:	36	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SSE
2 - 3 Miles — **OIL_GAS** — **CA00012401**

Well Number:	153	Status:	Completed oil
API Number:	03712655	Operator:	Medallion Calif Prpts Co
Latitude:	34.390584	Longitude:	-118.625977
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles — **OIL_GAS** — **CA00012367**

Well Number:	33	Status:	Plugged and abandoned oil
API Number:	03712847	Operator:	Medallion Calif Prpts Co
Latitude:	34.389545	Longitude:	-118.624664
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zip	Total Sites	> 4 Pci/L	Pct. > 4 Pci/L
91355	13	0	0.00

Federal EPA Radon Zone for LOS ANGELES County: 2

Note: Zone 1 Indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 Indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 91355

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.750 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002. 7.5-Minute DEMs correspond to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

ADDITIONAL ENVIRONMENTAL RECORD SOURCES

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

APPENDIX H:

References

PHASE I ENVIRONMENTAL SITE ASSESSMENT
River Village
Tentative Tract Map No. 53108, Highway 126
Newhall Ranch, California

REFERENCES

1. 1994 Fault Activity Map of California and Adjacent Areas (1:750,000 scale), California Department of Conservation, Division of Mines and Geology.
2. County of Los Angeles Department of Public Works, Hydrologic Records, records request October 14, 2003.
3. County of Los Angeles Public Works Department, Building and Safety Division, and http://assessor.co.la.ca.us/DataMaps/pais.asp., October 23, 2003.
4. EDR Sanborn® Map Report, Inquiry No. 1108642.5s, January 8, 2004.
5. EPA Map of Radon Zones, 1993.
6. Munger Map Book of California/Alaska Oil and Gas Fields, 37th Edition, June 1993.
7. The EDR Aerial Photograph Print Service, Inquiry No. 1108642-9, January 15, 2004 and Continental Aerial Photography, Cypress, California 1952, 1972, 1980, 1988, 1990, 1993, 1995 and 1999.
8. The EDR Historical Topographic Map Report, Inquiry No. 1063369-5, October 16, 2003.
9. The EDR Radius Map with GeoCheck®, Inquiry No. 1108642.4s, January 8, 2004.
10. USGS Map, Newhall, California Quadrangle, 1952, photo-revised 1988.

APPENDIX I:

Glossary of Acronyms

Glossary Of Acronyms

(for words that frequently appear in environmental reports)

ASTs = above-ground storage tanks

ACMs = asbestos-containing materials

BTEX = benzene, toluene, ethylbenzene and xylenes

bgs = below ground surface

EDR = Environmental Data Resources, Inc.

LQG = Large Quantity Generator of hazardous waste

LUSTs = leaking underground storage tanks

MTBE = methyl-tertiary-butyl ether

mg/kg = milligrams per kilogram

mg/l = milligrams per liter

PCE = perchloroethene

ppb = parts per billion

ppm = parts per million

SQG = Small Quantity Generator of hazardous waste

TCE = trichloroethene

TPH-d = Total Petroleum Hydrocarbons as diesel

TPH-g = Total Petroleum Hydrocarbons as gasoline

TRPH = Total Recoverable Petroleum Hydrocarbons

ug/kg = micrograms per kilogram

ug/l = micrograms per liter

USTs = underground storage tanks

VOCs = volatile organic compounds

BA Environmental, *Phase I Environmental Site Assessment Addendum Letter of Proposed Water Tank Locations and Utility Corridor Easements Associated with the proposed River Village Development, Tentative Tract Map No. 53108, Highway 126, Newhall Ranch, California*, **September 28, 2004**

ADDENDUM LETTER
PHASE I ENVIRONMENTAL SITE ASSESSMENT

OF

PROPOSED WATER TANK LOCATIONS AND UTILITY CORRIDOR EASEMENTS ASSOCIATED WITH THE PROPOSED RIVER VILLAGE DEVELOPMENT TENTATIVE TRACT MAP NO. 53108, STATE HIGHWAY 126 NEWHALL RANCH, CALIFORNIA

FOR

NEWHALL LAND

BA ENVIRONMENTAL
A Division of Building Analytics

File No. 104012
September 2004

BA ENVIRONMENTAL
A Division of Building Analytics
www.BAEnvironmental.com

CORPORATE OFFICE
528 STATE STREET
GLENDALE, CALIFORNIA 91203
TOLL FREE 1-888-440-7225
818-500-1898
818-246-8195 FAX

September 28, 2004

File No.: 104012

Mr. Keith Herren
Newhall Land
23823 Valencia Boulevard
Valencia, California 91355

Reference: Proposed Water Tank Locations and Utility Corridor Easements
Associated with the Proposed River Village Development
Tentative Tract Map No. 53108, State Highway 126
Newhall Ranch, California

Subject: Addendum Letter
Phase I Environmental Site Assessment

Dear Mr. Herren:

BA Environmental is pleased to submit this Addendum to the Phase I Environmental Site Assessment (ESA) conducted at the subject site on May 5, 2004. This addendum covers two proposed water tank locations and utility corridor easements associated with the proposed River Village Development. This addendum builds on information obtained during the May 2004 Phase I ESA, and includes a review of historical documents, a site reconnaissance, a review of local regulatory agencies and a review of pertinent government environmental databases. Historical documentation includes historical aerial photographs, historical topographic maps, city directories and building department records. Copies of historical aerial photographs and historical topographic maps are included in BA Environmental's Phase I ESA (BA #104012) dated May 5, 2004. A copy of the governmental database report is included as an attachment to this addendum letter.

Site Location

The subject property consists of two vacant parcels of land for proposed water tanks and narrow strips (approximately 35' to 140' wide) of land for proposed utility corridors. The subject site extends approximately 0.8 miles west of San Martinez Grande Canyon Road along Highway 126. To the east, the subject site extends along State Highway 126 to Henry Mayo Road and then along Henry Mayo Road to the Old Road. The subject site then extends southeast along the Old Road to Water Reclamation Plant (WRP) #32, approximately 1.2 miles southeast of the intersection of Highway 126 and Interstate Freeway 5 (Golden State Freeway). For the ease of this report, the subject site will be broken down into the following 10 sub-areas:

- Future WRP to Future Potrero Road
- Future Potrero Road to River Village Development
- Future Homestead Frontage Road
- River Village Development-Spine Road
- River Village Development to Commerce Center Drive
- Hancock Parkway-Commerce Center Drive
- Henry Mayo Road
- The Old Road
- Northern Proposed Water Tank Location
- Southern Proposed Water Tank Location

Site History and Reconnaissance

Future WRP to Future Potrero Road

This portion of the subject site is located adjacent to the south of Highway 126, and is located between the future WRP (approximately 0.8 miles west of San Martinez Grande Canyon Road) and the future Potrero Road (approximately 50 feet west of San Martinez Grande Canyon Road). The site includes an approximate 35-foot future rail easement, a 70-foot utility corridor and a 60-foot utility easement.

Historically, portions of this site were occupied by Southern Pacific Railroad track easement from prior to 1903 until prior to 1991. Sometime prior to 1991, the railroad tracks were removed. Since the removal of the railroad tracks, the railroad bed has been used as an access road.

Adjacent properties to this portion of the subject property include Highway 126 followed by vacant undeveloped land and agricultural land to the north. To the south of the subject site is agricultural land, followed by the Santa Clara River. To the west is agricultural land, and to the east is the Future Potrero Road to River Village portion of the subject site.

On the day of the site reconnaissance, the subject site was occupied by an access road. A portion of this access road was a former railroad easement. The railroad tracks had been removed. The access road appeared to be predominately dirt, with some gravel. No staining or distressed vegetation was observed on this portion of the subject site. During the site visit, no hazardous substances, or evidence of underground storage tanks (USTs), aboveground storage tanks (ASTs) or wastewater clarifiers were observed on this site.

Two water lines were observed to cross the subject site to the west and then run parallel along the northern side. A Shell Oil pipeline was also observed to run parallel along the northern side of the subject site (beneath what appeared to be the future rail easement). A Shell Oil vault or booster station was observed along the north side of the subject site, near the eastern boundary. No staining was observed on the surface surrounding the vault/booster station. In addition, two old pipe sections were observed on the subject site. These sections are believed to have been former sections of oil pipelines.

Future Potrero Road to River Village Development

This portion of the subject site is located adjacent to the south of Highway 126, and is located between the future Potrero Road (approximately 50 feet west of San Martinez Grande Canyon Road) and the future River Village Development (approximately 1.0 miles northeast of the intersection of Highway 126 and San Martinez Grande Canyon Road). The site includes an approximate 35-foot future rail easement, a 47-foot utility corridor and a 37-foot utility easement.

Historically, portions of this site were occupied by Southern Pacific Railroad track easement from prior to 1903 until prior to 1991. Sometime prior to 1991, the railroad tracks were removed. Since the removal of the railroad tracks, the railroad bed has been used as an access road. Two oil wells were formerly located approximately 100 feet southeast of Highway 126, while a third oil well was approximately 600 feet to the southeast. All of these wells appeared to be south of the utility corridor.

Adjacent properties to this portion of the subject property include Highway 126 followed by agricultural land to the north. To the south of the subject site is agricultural land, and the Santa Clara River. To the west is the Future WRP to Future Potrero Road portion of the subject site, and to the east is the River Village Development portion of the subject site.

On the day of the site reconnaissance, the subject site was occupied by an access road. A portion of this access road was a former railroad easement. The railroad tracks had been removed. The access road appeared to be predominately dirt with some gravel. No staining or distressed vegetation was observed on this portion of the subject site. During the site visit, no hazardous substances, or evidence of USTs, ASTs or wastewater clarifiers were observed on this site.

A Shell Oil pipeline was observed to run parallel along the northern side of the subject site (beneath what appeared to be the future rail easement). At a small stream crossing, the pipeline was exposed. The pipeline was of steel construction and appeared to be approximately eight inches in diameter. A second pipeline was observed to run parallel along the southern side of the subject property. This pipeline appeared to no longer be in use, since a portion of the pipeline was exposed and cut. This pipeline appeared to be 10 to 12 inches in diameter. What appeared to be a pipeline vent was observed on the east side of the small stream. No staining was observed on the surface surrounding the exposed sections of pipe.

Future Homestead Frontage Road

This portion of the subject site is located north of Highway 126. It crosses Highway 126 at Potrero Road and roughly parallels Highway 126 along the base of the mountain to the north, and intersects Chiquito Canyon Road north of Highway 126. The site includes an approximate 66-foot utility easement beneath the street.

Historically, portions of this site were occupied by orchards from prior to 1903 until recently. In addition, portions of the site have been located in the southeast tip of the Del

Valle Oil and Gas Field from 1903 until the present. This portion of the Del Valle Oil and Gas Field is no longer producing oil.

Adjacent properties to this portion of the subject property include vacant undeveloped mountain sides and the Del Valle Oil and Gas Field to the north. To the south of the subject site is agricultural land and Highway 126. To the west of the subject site is vacant undeveloped land and agricultural land. Adjacent to the east of the subject site is Chiquito Canyon Road followed by agricultural land and undeveloped land (Borrow Site "B"; See BA Environmental's Phase I ESA dated May 5, 2004 – BA #104012).

On the day of the site reconnaissance, the majority of the subject site was occupied by agricultural land. Several structures (houses) were observed in close vicinity to the subject site. Portions of the subject site were also observed to be occupied by vacant undeveloped land covered by native vegetation. This area is known to have been in the Del Valle Oil and Gas Field, and several concrete footings, possibly related to oil production, were observed in the immediate vicinity of the subject site. No evidence of staining or distressed vegetation was observed on this portion of the subject site. During the site visit, no hazardous substances, or evidence of USTs, ASTs or wastewater clarifiers were observed on this site.

No pipelines were observed on the day of the site visit; however, since this site is located within a portion of an oil field, oil pipelines may exist beneath or adjacent to the subject site.

River Village Development-Spine Road

This portion of the subject site is located south of Highway 126, north and west of the Santa Clara River, and east of the intersection of Highway 126 and Chiquito Canyon Road. The site includes a utility easement beneath Spine Road (approximately 58 feet to 110 feet), beneath Long Canyon Road and Walcott Road, and along the northern and southern River Village Development property boundaries. All of the subject sites are located within the River Village Development. For a more detailed assessment of this area, see BA Environmental's Phase I ESA dated May 5, 2004 (BA #104012).

Historically, portions of this site have been occupied by agricultural land from the early 1900's through the present day. In addition, the portions of the subject site crossed through a portion of the Castaic Junction Oil Field from prior to 1947 until recently. This portion of the Castaic Junction Oil Field is no longer producing oil. Several oil wells and three wash tanks were observed in the immediate vicinity of the subject site. A portion of the subject site also appears to be located where an old airfield formerly existed, from prior to 1968 until 1994, when it was removed. Portions of the subject site were also occupied by the Indian Dunes Motorcycle Park from prior to 1972 until prior to 1994 when it was removed.

Adjacent properties to this portion of the subject property include Highway 126 to the north and the Santa Clara River to the south. The Future Potrero Road to River Village Development portion of the subject site was to the west, and the River Village Development to Commerce Center Drive portion of the subject property was to the east.

In addition, portions of the subject property are also surrounded by agricultural land, and to the east is the River Village Development portion of the subject site.

On the day of the site reconnaissance, the majority of the subject site was occupied by agricultural land. No hazardous materials were observed on the subject site. In May of 2004, soil samples were collected from the subject site and analyzed for pesticides and herbicides. No significant concentrations of pesticides or herbicides were detected in any of the samples collected. The subject site crosses the northeastern corner of the River Village Development, which is occupied by a storage area consisting of three buildings and a plastic-sheeting hothouse. The buildings are used for storage and packaging. Farm equipment was observed to be stored in this area. Several small ASTs were observed in this area, as well as agricultural chemical mixing. Several 55-gallon drums and smaller five-gallon buckets were observed. None of these containers were labeled. Some staining was observed on the dirt in this storage area. No evidence of distressed vegetation was observed on this portion of the subject site. During the site visit, no hazardous substances, or evidence of USTs, ASTs or wastewater clarifiers were observed on this site, other than those described above.

An old railroad easement was observed along the northern boundary of the River Village Development, paralleling Highway 126. Portions of the subject property are located within this former easement. The railroad tracks have been removed; however, some ballast materials still remain. Debris and trash piles were observed along this easement.

Several pipelines were observed crossing or in the immediate vicinity of the subject site. The pipelines were identified visually by either marker signs, or visible piping or pipeline vents. A Southern California Gas pipeline was observed in or adjacent to the northern easement (in the old railroad easement), and crossing Long Canyon Road in the western portion of the River Village Development. These pipelines are believed to be 18" to 20" in diameter and likely carry natural gas. Where visible, these pipelines appeared to be coated with a tar-like material to prevent corrosion.

A Shell Oil Company petroleum pipeline was also observed to run along the northern easement, parallel to the old railroad easement. The size of this pipeline is unknown; however, it is likely 8" in diameter (similar to that seen to the west) and contains crude oil. Approximately 250 feet southeast of the intersection of Chiquito Canyon Road and Highway 126 is a fenced enclosure. This enclosure is adjacent to the Shell Oil Company pipeline and a Shell Oil pipeline vault. A sign on the gate of the enclosure indicates that the enclosure is owned by Eouilon Pipeline Company, and is the Del Valle booster station. This is likely a booster station for an oil pipeline. Inside of the enclosure was a pump, a 100-gallon AST likely containing diesel fuel, and two electrical transformers. The pump and AST were observed to be in a concrete containment.

An unidentified pipeline was observed running along the southern edge of the old railroad easement. Where exposed, the pipeline appeared to be approximately 18" to 20" in diameter and was coated with a tar-like substance to prevent corrosion. Two vents, similar to those used in oil pipelines, were observed associated with this pipeline.

Damaged piping was observed on the surface in the old railroad easement. It appeared that this pipeline had been removed. It is uncertain whether this pipeline was replaced or

completely removed. The pipeline appeared to be 16" to 18" in diameter. Oil staining was observed in the areas where this pipeline was exposed.

A Unocal pipeline was observed to run across the western end of the subject property. The size of this pipeline is unknown; however, the pipeline likely carried oil. Reportedly, this pipeline is currently idle.

River Village Development to Commerce Center Drive

This portion of the subject site is adjacent to the south side of Highway 126, between the Santa Clara River to the west and Commerce Center Drive to the west. The site includes an approximate 47-foot utility corridor and a 37-foot utility easement.

Historically, portions of this site were occupied by a Southern Pacific Railroad track easement from prior to 1903 until prior to 1991. Sometime prior to 1991, the railroad tracks were removed. Since the removal of the railroad tracks, the railroad bed has not been used. This portion of the subject site is located within the Castaic Junction Oil Field.

Adjacent properties to this portion of the subject property include Highway 126 followed by a partially graded vacant parcel of land (proposed commercial development) to the north and the Travel Village to the south. The Future River Village Development-Spine Road portion of the subject site was to the west, and the Henry Mayo Road portion of the subject property was to the east.

On the day of the site reconnaissance, the subject site was occupied by the old Southern Pacific Railroad easement. Non-hazardous trash was observed scattered throughout the subject site. No evidence of staining or distressed vegetation was observed on this portion of the subject site. During the site visit, no hazardous substances, or evidence of USTs, ASTs or wastewater clarifiers were observed on this site.

A Shell Oil pipeline was also observed to run beneath or parallel, along the northern side of the subject site. An eight-inch Texaco oil pipeline, and two six-inch abandoned Mobile Oil pipelines were noted to run down the center of Highway 126, just north of the subject site.

Hancock Parkway-Commerce Center Drive

This portion of the subject site consist of two utility corridors which border to the west, north and south of the proposed Commerce Center (TPM 18108) and Hancock Parkway, adjacent to the north of Highway 126 and to the east of Commerce Center Drive, and a utility easement down Commerce Center Drive, between the Santa Clara River and Henry Mayo Road. The site consists of utility corridors approximately 47 feet to 117 feet wide.

Historically, the two easements bordering Commerce Center (TPM 18108) have been occupied by either vacant undeveloped land, or used for agricultural purposes, from prior to 1903 until 1999. In 1999, the subject properties began undergoing grading activities.

Commerce Center Drive was also occupied by vacant undeveloped land or used for agricultural purposes from prior to 1903 until sometime after 1999. Sometime after 1999, Commerce Center Drive was constructed. This portion of the subject site is located within the Castaic Junction Oil Field. What appeared to be an oil well was located near the junction of the easements in the northeast, near Commerce Center Drive, from prior to 1952 until sometime after 1993. This well was not located on the subject property.

Adjacent properties to this portion of the subject property include Highway 126 followed by Travel Village to the south. To the north and west is the Santa Clara River. East of the site is graded vacant land. The subject site borders the proposed Commerce Center (TPM 18108) and Hancock Parkway, to the center.

On the day of the site reconnaissance, the two easements of the portion of the subject property bordering the proposed Commerce Center (TPM 18108) and Hancock Parkway were observed to be occupied by vacant undeveloped land. Non-hazardous trash was observed scattered throughout this portion of the subject site. No evidence of staining or distressed vegetation was observed on this portion of the subject site. During the site visit, no hazardous substances, or evidence of USTs, ASTs or wastewater clarifiers were observed on this site. The portion of the subject property occupied by Commerce Center Drive was also observed to have scattered non-hazardous trash. In addition, there was no vegetation, and no evidence of staining was observed on this portion of the subject site. During the site visit, no hazardous substances, or evidence of USTs, ASTs or wastewater clarifiers were observed on this site.

A five-foot wide General Petroleum Pipeline easement was observed to cross the subject property in the west and east. In addition, an eight-inch Texaco oil pipeline, and two 6-inch abandoned Mobile Oil pipelines were noted to run down the center of Highway 126, just south of the subject site.

Henry Mayo Road

This portion of the subject site consists of a utility corridor, which runs beneath Henry Mayo Road, starting at the intersection of Henry Mayo Road and Commerce Center Drive, and continuing east to the intersection of Henry Mayo Road and The Old Road. The utility corridor is approximately 100 feet wide.

Historically, the subject property beneath Henry Mayo Road has been occupied by Henry Mayo Road from prior to 1952 until present. This portion of the subject site runs through what is called Castaic Junction. This was also the location of the Newhall Ranch. Parallel to The Old Road, a Southern Pacific Railroad track once ran. This area is also on the edge of the Castaic Junction Oil Field.

Adjacent properties to the north and south include vacant land and various commercial businesses, including Schwartz Oil (a bulk fuel distributor), two construction companies, offices for RM Pyle's Boys Camp, the Saugus Unified School Maintenance yard, Los Angeles County Fire Station #76, Al Towing and Auto Service, and an equipment storage area. Formerly, two of the adjacent properties appeared to have been occupied by gasoline service stations. Since the subject site consists of narrow utility easements, it is unlikely that any of the adjacent properties have impacted the subject property.

On the day of the site visit, the portion of the subject property occupied by Henry Mayo Road was observed to have scattered non-hazardous trash. No vegetation, and no evidence of staining were observed on this portion of the subject site. During the site visit, no hazardous substances, or evidence of USTs, ASTs or wastewater clarifiers were observed on this site.

The Old Road

This portion of the subject site consists of a utility corridor, which runs beneath The Old Road, starting at Henry Mayo Road and continuing south to WRP #32. The utility corridor is approximately 140 feet wide. Also included in this portion of the subject property is a utility easement, which runs along a proposed road, starting at Henry Mayo Road approximately 800 feet west of the intersection of The Old Road and Henry Mayo Road, and running parallel and south of The Old Road, intersecting The Old Road approximately 3,000 feet southeast of the intersection of The Old Road and Henry Mayo Road. This easement is estimated to be approximately 30 feet wide.

Historically, the subject property beneath The Old Road has been occupied by The Old Road (former Highway 99) from prior to 1952 until present. The planned easement to the south of The Old Road was either vacant undeveloped land or agricultural land from prior to 1952 until present. These portions of the subject site are located within the areas called Castaic Junction. This was also the location of the Newhall Ranch. Parallel to The Old Road, a Southern Pacific Railroad track once ran. This area is also on the edge of the Castaic Junction Oil Field.

Adjacent properties to this portion of the subject property include vacant graded land, a California Highway Patrol Station, and a Pacific Bell facility, followed by the Golden State Freeway to the north and east. To the south is agricultural land. To the southeast is WRP #32. To the west is agricultural land and various commercial businesses. To the northwest are also commercial businesses.

On the day of the site visit, the portion of the subject property occupied by The Old Road was observed to have scattered non-hazardous trash. No vegetation, and no evidence of staining were observed on this portion of the subject site. During the site visit, no hazardous substances, or evidence of USTs, ASTs or wastewater clarifiers were observed on this site. The portion of the subject site south of The Old Road was observed to be occupied by agricultural land. This portion of the subject property was observed to have scattered non-hazardous trash. No evidence of staining was observed on this portion of the subject site. During the site visit, no hazardous substances, or evidence of USTs, ASTs or wastewater clarifiers were observed on this site.

Observation of the subject site revealed Underground Services Alert markings on the road, indicating underground pipelines were located between approximately 3 feet and 153 feet south of The Old Road and running parallel to The Old Road. These pipelines included a six-inch Mobil Oil pipeline approximately three feet south of The Old Road, a 12-inch high pressure gas pipeline and a 10-inch Flexismer pipeline approximately 28.5 feet south of The Old Road, a six-inch Mobil Oil pipeline approximately 42 feet south of The Old Road, an eight-inch Epsilon Oil pipeline approximately 137 feet south of The

Old Road, and a 10-inch Mobil Oil pipeline approximately 153 feet south of The Old Road. There is also an eight-inch Shell Oil pipeline that is also located south of the Old Road.

Northern Proposed Water Tank Location

This portion of the subject site consists of an approximate 200 foot by 200 foot area, approximately 1,300 feet north of the northeast corner of the proposed River Village Development, intended for a proposed water tank location, and a pipeline easement which runs from the tank location, and along Walcott Avenue to the planned River Village Development. The pipeline easement is anticipated to be approximately 10 feet wide.

Historically, the tank location has been occupied by vacant undeveloped land from prior to 1903 until present. Walcott Avenue was not constructed until sometime between 1990 and 1993. Prior to this, the portion of the subject site occupied by Walcott Avenue was occupied by vacant undeveloped land, or agricultural land. This portion of the subject site is located within the Castaic Junction Oil Field.

Adjacent properties to the tank location include vacant undeveloped parcels to the north, south, east and west. A water tank occupies the hill to the southwest of the proposed tank site. In the valley to the north-northeast are commercial/industrial developments. Walcott Avenue is predominantly bordered by vacant undeveloped land. Walcott Avenue crosses Highway 126 in the south. It also crosses a small portion of agricultural land just north of Highway 126.

On the day of the site reconnaissance, the proposed tank location was situated on the top of an undeveloped hilltop covered by native vegetation. No evidence of staining or distressed vegetation was observed on this portion of the subject site. During the site visit, no hazardous substances, or evidence of USTs, ASTs or wastewater clarifiers were observed on this site. Lower on the slopes of the hill were two pads cut into the hillside. It is believed that these pads may have been the locations of former oil production wells or exploratory wells. No staining was observed on the soil surface of either pad. The portion of the subject property occupied by Walcott Avenue was observed to have scattered non-hazardous trash. No vegetation, and no evidence of staining was observed on this portion of the subject site. During the site visit, no hazardous substances, or evidence of USTs, ASTs or wastewater clarifiers were observed on this site.

A Mobile Oil pipeline was observed to cross Walcott Avenue near its intersection with Highway 126.

Southern Proposed Water Tank Location

This portion of the subject site consists of an approximate 200 foot by 200 foot area, approximately 3,000 feet south of the proposed River Village Development, intended for a proposed water tank location, and a pipeline easement which runs from the tank location to the planned River Village Development. The pipeline easement is anticipated to be approximately 10 feet wide. The tank location is in what has been called Proposed

Borrow Site "A" for the River Village Development, located on the south side of the Santa Clara River.

Historically, the tank location has been vacant undeveloped land from prior to 1903 until present. The pipeline easement has been occupied by either vacant undeveloped land or agricultural land from at least 1903 until present. Both the tank location and the pipeline easement have been located on the edge of an oil field from prior to 1945 until present.

Adjacent properties to the tank location include vacant undeveloped parcels to the north, south, east and west. An oil field is located to the south of the subject site. Adjacent properties to the pipeline easement include vacant undeveloped land and agricultural land. Single oil wells are located to the north and south of the pipeline easement. None of the wells were located on the subject property.

On the day of the site reconnaissance, the proposed tank location was situated on the top of an undeveloped hilltop covered by native vegetation. No evidence of staining or distressed vegetation was observed on this portion of the subject site. During the site visit, no hazardous substances, or evidence of USTs, ASTs or wastewater clarifiers were observed on this site. This site is located in the proposed Borrow Site "A". Pads cut into the hillsides of Barrow Site "A" are believed to have been the locations of former oil production wells or exploratory wells. No staining was observed on the soil surface of this area. The portion of the subject property occupied by the pipeline easement runs northwest through Barrow Site "A" and then to the north through agricultural land and across the Santa Clara River into the proposed River Village Development. This area was observed to have scattered non-hazardous trash. No evidence of staining was observed on this portion of the subject site. During the site visit, no hazardous substances, or evidence of USTs, ASTs or wastewater clarifiers were observed on this site.

Los Angeles County Department of Public Works (LACDPW)

BA Environmental visited the office of the LACDPW regarding files for USTs and hazardous materials storage and usage. According to the LACDPW, files existed for several properties owned and operated by Newhall Land. These files included 30003 Walnut Orchard Road, 31820 Henry Mayo Drive, 28700 Henry Mayo Drive, and 27230 Henry Mayo Drive. Only the 28700 Henry Mayo Drive listing appears to be within the limits of the subject property, River Village Development-Spine Road. One 1,000-gallon gasoline and one 1,000-gallon diesel UST were removed in 1989 by PW Environmental, in the vicinity of the central farm equipment storage area south of Wolcott Way. One sample collected beneath the gasoline UST was reported to contain 96 milligrams per kilogram (mg/kg) of Total Petroleum Hydrocarbons as gasoline (TPH-g). LACDPW requested a description of sampling methods and manifests for the UST removal. PW Environmental submitted these documents in August and September of 1989. No closure letter was present in the file. This address is just north of the Spine Road easement.

GOVERNMENT RECORDS REVIEW

Regulatory compliance is a primary element of an ESA. Failure to comply with governmental regulations can result in fines, and can expose businesses or individuals to liabilities from which the law would otherwise shield them. The presence of hazardous wastes or hazardous materials, on-site or at neighboring sites, may present certain liabilities. Environmental Data Resources, Inc. (EDR) provided the most recent information regarding the hazardous materials sites identified below.[1] Sites of potential environmental concern are described at the end of this section in Table 1. It should be noted that the search radii for each database has been extended beyond ASTM requirements. The referenced search radii below are minimum distances. The actual search distances are much greater.

Table 1
GOVERNMENT-LISTED DATABASES
IDENTIFIED SITES OF ENVIRONMENTAL CONCERN
Proposed Water Tank Locations and Utility Corridor Easements Associated with the Proposed River Village Development
Tentative Tract Map No. 53108, State Highway 126
Newhall Ranch, California

Site of Concern And Address	Distance and Direction from Subject Property	Databases	Regulatory Status	Potential Environmental Impact
27353 San Martinez Grande Canyon	3,960 Feet North of Future Homestead Frontage Road (up-gradient)	CHMIRS	Release of approximately 1,000-gallons of crude oil from a tanker truck accident	Low
27900 Chiquito Canyon Road	200 Feet East of Future Homestead Frontage Road (up/cross-gradient)	CHMIRS	Unknown release	Low
Newhall Land & Farming 3003 Walnut Orchard Rd	200 Feet North of Future Homestead Frontage Road (up/cross-gradient)	LUST Cortese	Release of gasoline to the soil only; Case closed 6/27/96	Low
LA Cty Fire Dept/DelVal Trg Ctr 28101 Chiquito Cnyn	660 Feet north of Future Homestead Frontage Road (up/cross-gradient)	HAZNET LA Site Mitigation HMS LUST Cortese AST	Release of hydrocarbons to soil; Leak being confirmed	Low

1 The EDR Radius Map with GeoCheck®, Inquiry No. 1108642.4s, January 8, 2004.

Site of Concern And Address	Distance and Direction from Subject Property	Databases	Regulatory Status	Potential Environmental Impact
UNOCAL - Lincoln Lease 28101 Chiquito Cyn	660 Feet north of Future Homestead Frontage Road (up/cross-gradient)	CA SLIC	Facility closed	Low
Chiquito Canyon Landfill 29201 Henry Mayo Dr	200 Feet North of River Village Development-Spine Road (up/cross-gradient)	HMS HAZNET SWF/LF CA WDS EMI SWAT RCRIS-SQG FINDS	No Violations	Low
Laidlaw Waste Systems Inc 29201 Henry Mayo Dr	200 Feet North of River Village Development-Spine Road (up/cross-gradient)	HMS CA FID UST	No Violations	Low
Universal By-Products-Valencia 29201 Henry Mayo Dr	200 Feet North of River Village Development-Spine Road (up/cross-gradient)	WMUDS SWAT	No Violations	Low
27900 Chiquito Canyon	200 Feet North of River Village Development-Spine Road (up/cross-gradient)	CHMIRS	Release of Petroleum February 1989	Low
Travel Village/ Fiesta Resorts/ Valencia Travel Village 27946 Henry Mayo Dr	200 Feet South of River Village Development to Commerce Center Drive (down-gradient)	Hist. UST HMS HAZNET CA FID	Not on LUST list	Low
Schwartz Oil Co 27241 Henry Mayo Dr	20 Feet North of Henry Mayo Road (cross/up-gradient)	Hist. UST UST HAZNET EMI CA FID Cortese LUST FINDS	Release of gasoline to other groundwater; Case closed 8/30/96	Low

Site of Concern And Address	Distance and Direction from Subject Property	Databases	Regulatory Status	Potential Environmental Impact
LA County Fire Dept Station 76 27223 Henry Mayo Dr	20 Feet North of Henry Mayo Road (cross/up-gradient)	AST HMS LUST Cortese Hist. UST CA FID	Release of hydrocarbons to the soil only; Case closed 6/13/97	Low
R.M. Pyles Boys Camp, Inc. 27211 Henry Mayo Dr	20 Feet North of Henry Mayo Road (cross/up-gradient)	Hist. UST	Not on LUST list	Low
Newhall Land & Farming 27230 Henry Mayo Rd	50 Feet South of Henry Mayo Road (cross/up-gradient)	Cortese LUST	Release of gasoline to the soil only; Case closed 1/29/90	Low
29300 The Old Road	200 Feet North of The Old Road (cross-gradient)	CHMIRS	Unknown Release	Low
Dixie Diesel Station 29471 The Old Road	600 Feet North of The Old Road (cross-gradient)	Cortese LUST	Release of diesel fuel to other groundwater; Case closed 11/30/87	Low
Newhall Land & Farming Co 28760 N Castaic Canyon Rd	100 Feet East of The Old Road (down-gradient)	Cortese LUST HMS	Release of gasoline to the soil only; Case closed 1/10/90	Low
Tri-R-Trucking 28748 Castaic Canyon Rd	100 Feet East of The Old Road (down-gradient)	Cortese LUST	Release of diesel fuel to soil only; Case closed 10/11/94	Low
Chevron Station 9 1899 28805 The Old Rd	100 Feet East of The Old Road (down-gradient)	RCRIS-SQG FINDS Cortese	No other information on release	Low
TA Manufacturing 28605 W. Franklin	2,000 Feet Northeast of Northern Proposed Water Tank Location (up-gradient)	LQG FINDS HAZNET	No Violations	Low

The subject property is not listed on any of the searched databases. Several adjacent sites are listed as either UST or LUST sites. Although there have been releases at these adjacent sites, since the subject site is a narrow utility easement, there is a low potential for the adjacent site to have impacted the subject site.

Based on the above data, this assessment has revealed no evidence of recognized environmental conditions in connection with the subject property, except the following:

- Portions of the subject site are located within active and inactive oil fields; and
- Portions of the subject property cross or run parallel to petroleum pipelines.

If you have questions regarding this project or report, please contact us at (818) 500-1898.

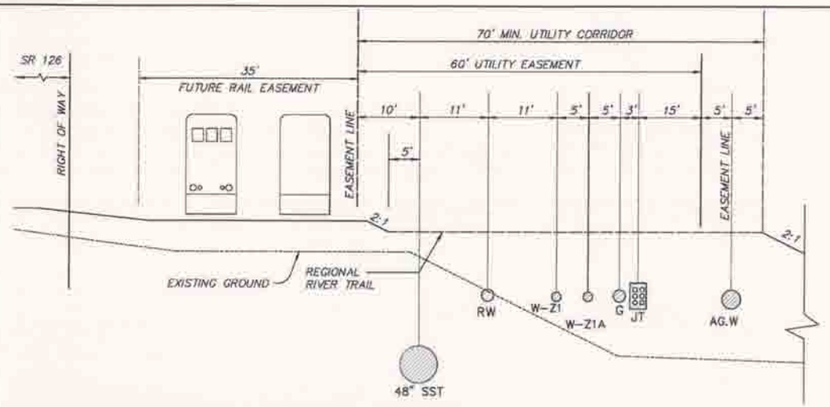
Respectfully submitted,
BA ENVIRONMENTAL

Russell M. Cote, M.Sc., R.G. No. 7139
Manager, Environmental Services

Attachments: Figures
Governmental Database Report

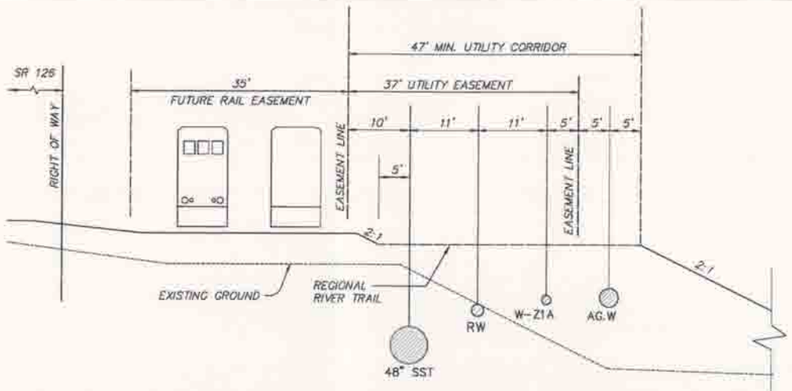
ATTACHMENTS

Figures



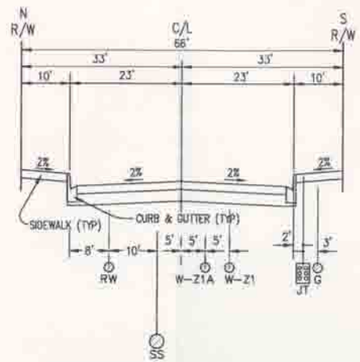
TYPICAL SECTION - WRP TO POTRERO ROAD

NOT TO SCALE



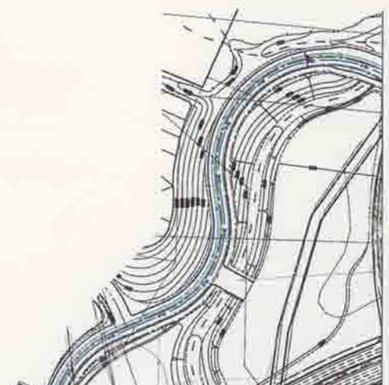
TYPICAL SECTION - POTRERO ROAD TO RIVER VILLAGE

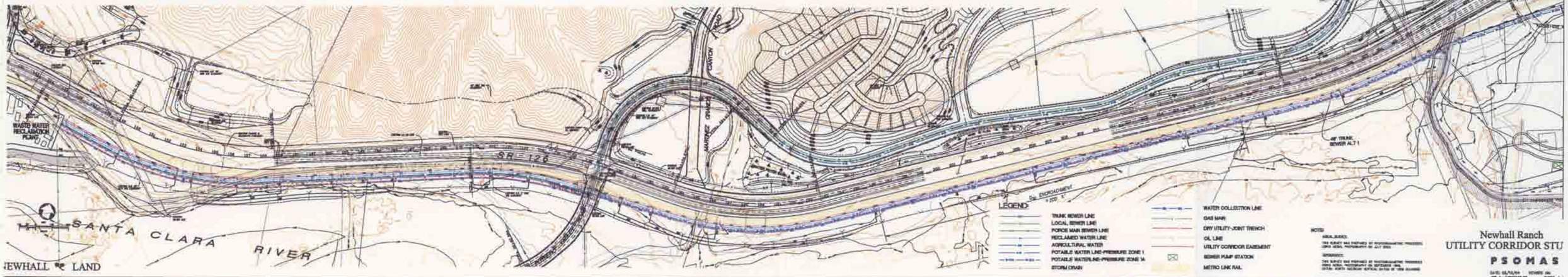
NOT TO SCALE



TYPICAL SECTION - HOMESTEAD FRONTAGE ROAD

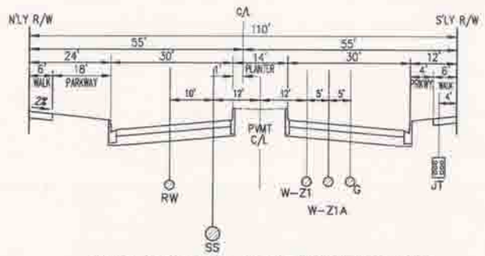
NOT TO SCALE





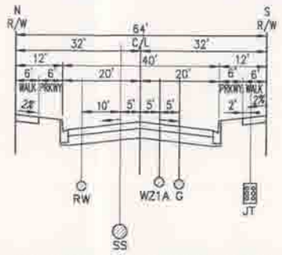
Newhall Ranch
UTILITY CORRIDOR STU

PSOMAS



TYPICAL RIVER VILLAGE - SPINE ROAD SECTION (110' R/W)

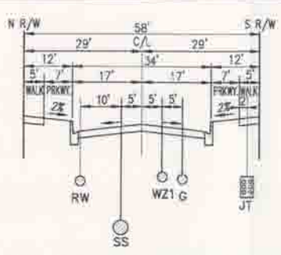
NOT TO SCALE



TYPICAL RIVER VILLAGE - SPINE ROAD SECTION (64' R/W)

(From Wolcott Road to 'D' Street)

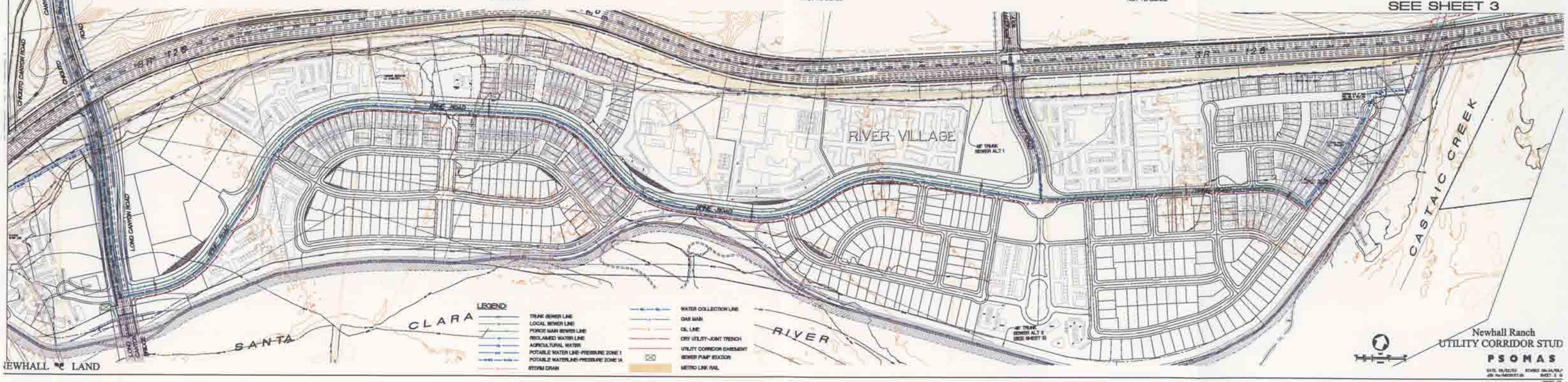
NOT TO SCALE



TYPICAL RIVER VILLAGE - SPINE ROAD SECTION (58' R/W)

NOT TO SCALE

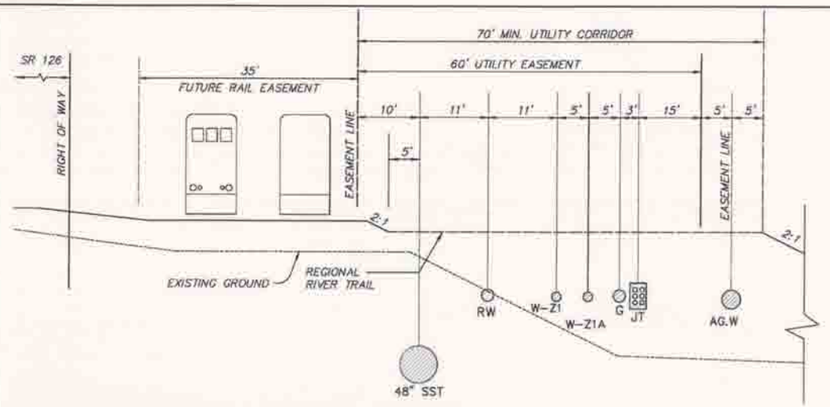
SEE SHEET 3



NEWHALL LAND

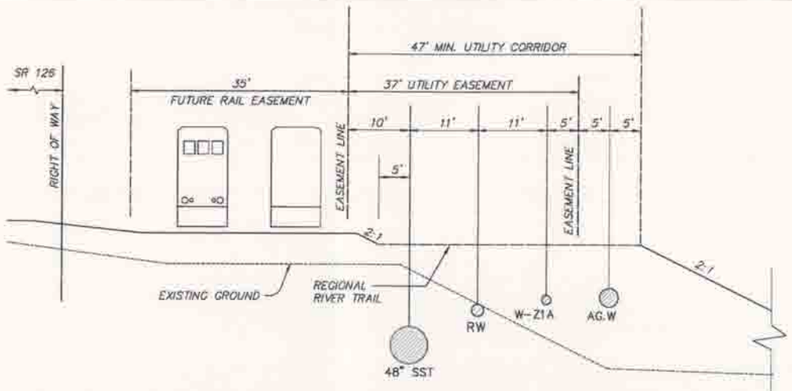
Newhall Ranch
UTILITY CORRIDOR STUD

PSOMAS



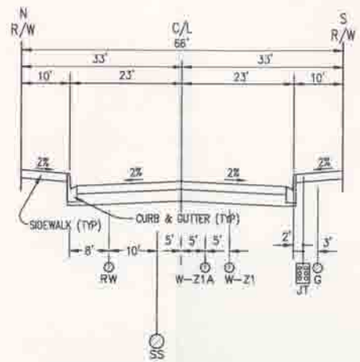
TYPICAL SECTION - WRP TO POTRERO ROAD

NOT TO SCALE



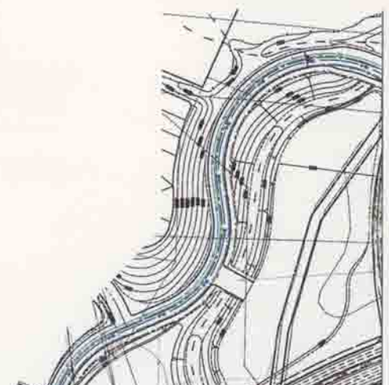
TYPICAL SECTION - POTRERO ROAD TO RIVER VILLAGE

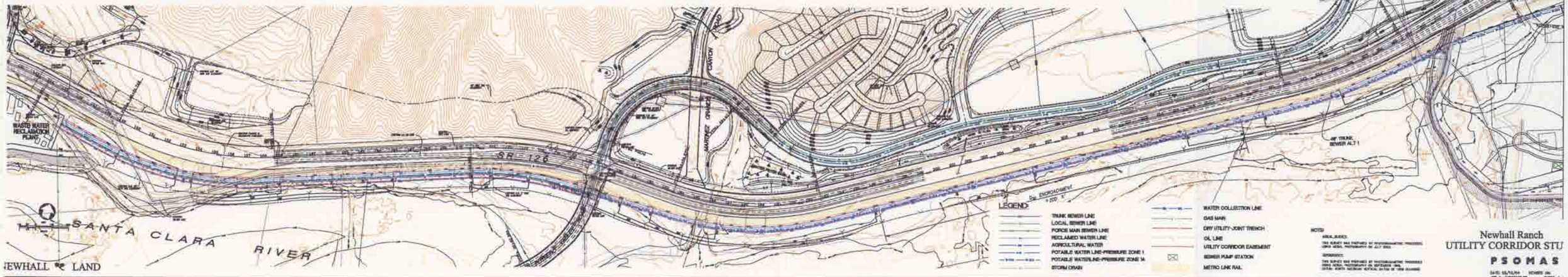
NOT TO SCALE



TYPICAL SECTION - HOMESTEAD FRONTAGE ROAD

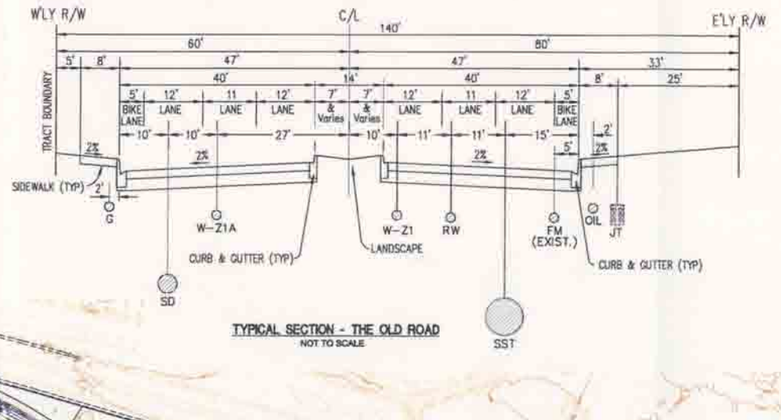
NOT TO SCALE



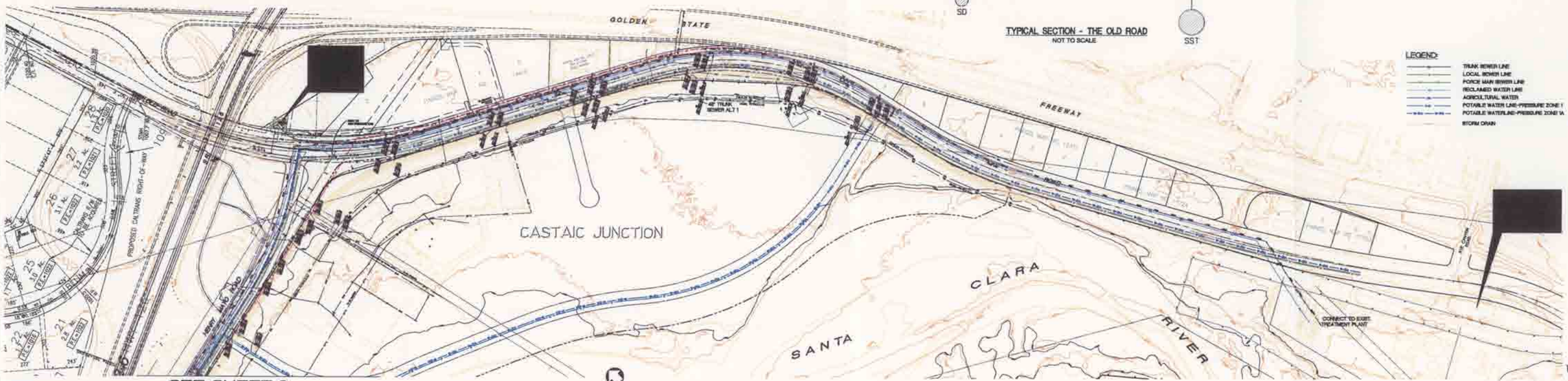


Newhall Ranch
UTILITY CORRIDOR STU

PSOMAS



TYPICAL SECTION - THE OLD ROAD
NOT TO SCALE



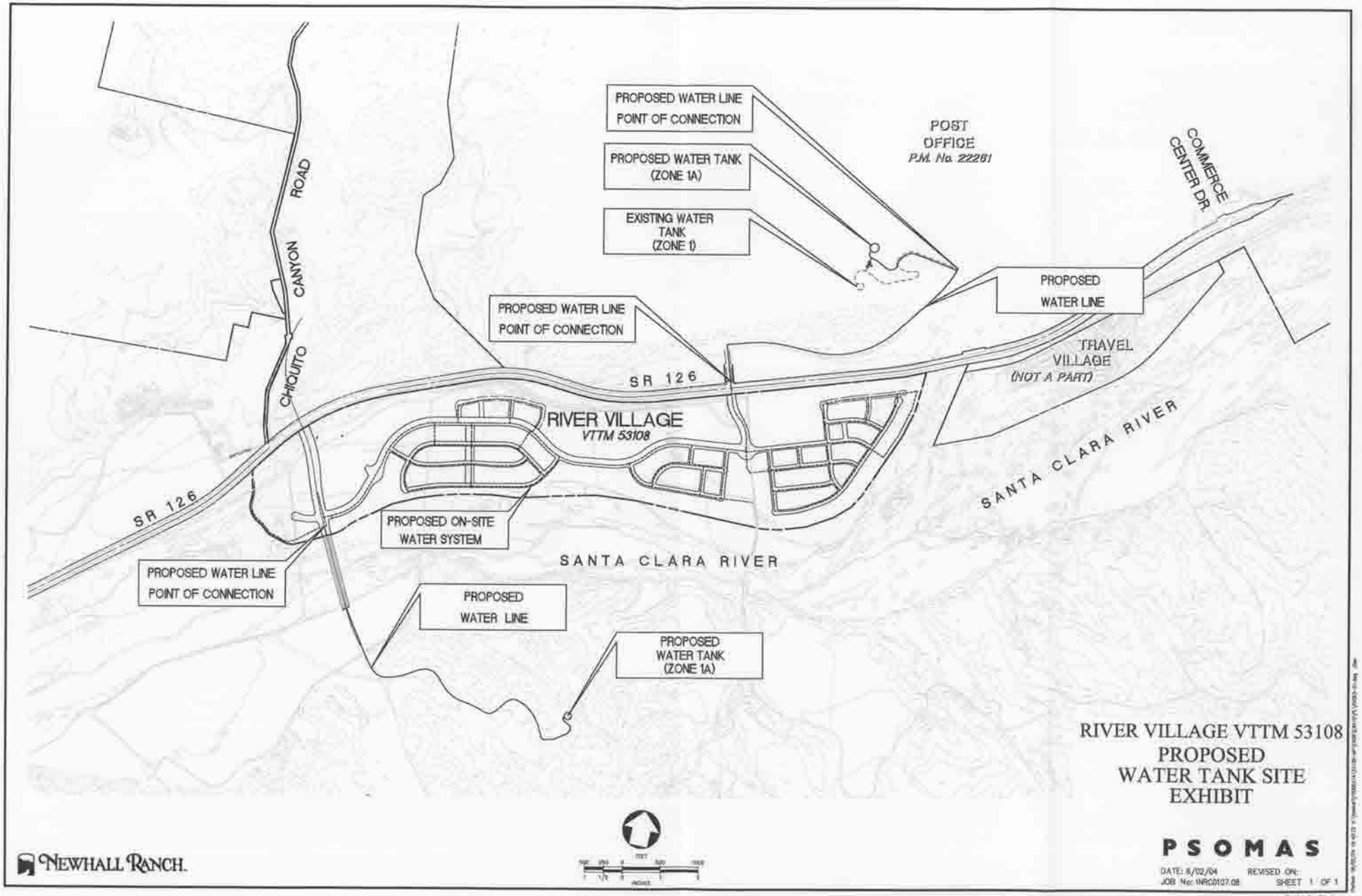
LEGEND:

- TRUNK SEWER LINE
- LOCAL SEWER LINE
- FORCE MAIN SEWER LINE
- RECLAIMED WATER LINE
- AGRICULTURAL WATER
- POTABLE WATER LINE-PRESSURE ZONE I
- POTABLE WATERLINE-PRESSURE ZONE IA
- STORM DRAIN
- WATER COLLECTION LINE
- GAS MAIN
- OIL LINE
- DRY UTILITY-JOINT TRENCH
- UTILITY CORRIDOR EASEMENT
- SEWER PUMP STATION
- METRO LINK RAIL

NEWHALL LAND

Newhall Ranch
UTILITY CORRIDOR STU

PSOMAS



RIVER VILLAGE VTTM 53108
PROPOSED
WATER TANK SITE
EXHIBIT

NEWHALL RANCH.

PSOMAS

DATE: 6/02/04 REVISED ON:
JOB No: 1NRC0107.08 SHEET 1 OF 1

RV063-01.dwg

Governmental Database Report

The EDR Radius Map
with GeoCheck®

Tentative Tract Map No. 53108
Wolcott Way/Henry Mayo Drive
Valencia, CA 91355

Inquiry Number: 1108642.4s

January 08, 2004

Environmental Data Resources, Inc.

The Source For Environmental Risk Management Data

3530 Post Road
Southport, Connecticut 06890

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

FORM-JM

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	6
EDR Proprietary Historical Map Findings	70
Orphan Summary	71
Government Records Searched/Data Currency Tracking	GR-1
GEOCHECK ADDENDUM	
Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting Source Map	A-11
Physical Setting Source Map Findings	A-12
Physical Setting Source Records Searched	A-106

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer
Copyright and Trademark Notice

This report contains information obtained from a variety of public and other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL EDR BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES.

Entire contents copyright 2003 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and the edr logos are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

TARGET PROPERTY INFORMATION

ADDRESS

WOLCOTT WAY/HENRY MAYO DRIVE
VALENCIA, CA 91355

COORDINATES

Latitude (North):	34.424300 - 34° 25' 27.5"
Longitude (West):	118.637300 - 118° 38' 14.3"
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	349543.9
UTM Y (Meters):	3810222.8
Elevation:	958 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property:	34118-D6 VAL VERDE, CA
Source:	USGS 7.5 min quad index

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

FEDERAL ASTM STANDARD

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP..... CERCLIS No Further Remedial Action Planned
CORRACTS..... Corrective Action Report
RCRIS-TSD..... Resource Conservation and Recovery Information System
ERNS..... Emergency Response Notification System

STATE ASTM STANDARD

AWP..... Annual Workplan Sites

EXECUTIVE SUMMARY

Cal-Sites..... Calsites Database
Notify 65..... Proposition 65 Records
Toxic Pits..... Toxic Pits Cleanup Act Sites
CA BOND EXP. PLAN..... Bond Expenditure Plan
VCP..... Voluntary Cleanup Program Properties
INDIAN UST..... Underground Storage Tanks on Indian Land

FEDERAL ASTM SUPPLEMENTAL

CONSENT..... Superfund (CERCLA) Consent Decrees
ROD..... Records Of Decision
Delisted NPL..... National Priority List Deletions
HMIRS..... Hazardous Materials Information Reporting System
MLTS..... Material Licensing Tracking System
MINES..... Mines Master Index File
NPL Liens..... Federal Superfund Liens
PADS..... PCB Activity Database System
DOD..... Department of Defense Sites
US BROWNFIELDS..... A Listing of Brownfields Sites
RAATS..... RCRA Administrative Action Tracking System
TRIS..... Toxic Chemical Release Inventory System
TSCA..... Toxic Substances Control Act
SSTS..... Section 7 Tracking Systems
FTTS INSP..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

STATE OR LOCAL ASTM SUPPLEMENTAL

CLEANERS..... Cleaner Facilities
DEED..... List of Deed Restrictions
SCH..... School Property Evaluation Program
NFA..... No Further Action Determination
REF..... Unconfirmed Properties Referred to Another Agency
NFE..... Properties Needing Further Evaluation
AOCONCERN..... San Gabriel Valley Areas of Concern

BROWNFIELDS DATABASES

US BROWNFIELDS..... A Listing of Brownfields Sites
VCP..... Voluntary Cleanup Program Properties

EDR PROPRIETARY HISTORICAL DATABASES

See the EDR Proprietary Historical Database Section for details

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL ASTM STANDARD

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRIS-LQG list, as provided by EDR, and dated 09/10/2003 has revealed that there are 3 RCRIS-LQG sites within approximately 1.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
T A MANUFACTURING CO	*28065 W FRANKLIN PKWY*	*1/2 - 1 NE*	*10*	*15*
DEL WEST ENGINEERING	*28128 W LIVINGSTON AVE*	*1 - 2 NNE*	*E28*	*31*
PHARMAVITE LLC	*28305 W LIVINGSTON AVE*	*1 - 2 NNE*	*G35*	*36*

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRIS-SQG list, as provided by EDR, and dated 09/10/2003 has revealed that there are 4 RCRIS-SQG sites within approximately 1.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CHIQUITA CANYON SANITARY LANDF	*29201 HENRY MAYO DRIVE*	*1/2 - 1 W*	*B9*	*15*
R A H INDUSTRIES	*28035 HARRISON PKWY*	*1 - 2 NNE*	*E25*	*29*
TIME AVIATION SERVICES INC	*28402 W LIVINGSTON AVE*	*1 - 2 N*	*F32*	*34*
KIMBALL MICROELECTRONICS	*28575 LIVINGSTON AVE*	*1 - 2 N*	*37*	*39*

STATE ASTM STANDARD

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e., accidental releases or spills. The source is the California Office of Emergency Services.

A review of the CHMIRS list, as provided by EDR, and dated 12/31/2002 has revealed that there are 8

CHMIRS sites within approximately 2.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
Not reported	27900 CHIQUITO CANYON R	1 - 2 W	13	17
Not reported	*28201 FRANKLIN PARKWAY*	*1 - 2 NE*	*D23*	*25*
Not reported	28201 FRANKLIN PKWY, B	1 - 2 NE	D24	28
Not reported	27353 SAN MARTINEZ GRAN	1 - 2 W	53	53
Not reported	*29300 THE OLD ROAD*	*>2 NE*	*K54*	*54*
Not reported	29300 THE OLD ROAD	>2 NE	K55	59
Not reported	N/B I-5, CASTAIC INSP F	>2 NE	59	67
Not reported	HASELY CYN 1MI NORTH OF	>2 NNE	61	68

CORTESE: This database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release and all solid waste disposal facilities from which there is known migration. The source is the California Environmental Protection Agency/Office of Emergency Information.

A review of the Cortese list, as provided by EDR, has revealed that there are 9 Cortese sites within approximately 2.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
LA CO FD FIRE TRAINING CN	28101 CHIQUITO CNYN	1 - 2 W	C19	24
SCHWARTZ OIL CO.	*27241 HENRY MAYO DR*	*1 - 2 NE*	*I44*	*44*
LA CO FD FIRE STA #076	*27223 W HENRY MAYO DR*	*1 - 2 NE*	*I47*	*47*
NEWHALL LAND & FARMING	*27230 HENRY MAYO RD*	*1 - 2 ENE*	*J52*	*51*
DIXIE DIESEL STATION	*29471 THE OLD ROAD*	*>2 NE*	*56*	*60*
NEWHALL LAND & FARMING CO	*28760 N CASTAIC CANYON*	*>2 ENE*	*L57*	*62*
TRI-R-TRUCKING	*28748 CASTAIC CANYON RD*	*>2 ENE*	*L58*	*65*
CHEVRON STATION 9 1899	*28805 THE OLD RD*	*>2 ENE*	*60*	*68*

Lower Elevation	Address	Dist / Dir	Map ID	Page
NEWHALL LAND & FARMING	*3003 WALNUT ORCHARD RD*	*1 - 2 WSW*	*14*	*18*

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, has revealed that there are 2 SWF/LF sites within approximately 2 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CHIQUITA CANYON LANDFILL INC	*29201 HENRY MAYO DRIVE*	*1/2 - 1 W*	*B4*	*7*
CHIQUITA CANYON LANDFILL	*29201 HENRY MAYO DR*	*1/2 - 1 W*	*B6*	*10*

WMUDS/SWAT: The Waste Management Unit Database System is used for program tracking and inventory of waste management units. The source is the State Water Resources Control Board.

A review of the WMUDS/SWAT list, as provided by EDR, has revealed that there are 2 WMUDS/SWAT sites

within approximately 2 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
UNIVERSAL BY-PRODUCTS-VALENCIA	29201 SAUGUS-VENTURA RO	1/4 - 1/2 WNW	A3	6
CHIQUITA CANYON LANDFILL	29201 HENRY MAYO DR	1/2 - 1 W	B7	13

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 04/02/2003 has revealed that there are 5 LUST sites within approximately 2 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
L A COUNTY FIRE DEPT	***28101 N CHIQUITO CANYON***	***1 - 2 W***	***C17***	***22***
SCHWARTZ OIL CO.	***27241 HENRY MAYO DR***	***1 - 2 NE***	***I44***	***44***
LA CO FD FIRE STA #076	***27223 W HENRY MAYO DR***	***1 - 2 NE***	***I47***	***47***
NEWHALL LAND & FARMING	***27230 HENRY MAYO RD***	***1 - 2 ENE***	***J52***	***51***
Lower Elevation	**Address**	**Dist / Dir**	**Map ID**	**Page**
NEWHALL LAND & FARMING	***3003 WALNUT ORCHARD RD***	***1 - 2 WSW***	***14***	***18***

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 04/02/2003 has revealed that there are 3 UST sites within approximately 1.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
LAIDLAW WASTE SYSTEMS INC	29201 HENRY MAYO DR	1/2 - 1 W	B8	15
US POSTAL - SANTA CLARITA P&DC	28201 FRANKLIN PKWY	1 - 2 NE	D22	25
SCHWARTZ OIL CO	***27241 HENRY MAYO DR***	***1 - 2 NE***	***I43***	***43***

CA FID: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, has revealed that there are 4 CA FID UST sites within approximately 1.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
LAIDLAW WASTE SYSTEMS INC	29201 HENRY MAYO DR	1/2 - 1 W	B5	10
FIESTA RESORT TRAVEL VILLAGE	27946 HENRY MAYO RD	1 - 2 NE	H42	42
LA CO FD FIRE STA #076	27223 HENRY MAYO DR	1 - 2 NE	I49	50
SCHUARTI OIL CO. INC.	27241 HENRY MAYO RD	1 - 2 ENE	J51	50

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 4 HIST UST sites within approximately 1.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
TRAVEL VILLAGE	27946 HENRY MAYO DR	1/2 - 1 ENE	11	17
SCHWARTZ OIL CO	***27241 HENRY MAYO DR***	***1 - 2 NE***	***I43***	***43***
FIRE STATION #76	27223 HENRY MAYO DR	1 - 2 NE	I48	50
R.M. PYLES BOYS CAMP, INC.	27211 HENRY MAYO DR	1 - 2 NE	I50	50

FEDERAL ASTM SUPPLEMENTAL

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 10/23/2003 has revealed that there are 8 FINDS sites within approximately 1.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CHIQUITA CANYON SANITARY LANDF	***29201 HENRY MAYO DRIVE***	***1/2 - 1 W***	***B9***	***15***
T A MANUFACTURING CO	***28065 W FRANKLIN PKWY***	***1/2 - 1 NE***	***10***	***15***
R A H INDUSTRIES	***28035 HARRISON PKWY***	***1 - 2 NNE***	***E25***	***29***
DEL WEST ENGINEERING	***28128 W LIVINGSTON AVE***	***1 - 2 NNE***	***E28***	***31***
TIME AVIATION SERVICES INC	***28402 W LIVINGSTON AVE***	***1 - 2 N***	***F32***	***34***
PHARMAVITE LLC	***28305 W LIVINGSTON AVE***	***1 - 2 NNE***	***G35***	***36***
KIMBALL MICROELECTRONICS	***28575 LIVINGSTON AVE***	***1 - 2 N***	***37***	***39***
SCHWARTZ OIL CO INC	27241 HENRY MAYO DR	1 - 2 NE	I45	47

STATE OR LOCAL ASTM SUPPLEMENTAL

AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the AST list, as provided by EDR, and dated 07/01/2003 has revealed that there are 2 AST sites within approximately 1.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
DEL VALLE REGIONAL EMERGENCY T	28101 CHIQUITO CANYON R	1 - 2 W	C20	25
LA COUNTY FIRE DEPT STATION 76	27223 HENRY MAYO DR	1 - 2 NE	I46	47

WDS: California Water Resources Control Board - Waste Discharge System.

A review of the CA WDS list, as provided by EDR, and dated 09/22/2003 has revealed that there is 1 CA WDS site within approximately 1.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CHIQUITA CANYON LANDFILL	***29201 HENRY MAYO DR***	***1/2 - 1 W***	***B6***	***10***

Emissions Inventory Data: Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies

A review of the EMI list, as provided by EDR, and dated 12/31/2001 has revealed that there are 3 EMI sites within approximately 1.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CHIQUITA CANYON LANDFILL	***29201 HENRY MAYO DR***	***1/2 - 1 W***	***B6***	***10***
US POSTAL SERVICE, SANTA CLARI	28201 FRANKLIN PKY	1 - 2 NE	D21	25
SCHWARTZ OIL CO	***27241 HENRY MAYO DR***	***1 - 2 NE***	***I43***	***43***

CA SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the CA SLIC list, as provided by EDR, has revealed that there are 2 CA SLIC sites within approximately 2 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
UNOCAL - LINCOLN LEASE	28101 CHIQUITO CYN	1 - 2 W	C18	24
PROPOSED SCHOOL BUS STOP	28300 LIVINGSTON	1 - 2 NNE	G34	36

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency

A review of the HAZNET list, as provided by EDR, has revealed that there are 19 HAZNET sites within approximately 1.75 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CHIQUITA CANYON LANDFILL INC	***29201 HENRY MAYO DRIVE***	***1/2 - 1 W***	***B4***	***7***
CHIQUITA CANYON LANDFILL	***29201 HENRY MAYO DR***	***1/2 - 1 W***	***B6***	***10***
T A MANUFACTURING CO	***28065 W FRANKLIN PKWY***	***1/2 - 1 NE***	***10***	***15***
BLOOMERS METAL STAMPINGS INC	28615 BRAXTON AVE	1 - 2 NE	12	17
LA CTY FIRE DEPT/DELVAL TRG CT	28101 CHIQUITO CANYON R	1 - 2 W	C16	21
Not reported	***28201 FRANKLIN PARKWAY***	***1 - 2 NE***	***D23***	***25***
R A H INDUSTRIES	***28035 HARRISON PKWY***	***1 - 2 NNE***	***E25***	***29***
EMCO	28045 W HARRISON PKWY	1 - 2 NNE	E26	30
JERRY AVALOS TRUCKING	28459 CHIQUITO CANYON R	1 - 2 WNW	27	30
DEL WEST ENGINEERING	***28128 W LIVINGSTON AVE***	***1 - 2 NNE***	***E28***	***31***
20TH CENTURY FOX,PAPI CHULO	28455 LIVINGSTON AVE	1 - 2 N	30	32
REGENT AEROSPACE INC	28110 HARRISON PKWY	1 - 2 NNE	E31	33
TIME AVIATION SERVICES	28402 W LIVINGSTON AVE	1 - 2 N	F33	34
PHARMAVITE LLC	***28305 W LIVINGSTON AVE***	***1 - 2 NNE***	***G35***	***36***

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
PHARMAVITE LLC	***28310 W LIVINGSTON AVE***	***1 - 2 NNE***	***G36***	***37***
KIMBALL MICROELECTRONICS	***28575 LIVINGSTON AVE***	***1 - 2 N***	***37***	***39***
WALT DISNEY PICTURES & TELEVIS	28150 W HARRISON PARKWA	1 - 2 NNE	38	40
THE VALENCIA TRAVEL VILLAGE	27946 HENRY MAYO ROAD,	1 - 2 NE	H41	42
SCHWARTZ OIL CO	***27241 HENRY MAYO DR***	***1 - 2 NE***	***I43***	***43***

HMS: Los Angeles County Industrial Waste and Underground Storage Tank Sites.

A review of the LOS ANGELES CO. HMS list, as provided by EDR, has revealed that there are 8 LOS ANGELES CO. HMS sites within approximately 1.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CHIQUITA CANYON LANDFILL	29201 W HENRY MAYO DR	1/4 - 1/2 WNW	A1	6
LAIDLAW WASTE SYSTEMS INC	29201 W HENRY MAYO DR	1/4 - 1/2 WNW	A2	6
L A COUNTY FIRE DEPT	***28101 N CHIQUITO CANYON***	***1 - 2 W***	***C17***	***22***
DEL WEST ENGINEERING	28128 W LIVINGSTON AVE	1 - 2 NNE	E29	32
PHARMAVITE LLC	***28310 W LIVINGSTON AVE***	***1 - 2 NNE***	***G36***	***37***
FIESTA RESORTS	27946 W HENRY MAYO DR	1 - 2 ENE	H39	41
VALENCIA TRAVEL VILLAGE	27946 W HENRY MAYO DR	1 - 2 ENE	H40	41
LA CO FD FIRE STA #076	***27223 W HENRY MAYO DR***	***1 - 2 NE***	***I47***	***47***

Site Mitigation Complaint Control Log: The Los Angeles County Site Mitigation Log comes from Community Health Services.

A review of the LA Co. Site Mitigation list, as provided by EDR, has revealed that there is 1 LA Co. Site Mitigation site within approximately 1.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
DEL VALLE TRAINING CENTER	28101 CHIQUITO CANYON R	1 - 2 W	C15	21

EDR PROPRIETARY HISTORICAL DATABASES

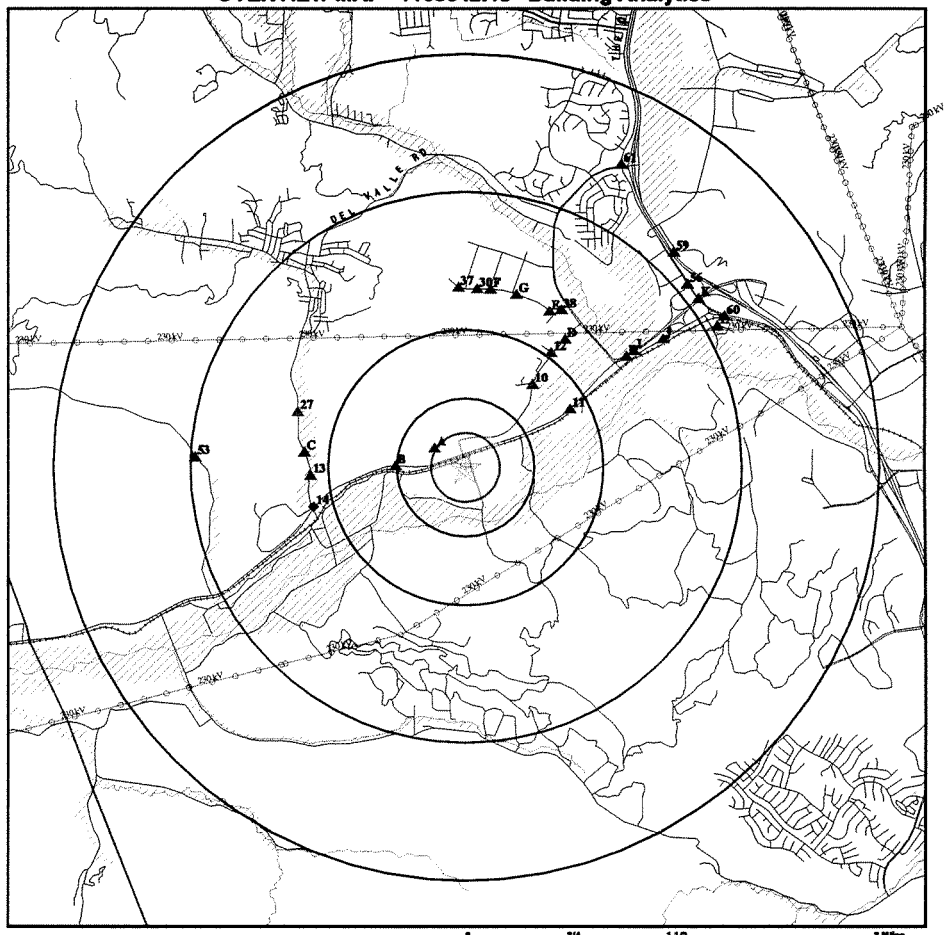
See the EDR Proprietary Historical Database Section for details

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
PPG INDUSTRIES INC WORKS 24	RCRIS-SQG, RCRIS-TSD, FINDS, CORRACTS, CERC-NFRAP, LOS ANGELES CO. HMS
BERTH 70, LONG BEACH HARBOUR	CHMIRS, HAZNET
BERTH 30 LONG BEACH HARBOUR	CHMIRS, HAZNET
FLORENCE AVE / TELEGRAPH RD WHITTIER	CHMIRS, LUST
CSI CRIME SCENE INVESTIGATION	HAZNET
CALIFORNIA INSTITUTE OF THE ARTS	HAZNET
PRODUCTION GOODBYE LOVER	HAZNET
LOS ANGELES COUNTY FIRE DEPT	HAZNET
TECHNICAL TROUBLE SHOOTING	HAZNET
HOWARD CUSTOM BOATS INCORPORATED	FINDS, EMI, HAZNET
DEPARTMENT OF TRANSPORTATION	RCRIS-SQG, FINDS
TWO WATER WELLS RESTORATION	CA WDS
COMMERCE CENTER BRIDGE	CA WDS
CASTAIC CREEK CHANNEL LINING	CA WDS
HWY. 126 BRIDGE	CA WDS
GOLDEN VALLEY ROAD EXTENSION	CA WDS
WATER WELL NO. W-11	CA WDS
GRUBER SYSTEMS, INC	REF
SCHOOL ON 18 ACRE SITE	SCH

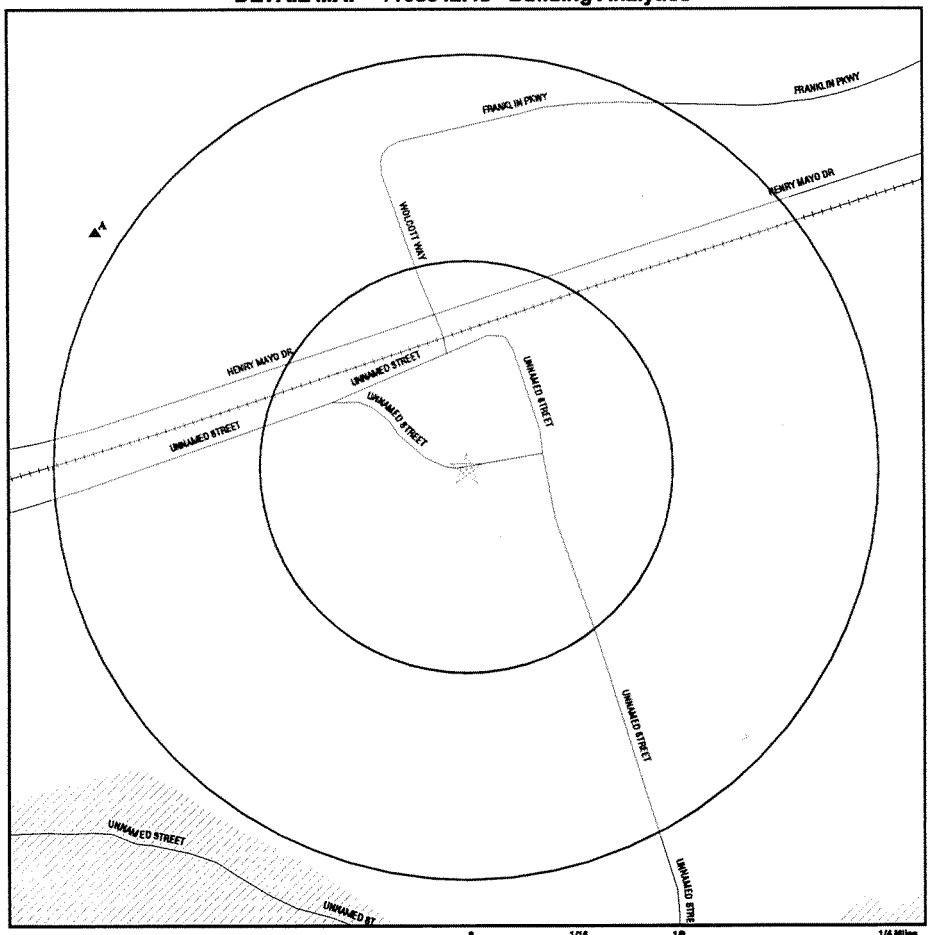
OVERVIEW MAP - 1108642.4s - Building Analytics



TARGET PROPERTY:	Tentative Tract Map No. 53108	CUSTOMER:	Building Analytics
ADDRESS:	Wolcott Way/Henry Mayo Drive	CONTACT:	Joe Montoya
CITY/STATE/ZIP:	Valencia CA 91355	INQUIRY #:	1108642.4s
LAT/LONG:	34.4243 / 118.6373	DATE:	January 08, 2004 12:46 pm

Copyright © 2003 EDR, Inc. © 2003 GDT, Inc. Rel. 07/2003. All Rights Reserved.

DETAIL MAP - 1108642.4s - Building Analytics



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Coal Gasification Sites
- Historical Gas Stations / Historical Dry Cleaners See the EDR Proprietary Historical Map Findings
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- County Boundary
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

TARGET PROPERTY:	Tentative Tract Map No. 53108	CUSTOMER:	Building Analytics
ADDRESS:	Wolcott Way/Henry Mayo Drive	CONTACT:	Joe Montoya
CITY/STATE/ZIP:	Valencia CA 91355	INQUIRY #:	1108642.4s
LAT/LONG:	34.4243 / 118.6373	DATE:	January 08, 2004 12:47 pm

Copyright © 2003 EDR, Inc. © 2003 EDT, Inc. Rel. 07/2003. All Rights Reserved.

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL ASTM STANDARD								
NPL		2.500	0	0	0	0	0	0
Proposed NPL		2.500	0	0	0	0	0	0
CERCLIS		2.000	0	0	0	0	0	0
CERC-NFRAP		1.750	0	0	0	0	0	0
CORRACTS		2.500	0	0	0	0	0	0
RCRIS-TSD		2.000	0	0	0	0	0	0
RCRIS Lg. Quan. Gen.		1.750	0	0	0	1	2	3
RCRIS Sm. Quan. Gen.		1.750	0	0	0	1	3	4
ERNS		1.500	0	0	0	0	0	0
STATE ASTM STANDARD								
AWP		2.500	0	0	0	0	0	0
Cal-Sites		2.500	0	0	0	0	0	0
CHMIRS		2.500	0	0	0	0	8	8
Cortese		2.500	0	0	0	0	9	9
Notify 65		2.500	0	0	0	0	0	0
Toxic Pits		2.500	0	0	0	0	0	0
State Landfill		2.000	0	0	0	2	0	2
WMUDS/SWAT		2.000	0	0	1	1	0	2
LUST		2.000	0	0	0	0	5	5
CA Bond Exp. Plan		2.500	0	0	0	0	0	0
UST		1.750	0	0	0	1	2	3
VCP		2.000	0	0	0	0	0	0
INDIAN UST		1.750	0	0	0	0	0	0
CA FID UST		1.750	0	0	0	1	3	4
HIST UST		1.750	0	0	0	1	3	4
FEDERAL ASTM SUPPLEMENTAL								
CONSENT		2.500	0	0	0	0	0	0
ROD		2.500	0	0	0	0	0	0
Delisted NPL		2.500	0	0	0	0	0	0
FINDS		1.500	0	0	0	2	6	8
HMIRS		1.500	0	0	0	0	0	0
MLTS		1.500	0	0	0	0	0	0
MINES		1.750	0	0	0	0	0	0
NPL Liens		1.500	0	0	0	0	0	0
PADS		1.500	0	0	0	0	0	0
DOD		2.500	0	0	0	0	0	0
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
RAATS		1.500	0	0	0	0	0	0
TRIS		1.500	0	0	0	0	0	0
TSCA		1.500	0	0	0	0	0	0
SSTS		1.500	0	0	0	0	0	0
FTTS		1.500	0	0	0	0	0	0
STATE OR LOCAL ASTM SUPPLEMENTAL								
AST		1.500	0	0	0	0	2	2

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CLEANERS		1.750	0	0	0	0	0	0
CA WDS		1.500	0	0	0	1	0	1
DEED		1.500	0	0	0	0	0	0
SCH		1.750	0	0	0	0	0	0
NFA		1.750	0	0	0	0	0	0
EMI		1.500	0	0	0	1	2	3
REF		1.750	0	0	0	0	0	0
NFE		1.750	0	0	0	0	0	0
CA SLIC		2.000	0	0	0	0	2	2
HAZNET		1.750	0	0	0	3	16	19
Los Angeles Co. HMS		1.500	0	0	2	0	6	8
LA Co. Site Mitigation		1.500	0	0	0	0	1	1
AOCONCERN		2.500	0	0	0	0	0	0
EDR PROPRIETARY HISTORICAL DATABASES								
Gas Stations/Dry Cleaners		0.250	0	0	NR	NR	NR	0
Coal Gas		2.500	0	0	0	0	0	0
BROWNFIELDS DATABASES								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
VCP		2.000	0	0	0	0	0	0

NOTES:

See the EDR Proprietary Historical Database Section for details

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID / Direction / Distance / Distance (ft.) / Elevation | Site | Database(s) | EDR ID Number / EPA ID Number

A1
WNW
1/4-1/2
1402 ft.

CHIQUITA CANYON LANDFILL — **LOS ANGELES CO. HMS** — **1001865073** / **N/A**
29201 W HENRY MAYO DR
UNINCORPORATED, CA

Site 1 of 3 in cluster A

Relative:
Higher

Actual:
1034 ft.

HMS:

Facility Id:	005897-I06111		
Area:	7		
Facility Type:	I08		
Permit Number:	174	Permit Status:	Closed
Facility Status:	Permit		
Region:	Los Angeles County:		
Facility Id:	005897-037921		
Area:	7		
Facility Type:	I09		
Permit Number:	174	Permit Status:	Permit
Facility Status:	Permit		
Region:	Los Angeles County:		
Facility Id:	005897-037920		
Area:	7		
Facility Type:	T0		
Permit Number:	174	Permit Status:	Permit
Facility Status:	Permit		
Region:	Los Angeles County:		

A2
WNW
1/4-1/2
1402 ft.

LAIDLAW WASTE SYSTEMS INC — **LOS ANGELES CO. HMS** — **S102064584** / **N/A**
29201 W HENRY MAYO DR
UNINCORPORATED, CA

Site 2 of 3 in cluster A

Relative:
Higher

Actual:
1034 ft.

HMS:

Facility Id:	005897-006111		
Area:	7		
Facility Type:	T0		
Permit Number:	174	Permit Status:	Closed
Facility Status:	Permit		
Region:	Los Angeles County:		

A3
WNW
1/4-1/2
1402 ft.

UNIVERSAL BY-PRODUCTS-VALENCIA — **WMUDS/SWAT** — **S103441396** / **N/A**
29201 SAUGUS-VENTURA ROAD
VALENCIA, CA

Site 3 of 3 in cluster A

Relative:
Higher

Actual:
1034 ft.

WMUDS:

Region:	4
Date of Last Facility Edit:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System ID:	4 190133NUR
Solid Waste Information ID:	Not reported
Waste Discharge System:	False
Solid Waste Assessment Test Program:	True
Facility Name:	Not reported
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act Program:	False
Department of Defense:	False

UNIVERSAL BY-PRODUCTS-VALENCIA (Continued) **S103441396**

Open to Public:	False
Number of WMUDS at Facility:	1
Facility Telephone:	Not reported
Primary Standard Industrial Classification:	Not reported
Secondary Standard Industrial Classification:	Not reported
Solid Waste Assessment Test Program Name:	UNIVERSAL BY-PRODUCTS
NPID:	Not reported
Tonnage:	0
Regional Board ID:	Not reported
Municipal Solid Waste:	False
Superorder:	False
Sub Chapter 15:	False
Reg. Board Project Officer:	LT
Section Range:	Not reported
RCRA Facility:	Not reported
Waste Discharge Requirements:	Not reported
Base Meridian:	Not reported
Waste List:	False
Facility Description:	Not reported
Self-Monitoring Rept. Frequency:	Not reported

Threat to Water Quality:Not reported

Agency:	UNIVERSAL BY-PRODUCTS
Address:	Not reported
Department:	Not reported
Contact:	Not reported
Telephone:	Not reported
Landowner:	Not reported
Address:	CA
Telephone:	Not reported
Contact:	Not reported

B4
West
1/2-1
2690 ft.

Relative:
Higher

Actual:
974 ft.

CHIQUITA CANYON LANDFILL INC **HAZNET S100932492**
29201 HENRY MAYO DRIVE **SWF/LF N/A**
VALENCIA, CA 91355

Site 1 of 6 in cluster B

LF:

Facility ID:	19-AA-0052
Operator:	Republic Services Of California I, L.L.C
Operator Phone:	(661) 257-3655
Operator Addr:	29201 Henry Mayo Drive Valencia, CA 91355
Owner:	Republic Services Of California I, L.L.C
Owner Address:	Not reported 29201 Henry Mayo Drive Valencia, CA 91355
Owner Telephone:	(661) 257-3655
Activity:	Solid Waste Landfill
Operator's Status:	Active
Regulation Status:	Permitted
Region:	STATE
Lat/Long:	34 / -119
Permit Date:	Not reported
Accepted Waste:	Construction/demolition,Green Materials,Industrial,Inert,Mixed municipal
Restrictions:	
Status :	Not reported
Swisnumber :	Not reported
Site Type :	Not reported

CHIQUITA CANYON LANDFILL INC (Continued) **S100932492**

Aka :	Not reported
Type Of Waste :	Not reported
Disposal Area :	Not reported
SWFP Date :	Not reported
WDR Number :	Not reported
Dates Of Operation :	Not reported
Closure Approved :	Not reported
Date Of Field Units :	Not reported
Surface Condition :	Not reported
Landfill Gas :	Not reported
Leachate :	Not reported
Emergency Response :	Not reported
Other Recommendation :	Not reported
Reassess Site :	Not reported
Priority For Site Assessment :	Not reported
Lea Date :	Not reported
Explanation:	Not Reported
No Further Action:	Not Reported
Permitted Throughput with Units:	6000
Permitted Throughput with Units:	6000
Permitted Throughput with Units:	6000
Actual Throughput with Units:	Tons/day
Actual Capacity with Units:	45889550
Permitted Capacity with Units:	45889550
Remaining Capacity with Units:	Cubic Yards
Permitted Total Acreage:	592
Inspection Frequency:	Monthly
Landuse Name:	Residential,Recreational,Industrial,Agricultural
GIS Source:	Map
Permit Status:	Permitted
Category:	Disposal
Unit Number:	01
Last Waste Tire Inspection Count :	Not reported
Last Waste Tire Inspection Date:	Not reported
Original Waste Tire Count:	Not reported
Original Waste Tire Count Date:	Not reported
Closure Date:	11/24/2019
Closure Type:	Estimated
Disposal Acreage:	257
Remaining Capacity:	26024360

HAZNET:

Gepaid:	CAL000035857
TSD EPA ID:	AZD049318009
Gen County:	Los Angeles
Tsd County:	99
Tons:	.4250
Waste Category:	Laboratory waste chemicals
Disposal Method:	Transfer Station
Contact:	CHIQUITA CANYON LANDFILL INC
Telephone:	(805) 257-3655
Mailing Address:	29201 HENRY MAYO DR VALENCIA, CA 91355
County	Los Angeles

CHIQUITA CANYON LANDFILL INC (Continued) **S100932492**

Gepaid: CAL000035857
TSD EPA ID: AZD049318009
Gen County: Los Angeles
Tsd County: 99
Tons: .5000
Waste Category: Unspecified organic liquid mixture
Disposal Method: Transfer Station
Contact: CHIQUITA CANYON LANDFILL INC
Telephone: (805) 257-3655
Mailing Address: 29201 HENRY MAYO DR
VALENCIA, CA 91355
County Los Angeles

Gepaid: CAL000035857
TSD EPA ID: CAT000613893
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: .2400
Waste Category: Unspecified organic liquid mixture
Disposal Method: Transfer Station
Contact: CHIQUITA CANYON LANDFILL INC
Telephone: (805) 257-3655
Mailing Address: 29201 HENRY MAYO DR
VALENCIA, CA 91355
County Los Angeles

Gepaid: CAL000035857
TSD EPA ID: CAT000613893
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: .1542
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Transfer Station
Contact: CHIQUITA CANYON LANDFILL INC
Telephone: (805) 257-3655
Mailing Address: 29201 HENRY MAYO DR
VALENCIA, CA 91355
County Los Angeles

Gepaid: CAL000035857
TSD EPA ID: CAD099452708
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 2.0850
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Contact: CHIQUITA CANYON LANDFILL INC
Telephone: (805) 257-3655
Mailing Address: 29201 HENRY MAYO DR
VALENCIA, CA 91355
County Los Angeles

The CA HAZNET database contains 16 additional records for this site.
Please click here or contact your EDR Account Executive for more information.

MAP FINDINGS

Map ID
Direction
Distance
Distance (ft.)
Elevation | Site | Database(s) | EDR ID Number
EPA ID Number

CHIQUITA CANYON LANDFILL INC (Continued) **S100932492**

B5 **LAIDLAW WASTE SYSTEMS INC** **CA FID UST** **S101586012**
West **29201 HENRY MAYO DR** **N/A**
1/2-1 **VALENCIA, CA 91355**
2690 ft.

Site 2 of 6 in cluster B

Relative:
Higher

Actual:
974 ft.

FID:
Facility ID: 19036223 Regulate ID: Not reported
Reg By: Active Underground Storage Tank Location
Cortese Code: Not reported SIC Code: Not reported
Status: Active Facility Tel: (805) 257-3655
Mail To: Not reported
29201 HENRY MAYO DR
VALENCIA, CA 91355
Contact: Not reported Contact Tel: Not reported
DUNs No: Not reported NPDES No: Not reported
Creation: 10/22/93 Modified: 00/00/00
EPA ID: Not reported
Comments: Not reported

B6 **CHIQUITA CANYON LANDFILL** **CA WDS** **1002687338**
West **29201 HENRY MAYO DR** **EMI** **N/A**
1/2-1 **VALENCIA, CA 91310** **HAZNET**
2690 ft. **SWF/LF**

Site 3 of 6 in cluster B

Relative:
Higher

Actual:
974 ft.

LF:
Facility ID: Not reported
Operator: Not reported
Operator Phone: Not reported
Operator Addr:
Owner: Not reported
Owner Address: Not reported
Not reported
Owner Telephone: Not reported
Activity: Not reported
Operator's Status: Not reported
Regulation Status: Not reported
Region: LOS ANGELES
Lat/Long: Not reported
Permit Date: Not reported
Accepted Waste:
Restrictions:
Status : Not reported
Swisnumber : Not reported
Site Type : Not reported
Aka : Not reported
Type Of Waste : Not reported
Disposal Area : Not reported
SWFP Date : Not reported
WDR Number : Not reported
Dates Of Operation : Not reported
Closure Approved : Not reported
Date Of Field Units : Not reported
Surface Condition : Not reported
Landfill Gas : Not reported
Leachate : Not reported

CHIQUITA CANYON LANDFILL (Continued) **1002687338**

Emergency Response : Not reported
Other Recommendation : Not reported
Reassess Site : Not reported
Priority For Site Assessment : Not reported
Lea Date : Not reported
Explanation: Not Reported
No Further Action: Not Reported
Permitted Throughput with Units: Not reported
Permitted Throughput with Units: Not reported
Permitted Throughput with Units: Not reported
Actual Throughput with Units: Not reported
Actual Capacity with Units: Not reported
Permitted Capacity with Units: Not reported
Remaining Capacity with Units: Not reported
Permitted Total Acreage: Not reported
Inspection Frequency: Not reported
Landuse Name: Not reported
GIS Source: Not reported
Permit Status: Not reported
Category: Not reported
Unit Number: Not reported
Last Waste Tire Inspection Count : Not reported
Last Waste Tire Inspection Date: Not reported
Original Waste Tire Count: Not reported
Original Waste Tire Count Date: Not reported
Closure Date: / /
Closure Type: Not reported
Disposal Acreage: Not reported
Remaining Capacity: Not reported

HAZNET:

Gepaid: CAL000196316
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.00
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Transfer Station
Contact: MATT TERRELL
Telephone: (661) 257-3655
Mailing Address: 29201 HENRY MAYO DR
VALENCIA, CA 91355
County Not reported

Gepaid: CAL000196316
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.14
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Recycler
Contact: MATT TERRELL
Telephone: (661) 257-3655
Mailing Address: 29201 HENRY MAYO DR
VALENCIA, CA 91355
County Not reported

CHIQUITA CANYON LANDFILL (Continued) **1002687338**

Gepaid: CAL000196316
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 1.66
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Contact: MATT TERRELL
Telephone: (661) 257-3655
Mailing Address: 29201 HENRY MAYO DR
VALENCIA, CA 91355
County Not reported

Gepaid: CAL000196316
TSD EPA ID: CAD008252405
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.0166
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Recycler
Contact: REPUBLIC SERVICES OF CA I LLC
Telephone: (661) 257-3655
Mailing Address: 29201 HENRY MAYO DR
VALENCIA, CA 91355
County Los Angeles

Gepaid: CAL000196316
TSD EPA ID: CAT000613893
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.0625
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Not reported
Contact: REPUBLIC SERVICES OF CA I LLC
Telephone: (661) 257-3655
Mailing Address: 29201 HENRY MAYO DR
VALENCIA, CA 91355
County Los Angeles

The CA HAZNET database contains 8 additional records for this site.
Please click here or contact your EDR Account Executive for more information.

WDS:

Facility ID: 0
Facility Contact Mike Dean (General manager) Facility Telephone (661) 257-3655
SIC Code: 4953 SIC Code 2: Not reported
Agency Name: A REPUBLIC WASTE SERVICES CO.
Agency Address: 0
Agency Contact: Not reported Agency Phone: Not reported
Design Flow: 0 Million Gal/Day Baseline Flow: 0 Million Gal/Day
Facility Type: Solid Waste Site-Class III - Landfills for non hazardous solid wastes.
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
Agency Type: Private
Waste Type: Solid Wastes - Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).

CHIQUITA CANYON LANDFILL (Continued) **1002687338**

Threat to Water: Not reported
Complexity: Category B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marinas with petroleum products, solid wastes, and sewage pump out facilities.
Reclamation: No reclamation requirements associated with this facility.
POTW: The facility is not a POTW.
NPDES Number: Not reported
Subregion: 4

EMISSIONS :

Facility ID :	61029
Air District Code :	SC
SIC Code :	4959
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SC
Air District Name :	SOUTH COAST AQMD
Community Health Air Pollution Info System :	Not reported
Consolidated Emission Reporting Rule :	Not reported
Total Organic Hydrocarbon Gases :	2
Reactive Organic Gases :	1
Carbon Monoxide Emissions :	6
NOX Gas Emissions (Nitrogen - Oxygen) :	5
SOX Gas Emissions (Sulphur - Oxygen) :	3

Facility ID :	61029
Air District Code :	SC
SIC Code :	4959
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SC
Air District Name :	SOUTH COAST AQMD
Community Health Air Pollution Info System :	Not reported
Consolidated Emission Reporting Rule :	Not reported
Total Organic Hydrocarbon Gases :	Not reported
Reactive Organic Gases :	Not reported
Carbon Monoxide Emissions :	Not reported
NOX Gas Emissions (Nitrogen - Oxygen) :	Not reported
SOX Gas Emissions (Sulphur - Oxygen) :	Not reported

B7 **CHIQUITA CANYON LANDFILL** **WMUDS/SWAT** **1001526767**
West **29201 HENRY MAYO DR** **N/A**
1/2-1 **VALENCIA CA, CA 91310**
2690 ft.

Site 4 of 6 in cluster B

Relative:
Higher

WMUDS:

Region:	4
Date of Last Facility Edit:	11/22/1996
Last Facility Editors:	JHM, JHM, JHM
Waste Discharge System ID:	4A190359001
Solid Waste Information ID:	19-AA-0052
Waste Discharge System:	True
Solid Waste Assessment Test Program:	True

Actual:
974 ft.

CHIQUITA CANYON LANDFILL (Continued) **1001526767**

Facility Name:	LAIDLAW WASTE SYSTEMS CHIQUITA, INC.
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act Program:	False
Department of Defense:	False
Open to Public:	False
Number of WMUDS at Facility:	5
Facility Telephone:	(805) 257-3655
Primary Standard Industrial Classification:	4953
Secondary Standard Industrial Classification:	Not reported
Solid Waste Assessment Test Program Name:	LAIDLAW WASTE SYSTEMS CHIQUITA, INC
NPID:	Not reported
Tonnage:	5000
Regional Board ID:	67-20
Municipal Solid Waste:	True
Superorder:	True
Sub Chapter 15:	True
Reg. Board Project Officer:	Not reported
Section Range:	04N17W14
RCRA Facility:	No
Waste Discharge Requirements:	A
Base Meridian:	SB
Waste List:	True
Facility Description:	Not reported
Self-Monitoring Rept. Frequency:	Quarterly Submittal

Threat to Water Quality: Major Threat to Water Quality. A violation could render unusable a ground water or surface water resource used as a significant drink water supply, require closure of an area used for contact recreation, result in long-term deleterious effects on shell fish spawning or growth areas of aquatic resources, or directly expose the public to toxic substances.
Facility Type: Solid Waste Site-Class III - Landfills for non hazardous solid wastes.
Complexity: Category B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marinas with petroleum products, solid wastes, and sewage pump out facilities.
Prime Waste: Solid Wastes - Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
Agency: USA WASTE
Address: 29201 HENRY MAYO DRIVE
VALENCIA CA 91310
Department: REGIONAL ENGINEER
Contact: RYAN WURGLER
Telephone: (805) 257-3655
Type: Private
Landowner: NEWHALL LAND & FARMING
Address: 27050 HENRY MAYO DR.
CASTAIC, CA 91310
Telephone: (805) 255-4000
Contact: Not reported
Comments: REGIONAL BOARD SAYS 3500 TONS PER DAY...

CHIQUITA CANYON LANDFILL (Continued) — **1001526767**

B8 **LAIDLAW WASTE SYSTEMS INC** — **UST** **U003776127**
West **29201 HENRY MAYO DR** — **N/A**
1/2-1 **CASTAIC, CA 91384**
2690 ft.

Site 5 of 6 in cluster B

Relative: **Higher**

Actual: **974 ft.**

State UST:
Facility ID: 6111
Region: STATE
Local Agency: 19000

B9 **CHIQUITA CANYON SANITARY LANDFILL** — **RCRIS-SQG** **1000820545**
West **29201 HENRY MAYO DRIVE** — **FINDS** **CAD983666041**
1/2-1 **CASTAIC, CA 91384**
2690 ft.

Site 6 of 6 in cluster B

Relative: **Higher**

Actual: **974 ft.**

RCRIS:
Owner: LAIDLAW WASTE SYSTEMS INC
(805) 257-3655
EPA ID: CAD983666041
Contact: SONNY STAATS
(805) 257-3655
Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
AIRS/AIRS Facility Subystem (AIRS/AFS)
National Emissions Inventory (NEI)
National Emissions Trends (NET)
National Toxics Inventory (NTI)
Resource Conservation and Recovery Act Information system (RCRAINFO)
Solid Waste Inventory System (California sub-system of landfills) (SWIS)

---

10 **T A MANUFACTURING CO** — **RCRIS-LQG** **1001231332**
NE **28065 W FRANKLIN PKWY** — **FINDS** **CAR000039230**
1/2-1 **VALENCIA, CA 91355** — **HAZNET**
4090 ft.

Relative: **Higher**

Actual: **983 ft.**

RCRIS:
Owner: T A MANUFACTURING CO
(805) 775-1100
EPA ID: CAR000039230
Contact: DAVID SCHMIDT
(805) 775-1100
Classification: Large Quantity Generator
TSDF Activities: Not reported

T A MANUFACTURING CO (Continued) — **1001231332**

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
Resource Conservation and Recovery Act Information system (RCRAINFO)

HAZNET:
Gepaid: CAR000039230
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: 99
Tons: 0.00
Waste Category: Other inorganic solid waste
Disposal Method: Treatment, Incineration
Contact: ERIC BENFORD
Telephone: (661) 775-1100
Mailing Address: 28065 W FRANKLIN PKWY
VALENCIA, CA 91355
County Not reported

Gepaid: CAR000039230
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: 99
Tons: 0.10
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Disposal, Land Fill
Contact: ERIC BENFORD
Telephone: (661) 775-1100
Mailing Address: 28065 W FRANKLIN PKWY
VALENCIA, CA 91355
County Not reported

Gepaid: CAR000039230
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: 99
Tons: 0.04
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Recycler
Contact: ERIC BENFORD
Telephone: (661) 775-1100
Mailing Address: 28065 W FRANKLIN PKWY
VALENCIA, CA 91355
County Not reported

Gepaid: CAR000039230
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 3.62
Waste Category: Unspecified oil-containing waste
Disposal Method: Recycler
Contact: ERIC BENFORD
Telephone: (661) 775-1100
Mailing Address: 28065 W FRANKLIN PKWY
VALENCIA, CA 91355
County Not reported

T A MANUFACTURING CO (Continued) — **1001231332**

Gepaid: CAR000039230
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.40
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Contact: ERIC BENFORD
Telephone: (661) 775-1100
Mailing Address: 28065 W FRANKLIN PKWY
VALENCIA, CA 91355
County: Not reported

The CA HAZNET database contains 55 additional records for this site.
Please click here or contact your EDR Account Executive for more information.

---

11 ENE 1/2-1 4583 ft. — **TRAVEL VILLAGE** — HIST UST — U001567876 / N/A
27946 HENRY MAYO DR
CASTAIC, CA 91355

Relative: Higher / Actual: 984 ft.

UST HIST:
Facility ID: 41379 — Facility Status: Not reported
Total Tanks: 1 — Region: STATE
Owner Name: NEWHALL INVESTMENT PROPERTIES — Box Number: Not reported
Owner Address: 23823 VALENCIA BOULEVARD
VALENCIA, CA 91355

---

12 NE > 1 5500 ft. — **BLOOMERS METAL STAMPINGS INC** — HAZNET — S105724739 / N/A
28615 BRAXTON AVE
VALENCIA, CA 91355

Relative: Higher / Actual: 1020 ft.

HAZNET:
Gepaid: CAL000214634
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Kings
Tons: 4.21
Waste Category: Other inorganic solid waste
Disposal Method: Disposal, Land Fill
Contact: PERRY BLOOMER / VICE PRESIDENT
Telephone: (661) 257-2955
Mailing Address: 28615 BRAXTON AVE
VALENCIA, CA 91355
County: Not reported

---

13 West > 1 5954 ft. — CHMIRS — S100216887 / N/A
27900 CHIQUITO CANYON ROAD
UNINC, CA

Relative: Higher / Actual: 962 ft.

CHMIRS:
OES Control Number: 8904996
Chemical Name: Not reported
Extent of Release: Not reported
Property Use: Petroleum Refinery

(Continued) — **S100216887**

Incident Date: 23-FEB-89
Date Completed: 23-FEB-89
Time Completed : 2035
Agency Id Number : 19110
Agency Incident Number : 52
OES Incident Number : 8904996
Time Notified : 1915
Surrounding Area : 946
Estimated Temperature : Not reported
Property Management : P
More Than Two Substances Involved? : N
Special Studies 1 : Not reported
Special Studies 2 : Not reported
Special Studies 3 : Not reported
Special Studies 4 : Not reported
Special Studies 5 : Not reported
Special Studies 6 : Not reported
Responding Agency Personel # Of Injuries : 0
Responding Agency Personel # Of Fatalities : 0
Resp Agncy Personel # Of Decontaminated : 0
Others Number Of Decontaminated : 0
Others Number Of Injuries : 0
Others Number Of Fatalities : 0
Vehicle Make/year : Not reported
Vehicle License Number : Not reported
Vehicle State : Not reported
Vehicle Id Number : Not reported
CA/DOT/PUC/ICC Number : Not reported
Company Name : Not reported
Reporting Officer Name/ID : CAPT. JOHN W. EVERETT
Report Date : 26-FEB-89
Comments : Not reported
Facility Telephone Number : 213 267-2485
Waterway Involved : Not reported
Waterway : Not reported
Spill Site : Not reported
Cleanup By : Not reported
Containment : Not reported
What Happened : Not reported
Type : Not reported
Other : Not reported
Chemical 1 : Not Reported
Chemical 2 : Not Reported
Chemical 3 : Not Reported
Date/Time : Not reported
Evacuations : Not reported

---

14 WSW > 1 6031 ft. — **NEWHALL LAND & FARMING** — Cortese / LUST — S102434348 / N/A
3003 WALNUT ORCHARD RD
VALENCIA, CA 91350

Relative: Lower / Actual: 949 ft.

State LUST:
Cross Street: HENRY MAYO DRIVE
Qty Leaked: Not reported
Case Number I-14101
Reg Board: 4
Chemical: Gasoline
Lead Agency: Regional Board

NEWHALL LAND & FARMING (Continued) **S102434348**

Local Agency : 19000
Case Type: Soil only
Status: Case Closed
Review Date: Not reported
Workplan: 3/9/90
Pollution Char: Not reported
Remed Action: Not reported
Monitoring: Not reported
Close Date: 06/27/1996
Release Date: 03/09/1990
Cleanup Fund Id : Not reported
Discover Date : 01/25/1989
Enforcement Dt : Not reported
Enf Type: Not reported
Enter Date : 03/05/1990
Funding: Federal Funds
Staff Initials: Not reported
How Discovered: Tank Closure
How Stopped: Not reported
Interim : Not reported
Leak Cause: UNK
Leak Source: UNK
MTBE Date : / /
Max MTBE GW : 0 Parts per Billion
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Priority: Not reported
Local Case # : Not reported
Beneficial: Not reported
Staff : JLC
GW Qualifier : Not reported
Max MTBE Soil : Not reported
Soil Qualifier : Not reported
Hydr Basin #: Not reported
Operator : JONES, ROGER ALSO SEE I-14100
Oversight Prgm: RB Lead Underground Storage Tank
Oversight Prgm : UST
Review Date : 07/22/1998
Stop Date : 01/25/1989
Work Suspended : Not reported
Responsible Party: NEWHALL LAND AND FARM
RP Address: 23823 VALENCIA BLVD., VAKENCIA, 91355 C
Global Id: T0603704137
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 1
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported

Confirm Leak: Not reported
Prelim Assess: 3/9/90
Remed Plan: Not reported

LUST Region 4:
Report Date: 3/9/1990
Lead Agency: Regional Board
Local Agency: 19000
Case Number: I-14101
Substance: Gasoline

NEWHALL LAND & FARMING (Continued) **S102434348**

Case Type: Soil
Status: Case Closed
Region: 4
Staff: Not reported
Source of Cleanup Funding: Federal Funds
Date the Leak was Discovered: 1/25/1989
How the Leak was Discovered: Tank Closure
How the Leak was Stopped: Close Tank
Cause of Leak: Unknown
Leak Source: Unknown
Date The Leak was Stopped: 1/25/1989
Date Confirmation Leak Began: Not reported
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: 3/9/1990
Pollution Characterization Began: Not reported
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: Not reported
Date the Case was Closed: 6/27/1996
Date Case Last Changed on Database: 7/22/1998
Enforcement Action Date: Not reported
Date Leak First Reported: 3/9/1990
Enforcement Type: Not reported
Global ID : T0603704137
Organization : Not reported
Historical Max MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil : Not reported
County: Los Angeles
Regional Board: 04
Owner Contact: Not reported
Responsible Party: NEWHALL LAND AND FARM
RP Address: 23823 VALENCIA BLVD., VAKENCIA, 91355 C
Significant Interim Remedial Action Taken: Not reported
Program : UST
Lat / Long : 34.4200613 / -118.6567124
MTBE Counts : 0
MTBE Fuel : 1
MTBE Tested : NT
Local Agency Staff: UNK
Summary : Not reported
Hydrologic Basin # : Not reported
Beneficial Use : Not reported
Priority : Not reported
Cleanup Fund Id : Not reported
Suspended : Not reported
Local Case No : Not reported
Substance Quantity : Not reported
Abatement Method Used at the Site: Not reported
Operator : JONES, ROGER ALSO SEE I-14100
Water System : WALNUT HILL
Well Name : WELL C-6
Approx. Dist To Production Well (ft) : 8339.414175664259907788982 95
W Global ID : W0603709014
Assigned Name : 04N/17W-14Q07 S

NEWHALL LAND & FARMING (Continued) S102434348

MTBE Class : Not reported

CORTESE:
Region: CORTESE
Fac Address 2: 3003 WALNUT ORCHARD RD

C15 **DEL VALLE TRAINING CENTER** LA Co. Site Mitigation S103697023
West **28101 CHIQUITO CANYON RD** N/A
> 1 **SCV, CA 91350**
6207 ft.

Site 1 of 6 in cluster C

Relative: **Higher**

Site Mitigation Log:
Case Number: 91S259
Actual: **994 ft.** Abatement Date: 08/12/97
Thomas Guide Page Numbers: 4549C2

C16 **LA CTY FIRE DEPT/DELVAL TRG CTR** HAZNET S103649248
West **28101 CHIQUITO CANYON ROAD** N/A
> 1 **CASTAIC, CA 91384**
6207 ft.

Site 2 of 6 in cluster C

Relative: **Higher**

HAZNET:
Gepaid: CAL000100193
Actual: **994 ft.** TSD EPA ID: CAT080013352
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: .6255
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Contact: COUNTY OF LOS ANGELES-FIRE DEP
Telephone: (818) 448-0161
Mailing Address: 1320 N EASTERN AVE
LOS ANGELES, CA 90063 - 3294
County Los Angeles

Gepaid: CAL000100193
TSD EPA ID: CAD000088252
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: .5293
Waste Category: Other inorganic solid waste
Disposal Method: Transfer Station
Contact: COUNTY OF LOS ANGELES-FIRE DEP
Telephone: (818) 448-0161
Mailing Address: 1320 N EASTERN AVE
LOS ANGELES, CA 90063 - 3294
County Los Angeles

Gepaid: CAL000100193
TSD EPA ID: CAD000088252
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: .3880
Waste Category: Other inorganic solid waste
Disposal Method: Transfer Station
Contact: COUNTY OF LOS ANGELES-FIRE DEP
Telephone: (818) 448-0161
Mailing Address: 1320 N EASTERN AVE

LA CTY FIRE DEPT/DELVAL TRG CTR (Continued) S103649248

LOS ANGELES, CA 90063 - 3294
County Los Angeles

C17 **L A COUNTY FIRE DEPT** LOS ANGELES CO. HMS S102064540
West **28101 N CHIQUITO CANYON RD** LUST N/A
> 1 **CASTAIC, CA 91384**
6207 ft.

Site 3 of 6 in cluster C

Relative: **Higher**

State LUST:
Cross Street: SAN MARTINEZ CYN RD
Actual: **994 ft.** Qty Leaked: Not reported
Case Number R-00003
Reg Board: 4
Chemical: Hydrocarbons
Lead Agency: Local Agency
Local Agency : 19000
Case Type: Soil only
Status: Leak being confirmed
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Review Date: 04/10/1991 Confirm Leak: 04/10/1991
Workplan: Not reported Prelim Assess: Not reported
Pollution Char: Not reported Remed Plan: Not reported
Remed Action: Not reported
Monitoring: Not reported
Close Date: Not reported
Release Date: 12/03/1997
Cleanup Fund Id : Not reported
Discover Date : 04/10/1991
Enforcement Dt : Not reported
Enf Type: Not reported
Enter Date : 02/18/1998
Funding: Not reported
Staff Initials: Not reported
How Discovered: OM
How Stopped: Not reported
Interim : Not reported
Leak Cause: Not reported
Leak Source: Tank
MTBE Date : / /
Max MTBE GW : 0 Parts per Billion
MTBE Tested: Not Required to be Tested.
Priority: Not reported
Local Case # : Not reported
Beneficial: Not reported
Staff : JLC
GW Qualifier : Not reported
Max MTBE Soil : Not reported
Soil Qualifier : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Implementing Agency UST (includes non-LOP cases within LOP jurisdiction)
Oversight Prgm : LIA
Review Date : 12/03/1997
Stop Date : / /
Work Suspended : Not reported
Responsible Party UNOCAL CORP

L A COUNTY FIRE DEPT (Continued) **S102064540**

RP Address: 2125 KNOLL DR., P.O. BOX 6176, VENTURA, CA 93003
Global Id: T0603704507
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 0
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported

LUST Region 4:
Report Date: 12/3/1997
Lead Agency: Local Agency
Local Agency: 19000
Case Number: R-00003
Substance: Hydrocarbons
Case Type: Soil
Status: Leak being confirmed
Region: 4
Staff: Not reported

Source of Cleanup Funding:	Not reported
Date the Leak was Discovered:	4/10/1991
How the Leak was Discovered:	Other Means
How the Leak was Stopped:	Close Tank
Cause of Leak:	Not reported
Leak Source:	Tank
Date The Leak was Stopped:	Not reported
Date Confirmation Leak Began:	4/10/1991
Preliminary Site Assessment Workplan Submitted:	Not reported
Preliminary Site Assessment Began:	Not reported
Pollution Characterization Began:	Not reported
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Date the Case was Closed:	Not reported
Date Case Last Changed on Database:	12/3/1997
Enforcement Action Date:	Not reported
Date Leak First Reported:	12/3/1997
Enforcement Type:	Not reported
Global ID :	T0603704507
Organization :	Not reported
Historical Max MTBE Date:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil :	Not reported
County:	Los Angeles
Regional Board:	04
Owner Contact: Not reported	
Responsible Party:	UNOCAL CORP
RP Address:	2125 KNOLL DR., P.O. BOX 6176, VENTURA, CA 93003
Significant Interim Remedial Action Taken:	Not reported
Program :	LIA
Lat / Long :	34.4358266 / -118.6591324
MTBE Counts :	0
MTBE Fuel :	0

L A COUNTY FIRE DEPT (Continued) **S102064540**

MTBE Tested :	NRQ
Local Agency Staff:	UNK
Summary :	TPH 17000 PPM, 36000 PPM & 20000 PPM IN SOIL DEPTH TO GW 300 FT BGS.
Hydrologic Basin # :	Not reported
Beneficial Use :	Not reported
Priority :	Not reported
Cleanup Fund Id :	Not reported
Suspended :	Not reported
Local Case No :	Not reported
Substance Quantity :	Not reported
Abatement Method Used at the Site:	Excavate and Dispose
Operator :	Not reported
Water System :	WALNUT HILL
Well Name :	WELL C-6
Approx. Dist To Production Well (ft) :	9199.31482410373742409151O048
W Global ID :	W0603709014
Assigned Name :	04N/17W-14Q07 S
MTBE Class :	Not reported

HMS:
Facility Id: 000003-I00003
Area: 7
Facility Type: I09
Permit Number: 174 Permit Status: Removed
Facility Status: Removed
Region: Los Angeles County:

Facility Id: 000003-000003
Area: 7
Facility Type: T0
Permit Number: 174 Permit Status: Removed
Facility Status: Removed
Region: Los Angeles County:

C18 **UNOCAL - LINCOLN LEASE** CA SLIC S104404774
West **28101 CHIQUITO CYN** N/A
> 1 **CASTAIC, CA 91384**
6207 ft.

Site 4 of 6 in cluster C

Relative: **Higher**

Actual: **994 ft.**

SLIC Region 4:
Facility Status: Closure
Region: 4
SLIC 0520B
Staff: Manjulika Chakarbarti
Substance: TPH

C19 **LA CO FD FIRE TRAINING CN** Cortese S105023127
West **28101 CHIQUITO CNYN** N/A
> 1 **CASTAIC, CA 91384**
6212 ft.

Site 5 of 6 in cluster C

Relative: **Higher**

Actual: **994 ft.**

CORTESE:
Region: CORTESE
Fac Address 2: Not reported

LA CO FD FIRE TRAINING CN (Continued) — **S105023127**

C20 — West — > 1 — 6212 ft. — Relative: Higher — Actual: 994 ft.

DEL VALLE REGIONAL EMERGENCY TRAINING CTR — AST — A100210954
28101 CHIQUITO CANYON RD — N/A
CASTAIC, CA 91384

Site 6 of 6 in cluster C

AST:
- Owner: LOS ANGELES COUNTY FIRE DEPT
- Total Gallons: 2000

D21 — NE — > 1 — 6222 ft. — Relative: Higher — Actual: 1022 ft.

US POSTAL SERVICE, SANTA CLARI — EMI — S105940246
28201 FRANKLIN PKY — N/A
SANTA CLARITA, CA 91383

Site 1 of 4 in cluster D

EMISSIONS:

Facility ID :	100544
Air District Code :	SC
SIC Code :	4300
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SC
Air District Name :	SOUTH COAST AQMD
Community Health Air Pollution Info System :	Not reported
Consolidated Emission Reporting Rule :	Not reported
Total Organic Hydrocarbon Gases :	Not reported
Reactive Organic Gases :	Not reported
Carbon Monoxide Emissions :	Not reported
NOX Gas Emissions (Nitrogen - Oxygen) :	Not reported
SOX Gas Emissions (Sulphur - Oxygen) :	Not reported

D22 — NE — > 1 — 6222 ft. — Relative: Higher — Actual: 1022 ft.

US POSTAL - SANTA CLARITA P&DC — UST — U003777338
28201 FRANKLIN PKWY — N/A
SANTA CLARITA, CA 91383

Site 2 of 4 in cluster D

State UST:
- Facility ID: 17066
- Region: STATE
- Local Agency: 19000

D23 — NE — > 1 — 6222 ft. — Relative: Higher — Actual: 1022 ft.

CHMIRS — S103993337
28201 FRANKLIN PARKWAY — HAZNET — N/A
SANTA CLARITA, CA 02584

Site 3 of 4 in cluster D

(Continued) — **S103993337**

HAZNET:

Gepaid:	CAL000157107
TSD EPA ID:	Not reported
Gen County:	Los Angeles
Tsd County:	Not reported
Tons:	0.33
Waste Category:	Polychlorinated biphenyls and material containing PCB's
Disposal Method:	Recycler
Contact:	KEN GONZALES/MAINT ENG SP
Telephone:	(661) 775-7975
Mailing Address:	28201 FRANKLIN PKWY
	SANTA CLARITA, CA 91383 - 9735
County	Not reported

Gepaid:	CAL000157107
TSD EPA ID:	Not reported
Gen County:	Los Angeles
Tsd County:	Los Angeles
Tons:	0.04
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Recycler
Contact:	KEN GONZALES/MAINT ENG SP
Telephone:	(661) 775-7975
Mailing Address:	28201 FRANKLIN PKWY
	SANTA CLARITA, CA 91383 - 9735
County	Not reported

Gepaid:	CAL000157107
TSD EPA ID:	Not reported
Gen County:	Los Angeles
Tsd County:	San Bernardino
Tons:	3.28
Waste Category:	Aqueous solution with less than 10% total organic residues
Disposal Method:	Transfer Station
Contact:	KEN GONZALES/MAINT ENG SP
Telephone:	(661) 775-7975
Mailing Address:	28201 FRANKLIN PKWY
	SANTA CLARITA, CA 91383 - 9735
County	Not reported

Gepaid:	CAL000157107
TSD EPA ID:	Not reported
Gen County:	Los Angeles
Tsd County:	San Bernardino
Tons:	0.22
Waste Category:	Waste oil and mixed oil
Disposal Method:	Transfer Station
Contact:	KEN GONZALES/MAINT ENG SP
Telephone:	(661) 775-7975
Mailing Address:	28201 FRANKLIN PKWY
	SANTA CLARITA, CA 91383 - 9735
County	Not reported

(Continued) **S103993337**

Gepaid: CAL000157107
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: San Bernardino
Tons: 0.20
Waste Category: Unspecified oil-containing waste
Disposal Method: Transfer Station
Contact: KEN GONZALES/MAINT ENG SP
Telephone: (661) 775-7975
Mailing Address: 28201 FRANKLIN PKWY
SANTA CLARITA, CA 91383 - 9735
County Not reported

The CA HAZNET database contains 39 additional records for this site.
Please click here or contact your EDR Account Executive for more information.

CHMIRS:

OES Control Number:	97-2033
Chemical Name:	Ink
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	97-2033
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	Yes
Waterway :	Drain
Spill Site :	Other

(Continued) **S103993337**

Cleanup By :	Not being accomplished
Containment :	Unknown
What Happened :	Dumped by employees, weekley into drain
Type :	OTHER, CHEMICAL
Other :	Ink
Chemical 1 :	Solvent
Quantity Released :	15 Gal(s)
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	5/21/97
Evacuations :	0

D24 **CHMIRS** **S105882989**
NE **28201 FRANKLIN PKWY, BMF** **N/A**
> 1 **SANTA CLARITA, CA 91387**
6222 ft.

Site 4 of 4 in cluster D

Relative:
Higher

Actual:
1022 ft.

CHMIRS:

OES Control Number:	02-1417
Chemical Name:	Motor Oil
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	02-1417
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	Yes
Waterway :	storm drain
Spill Site :	Other

(Continued) S105882989

Cleanup By :	Reporting Party
Containment :	Unknown
What Happened :	A vehicle leaked oil into a storm drain
Type :	Qt.(s)
Other :	Not reported
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	3/14/2002 1330
Evacuations :	0

E25 | **R A H INDUSTRIES** | RCRIS-SQG 1004677606
NNE | **28035 HARRISON PKWY** | FINDS CAR000099523
> 1 | **VALENCIA, CA 91355** | HAZNET
6527 ft.

Site 1 of 5 in cluster E

Relative: Higher

Actual: 1054 ft.

RCRIS:

Owner:	R A H INDUSTRIES INC (661) 295-5190
EPA ID:	CAR000099523
Contact:	RICHARD CRESPO (661) 295-5190
Classification:	Small Quantity Generator
TSDF Activities:	Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:
Resource Conservation and Recovery Act Information system (RCRAINFO)

HAZNET:

Gepaid:	CAR000099523
TSD EPA ID:	Not reported
Gen County:	Los Angeles
Tsd County:	Los Angeles
Tons:	1.27
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Contact:	Richard Crespo
Telephone:	(661) 295-5190
Mailing Address:	28035 Harrison Pkwy Valencia, CA 91355
County	Not reported

Gepaid:	CAR000099523
TSD EPA ID:	Not reported
Gen County:	Not reported
Tsd County:	Not reported
Tons:	0.69
Waste Category:	Waste oil and mixed oil
Disposal Method:	Not reported
Contact:	Richard Crespo
Telephone:	(661) 295-5190
Mailing Address:	28035 Harrison Pkwy Valencia, CA 91355
County	Not reported

R A H INDUSTRIES (Continued) 1004677606

Gepaid:	CAR000099523
TSD EPA ID:	Not reported
Gen County:	Not reported
Tsd County:	Not reported
Tons:	0.69
Waste Category:	Waste oil and mixed oil
Disposal Method:	Transfer Station
Contact:	Richard Crespo
Telephone:	(661) 295-5190
Mailing Address:	28035 Harrison Pkwy Valencia, CA 91355
County	Not reported

E26 | **EMCO** | HAZNET S106092383
NNE | **28045 W HARRISON PKWY** | N/A
> 1 | **VALENCIA, CA 91355**
6578 ft.

Site 2 of 5 in cluster E

Relative: Higher

Actual: 1053 ft.

HAZNET:

Gepaid:	CAL000229937
TSD EPA ID:	Not reported
Gen County:	Los Angeles
Tsd County:	Los Angeles
Tons:	0.34
Waste Category:	Aqueous solution with less than 10% total organic residues
Disposal Method:	Transfer Station
Contact:	MATT HAY
Telephone:	(661) 294-9966
Mailing Address:	28045 W HARRISON PKWY VALENCIA, CA 91355
County	Not reported

27 | **JERRY AVALOS TRUCKING** | HAZNET S105724410
WNW | **28459 CHIQUITO CANYON RD** | N/A
> 1 | **VAL VERDE, CA 91350**
6784 ft.

Relative: Higher

Actual: 1046 ft.

HAZNET:

Gepaid:	CAL000207708
TSD EPA ID:	Not reported
Gen County:	Los Angeles
Tsd County:	Los Angeles
Tons:	0.02
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Not reported
Contact:	ROBERT AVALOS
Telephone:	(818) 367-8415
Mailing Address:	28459 CHIQUITO CANYON RD VAL VERDE, CA 91350
County	Not reported

E28 **DEL WEST ENGINEERING** RCRIS-LQG 1001459707
NNE **28128 W LIVINGSTON AVE** FINDS CAR000048694
> 1 **VALENCIA, CA 91355** HAZNET
6790 ft.

Site 3 of 5 in cluster E

Relative: **Higher**

Actual: **1063 ft.**

RCRIS:
Owner: DEL WEST ENGINEERING
(805) 295-5700
EPA ID: CAR000048694
Contact: BEN MC CABE
(805) 295-5700
Classification: Large Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
Resource Conservation and Recovery Act Information system (RCRAINFO)

HAZNET:
Gepaid: CAR000048694
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 5.00
Waste Category: Unspecified oil-containing waste
Disposal Method: Not reported
Contact: R J SOUKUP/FACILITIES MGR
Telephone: (661) 295-5700
Mailing Address: 28128 W LIVINGSTON AVE
VALENCIA, CA 91355
County Not reported

Gepaid: CAR000048694
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 4.17
Waste Category: Unspecified oil-containing waste
Disposal Method: Recycler
Contact: R J SOUKUP/FACILITIES MGR
Telephone: (661) 295-5700
Mailing Address: 28128 W LIVINGSTON AVE
VALENCIA, CA 91355
County Not reported

Gepaid: CAR000048694
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.01
Waste Category: Liquids with pH <UN-> 2
Disposal Method: Recycler
Contact: R J SOUKUP/FACILITIES MGR
Telephone: (661) 295-5700
Mailing Address: 28128 W LIVINGSTON AVE
VALENCIA, CA 91355
County Not reported

DEL WEST ENGINEERING (Continued) 1001459707

Gepaid: CAR000048694
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: San Bernardino
Tons: 7.50
Waste Category: Other inorganic solid waste
Disposal Method: Transfer Station
Contact: R J SOUKUP/FACILITIES MGR
Telephone: (661) 295-5700
Mailing Address: 28128 W LIVINGSTON AVE
VALENCIA, CA 91355
County Not reported

Gepaid: CAR000048694
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: San Bernardino
Tons: 14.63
Waste Category: Other organic solids
Disposal Method: Transfer Station
Contact: R J SOUKUP/FACILITIES MGR
Telephone: (661) 295-5700
Mailing Address: 28128 W LIVINGSTON AVE
VALENCIA, CA 91355
County Not reported

The CA HAZNET database contains 41 additional records for this site.
Please click here or contact your EDR Account Executive for more information.

E29 **DEL WEST ENGINEERING** LOS ANGELES CO. HMS 1001472911
NNE **28128 W LIVINGSTON AVE** N/A
> 1 **UNINCORPORATED, CA**
6795 ft.

Site 4 of 5 in cluster E

Relative: **Higher**

Actual: **1063 ft.**

HMS:
Facility Id: 017610-024096
Area: 7
Facility Type: I09
Permit Number: 174 Permit Status: Permit
Facility Status: Permit
Region: Los Angeles County:

---

30 **20TH CENTURY FOX,PAPI CHULO** HAZNET S106088596
North **28455 LIVINGSTON AVE** N/A
> 1 **VALENCIA, CA 91355**
6873 ft.

Relative: **Higher**

Actual: **1173 ft.**

HAZNET:
Gepaid: CAC002555271
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.31
Waste Category: Latex waste
Disposal Method: Recycler
Contact: ORLANDO PEREZ, PAINTER
Telephone: (818) 800-0454

20TH CENTURY FOX,PAPI CHULO (Continued) **S106088596**

Mailing Address: 805 S SAN FERNANDO RD
BURBANK, CA 91502
County Not reported

E31 **REGENT AEROSPACE INC** **HAZNET** **S105725099**
NNE **28110 HARRISON PKWY** **N/A**
> 1 **VALENCIA, CA 91355**
6895 ft.

Site 5 of 5 in cluster E

Relative:
Higher

Actual:
1042 ft.

HAZNET:
Gepaid: CAL000220147
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.02
Waste Category: Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.)
Disposal Method: Recycler
Contact: MIKE VARGAS
Telephone: (661) 257-3000
Mailing Address: 28110 HARRISON PKWY
VALENCIA, CA 91355
County Not reported

Gepaid: CAL000220147
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.24
Waste Category: Unspecified solvent mixture Waste
Disposal Method: Treatment, Tank
Contact: MIKE VARGAS
Telephone: (661) 257-3000
Mailing Address: 28110 HARRISON PKWY
VALENCIA, CA 91355
County Not reported

Gepaid: CAL000220147
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.06
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Transfer Station
Contact: MIKE VARGAS
Telephone: (661) 257-3000
Mailing Address: 28110 HARRISON PKWY
VALENCIA, CA 91355
County Not reported

Gepaid: CAL000220147
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.91
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Contact: MIKE VARGAS
Telephone: (661) 257-3000
Mailing Address: 28110 HARRISON PKWY

REGENT AEROSPACE INC (Continued) **S105725099**

VALENCIA, CA 91355
County Not reported

Gepaid: CAL000220147
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Sacramento
Tons: 1.17
Waste Category: Other organic solids
Disposal Method: Disposal, Other
Contact: MIKE VARGAS
Telephone: (661) 257-3000
Mailing Address: 28110 HARRISON PKWY
VALENCIA, CA 91355
County Not reported

The CA HAZNET database contains 4 additional records for this site.
Please click here or contact your EDR Account Executive for more information.

F32 **TIME AVIATION SERVICES INC** **RCRIS-SQG** **1001967326**
North **28402 W LIVINGSTON AVE** **FINDS** **CAR000067363**
> 1 **VALENCIA, CA 91355**
6913 ft.

Site 1 of 2 in cluster F

Relative:
Higher

Actual:
1151 ft.

RCRIS:
Owner: JOHN W BUTLER
(661) 702-0800
EPA ID: CAR000067363

Contact: LARRY COLLINS
(661) 702-7311

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
Resource Conservation and Recovery Act Information system (RCRAINFO)

F33 **TIME AVIATION SERVICES** **HAZNET** **S105094017**
North **28402 W LIVINGSTON AVE** **N/A**
> 1 **VALENCIA, CA 91355**
6913 ft.

Site 2 of 2 in cluster F

Relative:
Higher

Actual:
1151 ft.

HAZNET:
Gepaid: CAR000067363
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.42
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Transfer Station
Contact: LARRY COLLINGS - DIR OF QUALIT
Telephone: (661) 702-7311
Mailing Address: 28402 W LIVINGSTON AVE
VALENCIA, CA 91355 - 1415

TIME AVIATION SERVICES (Continued) — **S105094017**

County: Not reported

Gepaid: CAR000067363
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.12
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Transfer Station
Contact: LARRY COLLINGS - DIR OF QUALIT
Telephone: (661) 702-7311
Mailing Address: 28402 W LIVINGSTON AVE
VALENCIA, CA 91355 - 1415
County: Not reported

Gepaid: CAR000067363
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.06
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Transfer Station
Contact: LARRY COLLINGS - DIR OF QUALIT
Telephone: (661) 702-7311
Mailing Address: 28402 W LIVINGSTON AVE
VALENCIA, CA 91355 - 1415
County: Not reported

Gepaid: CAR000067363
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: San Bernardino
Tons: 1.04
Waste Category: Unspecified organic liquid mixture
Disposal Method: Transfer Station
Contact: LARRY COLLINGS - DIR OF QUALIT
Telephone: (661) 702-7311
Mailing Address: 28402 W LIVINGSTON AVE
VALENCIA, CA 91355 - 1415
County: Not reported

Gepaid: CAR000067363
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.8
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Transfer Station
Contact: LARRY COLLINGS - DIR OF QUALIT
Telephone: (661) 702-7311
Mailing Address: 28402 W LIVINGSTON AVE
VALENCIA, CA 91355 - 1415
County: Not reported

The CA HAZNET database contains 4 additional records for this site.
Please click here or contact your EDR Account Executive for more information.

TIME AVIATION SERVICES (Continued) — **S105094017**

G34 — **PROPOSED SCHOOL BUS STOP** — **CA SLIC** — **S103878798**
NNE — **28300 LIVINGSTON** — **N/A**
> 1 — **CASTAIC, CA 91384**
6923 ft.

Site 1 of 3 in cluster G

Relative: Higher
Actual: 1102 ft.

SLIC Region 4:
Facility Status: Closure
Region: 4
SLIC: 0834
Staff: Jenny Au
Substance: TPH

G35 — **PHARMAVITE LLC** — **RCRIS-LQG** — **1001815586**
NNE — **28305 W LIVINGSTON AVE** — **FINDS** — **CAR000057190**
> 1 — **VALENCIA, CA 91355** — **HAZNET**
6924 ft.

Site 2 of 3 in cluster G

Relative: Higher
Actual: 1103 ft.

RCRIS:
Owner: OTSUKA AMERICA INC
(415) 986-5300
EPA ID: CAR000057190
Contact: TIM COFFMAN
(818) 837-3633
Classification: Large Quantity Generator
TSDF Activities: Not reported
Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
Resource Conservation and Recovery Act Information system (RCRAINFO)

HAZNET:
Gepaid: CAR000057190
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 1.08
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Recycler
Contact: TIM COFFMAN MGR REG COMPLIANCE
Telephone: (818) 221-6200
Mailing Address: PO BOX 9606
MISSION HILLS, CA 91346
County: Not reported

Gepaid: CAR000057190
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: 99
Tons: 107.84
Waste Category: Baghouse waste
Disposal Method: Disposal, Land Fill
Contact: TIM COFFMAN MGR REG COMPLIANCE
Telephone: (818) 221-6200

PHARMAVITE LLC (Continued) **1001815586**

Mailing Address: PO BOX 9606
MISSION HILLS, CA 91346
County: Not reported

Gepaid: CAR000057190
TSD EPA ID: NVT330010000
Gen County: Los Angeles
Tsd County: 99
Tons: 17.6988
Waste Category: Baghouse waste
Disposal Method: Disposal, Land Fill
Contact: OTSUKA AMERICA INC
Telephone: (000) 000-0000
Mailing Address: 15451 SAN FERNANDO MISSION BLV
MISSION HILLS, CA 91345
County: Los Angeles

Gepaid: CAR000057190
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: 99
Tons: 143.69
Waste Category: Baghouse waste
Disposal Method: Disposal, Land Fill
Contact: TIM COFFMAN MGR REG COMPLIANCE
Telephone: (818) 221-6200
Mailing Address: PO BOX 9606
MISSION HILLS, CA 91346
County: Not reported

Gepaid: CAR000057190
TSD EPA ID: NVT330010000
Gen County: Los Angeles
Tsd County: 99
Tons: 18.5416
Waste Category: Baghouse waste
Disposal Method: Not reported
Contact: OTSUKA AMERICA INC
Telephone: (000) 000-0000
Mailing Address: 15451 SAN FERNANDO MISSION BLV
MISSION HILLS, CA 91345
County: Los Angeles

The CA HAZNET database contains 1 additional record for this site.
Please click here or contact your EDR Account Executive for more information.

G36 **PHARMAVITE LLC** **LOS ANGELES CO. HMS** **1001959798**
NNE **28310 W LIVINGSTON AVE** **HAZNET** **N/A**
> 1 **VALENCIA, CA 91355**
6927 ft.

Site 3 of 3 in cluster G

Relative:
Higher

Actual:
1106 ft.

PHARMAVITE LLC (Continued) **1001959798**

HAZNET:
Gepaid: CAR000064444
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.62
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Recycler
Contact: TIM COFFMAN MGR REG COMPLIANCE
Telephone: (818) 221-6200
Mailing Address: PO BOX 9606
MISSION HILLS, CA 91346
County: Not reported

Gepaid: CAR000064444
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.54
Waste Category: Unspecified solvent mixture Waste
Disposal Method: Recycler
Contact: TIM COFFMAN MGR REG COMPLIANCE
Telephone: (818) 221-6200
Mailing Address: PO BOX 9606
MISSION HILLS, CA 91346
County: Not reported

Gepaid: CAR000064444
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: San Bernardino
Tons: 0.03
Waste Category: Other organic solids
Disposal Method: Not reported
Contact: TIM COFFMAN MGR REG COMPLIANCE
Telephone: (818) 221-6200
Mailing Address: PO BOX 9606
MISSION HILLS, CA 91346
County: Not reported

Gepaid: CAR000064444
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 12.50
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Recycler
Contact: TIM COFFMAN MGR REG COMPLIANCE
Telephone: (818) 221-6200
Mailing Address: PO BOX 9606
MISSION HILLS, CA 91346
County: Not reported

PHARMAVITE LLC (Continued) **1001959798**

Gepaid: CAR000064444
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: 99
Tons: 8.42
Waste Category: Baghouse waste
Disposal Method: Disposal, Land Fill
Contact: TIM COFFMAN MGR REG COMPLIANCE
Telephone: (818) 221-6200
Mailing Address: PO BOX 9606
MISSION HILLS, CA 91346
County Not reported

The CA HAZNET database contains 9 additional records for this site.
Please click here or contact your EDR Account Executive for more information.

HMS:
Facility Id: 020797-037829
Area: 7
Facility Type: I01
Permit Number: 174 Permit Status: Permit
Facility Status: Permit
Region: Los Angeles County:

---

37 **KIMBALL MICROELECTRONICS** **RCRIS-SQG** **1004677121**
North **28575 LIVINGSTON AVE** **FINDS** **CAR000093468**
> 1 **VALENCIA, CA 91355** **HAZNET**
6928 ft.

Relative:
Higher

Actual:
1252 ft.

RCRIS:
Owner: KIMBALL INTL INC
(812) 482-1600
EPA ID: CAR000093468
Contact: FRANK FABIANO
(661) 775-3500
Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
Resource Conservation and Recovery Act Information system (RCRAINFO)

HAZNET:
Gepaid: CAR000093468
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.44
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Recycler
Contact: KENT DAVIS
Telephone: (661) 775-3500
Mailing Address: 28575 LIVINGSTON AVE
VALENCIA, CA 91355
County Not reported

KIMBALL MICROELECTRONICS (Continued) **1004677121**

Gepaid: CAR000093468
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.67
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Recycler
Contact: KENT DAVIS
Telephone: (661) 775-3500
Mailing Address: 28575 LIVINGSTON AVE
VALENCIA, CA 91355
County Not reported

---

38 **WALT DISNEY PICTURES & TELEVISION** **HAZNET** **S104581097**
NNE **28150 W HARRISON PARKWAY** **N/A**
> 1 **VALENCIA, CA 91355**
7080 ft.

Relative:
Higher

Actual:
1046 ft.

HAZNET:
Gepaid: CAL000180976
TSD EPA ID: CAD050806850
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.2085
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Transfer Station
Contact: WALT DISNEY PICTURES & TV
Telephone: (000) 000-0000
Mailing Address: 500 S. BUENA VISTA ST.
BURBANK, CA 91521 - 2663
County Los Angeles

Gepaid: CAL000180976
TSD EPA ID: CAD050806850
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.9875
Waste Category: Other organic solids
Disposal Method: Transfer Station
Contact: WALT DISNEY PICTURES & TV
Telephone: (000) 000-0000
Mailing Address: 500 S. BUENA VISTA ST.
BURBANK, CA 91521 - 2663
County Los Angeles

Gepaid: CAL000180976
TSD EPA ID: Not reported
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 0.86
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Transfer Station
Contact: DEBBIE GONZALEZ ENVIRONMENTAL
Telephone: (818) 553-4061
Mailing Address: 500 S. BUENA VISTA ST.
BURBANK, CA 91521 - 6015
County Not reported

WALT DISNEY PICTURES & TELEVISION (Continued) — **S104581097**

Gepaid: CAL000180976
TSD EPA ID: CAD050806850
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: .6255
Waste Category: Waste oil and mixed oil
Disposal Method: Transfer Station
Contact: WALT DISNEY PICTURES & TV
Telephone: (000) 000-0000
Mailing Address: 500 S. BUENA VISTA ST.
BURBANK, CA 91521 - 2663
County Los Angeles

Gepaid: CAL000180976
TSD EPA ID: CAD050806850
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: .3000
Waste Category: Other organic solids
Disposal Method: Transfer Station
Contact: WALT DISNEY PICTURES & TV
Telephone: (000) 000-0000
Mailing Address: 500 S. BUENA VISTA ST.
BURBANK, CA 91521 - 2663
County Los Angeles

The CA HAZNET database contains 1 additional record for this site.
Please click here or contact your EDR Account Executive for more information.

H39 — Relative: Higher — Actual: 1001 ft.
FIESTA RESORTS — **LOS ANGELES CO. HMS** — **S102064533** / **N/A**
27946 W HENRY MAYO DR
UNINCORPORATED, CA

Site 1 of 4 in cluster H

HMS:
Facility Id: 014852-015631
Area: 7
Facility Type: T0
Permit Number: 174 — Permit Status: Closed
Facility Status: Closed
Region: Los Angeles County:

H40 — Relative: Higher — Actual: 1001 ft.
VALENCIA TRAVEL VILLAGE — **LOS ANGELES CO. HMS** — **S102064534** / **N/A**
27946 W HENRY MAYO DR
UNINCORPORATED, CA

Site 2 of 4 in cluster H

HMS:
Facility Id: 014852-021889
Area: 7
Facility Type: T0
Permit Number: 174 — Permit Status: Removed
Facility Status: Removed
Region: Los Angeles County:

VALENCIA TRAVEL VILLAGE (Continued) — **S102064534**

H41 — Relative: Higher — Actual: 998 ft.
THE VALENCIA TRAVEL VILLAGE — **HAZNET** — **S103991139** / **N/A**
27946 HENRY MAYO ROAD, RTE 126
VALENCIA, CA 91384

Site 3 of 4 in cluster H

HAZNET:
Gepaid: CAC001485192
TSD EPA ID: CAD982484933
Gen County: Los Angeles
Tsd County: 7
Tons: .2500
Waste Category: Other empty containers 30 gallons or more
Disposal Method: Recycler
Contact: STEWART BLAIR
Telephone: (805) 257-3333
Mailing Address: 27946 HENRY MAYO ROAD, RTE 126
VALENCIA, CA 91384
County Los Angeles

Gepaid: CAC001485192
TSD EPA ID: CAD028409019
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: .4170
Waste Category: Aqueous solution with 10% or more total organic residues
Disposal Method: Treatment, Tank
Contact: STEWART BLAIR
Telephone: (805) 257-3333
Mailing Address: 27946 HENRY MAYO ROAD, RTE 126
VALENCIA, CA 91384
County Los Angeles

H42 — Relative: Higher — Actual: 998 ft.
FIESTA RESORT TRAVEL VILLAGE — **CA FID UST** — **S101584732** / **N/A**
27946 HENRY MAYO RD
VALENCIA, CA 91384

Site 4 of 4 in cluster H

FID:
Facility ID: 19014937 — Regulate ID: Not reported
Reg By: Active Underground Storage Tank Location
Cortese Code: Not reported — SIC Code: Not reported
Status: Active — Facility Tel: (805) 257-1135
Mail To: Not reported
27946 HENRY MAYO DR
VALENCIA, CA 91384
Contact: Not reported — Contact Tel: Not reported
DUNs No: Not reported — NPDES No: Not reported
Creation: 10/22/93 — Modified: 00/00/00
EPA ID: Not reported
Comments: Not reported

I43
NE
> 1
7816 ft.

Relative:
Higher

Actual:
996 ft.

SCHWARTZ OIL CO
27241 HENRY MAYO DR
VALENCIA, CA 91355

Database(s): UST, EMI, HIST UST, HAZNET
EDR ID Number: U001567874
EPA ID Number: N/A

Site 1 of 8 in cluster I

HAZNET:

Gepaid:	CAL000171310
TSD EPA ID:	Not reported
Gen County:	Los Angeles
Tsd County:	Los Angeles
Tons:	1.14
Waste Category:	Tank bottom waste
Disposal Method:	Recycler
Contact:	GINNY OSTROVE-OFFICE MGR
Telephone:	(661) 259-4000
Mailing Address:	27241 HENRY MAYO DR VALENCIA, CA 91355
County	Not reported

Gepaid:	CAL000171310
TSD EPA ID:	Not reported
Gen County:	Los Angeles
Tsd County:	Los Angeles
Tons:	15.01
Waste Category:	Off-specification, aged, or surplus organics
Disposal Method:	Recycler
Contact:	GINNY OSTROVE-OFFICE MGR
Telephone:	(661) 259-4000
Mailing Address:	27241 HENRY MAYO DR VALENCIA, CA 91355
County	Not reported

Gepaid:	CAL000171310
TSD EPA ID:	Not reported
Gen County:	Los Angeles
Tsd County:	Los Angeles
Tons:	10.42
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Contact:	GINNY OSTROVE-OFFICE MGR
Telephone:	(661) 259-4000
Mailing Address:	27241 HENRY MAYO DR VALENCIA, CA 91355
County	Not reported

Gepaid:	CAC001421632
TSD EPA ID:	CAD028409019
Gen County:	Los Angeles
Tsd County:	Los Angeles
Tons:	1.8556
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Treatment, Tank
Contact:	TRUDY EMETERIO
Telephone:	(000) 000-0000
Mailing Address:	27241 HENRY MAYO VALENCIA, CA 00000
County	Los Angeles

SCHWARTZ OIL CO (Continued) U001567874

Gepaid:	CAC001421632
TSD EPA ID:	CAD982484933
Gen County:	Los Angeles
Tsd County:	7
Tons:	.5000
Waste Category:	Empty containers less than 30 gallons
Disposal Method:	Disposal, Other
Contact:	TRUDY EMETERIO
Telephone:	(000) 000-0000
Mailing Address:	27241 HENRY MAYO VALENCIA, CA 00000
County	Los Angeles

The CA HAZNET database contains 1 additional record for this site.
Please click here or contact your EDR Account Executive for more information.

UST HIST:

Facility ID:	5275	Facility Status:	Not reported
Total Tanks:	4	Region:	STATE
Owner Name:	SCHWARTZ OIL COMPANY INC.	Box Number:	Not reported
Owner Address:	27241 HENRY MAYO RD. VALENCIA, CA 91355		

EMISSIONS :

Facility ID :	35743
Air District Code :	SC
SIC Code :	5171
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SC
Air District Name :	SOUTH COAST AQMD
Community Health Air Pollution Info System :	Not reported
Consolidated Emission Reporting Rule :	Not reported
Total Organic Hydrocarbon Gases :	Not reported
Reactive Organic Gases :	Not reported
Carbon Monoxide Emissions :	Not reported
NOX Gas Emissions (Nitrogen - Oxygen) :	Not reported
SOX Gas Emissions (Sulphur - Oxygen) :	Not reported

State UST:

Facility ID:	16425
Region:	STATE
Local Agency:	19000

I44
NE
> 1
7816 ft.

Relative:
Higher

Actual:
996 ft.

SCHWARTZ OIL CO.
27241 HENRY MAYO DR
VALENCIA, CA 91355

Database(s): Cortese, LUST
EDR ID Number: S104160064
EPA ID Number: N/A

Site 2 of 8 in cluster I

State LUST:

Cross Street:	THE OLD ROAD
Qty Leaked:	Not reported
Case Number	I-16425
Reg Board:	4
Chemical:	Gasoline
Lead Agency:	Regional Board
Local Agency :	19000

SCHWARTZ OIL CO. (Continued) **S104160064**

Case Type: Other ground water affected
Status: Case Closed
Review Date: Not reported Confirm Leak: Not reported
Workplan: 4/14/92 Prelim Assess: 4/14/92
Pollution Char: Not reported Remed Plan: Not reported
Remed Action: Not reported
Monitoring: Not reported
Close Date: 08/30/1996
Release Date: 04/14/1992
Cleanup Fund Id : Not reported
Discover Date : 01/23/1992
Enforcement Dt : Not reported
Enf Type: Not reported
Enter Date : 05/26/1992
Funding: Federal Funds
Staff Initials: Not reported
How Discovered: OM
How Stopped: Not reported
Interim : Not reported
Leak Cause: UNK
Leak Source: Tank
MTBE Date : / /
Max MTBE GW : 0 Parts per Billion
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Priority: Not reported
Local Case # : Not reported
Beneficial: Not reported
Staff : JLC
GW Qualifier : Not reported
Max MTBE Soil : Not reported
Soil Qualifier : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: RB Lead Underground Storage Tank
Oversight Prgm : UST
Review Date : 09/24/1996
Stop Date : / /
Work Suspended :Not reported
Responsible PartySCHWARTZ OIL CO.
RP Address: 2615 NUTMEG ST., MORRO BAY, 93442 D
Global Id: T0603704411
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 1
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported

LUST Region 4:
Report Date: 4/14/1992
Lead Agency: Regional Board
Local Agency: 19000
Case Number: I-16425
Substance: Gasoline
Case Type: Groundwater

SCHWARTZ OIL CO. (Continued) **S104160064**

Status: Case Closed
Region: 4
Staff: Not reported
Source of Cleanup Funding: Federal Funds
Date the Leak was Discovered: 1/23/1992
How the Leak was Discovered: Other Means
How the Leak was Stopped: Not reported
Cause of Leak: Unknown
Leak Source: Tank
Date The Leak was Stopped: Not reported
Date Confirmation Leak Began: Not reported
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: 4/14/1992
Pollution Characterization Began: Not reported
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: Not reported
Date the Case was Closed: 8/30/1996
Date Case Last Changed on Database: 9/24/1996
Enforcement Action Date: Not reported
Date Leak First Reported: 4/14/1992
Enforcement Type: Not reported
Global ID : T0603704411
Organization : Not reported
Historical Max MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil : Not reported
County: Los Angeles
Regional Board: 04
Owner Contact: Not reported
Responsible Party: SCHWARTZ OIL CO.
RP Address: 2615 NUTMEG ST., MORRO BAY, 93442 D
Significant Interim Remedial Action Taken: Not reported
Program : UST
Lat / Long : 34.4391864 / -118.609307
MTBE Counts : 0
MTBE Fuel : 1
MTBE Tested : NT
Local Agency Staff: UNK
Summary : Not reported
Hydrologic Basin # : Not reported
Beneficial Use : Not reported
Priority : Not reported
Cleanup Fund Id : Not reported
Suspended : Not reported
Local Case No : Not reported
Substance Quantity : Not reported
Abatement Method Used at the Site: Not reported
Operator : Not reported
Water System : PETER PITCHESS HONOR RANCHO, LAC SHERIFF
Well Name : WELL 01A - INACTIVE
Approx. Dist To Production Well (ft) : 4770.981732651974542165717283 1
W Global ID : W0603700046
Assigned Name : 1900046-008
MTBE Class : Not reported

SCHWARTZ OIL CO. (Continued) **S104160064**

CORTESE:
Region: CORTESE
Fac Address 2: 27241 HENRY MAYO DR

I45 **SCHWARTZ OIL CO INC** **FINDS** **1006306954**
NE **27241 HENRY MAYO DR** **110012435551**
> 1 **VALENCIA, CA 91355**
7816 ft.

Site 3 of 8 in cluster I

Relative: **Higher**

FINDS:
Other Pertinent Environmental Activity Identified at Site:
National Emissions Inventory (NEI)
National Toxics Inventory (NTI)

Actual: **996 ft.**

I46 **LA COUNTY FIRE DEPT STATION 76** **AST** **A100211166**
NE **27223 HENRY MAYO DR** **N/A**
> 1 **VALENCIA, CA 91355**
7839 ft.

Site 4 of 8 in cluster I

Relative: **Higher**

AST:
Owner: LOS ANGELES COUNTY FIRE DEPT
Total Gallons: 1000

Actual: **996 ft.**

I47 **LA CO FD FIRE STA #076** **LOS ANGELES CO. HMS** **S102064489**
NE **27223 W HENRY MAYO DR** **Cortese** **N/A**
> 1 **VALENCIA, CA 91355** **LUST**
7839 ft.

Site 5 of 8 in cluster I

Relative: **Higher**

State LUST:
Cross Street: CASTAIC CANYON RD
Qty Leaked: Not reported
Case Number R-12547
Reg Board: 4
Chemical: Hydrocarbons
Lead Agency: Local Agency
Local Agency : 19000
Case Type: Soil only
Status: Case Closed
Abate Method: Other Means
Review Date: Not reported
Workplan: Not reported
Pollution Char: Not reported
Remed Action: Not reported
Monitoring: Not reported
Close Date: 08/13/1997
Release Date: 06/26/1997
Cleanup Fund Id : Not reported
Discover Date : 06/04/1997
Enforcement Dt : Not reported
Enf Type: Not reported
Enter Date : 07/17/1997
Funding: Not reported
Staff Initials: Not reported
How Discovered: Tank Closure
Confirm Leak: Not reported
Prelim Assess: Not reported
Remed Plan: Not reported

Actual: **996 ft.**

LA CO FD FIRE STA #076 (Continued) **S102064489**

How Stopped: Not reported
Interim : Not reported
Leak Cause: UNK
Leak Source: Tank
MTBE Date : / /
Max MTBE GW : 0 Parts per Billion
MTBE Tested: Not Required to be Tested.
Priority: Not reported
Local Case # : Not reported
Beneficial: Not reported
Staff : JLC
GW Qualifier : Not reported
Max MTBE Soil : Not reported
Soil Qualifier : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Implementing Agency UST (includes non-LOP cases within LOP jurisdiction)
Oversight Prgm : LIA
Review Date : 08/13/1997
Stop Date : / /
Work Suspended : Not reported
Responsible Party: LA COUNTY FIRE DEPARTMENT
RP Address: 1320 N. EASTERN AVE., LOS ANGELES CA 90063-3294
Global Id: T0603705143
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 0
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported

LUST Region 4:
Report Date: 6/26/1997
Lead Agency: Local Agency
Local Agency: 19000
Case Number: R-12547
Substance: Hydrocarbons
Case Type: Soil
Status: Case Closed
Region: 4
Staff: Not reported
Source of Cleanup Funding: Not reported
Date the Leak was Discovered: 6/4/1997
How the Leak was Discovered: Tank Closure
How the Leak was Stopped: Close Tank
Cause of Leak: Unknown
Leak Source: Tank
Date The Leak was Stopped: Not reported
Date Confirmation Leak Began: Not reported
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported

LA CO FD FIRE STA #076 (Continued) **S102064489**

Post Remedial Action Monitoring Began:	Not reported
Date the Case was Closed:	8/13/1997
Date Case Last Changed on Database:	8/13/1997
Enforcement Action Date:	Not reported
Date Leak First Reported:	6/26/1997
Enforcement Type:	Not reported
Global ID :	T0603705143
Organization :	Not reported
Historical Max MTBE Date:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil :	Not reported
County:	Los Angeles
Regional Board:	04
Owner Contact: Not reported	
Responsible Party:	LA COUNTY FIRE DEPARTMENT
RP Address:	1320 N. EASTERN AVE., LOS ANGELES CA 90063-3294
Significant Interim Remedial Action Taken:	Not reported
Program :	LIA
Lat / Long :	34.4391864 / -118.609307
MTBE Counts :	0
MTBE Fuel :	0
MTBE Tested :	NRQ
Local Agency Staff:	UNK
Summary :	DEPTH TO G.W. 25TH. BGS. FURTHER ASSESSMENT REQ'D. POTENTIAL G.W. CONTAMINATION.
Hydrologic Basin # :	Not reported
Beneficial Use :	Not reported
Priority :	Not reported
Cleanup Fund Id :	Not reported
Suspended :	Not reported
Local Case No :	Not reported
Substance Quantity :	Not reported
Abatement Method Used at the Site:	OT
Operator :	Not reported
Water System :	PETER PITCHESS HONOR RANCHO, LAC SHERIFF
Well Name :	WELL 01A - INACTIVE
Approx. Dist To Production Well (ft) :	4770.981732651974542165717283 1
W Global ID :	W0603700046
Assigned Name :	1900046-008
MTBE Class :	Not reported

CORTESE:
Region: CORTESE
Fac Address 2: 27223 HENRY MAYO DR

HMS:
Facility Id: 012416-012547
Area: 7
Facility Type: T0
Permit Number: 174 Permit Status: Removed
Facility Status: Removed
Region: Los Angeles County:

LA CO FD FIRE STA #076 (Continued) **S102064489**

I48 **FIRE STATION #76** **HIST UST** **U001562296**
NE **27223 HENRY MAYO DR** **N/A**
> 1 **VALENCIA, CA 90063**
7839 ft.

Site 6 of 8 in cluster I

Relative: Higher

Actual: 996 ft.

UST HIST:

Facility ID:	20631	Facility Status:	Not reported
Total Tanks:	2	Region:	STATE
Owner Name:	LOS ANGELES COUNTY MECHANICAL	Box Number:	Not reported
Owner Address:	1100 N. EASTERN AVE. LOS ANGELES, CA 90063		

I49 **LA CO FD FIRE STA #076** **CA FID UST** **S101587195**
NE **27223 HENRY MAYO DR** **N/A**
> 1 **NEWHALL, CA 91321**
7839 ft.

Site 7 of 8 in cluster I

Relative: Higher

Actual: 996 ft.

FID:

Facility ID:	19055062	Regulate ID:	00020631
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(818) 000-0000
Mail To:	Not reported 1320 N EASTERN AVE NEWHALL, CA 91321		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

I50 **R.M. PYLES BOYS CAMP, INC.** **HIST UST** **U001567871**
NE **27211 HENRY MAYO DR** **N/A**
> 1 **VALENCIA, CA 91355**
7857 ft.

Site 8 of 8 in cluster I

Relative: Higher

Actual: 996 ft.

UST HIST:

Facility ID:	55879	Facility Status:	Not reported
Total Tanks:	1	Region:	STATE
Owner Name:	R.M. PYLES BOYS CAMP, INC.	Box Number:	Not reported
Owner Address:	27211 HENRY MAYO DRIVE VALENCIA, CA 91355		

J51 **SCHUARTI OIL CO. INC.** **CA FID UST** **S101583389**
ENE **27241 HENRY MAYO RD** **N/A**
> 1 **VALENCIA, CA 91355**
8897 ft.

Site 1 of 2 in cluster J

Relative: Higher

Actual: 1009 ft.

SCHUARTI OIL CO. INC. (Continued) **S101583389**

FID:

Facility ID:	19003595	Regulate ID:	Not reported
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(805) 259-4000
Mail To:	Not reported 6215 NUTMEG ST VALENCIA, CA 91355		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	10/22/93	Modified:	00/00/00
EPA ID:	Not reported		
Comments:	Not reported		

J52 **NEWHALL LAND & FARMING** **Cortese** **S102064490**
ENE **27230 HENRY MAYO RD** **LUST** **N/A**
> 1 **VALENCIA, CA 91355**
9015 ft.

Site 2 of 2 in cluster J

Relative:
Higher

Actual:
1010 ft.

State LUST:

Cross Street:	Not reported		
Qty Leaked:	Not reported		
Case Number	I-14698		
Reg Board:	4		
Chemical:	Gasoline		
Lead Agency:	Local Agency		
Local Agency :	19000		
Case Type:	Soil only		
Status:	Case Closed		
Review Date:	Not reported	Confirm Leak:	Not reported
Workplan:	Not reported	Prelim Assess:	Not reported
Pollution Char:	Not reported	Remed Plan:	Not reported
Remed Action:	Not reported		
Monitoring:	Not reported		
Close Date:	01/29/1990		
Release Date:	01/29/1990		
Cleanup Fund Id :	Not reported		
Discover Date :	/ /		
Enforcement Dt :	Not reported		
Enf Type:	Not reported		
Enter Date :	01/22/1990		
Funding:	Not reported		
Staff Initials:	Not reported		
How Discovered:	Not reported		
How Stopped:	Not reported		
Interim :	Not reported		
Leak Cause:	Not reported		
Leak Source:	Not reported		
MTBE Date :	/ /		
Max MTBE GW :	0 Parts per Billion		
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.		
Priority:	Not reported		
Local Case # :	Not reported		
Beneficial:	Not reported		
Staff :	JLC		
GW Qualifier :	Not reported		
Max MTBE Soil :	Not reported		

NEWHALL LAND & FARMING (Continued) **S102064490**

Soil Qualifier :	Not reported
Hydr Basin #:	Not reported
Operator :	Not reported
Oversight Prgm:	Local Implementing Agency UST (includes non-LOP cases within LOP jurisdiction)
Oversight Prgm :	LIA
Review Date :	01/29/1990
Stop Date :	/ /
Work Suspended :	Not reported
Responsible Party	NEWHALL LAND & FARMING CO.
RP Address:	23823 VALENCIA BOULEVARD, VALENCIA, 91355
Global Id:	T0603704197
Org Name:	Not reported
Contact Person:	Not reported
MTBE Conc:	0
Mtbe Fuel:	1
Water System Name:	Not reported
Well Name:	Not reported
Distance To Lust:	0
Waste Discharge Global ID:	Not reported
Waste Disch Assigned Name:	Not reported

LUST Region 4:

Report Date:	1/29/1990
Lead Agency:	Local Agency
Local Agency:	19000
Case Number:	I-14698
Substance:	Gasoline
Case Type:	Soil
Status:	Case Closed
Region:	4
Staff:	Not reported
Source of Cleanup Funding:	Not reported
Date the Leak was Discovered:	Not reported
How the Leak was Discovered:	Not reported
How the Leak was Stopped:	Not reported
Cause of Leak:	Not reported
Leak Source:	Not reported
Date The Leak was Stopped:	Not reported
Date Confirmation Leak Began:	Not reported
Preliminary Site Assessment Workplan Submitted:	Not reported
Preliminary Site Assessment Began:	Not reported
Pollution Characterization Began:	Not reported
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Date the Case was Closed:	1/29/1990
Date Case Last Changed on Database:	1/29/1990
Enforcement Action Date:	Not reported
Date Leak First Reported:	1/29/1990
Enforcement Type:	Not reported
Global ID :	T0603704197
Organization :	Not reported
Historical Max MTBE Date:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil :	Not reported

NEWHALL LAND & FARMING (Continued) **S102064490**

County:	Los Angeles
Regional Board:	04
Owner Contact: Not reported	
Responsible Party:	NEWHALL LAND & FARMING CO.
RP Address:	23823 VALENCIA BOULEVARD, VALENCIA, 91355
Significant Interim Remedial Action Taken:	Not reported
Program :	LIA
Lat / Long :	34.4391864 / -118.609307
MTBE Counts :	0
MTBE Fuel :	1
MTBE Tested :	NT
Local Agency Staff:	UNK
Summary :	Not reported
Hydrologic Basin # :	Not reported
Beneficial Use :	Not reported
Priority :	Not reported
Cleanup Fund Id :	Not reported
Suspended :	Not reported
Local Case No :	Not reported
Substance Quantity :	Not reported
Abatement Method Used at the Site:	Not reported
Operator :	Not reported
Water System :	PETER PITCHESS HONOR RANCHO, LAC SHERIFF
Well Name :	WELL 01A - INACTIVE
Approx. Dist To Production Well (ft) :	4770.981732651974542165717283 1
W Global ID :	W0603700046
Assigned Name :	1900046-008
MTBE Class :	Not reported

CORTESE:

Region:	CORTESE
Fac Address 2:	27230 HENRY MAYO RD

53
West
> 1
10396 ft.

27353 SAN MARTINEZ GRANDE CANYON
SANTA CLARITA, CA 0

CHMIRS **S105648719**
N/A

Relative:
Higher

Actual:
1030 ft.

CHMIRS:

OES Control Number:	97-4284
Chemical Name:	crude oil
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Time Completed :	Not reported
Agency Id Number :	Not reported
Agency Incident Number :	Not reported
OES Incident Number :	97-4284
Time Notified :	Not reported
Surrounding Area :	Not reported
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported

(Continued) **S105648719**

Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	Yes
Waterway :	River Bed
Spill Site :	Road
Cleanup By :	To be determined
Containment :	No
What Happened :	A tanker truck loaded with 1,000 gals of crude oil was involved in a traffic accident an unknown amount of the crude oil was released. The release is ongoing. The substance going into the Santa Clarita River Bed, No flowing water in the riverbed at this
Type :	PETROLEUM
Other :	1,000 Potential
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	10/27/97
Evacuations :	0

K54
NE
> 1
11010 ft.

29300 THE OLD ROAD
SAUGUS, CA 91384

Site 1 of 2 in cluster K

CHMIRS **S100279945**
EMI **N/A**
HAZNET
SWF/LF

Relative:
Higher

Actual:
1018 ft.

LF:

Facility ID:	19-AA-0057
Operator:	County Of Los Angeles Sheriff's Dept
Operator Phone:	(213) 974-4528
Operator Addr:	293000 The Old Road Saugus, CA 90012
Owner:	County Of Los Angeles Sheriff's Dept
Owner Address:	Not reported 293000 The Old Road Saugus, CA 90012
Owner Telephone:	(213) 974-4528
Activity:	Solid Waste Landfill
Operator's Status:	Closed
Regulation Status:	Permitted
Region:	STATE
Lat/Long:	34 / -118
Permit Date:	Not reported
Accepted Waste:	Agricultural,Construction/demolition,Mixed municipal,Other hazardous,Tires

(Continued) **S100279945**

Restrictions:
Status : Not reported
Swisnumber : Not reported
Site Type : Not reported
Aka : Not reported
Type Of Waste : Not reported
Disposal Area : Not reported
SWFP Date : Not reported
WDR Number : Not reported
Dates Of Operation : Not reported
Closure Approved : Not reported
Date Of Field Units : Not reported
Surface Condition : Not reported
Landfill Gas : Not reported
Leachate : Not reported
Emergency Response : Not reported
Other Recommendation : Not reported
Reassess Site : Not reported
Priority For Site Assessment : Not reported
Lea Date : Not reported
Explanation: Not Reported
No Further Action: Not Reported
Permitted Throughput with Units: 154
Permitted Throughput with Units: 154
Permitted Throughput with Units: 154
Actual Throughput with Units: Cu Yards/day
Actual Capacity with Units: Not reported
Permitted Capacity with Units: Not reported
Remaining Capacity with Units: Not reported
Permitted Total Acreage: 54
Inspection Frequency: Quarterly
Landuse Name: Not reported
GIS Source: External
Permit Status: Permitted
Category: Disposal
Unit Number: 01
Last Waste Tire Inspection Count : Not reported
Last Waste Tire Inspection Date: Not reported
Original Waste Tire Count: Not reported
Original Waste Tire Count Date: Not reported
Closure Date: 01/01/1992
Closure Type: Actual
Disposal Acreage: 0
Remaining Capacity: Not reported

HAZNET:
Gepaid: CAL000022055
TSD EPA ID: CAD000088252
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: .6000
Waste Category: Contaminated soil from site clean-ups
Disposal Method: Transfer Station
Contact: LA CNTY SHERIFFS DEPT
Telephone: (213) 526-5541
Mailing Address: 4700 RAMONA BLVD
MONTEREY PARK, CA 91754 - 2169
County Los Angeles

(Continued) **S100279945**

Gepaid: CAL000022055
TSD EPA ID: CAD008252405
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 6.1090
Waste Category: Paint sludge
Disposal Method: Recycler
Contact: LA CNTY SHERIFFS DEPT
Telephone: (213) 526-5541
Mailing Address: 4700 RAMONA BLVD
MONTEREY PARK, CA 91754 - 2169
County Los Angeles

Gepaid: CAL000022055
TSD EPA ID: CAD008252405
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 2.2935
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Contact: LA CNTY SHERIFFS DEPT
Telephone: (213) 526-5541
Mailing Address: 4700 RAMONA BLVD
MONTEREY PARK, CA 91754 - 2169
County Los Angeles

Gepaid: CAL000022055
TSD EPA ID: CAD008252405
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: 1.0425
Waste Category: Unspecified solvent mixture Waste
Disposal Method: Recycler
Contact: LA CNTY SHERIFFS DEPT
Telephone: (213) 526-5541
Mailing Address: 4700 RAMONA BLVD
MONTEREY PARK, CA 91754 - 2169
County Los Angeles

Gepaid: CAL000022055
TSD EPA ID: CAD099452708
Gen County: Los Angeles
Tsd County: Los Angeles
Tons: .3335
Waste Category: Tank bottom waste
Disposal Method: Recycler
Contact: LA CNTY SHERIFFS DEPT
Telephone: (213) 526-5541
Mailing Address: 4700 RAMONA BLVD
MONTEREY PARK, CA 91754 - 2169
County Los Angeles

The CA HAZNET database contains 131 additional records for this site.
Please click here or contact your EDR Account Executive for more information.

CHMIRS:
OES Control Number: 9014303
Chemical Name: Not reported
Extent of Release: Not reported

(Continued) S100279945

Property Use:	Industrial, Utility
Incident Date:	05-DEC-90
Date Completed:	05-DEC-90
Time Completed :	1935
Agency Id Number :	19110
Agency Incident Number :	51
OES Incident Number :	9014303
Time Notified :	1835
Surrounding Area :	099
Estimated Temperature :	60
Property Management :	C
More Than Two Substances Involved? :	N
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	0
Others Number Of Decontaminated :	0
Others Number Of Injuries :	0
Others Number Of Fatalities :	0
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	CAPT. LYNN MOHR #124351
Report Date :	05-DEC-90
Comments :	Yes
Facility Telephone Number :	213 267-2401
Waterway Involved :	Not reported
Waterway :	Not reported
Spill Site :	Not reported
Cleanup By :	Not reported
Containment :	Not reported
What Happened :	Not reported
Type :	Not reported
Other :	Not reported
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	Not reported
Evacuations :	Not reported

EMISSIONS :

Facility ID :	6488
Air District Code :	SC
SIC Code :	9223
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SC
Air District Name :	SOUTH COAST AQMD

(Continued) S100279945

Community Health Air Pollution Info System :	Not reported
Consolidated Emission Reporting Rule :	Not reported
Total Organic Hydrocarbon Gases :	1
Reactive Organic Gases :	1
Carbon Monoxide Emissions :	1
NOX Gas Emissions (Nitrogen - Oxygen) :	4
SOX Gas Emissions (Sulphur - Oxygen) :	0
Facility ID :	58949
Air District Code :	SC
SIC Code :	9223
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SC
Air District Name :	SOUTH COAST AQMD
Community Health Air Pollution Info System :	Y
Consolidated Emission Reporting Rule :	Not reported
Total Organic Hydrocarbon Gases :	65
Reactive Organic Gases :	6
Carbon Monoxide Emissions :	5
NOX Gas Emissions (Nitrogen - Oxygen) :	28
SOX Gas Emissions (Sulphur - Oxygen) :	1
Facility ID :	6488
Air District Code :	SC
SIC Code :	9223
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SC
Air District Name :	SOUTH COAST AQMD
Community Health Air Pollution Info System :	Not reported
Consolidated Emission Reporting Rule :	Not reported
Total Organic Hydrocarbon Gases :	Not reported
Reactive Organic Gases :	Not reported
Carbon Monoxide Emissions :	Not reported
NOX Gas Emissions (Nitrogen - Oxygen) :	Not reported
SOX Gas Emissions (Sulphur - Oxygen) :	Not reported
Facility ID :	58949
Air District Code :	SC
SIC Code :	9223
Total Priority Score :	Not reported
Health Risk Assessment :	Not reported
Non-cancer Chronic Haz Index :	Not reported
Non-cancer Acute Haz Index :	Not reported
Air Basin :	SC
Air District Name :	SOUTH COAST AQMD
Community Health Air Pollution Info System :	Y
Consolidated Emission Reporting Rule :	Not reported
Total Organic Hydrocarbon Gases :	Not reported
Reactive Organic Gases :	Not reported
Carbon Monoxide Emissions :	Not reported
NOX Gas Emissions (Nitrogen - Oxygen) :	Not reported

(Continued) S100279945

SOX Gas Emissions (Sulphur - Oxygen) : Not reported

K55
NE
> 1
11010 ft.

29300 THE OLD ROAD
VALENCIA, CA 91384

Site 2 of 2 in cluster K

Relative:
Higher

Actual:
1018 ft.

CHMIRS — S100279260 / N/A

CHMIRS:

OES Control Number:	8905392
Chemical Name:	Not reported
Extent of Release:	Not reported
Property Use:	099
Incident Date:	29-MAR-89
Date Completed:	29-MAR-89
Time Completed :	1606
Agency Id Number :	19110
Agency Incident Number :	27
OES Incident Number :	8905392
Time Notified :	1446
Surrounding Area :	099
Estimated Temperature :	Not reported
Property Management :	Not reported
More Than Two Substances Involved? :	N
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	0
Others Number Of Decontaminated :	0
Others Number Of Injuries :	0
Others Number Of Fatalities :	0
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	CAPT. JOHN W. EVERETT
Report Date :	29-MAR-89
Comments :	Not reported
Facility Telephone Number :	213 267-2485
Waterway Involved :	Not reported
Waterway :	Not reported
Spill Site :	Not reported
Cleanup By :	Not reported
Containment :	Not reported
What Happened :	Not reported
Type :	Not reported
Other :	Not reported
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	Not reported
Evacuations :	Not reported

(Continued) S100279260

56
NE
> 1
11020 ft.

DIXIE DIESEL STATION
29471 THE OLD ROAD
SAUGUS, CA 91350

Relative:
Higher

Actual:
1020 ft.

Cortese LUST — S102428845 / N/A

State LUST:

Cross Street:	Not reported		
Qty Leaked:	Not reported		
Case Number	I-12830		
Reg Board:	4		
Chemical:	Diesel		
Lead Agency:	Local Agency		
Local Agency :	19000		
Case Type:	Other ground water affected		
Status:	Case Closed		
Abate Method:	Excavate and Dispose - remove contaminated soil and dispose in approved site		
Review Date:	Not reported	Confirm Leak:	Not reported
Workplan:	2/3/87	Prelim Assess:	2/3/87
Pollution Char:	Not reported	Remed Plan:	Not reported
Remed Action:	6/20/30		
Monitoring:	Not reported		
Close Date:	11/30/1993		
Release Date:	04/06/1987		
Cleanup Fund Id :	Not reported		
Discover Date :	/ /		
Enforcement Dt :	1/1/65		
Enf Type:	Informal Enforcement Actions,including Notices of Violations and Staff Enforcement Letters		
Enter Date :	/ /		
Funding:	Federal Funds		
Staff Initials:	Not reported		
How Discovered:	Subsurface Monitoring		
How Stopped:	Not reported		
Interim :	Not reported		
Leak Cause:	UNK		
Leak Source:	UNK		
MTBE Date :	/ /		
Max MTBE GW :	0 Parts per Billion		
MTBE Tested:	Not Required to be Tested.		
Priority:	Not reported		
Local Case # :	Not reported		
Beneficial:	Not reported		
Staff :	JLC		
GW Qualifier :	Not reported		
Max MTBE Soil :	Not reported		
Soil Qualifier :	Not reported		
Hydr Basin #:	Not reported		
Operator :	Not reported		
Oversight Prgm:	Local Implementing Agency UST (includes non-LOP cases within LOP jurisdiction)		
Oversight Prgm :	LIA		
Review Date :	11/30/1993		
Stop Date :	/ /		
Work Suspended :	Not reported		
Responsible Party	GORTiKOV/HASLEY PARTNERS, LTD		
RP Address:	15165 VENTURA BLVD, #230, SHERMAN OAKS, 91403		
Global Id:	T0603704004		
Org Name:	Not reported		

DIXIE DIESEL STATION (Continued) **S102428845**

Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 0
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported

LUST Region 4:
Report Date: 4/6/1987
Lead Agency: Local Agency
Local Agency: 19000
Case Number: I-12830
Substance: Diesel
Case Type: Groundwater
Status: Case Closed
Region: 4
Staff: Not reported

Source of Cleanup Funding:	Federal Funds
Date the Leak was Discovered:	Not reported
How the Leak was Discovered:	Subsurface Monitoring
How the Leak was Stopped:	Not reported
Cause of Leak:	Unknown
Leak Source:	Unknown
Date The Leak was Stopped:	Not reported
Date Confirmation Leak Began:	Not reported
Preliminary Site Assessment Workplan Submitted:	Not reported
Preliminary Site Assessment Began:	2/3/1987
Pollution Characterization Began:	Not reported
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	6/20/1930
Post Remedial Action Monitoring Began:	Not reported
Date the Case was Closed:	11/30/1993
Date Case Last Changed on Database:	11/30/1993
Enforcement Action Date:	Not reported
Date Leak First Reported:	4/6/1987
Enforcement Type:	IEA
Global ID :	T0603704004
Organization :	Not reported
Historical Max MTBE Date:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil :	Not reported
County:	Los Angeles
Regional Board:	04

Owner Contact: Not reported

Responsible Party:	GORTIKOV/HASLEY PARTNERS, LTD
RP Address:	15165 VENTURA BLVD, #230, SHERMAN OAKS, 91403
Significant Interim Remedial Action Taken:	Not reported
Program :	LIA
Lat / Long :	34.4680232 / -118.4689948
MTBE Counts :	0
MTBE Fuel :	0
MTBE Tested :	NRQ
Local Agency Staff:	UNK
Summary :	2215 MG/KG TPH IN SOIL AT 10'. 5 MG/L TPH IN WATER

DIXIE DIESEL STATION (Continued) **S102428845**

2ND LEAK REPORTED 1/29/91

OLD CASE #021089-08

Hydrologic Basin # :	Not reported
Beneficial Use :	Not reported
Priority :	Not reported
Cleanup Fund Id :	Not reported
Suspended :	Not reported
Local Case No :	Not reported
Substance Quantity :	Not reported
Abatement Method Used at the Site:	Excavate and Dispose
Operator :	Not reported
Water System :	CLEVELAND NATIONAL FOREST
Well Name :	LPA REPORTED PRIMARY SOURCE
Approx. Dist To Production Well (ft) :	1452.033932136087145347 1030342
W Global ID :	W0607300028
Assigned Name :	3700028-001GEN
MTBE Class :	Not reported

CORTESE:
Region: CORTESE
Fac Address 2: 29471 THE OLD ROAD

L57 **NEWHALL LAND & FARMING CO** **LOS ANGELES CO. HMS** **S102064571**
ENE **28760 N CASTAIC CANYON RD** **Cortese** **N/A**
> 1 **VALENCIA, CA 91355** **LUST**
11058 ft.

Site 1 of 2 in cluster L

Relative:
Higher

Actual:
1016 ft.

State LUST:

Cross Street:	Not reported		
Qty Leaked:	Not reported		
Case Number	I-05310		
Reg Board:	4		
Chemical:	Gasoline		
Lead Agency:	Local Agency		
Local Agency :	19000		
Case Type:	Soil only		
Status:	Case Closed		
Review Date:	Not reported	Confirm Leak:	Not reported
Workplan:	Not reported	Prelim Assess:	Not reported
Pollution Char:	Not reported	Remed Plan:	Not reported
Remed Action:	Not reported		
Monitoring:	Not reported		
Close Date:	01/10/1990		
Release Date:	01/10/1990		
Cleanup Fund Id :	Not reported		
Discover Date :	/ /		
Enforcement Dt :	Not reported		
Enf Type:	Not reported		
Enter Date :	01/22/1990		
Funding:	Not reported		
Staff Initials:	Not reported		
How Discovered:	Not reported		
How Stopped:	Not reported		
Interim :	Not reported		
Leak Cause:	Not reported		
Leak Source:	Not reported		
MTBE Date :	/ /		

NEWHALL LAND & FARMING CO (Continued) **S102064571**

Max MTBE GW : 0 Parts per Billion
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
Priority: Not reported
Local Case # : Not reported
Beneficial: Not reported
Staff : JLC
GW Qualifier : Not reported
Max MTBE Soil : Not reported
Soil Qualifier : Not reported
Hydr Basin #: Not reported
Operator : Not reported
Oversight Prgm: Local Implementing Agency UST (includes non-LOP cases within LOP jurisdiction)
Oversight Prgm : LIA
Review Date : 01/29/1990
Stop Date : / /
Work Suspended : Not reported
Responsible Party NEWHALL LAND & FARMING
RP Address: 23823 VALENCIA BOULEVARD, VALENCIA, 91355
Global Id: T0603703062
Org Name: Not reported
Contact Person: Not reported
MTBE Conc: 0
Mtbe Fuel: 1
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported

LUST Region 4:
Report Date: 1/10/1990
Lead Agency: Local Agency
Local Agency: 19000
Case Number: I-05310
Substance: Gasoline
Case Type: Soil
Status: Case Closed
Region: 4
Staff: Not reported
Source of Cleanup Funding: Not reported
Date the Leak was Discovered: Not reported
How the Leak was Discovered: Not reported
How the Leak was Stopped: Not reported
Cause of Leak: Not reported
Leak Source: Not reported
Date The Leak was Stopped: Not reported
Date Confirmation Leak Began: Not reported
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: Not reported
Date the Case was Closed: 1/10/1990
Date Case Last Changed on Database: 1/29/1990
Enforcement Action Date: Not reported
Date Leak First Reported: 1/10/1990

NEWHALL LAND & FARMING CO (Continued) **S102064571**

Enforcement Type: Not reported
Global ID : T0603703062
Organization : Not reported
Historical Max MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil : Not reported
County: Los Angeles
Regional Board: 04
Owner Contact: Not reported
Responsible Party: NEWHALL LAND & FARMING
RP Address: 23823 VALENCIA BOULEVARD, VALENCIA, 91355
Significant Interim Remedial Action Taken: Not reported
Program : LIA
Lat / Long : 34.4392614 / -118.6062849
MTBE Counts : 0
MTBE Fuel : 1
MTBE Tested : NT
Local Agency Staff: UNK
Summary : Not reported
Hydrologic Basin # : Not reported
Beneficial Use : Not reported
Priority : Not reported
Cleanup Fund Id : Not reported
Suspended : Not reported
Local Case No : Not reported
Substance Quantity : Not reported
Abatement Method Used at the Site: Not reported
Operator : Not reported
Water System : PETER PITCHESS HONOR RANCHO, LAC SHERIFF
Well Name : WELL 01A - INACTIVE
Approx. Dist To Production Well (ft) : 5154.170056466850371916246237 5
W Global ID : W0603700046
Assigned Name : 1900046-008
MTBE Class : Not reported

CORTESE:
Region: CORTESE
Fac Address 2: 28760 CASTAIC CANYON RD

HMS:
Facility Id: 005116-005310
Area: 7
Facility Type: Not reported
Permit Number: 174 Permit Status: Not reported
Facility Status: Removed
Region: Los Angeles County:

Facility Id: 014173-014696
Area: 7
Facility Type: Not reported
Permit Number: 174 Permit Status: Not reported
Facility Status: Removed
Region: Los Angeles County:

NEWHALL LAND & FARMING CO (Continued) **S102064571**

L58
ENE
> 1
11175 ft.

Relative:
Higher

Actual:
1016 ft.

TRI-R-TRUCKING **Cortese** **S101298311**
28748 CASTAIC CANYON RD **LUST** **N/A**
VALENCIA, CA 91355

Site 2 of 2 in cluster L

State LUST:

Cross Street:	THE OLD RD		
Qty Leaked:	Not reported		
Case Number	I-15245		
Reg Board:	4		
Chemical:	Diesel		
Lead Agency:	Local Agency		
Local Agency :	19000		
Case Type:	Soil only		
Status:	Case Closed		
Review Date:	Not reported	Confirm Leak:	Not reported
Workplan:	Not reported	Prelim Assess:	Not reported
Pollution Char:	Not reported	Remed Plan:	Not reported
Remed Action:	Not reported		
Monitoring:	Not reported		
Close Date:	10/11/1994		
Release Date:	10/29/1990		
Cleanup Fund Id :	Not reported		
Discover Date :	12/08/1989		
Enforcement Dt :	Not reported		
Enf Type:	Not reported		
Enter Date :	12/05/1990		
Funding:	Federal Funds		
Staff Initials:	Not reported		
How Discovered:	Tank Closure		
How Stopped:	Not reported		
Interim :	Not reported		
Leak Cause:	UNK		
Leak Source:	UNK		
MTBE Date :	/ /		
Max MTBE GW :	0 Parts per Billion		
MTBE Tested:	Not Required to be Tested.		
Priority:	Not reported		
Local Case # :	Not reported		
Beneficial:	Not reported		
Staff :	JLC		
GW Qualifier :	Not reported		
Max MTBE Soil :	Not reported		
Soil Qualifier :	Not reported		
Hydr Basin #:	Not reported		
Operator :	JAMES, ED OLD CASE#120690-17		
Oversight Prgm:	Local Implementing Agency UST (includes non-LOP cases within LOP jurisdiction)		
Oversight Prgm :	LIA		
Review Date :	10/11/1994		
Stop Date :	12/08/1989		
Work Suspended :	Not reported		
Responsible Party:	TRI-R TRUCKING		
RP Address:	28748 CASTIAC CYN RD, VALENCIA CA 91355		
Global Id:	T0603704280		
Org Name:	Not reported		
Contact Person:	Not reported		

TRI-R-TRUCKING (Continued) **S101298311**

MTBE Conc:	0
Mtbe Fuel:	0
Water System Name:	Not reported
Well Name:	Not reported
Distance To Lust:	0
Waste Discharge Global ID:	Not reported
Waste Disch Assigned Name:	Not reported

LUST Region 4:

Report Date:	10/29/1990
Lead Agency:	Local Agency
Local Agency:	19000
Case Number:	I-15245
Substance:	Diesel
Case Type:	Soil
Status:	Case Closed
Region:	4
Staff:	Not reported
Source of Cleanup Funding:	Federal Funds
Date the Leak was Discovered:	12/8/1989
How the Leak was Discovered:	Tank Closure
How the Leak was Stopped:	Close Tank
Cause of Leak:	Unknown
Leak Source:	Unknown
Date The Leak was Stopped:	12/8/1989
Date Confirmation Leak Began:	Not reported
Preliminary Site Assessment Workplan Submitted:	Not reported
Preliminary Site Assessment Began:	Not reported
Pollution Characterization Began:	Not reported
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Date the Case was Closed:	10/11/1994
Date Case Last Changed on Database:	10/11/1994
Enforcement Action Date:	Not reported
Date Leak First Reported:	10/29/1990
Enforcement Type:	Not reported
Global ID :	T0603704280
Organization :	Not reported
Historical Max MTBE Date:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil :	Not reported
County:	Los Angeles
Regional Board:	04
Owner Contact:	Not reported
Responsible Party:	TRI-R TRUCKING
RP Address:	28748 CASTIAC CYN RD, VALENCIA CA 91355
Significant Interim Remedial Action Taken:	Not reported
Program :	LIA
Lat / Long :	34.4389004 / -118.6060599
MTBE Counts :	0
MTBE Fuel :	0
MTBE Tested :	NRQ
Local Agency Staff:	UNK
Summary :	Not reported
Hydrologic Basin # :	Not reported

TRI-R-TRUCKING (Continued) **S101298311**

Beneficial Use :	Not reported
Priority :	Not reported
Cleanup Fund Id :	Not reported
Suspended :	Not reported
Local Case No :	Not reported
Substance Quantity :	Not reported
Abatement Method Used at the Site:	Not reported
Operator :	JAMES, ED OLD CASE#120690-17
Water System :	PETER PITCHESS HONOR RANCHO, LAC SHERIFF
Well Name :	WELL 01A - INACTIVE
Approx. Dist To Production Well (ft) :	5301.736465194323767948137824 3
W Global ID :	W0603700046
Assigned Name :	1900046-008
MTBE Class :	Not reported

CORTESE:

Region:	CORTESE
Fac Address 2:	28748 CASTAIC CANYON RD

59
NE
> 1
11470 ft.

Relative: Higher

Actual: 1039 ft.

N/B I-5, CASTAIC INSP FACILITY **CHMIRS** **S100279769**
SANTA CLARITA, CA **N/A**

CHMIRS:

OES Control Number:	9010073
Chemical Name:	Not reported
Extent of Release:	Not reported
Property Use:	099
Incident Date:	09-FEB-90
Date Completed:	09-FEB-90
Time Completed :	645
Agency Id Number :	66
Agency Incident Number :	90-027
OES Incident Number :	9010073
Time Notified :	15
Surrounding Area :	099
Estimated Temperature :	Not reported
Property Management :	S
More Than Two Substances Involved? :	N
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	0
Others Number Of Decontaminated :	0
Others Number Of Injuries :	0
Others Number Of Fatalities :	0
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	L. ACEVEDO #8721

(Continued) **S100279769**

Report Date :	20-MAR-90
Comments :	Not reported
Facility Telephone Number :	916 327-3310
Waterway Involved :	Not reported
Waterway :	Not reported
Spill Site :	Not reported
Cleanup By :	Not reported
Containment :	Not reported
What Happened :	Not reported
Type :	Not reported
Other :	Not reported
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	Not reported
Evacuations :	Not reported

60
ENE
> 1
11471 ft.

Relative: Higher

Actual: 1019 ft.

CHEVRON STATION 9 1899 **RCRIS-SQG** **1000886345**
28805 THE OLD RD **FINDS** **CA0000138552**
VALENCIA, CA 91355 **Cortese**

RCRIS:

Owner:	CHEVRON U S A PRODUCTS CO (310) 694-7452
EPA ID:	CA0000138552
Contact:	RAMON J CRESSALL (805) 257-2584
Classification:	Small Quantity Generator
TSDF Activities:	Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
Resource Conservation and Recovery Act Information system (RCRAINFO)

CORTESE:

Region:	CORTESE
Fac Address 2:	Not reported

61
NNE
> 1
13061 ft.

Relative: Higher

Actual: 1047 ft.

HASELY CYN 1MI NORTH OF THE OLD ROAD **CHMIRS** **S100275931**
CASTAIC, CA 91355 **N/A**

CHMIRS:

OES Control Number:	9012379
Chemical Name:	Not reported
Extent of Release:	Not reported
Property Use:	Vacant Lot
Incident Date:	13-AUG-90
Date Completed:	13-AUG-90
Time Completed :	2115
Agency Id Number :	19110
Agency Incident Number :	A-65
OES Incident Number :	9012379
Time Notified :	1956

Map ID / Direction / Distance / Distance (ft.) / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	MAP FINDINGS		
	(Continued)		**S100275931**

Surrounding Area :	936
Estimated Temperature :	80
Property Management :	P
More Than Two Substances Involved? :	Y
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Y
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personel # Of Injuries :	0
Responding Agency Personel # Of Fatalities :	0
Resp Agncy Personel # Of Decontaminated :	0
Others Number Of Decontaminated :	0
Others Number Of Injuries :	0
Others Number Of Fatalities :	0
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	MARTIN L. SCOTT #081235
Report Date :	13-AUG-90
Comments :	Yes
Facility Telephone Number :	213 267-2401
Waterway Involved :	Not reported
Waterway :	Not reported
Spill Site :	Not reported
Cleanup By :	Not reported
Containment :	Not reported
What Happened :	Not reported
Type :	Not reported
Other :	Not reported
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	Not reported
Evacuations :	Not reported

MAP FINDINGS - EDR PROPRIETARY HISTORICAL DATABASES

YEAR	NAME	ADDRESS	CITY	ST	DIR.	DIST.	ELEV.	TYPE

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

EDR Historical Gas Station & Dry Cleaner Search: No mapped sites were found in EDR's search of the EDR Historical Gas Station & Dry Cleaner Database within 0.250 mile of the Target Property.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CANYON COUNTRY	S105774538	TWO WATER WELLS RESTORATION	SIERRA HWY. / ARLINE ST.	91355	CA WDS
CASTAIC	S105628449	SCHOOL ON 18 ACRE SITE	RIDGE ROUTE ROAD	91384	SCH
LOS ANGELES COUNTY	S105637568		BERTH 70, LONG BEACH HARBOUR		CHMIRS, HAZNET
LOS ANGELES COUNTY	S105641187		BERTH 30 LONG BEACH HARBOUR		CHMIRS, HAZNET
LOS ANGELES COUNTY	S105630661		FLORENCE AVE / TELEGRAPH RD WHITTIER		CHMIRS, LUST
SANTA CLARITA	S105774545	COMMERCE CENTER BRIDGE	HWY. 126 / THE OLD ROAD	91355	CA WDS
SANTA CLARITA	S105774543	CASTAIC CREEK CHANNEL LINING	HWY. 126 / THE OLD ROAD	91355	CA WDS
SANTA CLARITA	S105774544	HWY. 126 BRIDGE	HWY. 126 / CASTAIC CREEK	91355	CA WDS
SANTA CLARITA	100544285	DEPARTMENT OF TRANSPORTATION	RTE 5 MAGIC MOUNTAIN PKWY EXIT	91355	RCRIS-SQG, FINDS
SANTA CLARITA	S105774555	GOLDEN VALLEY ROAD EXTENSION	BETWEEN SIERRA HWY / SOLEDAD CYN RD	91355	CA WDS
SANTA CLARITA	S106085278	CSI CRIME SCENE INVESTIGATION	3 MILES N OF TEMPLIN HWY ON	91355	HAZNET
VALENCIA	S106089351	CALIFORNIA INSTITUTE OF THE ARTS	VY #147 MCBEAN PRKWY / HWY 5	91355	HAZNET
VALENCIA	1000119892	PPG INDUSTRIES INC WORKS 24	25663 W AVE STANFORD	91355	RCRIS-SQG, RCRIS-TSD, FINDS, CORRACTS, CERC-NFRAP, LOS ANGELES CO. HMS
VALENCIA	S103646510	PRODUCTION GOODBYE LOVER	25135 AVENUE ANZA	91355	HAZNET
VALENCIA	S103646520	LOS ANGELES COUNTY FIRE DEPT	27223 HENRY MAYO DR- STATION 76	91355	HAZNET
VALENCIA	S105090242	TECHNICAL TROUBLE SHOOTING	24932 KEARNY AVENUE	91355	HAZNET
VALENCIA	S105774562	WATER WELL NO. W-11	S MCBEAN / COPPERHILL DR	91355	CA WDS
VALENCIA	1006839028	HOWARD CUSTOM BOATS INCORPORATED	28113 STANFORD AVENUE	91355	FINDS, EMI, HAZNET
VALENCIA	S101480564	GRUBER SYSTEMS, INC	25636 STANFORD AVENUE	91355	REF

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL ASTM STANDARD RECORDS

NPL: National Priority List
Source: EPA
Telephone: N/A
National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/21/03
Date Made Active at EDR: 12/08/03
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 11/03/03
Elapsed ASTM days: 35
Date of Last EDR Contact: 11/03/03

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 8
Telephone: 303-312-6774

EPA Region 4
Telephone 404-562-8033

Proposed NPL: Proposed National Priority List Sites
Source: EPA
Telephone: N/A

Date of Government Version: 10/14/03
Date Made Active at EDR: 12/08/03
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 12/01/03
Elapsed ASTM days: 7
Date of Last EDR Contact: 11/03/03

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA
Telephone: 703-413-0223
CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 09/11/03
Date Made Active at EDR: 10/29/03
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 09/24/03
Elapsed ASTM days: 35
Date of Last EDR Contact: 12/22/03

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned
Source: EPA
Telephone: 703-413-0223
As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 09/11/03
Date Made Active at EDR: 10/29/03
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 09/24/03
Elapsed ASTM days: 35
Date of Last EDR Contact: 12/22/03

CORRACTS: Corrective Action Report
Source: EPA
Telephone: 800-424-9346
CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/17/03
Date Made Active at EDR: 11/11/03
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 10/01/03
Elapsed ASTM days: 41
Date of Last EDR Contact: 12/08/03

RCRIS: Resource Conservation and Recovery Information System
Source: EPA
Telephone: 800-424-9346
Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/10/03
Date Made Active at EDR: 10/01/03
Database Release Frequency: Varies
Date of Data Arrival at EDR: 09/11/03
Elapsed ASTM days: 20
Date of Last EDR Contact: 11/18/03

ERNS: Emergency Response Notification System
Source: National Response Center, United States Coast Guard
Telephone: 202-260-2342
Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/02
Date Made Active at EDR: 02/03/03
Database Release Frequency: Annually
Date of Data Arrival at EDR: 01/27/03
Elapsed ASTM days: 7
Date of Last EDR Contact: 10/27/03

FEDERAL ASTM SUPPLEMENTAL RECORDS

BRS: Biennial Reporting System
Source: EPA/NTIS
Telephone: 800-424-9346
The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/01/01
Database Release Frequency: Biennially
Date of Last EDR Contact: 12/16/03
Date of Next Scheduled EDR Contact: 03/15/04

CONSENT: Superfund (CERCLA) Consent Decrees
Source: EPA Regional Offices
Telephone: Varies
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: N/A
Database Release Frequency: Varies
Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ROD: Records Of Decision
Source: EPA
Telephone: 703-416-0223
Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/09/03
Database Release Frequency: Annually
Date of Last EDR Contact: 10/08/03
Date of Next Scheduled EDR Contact: 01/05/04

DELISTED NPL: National Priority List Deletions
Source: EPA
Telephone: N/A
The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/21/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 11/03/03
Date of Next Scheduled EDR Contact: 02/02/04

FINDS: Facility Index System/Facility Identification Initiative Program Summary Report
Source: EPA
Telephone: N/A
Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 10/23/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 10/07/03
Date of Next Scheduled EDR Contact: 01/05/04

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4555
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 08/11/03
Database Release Frequency: Annually
Date of Last EDR Contact: 10/23/03
Date of Next Scheduled EDR Contact: 01/19/04

MLTS: Material Licensing Tracking System
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/16/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 10/07/03
Date of Next Scheduled EDR Contact: 01/05/04

MINES: Mines Master Index File
Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959

Date of Government Version: 08/27/03
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 12/29/03
Date of Next Scheduled EDR Contact: 03/29/04

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 202-564-4267
Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91
Date of Last EDR Contact: 11/21/03
Database Release Frequency: No Update Planned
Date of Next Scheduled EDR Contact: 02/23/04

PADS: PCB Activity Database System
Source: EPA
Telephone: 202-564-3887
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 09/30/03
Date of Last EDR Contact: 11/12/03
Database Release Frequency: Annually
Date of Next Scheduled EDR Contact: 02/09/04

DOD: Department of Defense Sites
Source: USGS
Telephone: 703-648-5920
This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 10/01/03
Date of Last EDR Contact: 11/12/03
Database Release Frequency: Semi-Annually
Date of Next Scheduled EDR Contact: 02/09/04

STORMWATER: Storm Water General Permits
Source: Environmental Protection Agency
Telephone: 202 564-0746
A listing of all facilities with Storm Water General Permits.

Date of Government Version: N/A
Date of Last EDR Contact: N/A
Database Release Frequency: Quarterly
Date of Next Scheduled EDR Contact: N/A

US BROWNFIELDS: A Listing of Brownfields Sites
Source: Environmental Protection Agency
Telephone: 202-566-2777
Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 07/15/03
Date of Last EDR Contact: 12/17/03
Database Release Frequency: Semi-Annually
Date of Next Scheduled EDR Contact: 03/15/04

RMP: Risk Management Plans
Source: Environmental Protection Agency
Telephone: 202-564-8600
When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date of Last EDR Contact: N/A
Database Release Frequency: N/A
Date of Next Scheduled EDR Contact: N/A

RAATS: RCRA Administrative Action Tracking System
Source: EPA
Telephone: 202-564-4104
RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95
Date of Last EDR Contact: 12/08/03
Database Release Frequency: No Update Planned
Date of Next Scheduled EDR Contact: 03/08/04

TRIS: Toxic Chemical Release Inventory System
Source: EPA
Telephone: 202-260-1531
Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/01
Date of Last EDR Contact: 12/22/03
Database Release Frequency: Annually
Date of Next Scheduled EDR Contact: 03/22/04

TSCA: Toxic Substances Control Act
Source: EPA
Telephone: 202-260-5521
Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/02
Date of Last EDR Contact: 10/20/03
Database Release Frequency: Every 4 Years
Date of Next Scheduled EDR Contact: 01/19/04

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Source: EPA
Telephone: 202-564-2501

Date of Government Version: 10/16/03
Date of Last EDR Contact: 12/22/03
Database Release Frequency: Quarterly
Date of Next Scheduled EDR Contact: 03/22/04

SSTS: Section 7 Tracking Systems
Source: EPA
Telephone: 202-564-5008
Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/01
Date of Last EDR Contact: 10/20/03
Database Release Frequency: Annually
Date of Next Scheduled EDR Contact: 01/19/04

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-564-2501
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/16/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/22/03
Date of Next Scheduled EDR Contact: 03/22/04

STATE OF CALIFORNIA ASTM STANDARD RECORDS

AWP: Annual Workplan Sites
Source: California Environmental Protection Agency
Telephone: 916-323-3400
Known Hazardous Waste Sites. California DTSC's Annual Workplan (AWP), formerly BEP, identifies known hazardous substance sites targeted for cleanup.

Date of Government Version: 11/30/03
Date Made Active at EDR: 01/08/04
Database Release Frequency: Annually

Date of Data Arrival at EDR: 12/01/03
Elapsed ASTM days: 38
Date of Last EDR Contact: 12/01/03

CAL-SITES: Calsites Database
Source: Department of Toxic Substance Control
Telephone: 916-323-3400
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database.

Date of Government Version: 11/30/03
Date Made Active at EDR: 01/08/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 12/01/03
Elapsed ASTM days: 38
Date of Last EDR Contact: 12/01/03

CHMIRS: California Hazardous Material Incident Report System
Source: Office of Emergency Services
Telephone: 916-845-8400
California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/02
Date Made Active at EDR: 08/07/03
Database Release Frequency: Varies

Date of Data Arrival at EDR: 07/11/03
Elapsed ASTM days: 27
Date of Last EDR Contact: 11/24/03

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-9100
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 04/01/01
Date Made Active at EDR: 07/26/01
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 05/29/01
Elapsed ASTM days: 58
Date of Last EDR Contact: 10/27/03

NOTIFY 65: Proposition 65 Records
Source: State Water Resources Control Board
Telephone: 916-445-3846
Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/93
Date Made Active at EDR: 11/19/93
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 11/01/93
Elapsed ASTM days: 18
Date of Last EDR Contact: 10/20/03

TOXIC PITS: Toxic Pits Cleanup Act Sites
Source: State Water Resources Control Board
Telephone: 916-227-4364
Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/95
Date Made Active at EDR: 09/26/95
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 08/30/95
Elapsed ASTM days: 27
Date of Last EDR Contact: 11/03/03

SWF/LF (SWIS): Solid Waste Information System
Source: Integrated Waste Management Board
Telephone: 916-341-6320
Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/14/03
Date Made Active at EDR: 01/08/04
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 12/16/03
Elapsed ASTM days: 23
Date of Last EDR Contact: 12/16/03

WMUDS/SWAT: Waste Management Unit Database
Source: State Water Resources Control Board
Telephone: 916-227-4448
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/00
Date Made Active at EDR: 05/10/00
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/10/00
Elapsed ASTM days: 30
Date of Last EDR Contact: 12/09/03

LUST: Leaking Underground Storage Tank Information System
Source: State Water Resources Control Board
Telephone: 916-341-5740
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 04/02/03
Date Made Active at EDR: 04/25/03
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 04/16/03
Elapsed ASTM days: 9
Date of Last EDR Contact: 10/14/03

CA BOND EXP. PLAN: Bond Expenditure Plan
Source: Department of Health Services
Telephone: 916-255-2118
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/89
Date Made Active at EDR: 08/02/94
Database Release Frequency: No Update Planned

Date of Data Arrival at EDR: 07/27/94
Elapsed ASTM days: 6
Date of Last EDR Contact: 05/31/94

CA UST:

UST: Active UST Facilities
Source: SWRCB
Telephone: 916-341-5700
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 04/02/03
Date Made Active at EDR: 04/30/03
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 04/16/03
Elapsed ASTM days: 14
Date of Last EDR Contact: 10/14/03

VCP: Voluntary Cleanup Program Properties
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 11/30/03
Date Made Active at EDR: 12/23/03
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 12/01/03
Elapsed ASTM days: 22
Date of Last EDR Contact: 12/01/03

INDIAN UST: Underground Storage Tanks on Indian Land
Source: EPA Region 9
Telephone: 415-972-3368

Date of Government Version: 12/05/03
Date Made Active at EDR: 01/08/04
Database Release Frequency: Varies
Date of Data Arrival at EDR: 12/05/03
Elapsed ASTM days: 34
Date of Last EDR Contact: 11/24/03

CA FID UST: Facility Inventory Database
Source: California Environmental Protection Agency
Telephone: 916-445-6532
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/94
Date Made Active at EDR: 09/29/95
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 09/05/95
Elapsed ASTM days: 24
Date of Last EDR Contact: 12/28/98

HIST UST: Hazardous Substance Storage Container Database
Source: State Water Resources Control Board
Telephone: 916-341-5700
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/90
Date Made Active at EDR: 02/12/91
Database Release Frequency: No Update Planned
Date of Data Arrival at EDR: 01/25/91
Elapsed ASTM days: 18
Date of Last EDR Contact: 07/26/01

STATE OF CALIFORNIA ASTM SUPPLEMENTAL RECORDS

AST: Aboveground Petroleum Storage Tank Facilities
Source: State Water Resources Control Board
Telephone: 916-341-5712
Registered Aboveground Storage Tanks.

Date of Government Version: 07/01/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 11/03/03
Date of Next Scheduled EDR Contact: 02/02/04

CLEANERS: Cleaner Facilities
Source: Department of Toxic Substance Control
Telephone: 916-225-0873
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 11/26/03
Database Release Frequency: Annually
Date of Last EDR Contact: 01/07/04
Date of Next Scheduled EDR Contact: 04/05/04

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CA WDS: Waste Discharge System
Source: State Water Resources Control Board
Telephone: 916-657-1571
Sites which have been issued waste discharge requirements.

Date of Government Version: 09/22/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 12/22/03
Date of Next Scheduled EDR Contact: 03/22/04

DEED: List of Deed Restrictions
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
The use of recorded land use restrictions is one of the methods the DTSC uses to protect the public from unsafe exposures to hazardous substances and wastes.

Date of Government Version: 10/07/03
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 10/08/03
Date of Next Scheduled EDR Contact: 01/05/04

NFA: No Further Action Determination
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains properties at which DTSC has made a clear determination that the property does not pose a problem to the environment or to public health.

Date of Government Version: 11/30/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 03/01/04

EMI: Emissions Inventory Data
Source: California Air Resources Board
Telephone: 916-322-2990
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/01
Database Release Frequency: Varies
Date of Last EDR Contact: 10/20/03
Date of Next Scheduled EDR Contact: 01/19/04

REF: Unconfirmed Properties Referred to Another Agency
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains properties where contamination has not been confirmed and which were determined as not requiring direct DTSC Site Mitigation Program action or oversight. Accordingly, these sites have been referred to another state or local regulatory agency.

Date of Government Version: 11/30/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 03/01/04

SCH: School Property Evaluation Program
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 11/30/03
Database Release Frequency: Quarterly
Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 03/01/04

NFE: Properties Needing Further Evaluation
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
This category contains properties that are suspected of being contaminated. These are unconfirmed contaminated properties that need to be assessed using the PEA process. PEA In Progress indicates properties where DTSC is currently conducting a PEA. PEA Required indicates properties where DTSC has determined a PEA is required, but not currently underway.

Date of Government Version: 11/30/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 03/01/04

HAZNET: Hazardous Waste Information System
Source: California Environmental Protection Agency
Telephone: 916-255-1136
Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/02
Database Release Frequency: Annually

Date of Last EDR Contact: 11/11/03
Date of Next Scheduled EDR Contact: 02/09/04

LOCAL RECORDS

ALAMEDA COUNTY:

Local Oversight Program Listing of UGT Cleanup Sites
Source: Alameda County Environmental Health Services
Telephone: 510-567-6700

Date of Government Version: 12/09/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 10/27/03
Date of Next Scheduled EDR Contact: 01/26/04

Underground Tanks
Source: Alameda County Environmental Health Services
Telephone: 510-567-6700

Date of Government Version: 07/03/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 10/27/03
Date of Next Scheduled EDR Contact: 01/26/04

CONTRA COSTA COUNTY:

Site List
Source: Contra Costa Health Services Department
Telephone: 925-646-2286
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 12/01/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 03/01/04

FRESNO COUNTY:

CUPA Resources List
Source: Dept. of Community Health
Telephone: 559-445-3271
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 10/07/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 10/08/03
Date of Next Scheduled EDR Contact: 02/09/04

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Kern County Sites and Tanks Listing.

Date of Government Version: 07/25/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/22/03
Date of Next Scheduled EDR Contact: 03/08/04

LOS ANGELES COUNTY:

List of Solid Waste Facilities
Source: La County Department of Public Works
Telephone: 818-458-5185

Date of Government Version: 06/03/03
Database Release Frequency: Varies

Date of Last EDR Contact: 11/21/03
Date of Next Scheduled EDR Contact: 02/16/04

City of El Segundo Underground Storage Tank
Source: City of El Segundo Fire Department
Telephone: 310-524-2236

Date of Government Version: 09/11/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/17/03
Date of Next Scheduled EDR Contact: 02/16/04

City of Long Beach Underground Storage Tank
Source: City of Long Beach Fire Department
Telephone: 562-570-2543

Date of Government Version: 03/28/03
Database Release Frequency: Annually

Date of Last EDR Contact: 11/24/03
Date of Next Scheduled EDR Contact: 02/23/04

City of Torrance Underground Storage Tank
Source: City of Torrance Fire Department
Telephone: 310-618-2973

Date of Government Version: 09/03/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/17/03
Date of Next Scheduled EDR Contact: 02/16/04

City of Los Angeles Landfills
Source: Engineering & Construction Division
Telephone: 213-473-7869

Date of Government Version: 03/01/02
Database Release Frequency: Varies

Date of Last EDR Contact: 12/16/03
Date of Next Scheduled EDR Contact: 03/15/04

HMS: Street Number List
Source: Department of Public Works
Telephone: 626-458-3517
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 09/30/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/17/03
Date of Next Scheduled EDR Contact: 02/16/04

Site Mitigation List
Source: Community Health Services
Telephone: 323-890-7806
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/07/03
Database Release Frequency: Annually

Date of Last EDR Contact: 11/17/03
Date of Next Scheduled EDR Contact: 02/16/04

San Gabriel Valley Areas of Concern
Source: EPA Region 9
Telephone: 415-972-3178
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 12/31/98
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 07/06/99
Date of Next Scheduled EDR Contact: N/A

MARIN COUNTY:

Underground Storage Tank Sites
Source: Public Works Department Waste Management
Telephone: 415-499-6647
Currently permitted USTs in Marin County.

Date of Government Version: 08/19/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 11/03/03
Date of Next Scheduled EDR Contact: 02/02/04

NAPA COUNTY:

Sites With Reported Contamination
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269

Date of Government Version: 10/02/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 12/29/03
Date of Next Scheduled EDR Contact: 03/29/04

Closed and Operating Underground Storage Tank Sites
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269

Date of Government Version: 10/02/03
Database Release Frequency: Annually

Date of Last EDR Contact: 12/29/03
Date of Next Scheduled EDR Contact: 03/29/04

ORANGE COUNTY:

List of Underground Storage Tank Cleanups
Source: Health Care Agency
Telephone: 714-834-3446
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 07/01/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 11/25/03
Date of Next Scheduled EDR Contact: 03/08/04

List of Underground Storage Tank Facilities
Source: Health Care Agency
Telephone: 714-834-3446
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 09/02/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/19/03
Date of Next Scheduled EDR Contact: 03/08/04

List of Industrial Site Cleanups
Source: Health Care Agency
Telephone: 714-834-3446
Petroleum and non-petroleum spills.

Date of Government Version: 10/24/00
Database Release Frequency: Annually

Date of Last EDR Contact: 12/08/03
Date of Next Scheduled EDR Contact: 03/08/04

PLACER COUNTY:

Master List of Facilities
Source: Placer County Health and Human Services
Telephone: 530-889-7312
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 10/16/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 12/22/03
Date of Next Scheduled EDR Contact: 03/22/04

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Source: Department of Public Health
Telephone: 909-358-5055
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 06/03/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 10/20/03
Date of Next Scheduled EDR Contact: 01/19/04

Underground Storage Tank Tank List
Source: Health Services Agency
Telephone: 909-358-5055

Date of Government Version: 05/30/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 10/20/03
Date of Next Scheduled EDR Contact: 01/19/04

SACRAMENTO COUNTY:

CS - Contaminated Sites
Source: Sacramento County Environmental Management
Telephone: 916-875-8406

Date of Government Version: 07/17/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 11/03/03
Date of Next Scheduled EDR Contact: 02/02/04

ML - Regulatory Compliance Master List
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 07/17/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 11/03/03
Date of Next Scheduled EDR Contact: 02/02/04

SAN BERNARDINO COUNTY:

Hazardous Material Permits
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 09/30/03 — Date of Last EDR Contact: 12/08/03
Database Release Frequency: Quarterly — Date of Next Scheduled EDR Contact: 03/08/04

SAN DIEGO COUNTY:

Solid Waste Facilities
Source: Department of Health Services
Telephone: 619-338-2209
San Diego County Solid Waste Facilities.

Date of Government Version: 08/01/00 — Date of Last EDR Contact: 11/21/03
Database Release Frequency: Varies — Date of Next Scheduled EDR Contact: 02/23/04

Hazardous Materials Management Division Database
Source: Hazardous Materials Management Division
Telephone: 619-338-2268
The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 10/31/03 — Date of Last EDR Contact: 10/07/03
Database Release Frequency: Quarterly — Date of Next Scheduled EDR Contact: 01/05/04

SAN FRANCISCO COUNTY:

Local Oversite Facilities
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920

Date of Government Version: 12/09/03 — Date of Last EDR Contact: 12/08/03
Database Release Frequency: Quarterly — Date of Next Scheduled EDR Contact: 03/08/04

Underground Storage Tank Information
Source: Department of Public Health
Telephone: 415-252-3920

Date of Government Version: 09/11/03 — Date of Last EDR Contact: 12/08/03
Database Release Frequency: Quarterly — Date of Next Scheduled EDR Contact: 03/08/04

SAN MATEO COUNTY:

Fuel Leak List
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921

Date of Government Version: 11/24/03 — Date of Last EDR Contact: 10/27/03
Database Release Frequency: Semi-Annually — Date of Next Scheduled EDR Contact: 01/26/04

Business Inventory
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/13/03 — Date of Last EDR Contact: 10/13/03
Database Release Frequency: Annually — Date of Next Scheduled EDR Contact: 01/12/04

SANTA CLARA COUNTY:

Fuel Leak Site Activity Report
Source: Santa Clara Valley Water District
Telephone: 408-265-2600

Date of Government Version: 07/02/03 — Date of Last EDR Contact: 12/29/03
Database Release Frequency: Semi-Annually — Date of Next Scheduled EDR Contact: 03/29/04

Hazardous Material Facilities
Source: City of San Jose Fire Department
Telephone: 408-277-4659

Date of Government Version: 10/01/03 — Date of Last EDR Contact: 12/08/03
Database Release Frequency: Annually — Date of Next Scheduled EDR Contact: 03/08/04

SOLANO COUNTY:

Leaking Underground Storage Tanks
Source: Solano County Department of Environmental Management
Telephone: 707-421-6770

Date of Government Version: 08/21/03 — Date of Last EDR Contact: 12/16/03
Database Release Frequency: Quarterly — Date of Next Scheduled EDR Contact: 03/15/04

Underground Storage Tanks
Source: Solano County Department of Environmental Management
Telephone: 707-421-6770

Date of Government Version: 08/21/03 — Date of Last EDR Contact: 12/16/03
Database Release Frequency: Quarterly — Date of Next Scheduled EDR Contact: 03/15/04

SONOMA COUNTY:

Leaking Underground Storage Tank Sites
Source: Department of Health Services
Telephone: 707-565-6565

Date of Government Version: 10/01/03 — Date of Last EDR Contact: 10/27/03
Database Release Frequency: Quarterly — Date of Next Scheduled EDR Contact: 01/26/04

SUTTER COUNTY:

Underground Storage Tanks
Source: Sutter County Department of Agriculture
Telephone: 530-822-7500

Date of Government Version: 07/01/01 — Date of Last EDR Contact: 12/01/03
Database Release Frequency: Semi-Annually — Date of Next Scheduled EDR Contact: 01/05/04

VENTURA COUNTY:

Inventory of Illegal Abandoned and Inactive Sites
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 09/01/02
Database Release Frequency: Annually

Date of Last EDR Contact: 11/26/03
Date of Next Scheduled EDR Contact: 02/23/04

Listing of Underground Tank Cleanup Sites
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 09/26/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/16/03
Date of Next Scheduled EDR Contact: 03/15/04

Underground Tank Closed Sites List
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 07/30/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 10/16/03
Date of Next Scheduled EDR Contact: 01/12/04

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 09/02/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/16/03
Date of Next Scheduled EDR Contact: 03/15/04

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Source: Yolo County Department of Health
Telephone: 530-666-8646

Date of Government Version: 10/29/03
Database Release Frequency: Annually

Date of Last EDR Contact: 10/20/03
Date of Next Scheduled EDR Contact: 01/19/04

California Regional Water Quality Control Board (RWQCB) LUST Records

LUST REG 1: Active Toxic Site Investigation
Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-576-2220
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/01
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 11/21/03
Date of Next Scheduled EDR Contact: 02/23/04

LUST REG 2: Fuel Leak List
Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457

Date of Government Version: 03/28/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 10/14/03
Date of Next Scheduled EDR Contact: 01/12/04

LUST REG 3: Leaking Underground Storage Tank Database
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147

Date of Government Version: 05/19/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 11/17/03
Date of Next Scheduled EDR Contact: 02/16/04

LUST REG 4: Underground Storage Tank Leak List
Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 08/09/01
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 12/31/03
Date of Next Scheduled EDR Contact: 03/29/04

LUST REG 5: Leaking Underground Storage Tank Database
Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-255-3125

Date of Government Version: 07/01/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 10/16/03
Date of Next Scheduled EDR Contact: 01/05/04

LUST REG 6L: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 916-542-5424
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/03
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 12/08/03
Date of Next Scheduled EDR Contact: 03/08/04

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-346-7491

Date of Government Version: 11/13/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 10/07/03
Date of Next Scheduled EDR Contact: 01/05/04

LUST REG 7: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-346-7491

Date of Government Version: 07/02/02
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 12/29/03
Date of Next Scheduled EDR Contact: 03/29/04

LUST REG 8: Leaking Underground Storage Tanks
Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4498
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/16/03
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 11/12/03
Date of Next Scheduled EDR Contact: 02/09/04

LUST REG 9: Leaking Underground Storage Tank Report
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/01 — Date of Last EDR Contact: 10/20/03
Database Release Frequency: No Update Planned — Date of Next Scheduled EDR Contact: 01/19/04

California Regional Water Quality Control Board (RWQCB) SLIC Records

SLIC REG 1: Active Toxic Site Investigations
Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220

Date of Government Version: 04/03/03 — Date of Last EDR Contact: 11/21/03
Database Release Frequency: Semi-Annually — Date of Next Scheduled EDR Contact: 02/23/04

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 03/28/03 — Date of Last EDR Contact: 10/14/03
Database Release Frequency: Quarterly — Date of Next Scheduled EDR Contact: 01/12/04

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 09/16/03 — Date of Last EDR Contact: 11/17/03
Database Release Frequency: Semi-Annually — Date of Next Scheduled EDR Contact: 02/16/04

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Any contaminated site that impacts groundwater or has the potential to impact groundwater.

Date of Government Version: 10/01/03 — Date of Last EDR Contact: 10/27/03
Database Release Frequency: Quarterly — Date of Next Scheduled EDR Contact: 01/26/04

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-855-3075
Unregulated sites that impact groundwater or have the potential to impact groundwater.

Date of Government Version: 10/20/03 — Date of Last EDR Contact: 10/07/03
Database Release Frequency: Semi-Annually — Date of Next Scheduled EDR Contact: 01/05/04

SLIC REG 6L: SLIC Sites
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574

Date of Government Version: 09/09/03 — Date of Last EDR Contact: 12/08/03
Database Release Frequency: Varies — Date of Next Scheduled EDR Contact: 03/08/04

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583

Date of Government Version: 05/08/03 — Date of Last EDR Contact: 10/07/03
Database Release Frequency: Semi-Annually — Date of Next Scheduled EDR Contact: 01/05/04

SLIC REG 7: SLIC List
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491

Date of Government Version: 05/29/03 — Date of Last EDR Contact: 12/01/03
Database Release Frequency: Varies — Date of Next Scheduled EDR Contact: 02/23/04

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-3298

Date of Government Version: 04/01/03 — Date of Last EDR Contact: 10/20/03
Database Release Frequency: Semi-Annually — Date of Next Scheduled EDR Contact: 01/05/04

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980

Date of Government Version: 12/01/03 — Date of Last EDR Contact: 12/01/03
Database Release Frequency: Annually — Date of Next Scheduled EDR Contact: 03/04/04

EDR PROPRIETARY HISTORICAL DATABASES

EDR Historical Gas Station and Dry Cleaners: EDR has searched select national collections of business directories and has collected listings of potential dry cleaner and gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning and gas station/filling station/service station establishments. The categories reviewed included, but were not limited to: *gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, dry cleaner, cleaners, laundry, laundromat, cleaning/laundry, wash & dry, etc.*

This information is meant to assist and complement environmental professionals in their conduct of environmental site assessments, and is not meant to be a substitute for a full historical investigation as defined in ASTM E1527. The information provided in this proprietary database may or may not be complete; i.e., the absence of a dry cleaner or gas station/filling station/service station site does not necessarily mean that such a site did not exist in the area covered by this report.

(A note on "dry cleaning" sites: it is not possible for EDR to differentiate between establishments that use PERC on-site as a cleaning solvent and sites that function simply as drop-off and pick-up locations or that are traditional wet cleaning/laundry facilities. Therefore, it is essential for environmental professionals to incorporate professional judgment in the evaluation of each site.)

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

Disclaimer Provided by Real Property Scan, Inc.

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

BROWNFIELDS DATABASES

VCP: Voluntary Cleanup Program Properties
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 11/30/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 12/01/03
Date of Next Scheduled EDR Contact: 03/01/04

US BROWNFIELDS: A Listing of Brownfields Sites
Source: Environmental Protection Agency
Telephone: 202-566-2777
Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: N/A
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: PennWell Corporation
Telephone: (800) 823-6277
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

STREET AND ADDRESS INFORMATION

© 2003 Geographic Data Technology, Inc., Rel. 07/2003. This product contains proprietary and confidential property of Geographic Data Technology, Inc. Unauthorized use, including copying for other than testing and standard backup procedures, of this product is expressly prohibited.

GEOCHECK®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

TENTATIVE TRACT MAP NO. 53108
WOLCOTT WAY/HENRY MAYO DRIVE
VALENCIA, CA 91355

TARGET PROPERTY COORDINATES

Latitude (North):	34.424301 - 34° 25' 27.5"
Longitude (West):	118.637299 - 118° 38' 14.3"
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	349543.9
UTM Y (Meters):	3810222.8
Elevation:	958 ft. above sea level

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

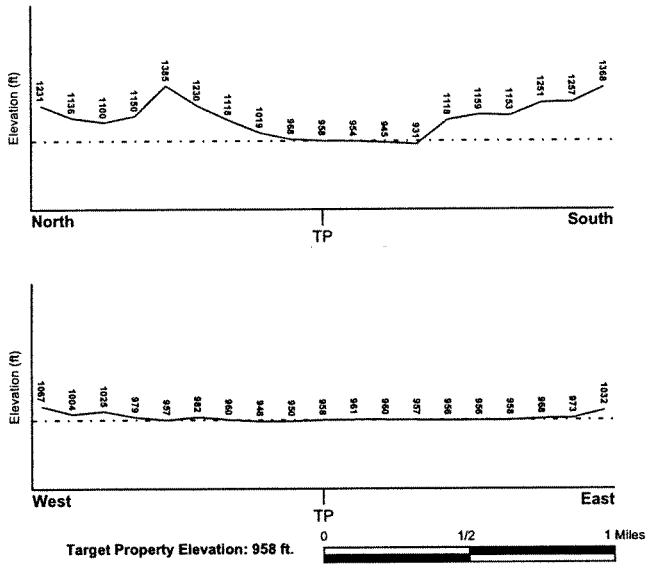
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

USGS Topographic Map:	34118-D6 VAL VERDE, CA
General Topographic Gradient:	General South
Source:	USGS 7.5 min quad index

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
LOS ANGELES, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 0650430340B

Additional Panels in search area: 0650430475B

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
VAL VERDE	Not Available

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius: 1.25 miles
Status: Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT		GEOLOGIC AGE IDENTIFICATION	
Era:	Cenozoic	Category:	Continental Deposits
System:	Tertiary		
Series:	Pliocene		
Code:	Tpc *(decoded above as Era, System & Series)*		

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	PICO
Soil Surface Texture:	sandy loam
Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel:	HIGH
Depth to Bedrock Min:	> 60 inches
Depth to Bedrock Max:	> 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	14 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 6.00 Min: 2.00	Max: 8.40 Min: 7.90
2	14 inches	54 inches	stratified	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 6.00 Min: 2.00	Max: 8.40 Min: 7.90
3	54 inches	60 inches	stratified	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 20.00 Min: 6.00	Max: 8.40 Min: 7.90

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: clay loam
sand
gravelly - sand
gravelly - sandy loam
loamy sand
loam
silty clay loam

Surficial Soil Types: clay loam
sand
gravelly - sand
gravelly - sandy loam
loamy sand
loam
silty clay loam

Shallow Soil Types: loamy fine sand

Deeper Soil Types: loam
coarse sand

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	4565	1/4 - 1/2 Mile ENE

STATE OIL/GAS WELL INFORMATION

DISTANCE FROM TP (Miles)	DISTANCE FROM TP (Miles)
2 - 3 Miles North	2 - 3 Miles North
2 - 3 Miles North	2 - 3 Miles North
2 - 3 Miles North	2 - 3 Miles North
2 - 3 Miles North	2 - 3 Miles North
2 - 3 Miles North	2 - 3 Miles North
2 - 3 Miles North	2 - 3 Miles North
2 - 3 Miles NNW	2 - 3 Miles North
2 - 3 Miles North	2 - 3 Miles NNW
2 - 3 Miles NNW	2 - 3 Miles NW
2 - 3 Miles NNE	2 - 3 Miles NNW
1 - 2 Miles North	2 - 3 Miles NNW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE OIL/GAS WELL INFORMATION

DISTANCE FROM TP (Miles)	DISTANCE FROM TP (Miles)
2 - 3 Miles NNW	2 - 3 Miles NNW
2 - 3 Miles NE	2 - 3 Miles NW
1 - 2 Miles NNW	1 - 2 Miles NNW
1 - 2 Miles NNW	2 - 3 Miles NNW
1 - 2 Miles NNW	1 - 2 Miles NNW
1 - 2 Miles North	2 - 3 Miles NE
1 - 2 Miles North	1 - 2 Miles North
1 - 2 Miles NNE	2 - 3 Miles WNW
1 - 2 Miles NNW	2 - 3 Miles ENE
1 - 2 Miles NW	1 - 2 Miles NE
1 - 2 Miles WNW	1 - 2 Miles WNW
1 - 2 Miles WNW	1 - 2 Miles WNW
2 - 3 Miles WNW	1/2 - 1 Mile NNW
2 - 3 Miles WNW	1 - 2 Miles WNW
1/2 - 1 Mile NNW	1 - 2 Miles ENE
1 - 2 Miles WNW	2 - 3 Miles WNW
1 - 2 Miles ENE	1 - 2 Miles WNW
1 - 2 Miles WNW	1 - 2 Miles WNW
1 - 2 Miles WNW	1/2 - 1 Mile NE
1 - 2 Miles WNW	2 - 3 Miles West
1 - 2 Miles ENE	1 - 2 Miles WNW
2 - 3 Miles East	1/2 - 1 Mile ENE
1 - 2 Miles East	1 - 2 Miles West
2 - 3 Miles West	1 - 2 Miles East
1 - 2 Miles West	2 - 3 Miles West
1 - 2 Miles West	1 - 2 Miles West
2 - 3 Miles West	1 - 2 Miles West
2 - 3 Miles West	1 - 2 Miles West
2 - 3 Miles West	1 - 2 Miles East
1/2 - 1 Mile ENE	1 - 2 Miles West
1 - 2 Miles West	1 - 2 Miles West
2 - 3 Miles West	2 - 3 Miles West
2 - 3 Miles West	2 - 3 Miles West
2 - 3 Miles West	1 - 2 Miles West
2 - 3 Miles West	2 - 3 Miles West
1 - 2 Miles West	1 - 2 Miles West
2 - 3 Miles West	1 - 2 Miles East
1 - 2 Miles West	1 - 2 Miles West
2 - 3 Miles West	1 - 2 Miles East
1 - 2 Miles West	1 - 2 Miles West
2 - 3 Miles West	1 - 2 Miles East
1 - 2 Miles West	2 - 3 Miles West
2 - 3 Miles West	1/4 - 1/2 Mile ENE
1 - 2 Miles East	1 - 2 Miles West
1 - 2 Miles West	1 - 2 Miles West
1 - 2 Miles West	2 - 3 Miles West
1 - 2 Miles West	1 - 2 Miles West
1/4 - 1/2 Mile East	2 - 3 Miles West
2 - 3 Miles East	1 - 2 Miles West
2 - 3 Miles West	2 - 3 Miles West
1 - 2 Miles East	1/2 - 1 Mile East
2 - 3 Miles West	2 - 3 Miles West
1 - 2 Miles West	2 - 3 Miles West
1 - 2 Miles West	2 - 3 Miles West
1/4 - 1/2 Mile West	1/2 - 1 Mile West

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE OIL/GAS WELL INFORMATION

DISTANCE FROM TP (Miles)	DISTANCE FROM TP (Miles)
1/2 - 1 Mile West	2 - 3 Miles West
1 - 2 Miles West	0 - 1/8 Mile SSW
1 - 2 Miles West	2 - 3 Miles West
2 - 3 Miles West	1 - 2 Miles West
1 - 2 Miles West	2 - 3 Miles West
2 - 3 Miles West	2 - 3 Miles West
2 - 3 Miles West	1 - 2 Miles East
2 - 3 Miles West	1 - 2 Miles East
1 - 2 Miles East	1 - 2 Miles East
1 - 2 Miles East	1/2 - 1 Mile ESE
1 - 2 Miles ESE	2 - 3 Miles West
2 - 3 Miles East	2 - 3 Miles West
1/4 - 1/2 Mile South	2 - 3 Miles West
1 - 2 Miles ESE	1 - 2 Miles East
1 - 2 Miles ESE	1/4 - 1/2 Mile SSW
1 - 2 Miles ESE	2 - 3 Miles West
2 - 3 Miles West	1/2 - 1 Mile ESE
1 - 2 Miles ESE	1 - 2 Miles ESE
2 - 3 Miles ESE	1/2 - 1 Mile SE
1 - 2 Miles ESE	1 - 2 Miles ESE
2 - 3 Miles WSW	2 - 3 Miles WSW
1/2 - 1 Mile SE	2 - 3 Miles WSW
1 - 2 Miles ESE	1/2 - 1 Mile SE
1/2 - 1 Mile SE	1 - 2 Miles ESE
1 - 2 Miles ESE	1/2 - 1 Mile SE
1 - 2 Miles ESE	1/2 - 1 Mile SSE
1 - 2 Miles ESE	1 - 2 Miles ESE
2 - 3 Miles ESE	2 - 3 Miles ESE
1 - 2 Miles ESE	1 - 2 Miles SW
1 - 2 Miles ESE	1 - 2 Miles ESE
1 - 2 Miles SE	2 - 3 Miles WSW
1 - 2 Miles SE	1 - 2 Miles ESE
2 - 3 Miles ESE	1 - 2 Miles ESE
1 - 2 Miles SE	1 - 2 Miles SE
2 - 3 Miles ESE	2 - 3 Miles ESE
1 - 2 Miles SE	1 - 2 Miles SE
1 - 2 Miles ESE	1 - 2 Miles SE
1 - 2 Miles ESE	1 - 2 Miles SSW
2 - 3 Miles ESE	1 - 2 Miles WSW
2 - 3 Miles ESE	1 - 2 Miles WSW
1 - 2 Miles SW	1 - 2 Miles South
1 - 2 Miles SSW	1 - 2 Miles SW
1 - 2 Miles SSW	1 - 2 Miles SW
1 - 2 Miles SW	1 - 2 Miles SSW
1 - 2 Miles SW	1 - 2 Miles SW
1 - 2 Miles SW	1 - 2 Miles South
1 - 2 Miles SSW	1 - 2 Miles South
1 - 2 Miles SSW	1 - 2 Miles SE
1 - 2 Miles SW	1 - 2 Miles SW
1 - 2 Miles SW	1 - 2 Miles SSE
1 - 2 Miles SW	1 - 2 Miles SW
1 - 2 Miles South	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles South
1 - 2 Miles SW	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles SSW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE OIL/GAS WELL INFORMATION

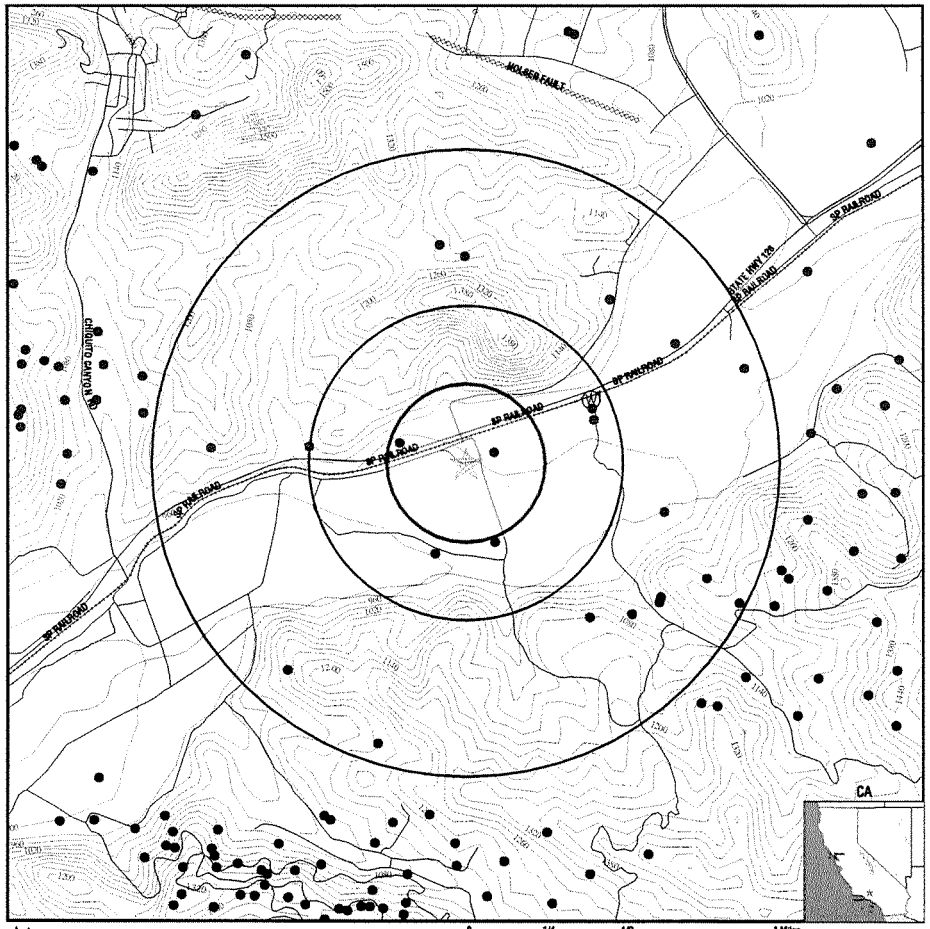
DISTANCE FROM TP (Miles)	DISTANCE FROM TP (Miles)
1 - 2 Miles SSE	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles SSW
1 - 2 Miles SE	1 - 2 Miles SSW
1 - 2 Miles SW	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles South
1 - 2 Miles SSW	1 - 2 Miles SSW
1 - 2 Miles South	1 - 2 Miles SSW
1 - 2 Miles SW	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles South
1 - 2 Miles SSE	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles South
1 - 2 Miles SSW	1 - 2 Miles SSE
1 - 2 Miles South	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles SSW
1 - 2 Miles South	1 - 2 Miles SSW
1 - 2 Miles South	1 - 2 Miles South
1 - 2 Miles SSW	1 - 2 Miles South
1 - 2 Miles South	2 - 3 Miles SW
1 - 2 Miles South	1 - 2 Miles SSW
1 - 2 Miles South	1 - 2 Miles SSW
1 - 2 Miles SSE	1 - 2 Miles SSW
1 - 2 Miles South	1 - 2 Miles South
1 - 2 Miles SSW	1 - 2 Miles South
1 - 2 Miles South	1 - 2 Miles SSW
1 - 2 Miles South	1 - 2 Miles South
1 - 2 Miles South	1 - 2 Miles South
1 - 2 Miles SSW	1 - 2 Miles SSE
1 - 2 Miles South	1 - 2 Miles South
1 - 2 Miles SSE	1 - 2 Miles South
1 - 2 Miles South	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles SSW
1 - 2 Miles SSW	1 - 2 Miles South
1 - 2 Miles South	1 - 2 Miles South
1 - 2 Miles South	1 - 2 Miles South
1 - 2 Miles South	1 - 2 Miles South
1 - 2 Miles South	1 - 2 Miles SSE
2 - 3 Miles SSE	1 - 2 Miles South
1 - 2 Miles South	1 - 2 Miles South
1 - 2 Miles South	2 - 3 Miles SSW
2 - 3 Miles South	1 - 2 Miles South
1 - 2 Miles South	2 - 3 Miles South
2 - 3 Miles SSE	2 - 3 Miles South
2 - 3 Miles South	2 - 3 Miles SSE
2 - 3 Miles SSE	2 - 3 Miles SSE
2 - 3 Miles South	2 - 3 Miles South
2 - 3 Miles South	2 - 3 Miles South
2 - 3 Miles SSE	2 - 3 Miles South
2 - 3 Miles South	2 - 3 Miles SSE
2 - 3 Miles South	2 - 3 Miles SSE
2 - 3 Miles SSE	2 - 3 Miles South
2 - 3 Miles South	2 - 3 Miles South
2 - 3 Miles SSE	2 - 3 Miles South

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE OIL/GAS WELL INFORMATION

DISTANCE FROM TP (Miles)	DISTANCE FROM TP (Miles)
2 - 3 Miles SSE	2 - 3 Miles South
2 - 3 Miles South	2 - 3 Miles SSE
2 - 3 Miles South	2 - 3 Miles SSE
2 - 3 Miles South	2 - 3 Miles South
2 - 3 Miles South	2 - 3 Miles SSW
2 - 3 Miles SSE	2 - 3 Miles SSE
2 - 3 Miles SSE	2 - 3 Miles SSE

PHYSICAL SETTING SOURCE MAP - 1108642.4s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- (W) Water Wells
- (P) Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- (GI) Indeterminate Groundwater Flow at Location
- (GV) Groundwater Flow Varies at Location
- (HD) Closest Hydrogeological Data
- Oil, gas or related wells

TARGET PROPERTY:	Tentative Tract Map No. 53108	CUSTOMER:	Building Analytics
ADDRESS:	Wolcott Way/Henry Mayo Drive	CONTACT:	Joe Montoya
CITY/STATE/ZIP:	Valencia CA 91355	INQUIRY #:	1108642.4s
LAT/LONG:	34.4243 / 118.6373	DATE:	January 08, 2004 12:47 pm

Copyright © 2003 EDR, Inc. © 2003 GDT, Inc. Rel. 07/2003. All Rights Reserved.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID / Direction / Distance / Elevation	Database	EDR ID Number
1 ENE 1/4 - 1/2 Mile Higher	CA WELLS	4565

Water System Information:

Prime Station Code:	04N/17W-14Q07 S	User ID:	19C
FRDS Number:	1909014001	County:	Los Angeles
District Number:	49	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	342538.0 1183746.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL C-6		
System Number:	1909014		
System Name:	WALNUT HILL		
Organization That Operates System:	23823 VALENCIA VALENCIA, CA 91355		
Pop Served:	50	Connections:	10
Area Served:	Not Reported		

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

North
2 - 3 Miles — **OIL_GAS** — **CA00010927**

Well Number:	5	Status:	Completed oil- directional
API Number:	03722953	Operator:	Petrominerals Corporation
Latitude:	34.459921	Longitude:	-118.636642
Region:	2	Lease:	Sadd
Section:	02	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles — **OIL_GAS** — **CA00010926**

Well Number:	4	Status:	Completed oil- directional
API Number:	03722948	Operator:	Petrominerals Corporation
Latitude:	34.459793	Longitude:	-118.636673
Region:	2	Lease:	Sadd
Section:	02	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles — **OIL_GAS** — **CA00011006**

Well Number:	7	Status:	Completed oil
API Number:	03722750	Operator:	Petrominerals Corporation
Latitude:	34.459727	Longitude:	-118.640970
Region:	2	Lease:	Burns Crist
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles — **OIL_GAS** — **CA00011004**

Well Number:	5	Status:	001
API Number:	03724193	Operator:	Petrominerals Corporation
Latitude:	34.459573	Longitude:	-118.640939
Region:	2	Lease:	Burns Crist
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

North
2 - 3 Miles — **OIL_GAS** — **CA00010953**

Well Number:	1	Status:	Completed oil- directional
API Number:	03722739	Operator:	Petrominerals Corporation
Latitude:	34.458657	Longitude:	-118.639917
Region:	2	Lease:	Sadd
Section:	02	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles — **OIL_GAS** — **CA00011005**

Well Number:	6	Status:	Completed oil
API Number:	03722740	Operator:	Petrominerals Corporation
Latitude:	34.458523	Longitude:	-118.641679
Region:	2	Lease:	Burns Crist
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles — **OIL_GAS** — **CA00010925**

Well Number:	2	Status:	Completed oil
API Number:	03722940	Operator:	Petrominerals Corporation
Latitude:	34.458479	Longitude:	-118.639731
Region:	2	Lease:	Sadd
Section:	02	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles — **OIL_GAS** — **CA00010950**

Well Number:	3	Status:	Completed oil- directional
API Number:	03722747	Operator:	Petrominerals Corporation
Latitude:	34.457277	Longitude:	-118.639759
Region:	2	Lease:	McGillivrae
Section:	02	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

North
2 - 3 Miles | OIL_GAS | CA00010948

Well Number:	9	Status:	001
API Number:	03724195	Operator:	Petrominerals Corporation
Latitude:	34.456633	Longitude:	-118.641273
Region:	2	Lease:	Mabel Strawn
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles | OIL_GAS | CA00010941

Well Number:	10	Status:	001
API Number:	03724196	Operator:	Petrominerals Corporation
Latitude:	34.456607	Longitude:	-118.641520
Region:	2	Lease:	Mabel Strawn
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles | OIL_GAS | CA00010946

Well Number:	7	Status:	Completed oil
API Number:	03722727	Operator:	Petrominerals Corporation
Latitude:	34.456428	Longitude:	-118.641365
Region:	2	Lease:	Mabel Strawn
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles | OIL_GAS | CA00010947

Well Number:	8	Status:	001
API Number:	03724194	Operator:	Petrominerals Corporation
Latitude:	34.456353	Longitude:	-118.641056
Region:	2	Lease:	Mabel Strawn
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

NNW
2 - 3 Miles | OIL_GAS | CA00013454

Well Number:	17	Status:	Plugged and abandoned oil
API Number:	03707260	Operator:	G. R. Nance Co., Inc
Latitude:	34.456041	Longitude:	-118.656948
Region:	2	Lease:	Towle
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles | OIL_GAS | CA00010949

Well Number:	2	Status:	Completed oil
API Number:	03722349	Operator:	Petrominerals Corporation
Latitude:	34.455897	Longitude:	-118.639788
Region:	2	Lease:	McGillivrae
Section:	02	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
2 - 3 Miles | OIL_GAS | CA00010945

Well Number:	6	Status:	Completed oil
API Number:	03722340	Operator:	Petrominerals Corporation
Latitude:	34.455253	Longitude:	-118.641239
Region:	2	Lease:	Mabel Strawn
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
2 - 3 Miles | OIL_GAS | CA00010966

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03721689	Operator:	Petrominerals Corporation
Latitude:	34.455147	Longitude:	-118.656791
Region:	2	Lease:	Hilgenfeld
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance — Database — EDR ID Number

NNW
2 - 3 Miles — **OIL_GAS** — **CA00013495**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03707259	Operator:	Federal Oil Company
Latitude:	34.454320	Longitude:	-118.652337
Region:	2	Lease:	Federal-Towle
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NW
2 - 3 Miles — **OIL_GAS** — **CA00010784**

Well Number:	88-4	Status:	Plugged and abandoned oil
API Number:	03707261	Operator:	Porsco Operating Company
Latitude:	34.454295	Longitude:	-118.659325
Region:	2	Lease:	Claiborne
Section:	04	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNE
2 - 3 Miles — **OIL_GAS** — **CA00015458**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03707262	Operator:	British-American Oil Prod Co
Latitude:	34.454254	Longitude:	-118.613133
Region:	2	Lease:	Wayside Honor Farm
Section:	01	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
2 - 3 Miles — **OIL_GAS** — **CA00010943**

Well Number:	4	Status:	Completed oil
API Number:	03722060	Operator:	Petrominerals Corporation
Latitude:	34.454010	Longitude:	-118.645937
Region:	2	Lease:	Mabel Strawn
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance — Database — EDR ID Number

North
1 - 2 Miles — **OIL_GAS** — **CA00010967**

Well Number:	1	Status:	Completed oil
API Number:	03707258	Operator:	Petrominerals Corporation
Latitude:	34.453848	Longitude:	-118.641113
Region:	2	Lease:	Mabel E. Strawn
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
2 - 3 Miles — **OIL_GAS** — **CA00010944**

Well Number:	5	Status:	Plugged and abandoned-dry hole
API Number:	03722072	Operator:	Petrominerals Corporation
Latitude:	34.453826	Longitude:	-118.647420
Region:	2	Lease:	Mabel Strawn
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
2 - 3 Miles — **OIL_GAS** — **CA00010940**

Well Number:	2	Status:	Completed oil
API Number:	03721715	Operator:	Petrominerals Corporation
Latitude:	34.453634	Longitude:	-118.643833
Region:	2	Lease:	Mabel E. Strawn
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
2 - 3 Miles — **OIL_GAS** — **CA00010942**

Well Number:	3	Status:	Completed oil- directional
API Number:	03721805	Operator:	Petrominerals Corporation
Latitude:	34.453607	Longitude:	-118.644112
Region:	2	Lease:	Mabel Strawn
Section:	03	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

NE
2 - 3 Miles — **OIL_GAS** — **CA00007344**

Well Number:	27	Status:	Plugged and abandoned-dry hole
API Number:	03707281	Operator:	Vintage Petroleum inc
Latitude:	34.453190	Longitude:	-118.610317
Region:	2	Lease:	Honor Rancho 'A' (NCT-1)
Section:	01	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NW
2 - 3 Miles — **OIL_GAS** — **CA00013497**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03705395	Operator:	Fernando Oil Company
Latitude:	34.452872	Longitude:	-118.657065
Region:	2	Lease:	Wel No.
Section:	10	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
1 - 2 Miles — **OIL_GAS** — **CA00012074**

Well Number:	81X	Status:	Plugged and abandoned-dry hole
API Number:	03721466	Operator:	Montara Petroleum Company
Latitude:	34.452826	Longitude:	-118.641111
Region:	2	Lease:	Sterling
Section:	10	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
1 - 2 Miles — **OIL_GAS** — **CA00010933**

Well Number:	2-10	Status:	Completed oil
API Number:	03721816	Operator:	Petrominerals Corporation
Latitude:	34.452744	Longitude:	-118.642502
Region:	2	Lease:	Sterling
Section:	10	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

NNW
1 - 2 Miles — **OIL_GAS** — **CA00010932**

Well Number:	1-10	Status:	Completed oil
API Number:	03721801	Operator:	Petrominerals Corporation
Latitude:	34.452663	Longitude:	-118.643893
Region:	2	Lease:	Sterling
Section:	10	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
2 - 3 Miles — **OIL_GAS** — **CA00008486**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706205	Operator:	U. S. Natural Gas C & Manning
Latitude:	34.452622	Longitude:	-118.648222
Region:	2	Lease:	Strawn
Section:	10	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
1 - 2 Miles — **OIL_GAS** — **CA00015649**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03705148	Operator:	Atlantic Oil Company
Latitude:	34.452428	Longitude:	-118.645253
Region:	2	Lease:	Strawn
Section:	10	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
1 - 2 Miles — **OIL_GAS** — **CA00013952**

Well Number:	3-10	Status:	Plugged and abandoned oil
API Number:	03721871	Operator:	Decalta International Corp
Latitude:	34.450949	Longitude:	-118.644354
Region:	2	Lease:	Sterling
Section:	10	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

North
1 - 2 Miles — **OIL_GAS** — **CA00009001**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706082	Operator:	Texaco E & P Inc
Latitude:	34.450430	Longitude:	-118.639127
Region:	2	Lease:	Fernando
Section:	11	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NE
2 - 3 Miles — **OIL_GAS** — **CA00008942**

Well Number:	D-3	Status:	Plugged and abandoned-dry hole
API Number:	03707300	Operator:	Texaco E & P Inc
Latitude:	34.447757	Longitude:	-118.604933
Region:	2	Lease:	Newhall
Section:	07	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
1 - 2 Miles — **OIL_GAS** — **CA00008939**

Well Number:	B-1	Status:	Plugged and abandoned-dry hole
API Number:	03706107	Operator:	Texaco E & P Inc
Latitude:	34.444225	Longitude:	-118.630643
Region:	2	Lease:	Newhall
Section:	11	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

North
1 - 2 Miles — **OIL_GAS** — **CA00008940**

Well Number:	D-1	Status:	Plugged and abandoned-dry hole
API Number:	03706108	Operator:	Texaco E & P Inc
Latitude:	34.444098	Longitude:	-118.630303
Region:	2	Lease:	Newhall
Section:	11	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

NNE
1 - 2 Miles — **OIL_GAS** — **CA00008941**

Well Number:	D-2	Status:	Plugged and abandoned-dry hole
API Number:	03706109	Operator:	Texaco E & P Inc
Latitude:	34.444058	Longitude:	-118.619976
Region:	2	Lease:	Newhall
Section:	12	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
2 - 3 Miles — **OIL_GAS** — **CA00009857**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03705882	Operator:	Shell Western E. & P. Inc.
Latitude:	34.443227	Longitude:	-118.667094
Region:	2	Lease:	Daugherty
Section:	09	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
1 - 2 Miles — **OIL_GAS** — **CA00008973**

Well Number:	1	Status:	Plugged and abandoned-dry hole-directional
API Number:	03706091	Operator:	Texaco E & P Inc
Latitude:	34.443164	Longitude:	-118.648605
Region:	2	Lease:	Malis
Section:	10	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ENE
2 - 3 Miles — **OIL_GAS** — **CA00008944**

Well Number:	F-1	Status:	Plugged and abandoned-dry hole
API Number:	03706111	Operator:	Texaco E & P Inc
Latitude:	34.440622	Longitude:	-118.601451
Region:	2	Lease:	Newhall
Section:	07	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

NW
1 - 2 Miles — **OIL_GAS** — **CA00012519**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03705621	Operator:	Marathon Oil Co
Latitude:	34.440369	Longitude:	-118.651382
Region:	2	Lease:	Mabel S. Henderson
Section:	10	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NE
1 - 2 Miles — **OIL_GAS** — **CA00013561**

Well Number:	B-1	Status:	Plugged and abandoned-dry hole
API Number:	03705490	Operator:	Exxon Corp
Latitude:	34.439071	Longitude:	-118.613720
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	12	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
1 - 2 Miles — **OIL_GAS** — **CA00008923**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706117	Operator:	Texaco E & P Inc
Latitude:	34.438953	Longitude:	-118.661520
Region:	2	Lease:	Seaboard-So Cal Pet. Daugherty
Section:	09	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
1 - 2 Miles — **OIL_GAS** — **CA00010509**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706664	Operator:	Rothschild Oil Company
Latitude:	34.438293	Longitude:	-118.660282
Region:	2	Lease:	Barbour
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

WNW
1 - 2 Miles — **OIL_GAS** — **CA00011095**

Well Number:	1-16	Status:	Plugged and abandoned-dry hole-directional
API Number:	03722947	Operator:	Pancandian Petroleum Co
Latitude:	34.437987	Longitude:	-118.659972
Region:	2	Lease:	N. L. & F.
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
1 - 2 Miles — **OIL_GAS** — **CA00014987**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706671	Operator:	Chevron USA, Inc.
Latitude:	34.437767	Longitude:	-118.657127
Region:	2	Lease:	Boobier
Section:	15	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
2 - 3 Miles — **OIL_GAS** — **CA00008784**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706631	Operator:	The British American Oil Prod
Latitude:	34.437578	Longitude:	-118.667330
Region:	2	Lease:	Kinler-So. Cal
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
1/2 - 1 Mile — **OIL_GAS** — **CA00010300**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03722056	Operator:	Santa Fe Energy Resources
Latitude:	34.434360	Longitude:	-118.637827
Region:	2	Lease:	N. L. & F.
Section:	14	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

WNW
2 - 3 Miles — **OIL_GAS** — **CA00010278**

Well Number:	16-1	Status:	Plugged and abandoned-dry hole
API Number:	03706666	Operator:	Scope Industries
Latitude:	34.434221	Longitude:	-118.669889
Region:	2	Lease:	Kinler
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
1 - 2 Miles — **OIL_GAS** — **CA00016378**

Well Number:	1	Status:	Plugged and abandoned oil-directional
API Number:	03706629	Operator:	Amax Petroleum Corporation
Latitude:	34.434002	Longitude:	-118.666890
Region:	2	Lease:	Kinler
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NNW
1/2 - 1 Mile — **OIL_GAS** — **CA00013589**

Well Number:	55	Status:	Plugged and abandoned-dry hole
API Number:	03716518	Operator:	Exxon Corp
Latitude:	34.433828	Longitude:	-118.636435
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	14	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ENE
1 - 2 Miles — **OIL_GAS** — **CA00013576**

Well Number:	69	Status:	135
API Number:	03716528	Operator:	Exxon Corp
Latitude:	34.433372	Longitude:	-118.605058
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	18	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

WNW
1 - 2 Miles — **OIL_GAS** — **CA00016403**

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03706626	Operator:	Amax Petroleum Corporation
Latitude:	34.433315	Longitude:	-118.665961
Region:	2	Lease:	Barbour
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
2 - 3 Miles — **OIL_GAS** — **CA00013452**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03721365	Operator:	G. R. Nance Co., Inc
Latitude:	34.433214	Longitude:	-118.672732
Region:	2	Lease:	Gallagher
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ENE
1 - 2 Miles — **OIL_GAS** — **CA00013538**

Well Number:	2	Status:	230
API Number:	03716535	Operator:	Exxon Corp
Latitude:	34.433129	Longitude:	-118.617295
Region:	2	Lease:	Newhall Land & Farming Co. 12
Section:	13	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
1 - 2 Miles — **OIL_GAS** — **CA00016404**

Well Number:	2	Status:	Plugged and abandoned oil
API Number:	03706627	Operator:	Amax Petroleum Corporation
Latitude:	34.432941	Longitude:	-118.663301
Region:	2	Lease:	Barbour
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

WNW
1 - 2 Miles — OIL_GAS — CA00016405

Well Number:	3	Status:	Plugged and abandoned oil
API Number:	03706628	Operator:	Amax Petroleum Corporation
Latitude:	34.432538	Longitude:	-118.661569
Region:	2	Lease:	Barbour
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
1 - 2 Miles — OIL_GAS — CA00015495

Well Number:	1-16	Status:	Plugged and abandoned-dry hole-directional
API Number:	03722707	Operator:	Black Hawk Resources Corp
Latitude:	34.432378	Longitude:	-118.663455
Region:	2	Lease:	N. L. & F.
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
1 - 2 Miles — OIL_GAS — CA00016379

Well Number:	2	Status:	Plugged and abandoned-dry hole
API Number:	03706630	Operator:	Amax Petroleum Corporation
Latitude:	34.432286	Longitude:	-118.667690
Region:	2	Lease:	Kinler
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

NE
1/2 - 1 Mile — OIL_GAS — CA00013578

Well Number:	70	Status:	Plugged and abandoned oil-directional
API Number:	03716529	Operator:	Exxon Corp
Latitude:	34.431838	Longitude:	-118.628361
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	14	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

WNW
1 - 2 Miles — OIL_GAS — CA00011714

Well Number:	10	Status:	Completed oil
API Number:	03706728	Operator:	Nuevo Energy Company
Latitude:	34.430692	Longitude:	-118.663235
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00014523

Well Number:	5	Status:	Plugged and abandoned-dry hole
API Number:	03706681	Operator:	Chevron USA, Inc.
Latitude:	34.430390	Longitude:	-118.676467
Region:	2	Lease:	Sepulveda
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ENE
1 - 2 Miles — OIL_GAS — CA00013556

Well Number:	76	Status:	Plugged and abandoned oil-directional
API Number:	03716534	Operator:	Exxon Corp
Latitude:	34.430373	Longitude:	-118.608880
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	13	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WNW
1 - 2 Miles — OIL_GAS — CA00014985

Well Number:	5	Status:	Plugged and abandoned-dry hole
API Number:	03706668	Operator:	Chevron USA, Inc.
Latitude:	34.430357	Longitude:	-118.656865
Region:	2	Lease:	Blair
Section:	15	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

East
2 - 3 Miles — **OIL_GAS** — **CA00013553**

Well Number:	73	Status:	137
API Number:	03716531	Operator:	Exxon Corp
Latitude:	34.429852	Longitude:	-118.596595
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	18	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ENE
1/2 - 1 Mile — **OIL_GAS** — **CA00013575**

Well Number:	68	Status:	Plugged and abandoned oil
API Number:	03716527	Operator:	Exxon Corp
Latitude:	34.429832	Longitude:	-118.624709
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	14	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles — **OIL_GAS** — **CA00013573**

Well Number:	66	Status:	Plugged and abandoned oil
API Number:	03701977	Operator:	Exxon Corp
Latitude:	34.429748	Longitude:	-118.604609
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	18	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — **OIL_GAS** — **CA00011698**

Well Number:	4	Status:	Completed oil
API Number:	03706722	Operator:	Nuevo Energy Company
Latitude:	34.429525	Longitude:	-118.660914
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

West
2 - 3 Miles — **OIL_GAS** — **CA00012525**

Well Number:	20	Status:	Completed gas
API Number:	03722026	Operator:	Marathon Oil Co
Latitude:	34.429188	Longitude:	-118.676589
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles — **OIL_GAS** — **CA00013580**

Well Number:	72	Status:	Plugged and abandoned oil
API Number:	03716530	Operator:	Exxon Corp
Latitude:	34.429084	Longitude:	-118.612185
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	13	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — **OIL_GAS** — **CA00011687**

Well Number:	13	Status:	Completed oil
API Number:	03706731	Operator:	Nuevo Energy Company
Latitude:	34.429017	Longitude:	-118.659861
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00011929**

Well Number:	3	Status:	Completed oil
API Number:	03706698	Operator:	Nuevo Energy Company
Latitude:	34.428991	Longitude:	-118.674486
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

West
1 - 2 Miles — OIL_GAS — CA00011700

Well Number:	6	Status:	Completed oil
API Number:	03706724	Operator:	Nuevo Energy Company
Latitude:	34.428895	Longitude:	-118.665581
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — OIL_GAS — CA00011691

Well Number:	17	Status:	Completed oil
API Number:	03706735	Operator:	Nuevo Energy Company
Latitude:	34.428859	Longitude:	-118.661129
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00011906

Well Number:	9	Status:	Completed oil
API Number:	03706704	Operator:	Nuevo Energy Company
Latitude:	34.428846	Longitude:	-118.672105
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — OIL_GAS — CA00008178

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03706717	Operator:	Union Oil Company, Operator
Latitude:	34.428825	Longitude:	-118.656553
Region:	2	Lease:	Liebhart
Section:	15	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

West
2 - 3 Miles — OIL_GAS — CA00012669

Well Number:	4-17	Status:	Completed oil
API Number:	03706643	Operator:	LBth Inc
Latitude:	34.428772	Longitude:	-118.678721
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — OIL_GAS — CA00011672

Well Number:	7	Status:	Completed oil
API Number:	03706725	Operator:	Nuevo Energy Company
Latitude:	34.428739	Longitude:	-118.659057
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00012675

Well Number:	8-17	Status:	Completed oil
API Number:	03706647	Operator:	LBth Inc
Latitude:	34.428703	Longitude:	-118.676495
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles — OIL_GAS — CA00013579

Well Number:	71	Status:	169
API Number:	03706299	Operator:	Exxon Corp
Latitude:	34.428699	Longitude:	-118.601974
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	18	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

ENE
1/2 - 1 Mile — **OIL_GAS** — **CA00013574**

Well Number:	67	Status:	Plugged and abandoned oil
API Number:	03716526	Operator:	Exxon Corp
Latitude:	34.428670	Longitude:	-118.620842
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	13	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — **OIL_GAS** — **CA00011945**

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03706696	Operator:	Nuevo Energy Company
Latitude:	34.428605	Longitude:	-118.668116
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — **OIL_GAS** — **CA00011713**

Well Number:	1	Status:	Completed oil
API Number:	03706719	Operator:	Nuevo Energy Company
Latitude:	34.428587	Longitude:	-118.663200
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — **OIL_GAS** — **CA00011686**

Well Number:	12	Status:	Completed oil
API Number:	03706730	Operator:	Nuevo Energy Company
Latitude:	34.428564	Longitude:	-118.665148
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

West
2 - 3 Miles — **OIL_GAS** — **CA00012691**

Well Number:	12-17	Status:	Completed oil
API Number:	03706651	Operator:	LBth Inc
Latitude:	34.428471	Longitude:	-118.677020
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00011946**

Well Number:	10	Status:	Plugged and abandoned-dry hole
API Number:	03706705	Operator:	Nuevo Energy Company
Latitude:	34.428430	Longitude:	-118.674083
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00011925**

Well Number:	19	Status:	Completed oil- directional
API Number:	03706714	Operator:	Nuevo Energy Company
Latitude:	34.428406	Longitude:	-118.673743
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00011920**

Well Number:	14	Status:	Completed oil- directional
API Number:	03706709	Operator:	Nuevo Energy Company
Latitude:	34.428353	Longitude:	-118.674392
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

West
2 - 3 Miles — **OIL_GAS** — **CA00011923**

Well Number:	17	Status:	Completed oil
API Number:	03706712	Operator:	Nuevo Energy Company
Latitude:	34.428316	Longitude:	-118.670310
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — **OIL_GAS** — **CA00008179**

Well Number:	2	Status:	Plugged and abandoned-dry hole
API Number:	03706718	Operator:	Union Oil Company, Operator
Latitude:	34.428295	Longitude:	-118.654387
Region:	2	Lease:	Liebhart
Section:	15	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00011931**

Well Number:	5	Status:	Completed oil- directional
API Number:	03706700	Operator:	Nuevo Energy Company
Latitude:	34.428251	Longitude:	-118.674051
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00011947**

Well Number:	11	Status:	026
API Number:	03706706	Operator:	Nuevo Energy Company
Latitude:	34.428225	Longitude:	-118.674299
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

West
1 - 2 Miles — **OIL_GAS** — **CA00011696**

Well Number:	21	Status:	Completed oil
API Number:	03706739	Operator:	Nuevo Energy Company
Latitude:	34.428035	Longitude:	-118.663044
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — **OIL_GAS** — **CA00011690**

Well Number:	16	Status:	Completed oil
API Number:	03706734	Operator:	Nuevo Energy Company
Latitude:	34.427951	Longitude:	-118.665115
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00011927**

Well Number:	20	Status:	Completed oil- directional
API Number:	03706715	Operator:	Nuevo Energy Company
Latitude:	34.427846	Longitude:	-118.673216
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles — **OIL_GAS** — **CA00013572**

Well Number:	65	Status:	Plugged and abandoned oil-directional
API Number:	03716470	Operator:	Exxon Corp
Latitude:	34.427717	Longitude:	-118.615676
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	13	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

West
1 - 2 Miles — **OIL_GAS** — **CA00011689**

Well Number:	15	Status:	Completed oil
API Number:	03706733	Operator:	Nuevo Energy Company
Latitude:	34.427627	Longitude:	-118.662672
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — **OIL_GAS** — **CA00011928**

Well Number:	21	Status:	Completed oil- directional
API Number:	03706716	Operator:	Nuevo Energy Company
Latitude:	34.427530	Longitude:	-118.668454
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00011924**

Well Number:	18	Status:	Completed oil
API Number:	03706713	Operator:	Nuevo Energy Company
Latitude:	34.427495	Longitude:	-118.671113
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles — **OIL_GAS** — **CA00013570**

Well Number:	63	Status:	Plugged and abandoned oil-directional
API Number:	03700147	Operator:	Exxon Corp
Latitude:	34.427306	Longitude:	-118.609028
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	13	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

West
1 - 2 Miles — **OIL_GAS** — **CA00012728**

Well Number:	7	Status:	Completed oil
API Number:	03706669	Operator:	LBth Inc
Latitude:	34.427187	Longitude:	-118.656951
Region:	2	Lease:	Blair
Section:	15	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — **OIL_GAS** — **CA00011692**

Well Number:	18	Status:	Completed oil
API Number:	03706736	Operator:	Nuevo Energy Company
Latitude:	34.427181	Longitude:	-118.658714
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00012694**

Well Number:	15-17	Status:	Completed gas
API Number:	03706654	Operator:	LBth Inc
Latitude:	34.427042	Longitude:	-118.676337
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles — **OIL_GAS** — **CA00013571**

Well Number:	64	Status:	Plugged and abandoned oil
API Number:	03716525	Operator:	Exxon Corp
Latitude:	34.426960	Longitude:	-118.612985
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	13	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

West
1 - 2 Miles | OIL_GAS | CA00011673

Well Number:	8	Status:	Completed oil
API Number:	03706726	Operator:	Nuevo Energy Company
Latitude:	34.426952	Longitude:	-118.665577
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles | OIL_GAS | CA00011930

Well Number:	4	Status:	Completed oil
API Number:	03706699	Operator:	Nuevo Energy Company
Latitude:	34.426911	Longitude:	-118.670122
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles | OIL_GAS | CA00012671

Well Number:	5-17	Status:	Plugged and abandoned oil
API Number:	03706644	Operator:	LBth Inc
Latitude:	34.426888	Longitude:	-118.676553
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ENE
1/4 - 1/2 Mile | OIL_GAS | CA00013560

Well Number:	9	Status:	Plugged and abandoned-dry hole
API Number:	03716480	Operator:	Exxon Corp
Latitude:	34.426825	Longitude:	-118.629340
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	14	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

East
1 - 2 Miles | OIL_GAS | CA00013567

Well Number:	60	Status:	Plugged and abandoned oil
API Number:	03705101	Operator:	Exxon Corp
Latitude:	34.426786	Longitude:	-118.600438
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	18	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles | OIL_GAS | CA00011688

Well Number:	14	Status:	Completed oil
API Number:	03706732	Operator:	Nuevo Energy Company
Latitude:	34.426776	Longitude:	-118.664989
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles | OIL_GAS | CA00011699

Well Number:	5	Status:	Completed oil
API Number:	03706723	Operator:	Nuevo Energy Company
Latitude:	34.426782	Longitude:	-118.663227
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles | OIL_GAS | CA00011694

Well Number:	2	Status:	Completed oil
API Number:	03706720	Operator:	Nuevo Energy Company
Latitude:	34.426764	Longitude:	-118.661155
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

West
1 - 2 Miles | OIL_GAS | CA00011926

Well Number:	2	Status:	036
API Number:	03706697	Operator:	Nuevo Energy Company
Latitude:	34.426740	Longitude:	-118.667741
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles | OIL_GAS | CA00012698

Well Number:	19-17	Status:	Completed oil
API Number:	03706658	Operator:	LBth Inc
Latitude:	34.426701	Longitude:	-118.678872
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles | OIL_GAS | CA00012727

Well Number:	27	Status:	Completed oil
API Number:	03706670	Operator:	LBth Inc
Latitude:	34.426609	Longitude:	-118.654353
Region:	2	Lease:	Blair
Section:	15	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles | OIL_GAS | CA00011715

Well Number:	11	Status:	Completed oil
API Number:	03706729	Operator:	Nuevo Energy Company
Latitude:	34.426508	Longitude:	-118.661309
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

East
1/4 - 1/2 Mile | OIL_GAS | CA00013557

Well Number:	77	Status:	Plugged and abandoned-dry hole-directional
API Number:	03722047	Operator:	Exxon Corp
Latitude:	34.426314	Longitude:	-118.629247
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	14	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles | OIL_GAS | CA00011949

Well Number:	13	Status:	Completed oil
API Number:	03706708	Operator:	Nuevo Energy Company
Latitude:	34.426170	Longitude:	-118.670028
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
2 - 3 Miles | OIL_GAS | CA00013568

Well Number:	61	Status:	Plugged and abandoned oil-directional
API Number:	03716523	Operator:	Exxon Corp
Latitude:	34.425995	Longitude:	-118.595433
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	18	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles | OIL_GAS | CA00011693

Well Number:	19	Status:	Completed oil
API Number:	03706737	Operator:	Nuevo Energy Company
Latitude:	34.425971	Longitude:	-118.661185
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

West
2 - 3 Miles | OIL_GAS | CA00011933

Well Number:	7	Status:	Completed oil- directional
API Number:	03706702	Operator:	Nuevo Energy Company
Latitude:	34.425940	Longitude:	-118.669904
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles | OIL_GAS | CA00011921

Well Number:	15	Status:	Completed oil- directional
API Number:	03706710	Operator:	Nuevo Energy Company
Latitude:	34.425719	Longitude:	-118.674696
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles | OIL_GAS | CA00013593

Well Number:	59	Status:	Plugged and abandoned oil
API Number:	03716522	Operator:	Exxon Corp
Latitude:	34.425718	Longitude:	-118.603938
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	18	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1/2 - 1 Mile | OIL_GAS | CA00013592

Well Number:	58	Status:	Plugged and abandoned oil-directional
API Number:	03716521	Operator:	Exxon Corp
Latitude:	34.425693	Longitude:	-118.617125
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	13	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

West
2 - 3 Miles | OIL_GAS | CA00011932

Well Number:	6	Status:	Completed oil
API Number:	03706701	Operator:	Nuevo Energy Company
Latitude:	34.425592	Longitude:	-118.674510
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles | OIL_GAS | CA00012676

Well Number:	9-17	Status:	Completed oil
API Number:	03706648	Operator:	LBth Inc
Latitude:	34.425577	Longitude:	-118.678622
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles | OIL_GAS | CA00011695

Well Number:	20	Status:	Completed oil
API Number:	03706738	Operator:	Nuevo Energy Company
Latitude:	34.425524	Longitude:	-118.664770
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles | OIL_GAS | CA00012692

Well Number:	13-17	Status:	Completed oil- directional
API Number:	03706652	Operator:	LBth Inc
Latitude:	34.425457	Longitude:	-118.676674
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

West
1 - 2 Miles — OIL_GAS — CA00011934

Well Number:	8	Status:	036
API Number:	03706703	Operator:	Nuevo Energy Company
Latitude:	34.425331	Longitude:	-118.668913
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00012693

Well Number:	14-17	Status:	Plugged and abandoned oil
API Number:	03706653	Operator:	LBth Inc
Latitude:	34.425278	Longitude:	-118.676673
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1/4 - 1/2 Mile — OIL_GAS — CA00013584

Well Number:	50	Status:	Plugged and abandoned oil
API Number:	03716515	Operator:	Exxon Corp
Latitude:	34.425228	Longitude:	-118.640066
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	14	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1/2 - 1 Mile — OIL_GAS — CA00008933

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706695	Operator:	Texaco E & P Inc
Latitude:	34.425057	Longitude:	-118.645105
Region:	2	Lease:	Newhall
Section:	15	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

West
1/2 - 1 Mile — OIL_GAS — CA00013672

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706638	Operator:	Exxon Corp
Latitude:	34.424987	Longitude:	-118.650578
Region:	2	Lease:	Castaic Junction Gas Unit #1
Section:	15	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — OIL_GAS — CA00011948

Well Number:	12	Status:	Completed oil
API Number:	03706707	Operator:	Nuevo Energy Company
Latitude:	34.424829	Longitude:	-118.673426
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — OIL_GAS — CA00011674

Well Number:	9	Status:	Plugged and abandoned oil
API Number:	03706727	Operator:	Nuevo Energy Company
Latitude:	34.424807	Longitude:	-118.665325
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
0 - 1/8 Mile — OIL_GAS — CA00013634

Well Number:	2	Status:	Plugged and abandoned oil-directional
API Number:	03716473	Operator:	Exxon Corp
Latitude:	34.424787	Longitude:	-118.634809
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	14	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

West
1 - 2 Miles — **OIL_GAS** — **CA00011697**

Well Number:	3	Status:	Plugged and abandoned-dry hole
API Number:	03706721	Operator:	Nuevo Energy Company
Latitude:	34.424703	Longitude:	-118.658585
Region:	2	Lease:	Lincoln
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00012695**

Well Number:	16-17	Status:	Completed oil
API Number:	03706655	Operator:	LBth Inc
Latitude:	34.424691	Longitude:	-118.676394
Region:	2	Lease:	Vasquez
Section:	17	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00011922**

Well Number:	16	Status:	Oil well converted to water disposal
API Number:	03706711	Operator:	Nuevo Energy Company
Latitude:	34.424482	Longitude:	-118.670519
Region:	2	Lease:	Barnes
Section:	16	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
1 - 2 Miles — **OIL_GAS** — **CA00012672**

Well Number:	6	Status:	Completed oil
API Number:	03706694	Operator:	LBth Inc
Latitude:	34.423361	Longitude:	-118.668513
Region:	2	Lease:	Vasquez
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

West
1 - 2 Miles — **OIL_GAS** — **CA00013236**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706634	Operator:	Havenstrite Oil Co
Latitude:	34.423300	Longitude:	-118.658934
Region:	2	Lease:	Vasquez
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00012700**

Well Number:	3	Status:	Completed oil
API Number:	03706691	Operator:	LBth Inc
Latitude:	34.423283	Longitude:	-118.671345
Region:	2	Lease:	Vasquez
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00008995**

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03706633	Operator:	Texaco E & P Inc
Latitude:	34.423259	Longitude:	-118.676515
Region:	2	Lease:	Encinas Fee
Section:	20	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00014377**

Well Number:	4	Status:	Plugged and abandoned oil-directional
API Number:	03706692	Operator:	Chevron USA, Inc.
Latitude:	34.423186	Longitude:	-118.671558
Region:	2	Lease:	Vasquez
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

West
2 - 3 Miles — **OIL_GAS** — **CA00012699**

Well Number:	2-17	Status:	Completed oil
API Number:	03706690	Operator:	LBth Inc
Latitude:	34.422999	Longitude:	-118.673648
Region:	2	Lease:	Vasquez
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles — **OIL_GAS** — **CA00013621**

Well Number:	33	Status:	Plugged and abandoned oil
API Number:	03716503	Operator:	Exxon Corp
Latitude:	34.422943	Longitude:	-118.612414
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00012670**

Well Number:	5	Status:	Completed oil- directional
API Number:	03706693	Operator:	LBth Inc
Latitude:	34.422886	Longitude:	-118.673919
Region:	2	Lease:	Vasquez
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles — **OIL_GAS** — **CA00013599**

Well Number:	39	Status:	136
API Number:	03706409	Operator:	Exxon Corp
Latitude:	34.422889	Longitude:	-118.614261
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

East
1 - 2 Miles — **OIL_GAS** — **CA00013630**

Well Number:	16	Status:	Plugged and abandoned oil
API Number:	03716487	Operator:	Exxon Corp
Latitude:	34.422344	Longitude:	-118.608066
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles — **OIL_GAS** — **CA00013601**

Well Number:	40	Status:	Plugged and abandoned oil
API Number:	03716507	Operator:	Exxon Corp
Latitude:	34.422263	Longitude:	-118.609969
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles — **OIL_GAS** — **CA00013622**

Well Number:	34	Status:	Plugged and abandoned oil
API Number:	03716504	Operator:	Exxon Corp
Latitude:	34.422208	Longitude:	-118.604877
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1/2 - 1 Mile — **OIL_GAS** — **CA00013623**

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03716472	Operator:	Exxon Corp
Latitude:	34.422040	Longitude:	-118.625317
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	23	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

ESE
1 - 2 Miles — **OIL_GAS** — **CA00013626**

Well Number:	12	Status:	Plugged and abandoned oil
API Number:	03716483	Operator:	Exxon Corp
Latitude:	34.421679	Longitude:	-118.617297
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00014213**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706632	Operator:	Conoco Inc
Latitude:	34.421566	Longitude:	-118.678243
Region:	2	Lease:	Newhall
Section:	20	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
2 - 3 Miles — **OIL_GAS** — **CA00014751**

Well Number:	6	Status:	Plugged and abandoned-dry hole
API Number:	03716536	Operator:	Chevron USA, Inc.
Latitude:	34.420819	Longitude:	-118.596350
Region:	2	Lease:	Newhall Land & Farming
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00008706**

Well Number:	2	Status:	Plugged and abandoned oil
API Number:	03706663	Operator:	The Newhall Land & Farming Co
Latitude:	34.420664	Longitude:	-118.671385
Region:	2	Lease:	Socal
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

South
1/4 - 1/2 Mile — **OIL_GAS** — **CA00013606**

Well Number:	45	Status:	Plugged and abandoned-dry hole
API Number:	03716511	Operator:	Exxon Corp
Latitude:	34.420650	Longitude:	-118.634767
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	23	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00008705**

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03706662	Operator:	The Newhall Land & Farming Co
Latitude:	34.420525	Longitude:	-118.673550
Region:	2	Lease:	Socal
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — **OIL_GAS** — **CA00013614**

Well Number:	27	Status:	Plugged and abandoned oil
API Number:	03716498	Operator:	Exxon Corp
Latitude:	34.420239	Longitude:	-118.614736
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

East
1 - 2 Miles — **OIL_GAS** — **CA00013616**

Well Number:	29	Status:	136
API Number:	03706300	Operator:	Exxon Corp
Latitude:	34.420225	Longitude:	-118.600935
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

ESE
1 - 2 Miles — **OIL_GAS** — **CA00013631**

Well Number:	17	Status:	Plugged and abandoned oil
API Number:	03716488	Operator:	Exxon Corp
Latitude:	34.420220	Longitude:	-118.606611
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1/4 - 1/2 Mile — **OIL_GAS** — **CA00013588**

Well Number:	54	Status:	Plugged and abandoned-dry hole-directional
API Number:	03716517	Operator:	Exxon Corp
Latitude:	34.420122	Longitude:	-118.638090
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	23	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — **OIL_GAS** — **CA00013628**

Well Number:	14	Status:	Plugged and abandoned oil
API Number:	03716485	Operator:	Exxon Corp
Latitude:	34.419900	Longitude:	-118.612093
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

West
2 - 3 Miles — **OIL_GAS** — **CA00012701**

Well Number:	12-20	Status:	Completed oil- directional
API Number:	03722746	Operator:	LBth Inc
Latitude:	34.419879	Longitude:	-118.678301
Region:	2	Lease:	N. L. & F.
Section:	20	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

West
2 - 3 Miles — **OIL_GAS** — **CA00012702**

Well Number:	14-20	Status:	Completed oil
API Number:	03729957	Operator:	LBth Inc
Latitude:	34.419675	Longitude:	-118.678146
Region:	2	Lease:	N. L. & F.
Section:	20	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1/2 - 1 Mile — **OIL_GAS** — **CA00013594**

Well Number:	6	Status:	Plugged and abandoned oil
API Number:	03716477	Operator:	Exxon Corp
Latitude:	34.419343	Longitude:	-118.618768
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — **OIL_GAS** — **CA00013635**

Well Number:	20	Status:	Plugged and abandoned oil
API Number:	03716491	Operator:	Exxon Corp
Latitude:	34.419305	Longitude:	-118.603759
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — **OIL_GAS** — **CA00013620**

Well Number:	32	Status:	Plugged and abandoned oil
API Number:	03716502	Operator:	Exxon Corp
Latitude:	34.419300	Longitude:	-118.608938
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

ESE
2 - 3 Miles — OIL_GAS — CA00013595

Well Number:	35	Status:	Plugged and abandoned oil
API Number:	03716505	Operator:	Exxon Corp
Latitude:	34.419067	Longitude:	-118.598330
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1/2 - 1 Mile — OIL_GAS — CA00013624

Well Number:	10	Status:	Plugged and abandoned oil
API Number:	03716481	Operator:	Exxon Corp
Latitude:	34.418972	Longitude:	-118.622942
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	23	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — OIL_GAS — CA00013612

Well Number:	25	Status:	136
API Number:	03716496	Operator:	Exxon Corp
Latitude:	34.418950	Longitude:	-118.618369
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — OIL_GAS — CA00013559

Well Number:	8	Status:	Plugged and abandoned oil
API Number:	03716479	Operator:	Exxon Corp
Latitude:	34.418401	Longitude:	-118.616208
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

WSW
2 - 3 Miles — OIL_GAS — CA00007251

Well Number:	8-20	Status:	Completed oil
API Number:	03722323	Operator:	Vintage Petroleum Inc
Latitude:	34.418247	Longitude:	-118.677247
Region:	2	Lease:	N. L. & F.
Section:	20	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WSW
2 - 3 Miles — OIL_GAS — CA00007269

Well Number:	11-20	Status:	Completed oil- directional
API Number:	03722738	Operator:	Vintage Petroleum Inc
Latitude:	34.418095	Longitude:	-118.676968
Region:	2	Lease:	N. L. & F.
Section:	20	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1/2 - 1 Mile — OIL_GAS — CA00013590

Well Number:	56	Status:	Plugged and abandoned oil-directional
API Number:	03716519	Operator:	Exxon Corp
Latitude:	34.418097	Longitude:	-118.625511
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	23	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WSW
2 - 3 Miles — OIL_GAS — CA00007247

Well Number:	4-20	Status:	Drilling-idle
API Number:	03722308	Operator:	Vintage Petroleum Inc
Latitude:	34.418068	Longitude:	-118.677339
Region:	2	Lease:	N. L. & F.
Section:	20	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

ESE
1 - 2 Miles — OIL_GAS — CA00013627

Well Number:	13	Status:	Plugged and abandoned oil
API Number:	03716484	Operator:	Exxon Corp
Latitude:	34.418069	Longitude:	-118.607116
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1/2 - 1 Mile — OIL_GAS — CA00013607

Well Number:	46	Status:	Plugged and abandoned oil
API Number:	03716512	Operator:	Exxon Corp
Latitude:	34.417857	Longitude:	-118.625595
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	23	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1/2 - 1 Mile — OIL_GAS — CA00013603

Well Number:	42	Status:	Plugged and abandoned gas
API Number:	03716509	Operator:	Exxon Corp
Latitude:	34.417819	Longitude:	-118.621121
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — OIL_GAS — CA00013617

Well Number:	3	Status:	Plugged and abandoned oil
API Number:	03716474	Operator:	Exxon Corp
Latitude:	34.417690	Longitude:	-118.619161
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

ESE
1 - 2 Miles — OIL_GAS — CA00013636

Well Number:	21	Status:	Plugged and abandoned oil
API Number:	03716492	Operator:	Exxon Corp
Latitude:	34.417500	Longitude:	-118.602317
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1/2 - 1 Mile — OIL_GAS — CA00013586

Well Number:	52	Status:	137
API Number:	03716516	Operator:	Exxon Corp
Latitude:	34.417322	Longitude:	-118.627121
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	23	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — OIL_GAS — CA00013629

Well Number:	15	Status:	Plugged and abandoned oil
API Number:	03716486	Operator:	Exxon Corp
Latitude:	34.417226	Longitude:	-118.610494
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
1/2 - 1 Mile — OIL_GAS — CA00013591

Well Number:	57	Status:	Plugged and abandoned-dry hole-directional
API Number:	03716520	Operator:	Exxon Corp
Latitude:	34.417166	Longitude:	-118.629478
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	23	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

ESE
1 - 2 Miles — OIL_GAS — CA00013613

Well Number:	26	Status:	Plugged and abandoned oil
API Number:	03716497	Operator:	Exxon Corp
Latitude:	34.416961	Longitude:	-118.613448
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — OIL_GAS — CA00013600

Well Number:	4	Status:	Plugged and abandoned oil
API Number:	03716475	Operator:	Exxon Corp
Latitude:	34.416748	Longitude:	-118.604866
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
2 - 3 Miles — OIL_GAS — CA00013596

Well Number:	36	Status:	Plugged and abandoned oil
API Number:	03706353	Operator:	Exxon Corp
Latitude:	34.416730	Longitude:	-118.594291
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
2 - 3 Miles — OIL_GAS — CA00013619

Well Number:	31	Status:	Plugged and abandoned oil-directional
API Number:	03716501	Operator:	Exxon Corp
Latitude:	34.416720	Longitude:	-118.598237
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

ESE
1 - 2 Miles — OIL_GAS — CA00013577

Well Number:	7	Status:	Plugged and abandoned oil
API Number:	03716478	Operator:	Exxon Corp
Latitude:	34.416152	Longitude:	-118.608730
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
1 - 2 Miles — OIL_GAS — CA00010738

Well Number:	1	Status:	Plugged and abandoned-dry hole-directional
API Number:	03722352	Operator:	Quintana Petroleum Corp
Latitude:	34.414731	Longitude:	-118.646321
Region:	2	Lease:	NL&F-Trifield
Section:	22	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — OIL_GAS — CA00013583

Well Number:	5	Status:	Plugged and abandoned oil
API Number:	03716476	Operator:	Exxon Corp
Latitude:	34.414706	Longitude:	-118.612305
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — OIL_GAS — CA00013633

Well Number:	19	Status:	Plugged and abandoned oil
API Number:	03716490	Operator:	Exxon Corp
Latitude:	34.414621	Longitude:	-118.603049
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SE
1 - 2 Miles — **OIL_GAS** — **CA00013632**

Well Number:	18	Status:	Plugged and abandoned oil
API Number:	03716489	Operator:	Exxon Corp
Latitude:	34.414409	Longitude:	-118.620771
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WSW
2 - 3 Miles — **OIL_GAS** — **CA00010733**

Well Number:	1-21	Status:	Plugged and abandoned oil-directional
API Number:	03722347	Operator:	Quintana Petroleum Corp
Latitude:	34.414386	Longitude:	-118.675377
Region:	2	Lease:	N. L. & F.
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1 - 2 Miles — **OIL_GAS** — **CA00013610**

Well Number:	23	Status:	Plugged and abandoned oil
API Number:	03716494	Operator:	Exxon Corp
Latitude:	34.414335	Longitude:	-118.616708
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — **OIL_GAS** — **CA00013611**

Well Number:	24	Status:	Plugged and abandoned oil
API Number:	03716495	Operator:	Exxon Corp
Latitude:	34.413945	Longitude:	-118.605969
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

ESE
2 - 3 Miles — **OIL_GAS** — **CA00013615**

Well Number:	28	Status:	Plugged and abandoned oil
API Number:	03716499	Operator:	Exxon Corp
Latitude:	34.413946	Longitude:	-118.600944
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — **OIL_GAS** — **CA00013646**

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03706359	Operator:	Exxon Corp
Latitude:	34.413921	Longitude:	-118.609888
Region:	2	Lease:	Newhall Corporation
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1 - 2 Miles — **OIL_GAS** — **CA00013625**

Well Number:	11	Status:	Plugged and abandoned oil
API Number:	03716482	Operator:	Exxon Corp
Latitude:	34.413576	Longitude:	-118.613921
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1 - 2 Miles — **OIL_GAS** — **CA00013558**

Well Number:	78	Status:	Plugged and abandoned-dry hole
API Number:	03722728	Operator:	Exxon Corp
Latitude:	34.413208	Longitude:	-118.623247
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	23	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

ESE
2 - 3 Miles — **OIL_GAS** — **CA00013618**

Well Number:	30	Status:	Plugged and abandoned oil
API Number:	03716500	Operator:	Exxon Corp
Latitude:	34.413191	Longitude:	-118.598683
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
2 - 3 Miles — **OIL_GAS** — **CA00013597**

Well Number:	37	Status:	Plugged and abandoned oil
API Number:	03713506	Operator:	Exxon Corp
Latitude:	34.413175	Longitude:	-118.596309
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1 - 2 Miles — **OIL_GAS** — **CA00013587**

Well Number:	53	Status:	136
API Number:	03706358	Operator:	Exxon Corp
Latitude:	34.413070	Longitude:	-118.622358
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1 - 2 Miles — **OIL_GAS** — **CA00013609**

Well Number:	22	Status:	136
API Number:	03716493	Operator:	Exxon Corp
Latitude:	34.412628	Longitude:	-118.617868
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

ESE
1 - 2 Miles — **OIL_GAS** — **CA00013602**

Well Number:	41	Status:	Plugged and abandoned oil
API Number:	03716508	Operator:	Exxon Corp
Latitude:	34.412374	Longitude:	-118.603543
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1 - 2 Miles — **OIL_GAS** — **CA00013647**

Well Number:	2	Status:	Plugged and abandoned-dry hole
API Number:	03716471	Operator:	Exxon Corp
Latitude:	34.412161	Longitude:	-118.612355
Region:	2	Lease:	Newhall Corporation
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
1 - 2 Miles — **OIL_GAS** — **CA00013648**

Well Number:	3	Status:	Plugged and abandoned oil
API Number:	03706298	Operator:	Exxon Corp
Latitude:	34.411406	Longitude:	-118.606614
Region:	2	Lease:	Newhall Corporation
Section:	24	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00011180**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03712619	Operator:	Oryx Energy Co.
Latitude:	34.411341	Longitude:	-118.641297
Region:	2	Lease:	Newhall Land and Farming
Section:	22	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

ESE
2 - 3 Miles — **OIL_GAS** — **CA00013581**

Well Number:	48	Status:	Plugged and abandoned oil
API Number:	03716513	Operator:	Exxon Corp
Latitude:	34.411173	Longitude:	-118.598564
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WSW
1 - 2 Miles — **OIL_GAS** — **CA00008951**

Well Number:	2	Status:	Plugged and abandoned-dry hole
API Number:	03712659	Operator:	Texaco E & P Inc
Latitude:	34.410582	Longitude:	-118.664094
Region:	2	Lease:	N. L. & F.
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

ESE
2 - 3 Miles — **OIL_GAS** — **CA00013582**

Well Number:	49	Status:	Plugged and abandoned oil
API Number:	03716514	Operator:	Exxon Corp
Latitude:	34.410224	Longitude:	-118.599815
Region:	2	Lease:	Newhall Land & Farming Co.
Section:	19	Township:	04N
Range:	16W	Map Number:	252
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

WSW
1 - 2 Miles — **OIL_GAS** — **CA00008950**

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03712658	Operator:	Texaco E & P Inc
Latitude:	34.409984	Longitude:	-118.662582
Region:	2	Lease:	N. L. & F.
Section:	21	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SW
1 - 2 Miles — **OIL_GAS** — **CA00008934**

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03712660	Operator:	Texaco E & P Inc
Latitude:	34.409727	Longitude:	-118.656815
Region:	2	Lease:	Newhall
Section:	22	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012400**

Well Number:	152	Status:	Plugged and abandoned oil
API Number:	03712654	Operator:	Medallion Calif Prpts Co
Latitude:	34.408044	Longitude:	-118.638431
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012416**

Well Number:	142	Status:	136
API Number:	03712895	Operator:	Medallion Calif Prpts Co
Latitude:	34.407981	Longitude:	-118.644284
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
1 - 2 Miles — **OIL_GAS** — **CA00011167**

Well Number:	134	Status:	136
API Number:	03712888	Operator:	Oryx Energy Co.
Latitude:	34.407966	Longitude:	-118.653138
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012393**

Well Number:	145	Status:	136
API Number:	03712898	Operator:	Medallion Calif Prpts Co
Latitude:	34.407775	Longitude:	-118.643927
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
1 - 2 Miles — **OIL_GAS** — **CA00011135**

Well Number:	62	Status:	Plugged and abandoned oil
API Number:	03712875	Operator:	Oryx Energy Co.
Latitude:	34.407770	Longitude:	-118.657084
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
1 - 2 Miles — **OIL_GAS** — **CA00011160**

Well Number:	104	Status:	136
API Number:	03713283	Operator:	Oryx Energy Co.
Latitude:	34.407720	Longitude:	-118.658997
Region:	2	Lease:	Rancho San Francisco
Section:	28	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00011168**

Well Number:	135	Status:	Plugged and abandoned oil
API Number:	03712889	Operator:	Oryx Energy Co.
Latitude:	34.407666	Longitude:	-118.640469
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SW
1 - 2 Miles — **OIL_GAS** — **CA00011144**

Well Number:	86	Status:	Plugged and abandoned oil
API Number:	03713265	Operator:	Oryx Energy Co.
Latitude:	34.407367	Longitude:	-118.654801
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
1 - 2 Miles — **OIL_GAS** — **CA00012359**

Well Number:	66	Status:	036
API Number:	03710663	Operator:	Medallion Calif Prpts Co
Latitude:	34.407327	Longitude:	-118.650194
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
1 - 2 Miles — **OIL_GAS** — **CA00012370**

Well Number:	41	Status:	Plugged and abandoned oil
API Number:	03712855	Operator:	Medallion Calif Prpts Co
Latitude:	34.407234	Longitude:	-118.652701
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012396**

Well Number:	148	Status:	Completed oil
API Number:	03710658	Operator:	Medallion Calif Prpts Co
Latitude:	34.407216	Longitude:	-118.631878
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012402**

Well Number:	154	Status:	Completed oil
API Number:	03712656	Operator:	Medallion Calif Prpts Co
Latitude:	34.406719	Longitude:	-118.641473
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012418**

Well Number:	144	Status:	036
API Number:	03712897	Operator:	Medallion Calif Prpts Co
Latitude:	34.406710	Longitude:	-118.636999
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012431**

Well Number:	127	Status:	Completed oil
API Number:	03712881	Operator:	Medallion Calif Prpts Co
Latitude:	34.406675	Longitude:	-118.646809
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1 - 2 Miles — **OIL_GAS** — **CA00011122**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03706028	Operator:	Oryx Energy Co.
Latitude:	34.406603	Longitude:	-118.608929
Region:	2	Lease:	Sunray-McCulloch NCS
Section:	25	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SW
1 - 2 Miles — **OIL_GAS** — **CA00012442**

Well Number:	111	Status:	Completed oil
API Number:	03713290	Operator:	Medallion Calif Prpts Co
Latitude:	34.406594	Longitude:	-118.653065
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
1 - 2 Miles — **OIL_GAS** — **CA00012421**

Well Number:	116	Status:	Completed oil
API Number:	03713295	Operator:	Medallion Calif Prpts Co
Latitude:	34.406485	Longitude:	-118.652590
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
1 - 2 Miles — **OIL_GAS** — **CA00012394**

Well Number:	146	Status:	Completed oil
API Number:	03712899	Operator:	Medallion Calif Prpts Co
Latitude:	34.406463	Longitude:	-118.650544
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
1 - 2 Miles — **OIL_GAS** — **CA00011172**

Well Number:	155	Status:	Plugged and abandoned oil
API Number:	03712657	Operator:	Oryx Energy Co.
Latitude:	34.406209	Longitude:	-118.626209
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance | Database | EDR ID Number

SW
1 - 2 Miles | **OIL_GAS** | **CA00012439**

Well Number:	107	Status:	Completed oil
API Number:	03713286	Operator:	Medallion Calif Prpts Co
Latitude:	34.406113	Longitude:	-118.650383
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
1 - 2 Miles | **OIL_GAS** | **CA00011158**

Well Number:	56	Status:	Plugged and abandoned oil
API Number:	03712868	Operator:	Oryx Energy Co.
Latitude:	34.406045	Longitude:	-118.654267
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | **OIL_GAS** | **CA00012415**

Well Number:	141	Status:	Completed oil
API Number:	03712894	Operator:	Medallion Calif Prpts Co
Latitude:	34.405879	Longitude:	-118.634270
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles | **OIL_GAS** | **CA00011162**

Well Number:	110	Status:	Plugged and abandoned oil
API Number:	03713289	Operator:	Oryx Energy Co.
Latitude:	34.405769	Longitude:	-118.649093
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance | Database | EDR ID Number

SSW
1 - 2 Miles | **OIL_GAS** | **CA00012428**

Well Number:	124	Status:	Completed oil
API Number:	03712878	Operator:	Medallion Calif Prpts Co
Latitude:	34.405729	Longitude:	-118.644447
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | **OIL_GAS** | **CA00012429**

Well Number:	125	Status:	Completed oil
API Number:	03712879	Operator:	Medallion Calif Prpts Co
Latitude:	34.405673	Longitude:	-118.636915
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
1 - 2 Miles | **OIL_GAS** | **CA00012389**

Well Number:	27	Status:	Plugged and abandoned oil
API Number:	03712645	Operator:	Medallion Calif Prpts Co
Latitude:	34.405593	Longitude:	-118.652138
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles | **OIL_GAS** | **CA00012391**

Well Number:	29	Status:	Completed oil
API Number:	03712647	Operator:	Medallion Calif Prpts Co
Latitude:	34.405587	Longitude:	-118.650284
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012373**

Well Number:	45	Status:	Completed oil
API Number:	03712858	Operator:	Medallion Calif Prpts Co
Latitude:	34.405456	Longitude:	-118.647783
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012374**

Well Number:	47	Status:	036
API Number:	03712860	Operator:	Medallion Calif Prpts Co
Latitude:	34.405450	Longitude:	-118.645909
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
1 - 2 Miles — **OIL_GAS** — **CA00012395**

Well Number:	147	Status:	036
API Number:	03712900	Operator:	Medallion Calif Prpts Co
Latitude:	34.405297	Longitude:	-118.629468
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012423**

Well Number:	119	Status:	Completed oil
API Number:	03713297	Operator:	Medallion Calif Prpts Co
Latitude:	34.405276	Longitude:	-118.639661
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012419**

Well Number:	114	Status:	Completed oil
API Number:	03713293	Operator:	Medallion Calif Prpts Co
Latitude:	34.405266	Longitude:	-118.647463
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012412**

Well Number:	137	Status:	Completed oil
API Number:	03712890	Operator:	Medallion Calif Prpts Co
Latitude:	34.404787	Longitude:	-118.647592
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SE
1 - 2 Miles — **OIL_GAS** — **CA00012462**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03705637	Operator:	Mcor Oil and Gas Corporation
Latitude:	34.404634	Longitude:	-118.610344
Region:	2	Lease:	McCulloch NC
Section:	25	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00011169**

Well Number:	138	Status:	Plugged and abandoned oil
API Number:	03712891	Operator:	Oryx Energy Co.
Latitude:	34.404547	Longitude:	-118.641614
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SW
1 - 2 Miles — **OIL_GAS** — **CA00011164**

Well Number:	121	Status:	Plugged and abandoned oil
API Number:	03700071	Operator:	Oryx Energy Co.
Latitude:	34.404364	Longitude:	-118.652213
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012411**

Well Number:	136	Status:	Idle oil
API Number:	03706405	Operator:	Medallion Calif Prpts Co
Latitude:	34.404333	Longitude:	-118.648944
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012385**

Well Number:	23	Status:	Idle oil
API Number:	03712642	Operator:	Medallion Calif Prpts Co
Latitude:	34.404289	Longitude:	-118.648162
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012426**

Well Number:	122	Status:	Completed oil
API Number:	03713299	Operator:	Medallion Calif Prpts Co
Latitude:	34.404277	Longitude:	-118.635216
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012436**

Well Number:	102	Status:	Completed oil
API Number:	03713282	Operator:	Medallion Calif Prpts Co
Latitude:	34.404219	Longitude:	-118.646290
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00011132**

Well Number:	59	Status:	136
API Number:	03712871	Operator:	Oryx Energy Co.
Latitude:	34.403982	Longitude:	-118.639738
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012410**

Well Number:	132	Status:	108
API Number:	03712886	Operator:	Medallion Calif Prpts Co
Latitude:	34.403961	Longitude:	-118.631592
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012390**

Well Number:	28	Status:	Completed oil
API Number:	03712646	Operator:	Medallion Calif Prpts Co
Latitude:	34.403889	Longitude:	-118.645343
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SW
1 - 2 Miles — **OIL_GAS** — **CA00011136**

Well Number:	63	Status:	Plugged and abandoned oil
API Number:	03712876	Operator:	Oryx Energy Co.
Latitude:	34.403850	Longitude:	-118.652649
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012443**

Well Number:	112	Status:	036
API Number:	03713291	Operator:	Medallion Calif Prpts Co
Latitude:	34.403810	Longitude:	-118.642229
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00011155**

Well Number:	48	Status:	136
API Number:	03712861	Operator:	Oryx Energy Co.
Latitude:	34.403796	Longitude:	-118.641751
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012387**

Well Number:	25	Status:	108
API Number:	03712644	Operator:	Medallion Calif Prpts Co
Latitude:	34.403766	Longitude:	-118.650434
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012440**

Well Number:	108	Status:	Completed oil
API Number:	03713287	Operator:	Medallion Calif Prpts Co
Latitude:	34.403720	Longitude:	-118.641008
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00011154**

Well Number:	46	Status:	Plugged and abandoned oil
API Number:	03712859	Operator:	Oryx Energy Co.
Latitude:	34.403691	Longitude:	-118.643456
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012355**

Well Number:	58	Status:	Completed oil
API Number:	03712870	Operator:	Medallion Calif Prpts Co
Latitude:	34.403614	Longitude:	-118.643000
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00011138**

Well Number:	75	Status:	Plugged and abandoned oil
API Number:	03713254	Operator:	Oryx Energy Co.
Latitude:	34.403439	Longitude:	-118.639869
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SSW
1 - 2 Miles | **OIL_GAS** | **CA00011165**

Well Number:	131	Status:	Plugged and abandoned oil
API Number:	03712885	Operator:	Oryx Energy Co.
Latitude:	34.403208	Longitude:	-118.644255
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | **OIL_GAS** | **CA00012332**

Well Number:	97	Status:	036
API Number:	03713277	Operator:	Medallion Calif Prpts Co
Latitude:	34.403133	Longitude:	-118.637277
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
1 - 2 Miles | **OIL_GAS** | **CA00012417**

Well Number:	143	Status:	Completed oil
API Number:	03712896	Operator:	Medallion Calif Prpts Co
Latitude:	34.402996	Longitude:	-118.626936
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles | **OIL_GAS** | **CA00012444**

Well Number:	113	Status:	108
API Number:	03713292	Operator:	Medallion Calif Prpts Co
Latitude:	34.402974	Longitude:	-118.645075
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SSW
1 - 2 Miles | **OIL_GAS** | **CA00012425**

Well Number:	120	Status:	Completed oil
API Number:	03713298	Operator:	Medallion Calif Prpts Co
Latitude:	34.402959	Longitude:	-118.639979
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | **OIL_GAS** | **CA00012407**

Well Number:	129	Status:	Plugged and abandoned oil
API Number:	03712883	Operator:	Medallion Calif Prpts Co
Latitude:	34.402778	Longitude:	-118.637995
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles | **OIL_GAS** | **CA00011170**

Well Number:	140	Status:	Plugged and abandoned oil
API Number:	03712893	Operator:	Oryx Energy Co.
Latitude:	34.402426	Longitude:	-118.650340
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
1 - 2 Miles | **OIL_GAS** | **CA00011179**

Well Number:	6-7	Status:	Plugged and abandoned oil
API Number:	03712618	Operator:	Oryx Energy Co.
Latitude:	34.402421	Longitude:	-118.623989
Region:	2	Lease:	Newhall Corp.-Wolfson
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

South
1 - 2 Miles — **OIL_GAS** — **CA00012377**

Well Number:	52	Status:	136
API Number:	03712865	Operator:	Medallion Calif Prpts Co
Latitude:	34.402382	Longitude:	-118.637472
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012382**

Well Number:	20	Status:	Plugged and abandoned oil
API Number:	03712639	Operator:	Medallion Calif Prpts Co
Latitude:	34.402287	Longitude:	-118.646443
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012383**

Well Number:	21	Status:	Completed oil
API Number:	03712640	Operator:	Medallion Calif Prpts Co
Latitude:	34.402204	Longitude:	-118.641034
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00011173**

Well Number:	17	Status:	Plugged and abandoned oil
API Number:	03712636	Operator:	Oryx Energy Co.
Latitude:	34.402171	Longitude:	-118.644209
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

South
1 - 2 Miles — **OIL_GAS** — **CA00012365**

Well Number:	72	Status:	Completed oil
API Number:	03713251	Operator:	Medallion Calif Prpts Co
Latitude:	34.402078	Longitude:	-118.637615
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012388**

Well Number:	26	Status:	046
API Number:	03700069	Operator:	Medallion Calif Prpts Co
Latitude:	34.402025	Longitude:	-118.650658
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012358**

Well Number:	65	Status:	Completed oil
API Number:	03713245	Operator:	Medallion Calif Prpts Co
Latitude:	34.402027	Longitude:	-118.635092
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00011142**

Well Number:	84	Status:	136
API Number:	03713263	Operator:	Oryx Energy Co.
Latitude:	34.402023	Longitude:	-118.632798
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012386**

Well Number:	24	Status:	Completed oil
API Number:	03712643	Operator:	Medallion Calif Prpts Co
Latitude:	34.401942	Longitude:	-118.648270
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012379**

Well Number:	54	Status:	Completed oil
API Number:	03712866	Operator:	Medallion Calif Prpts Co
Latitude:	34.401892	Longitude:	-118.639475
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012372**

Well Number:	44	Status:	Completed oil
API Number:	03712775	Operator:	Medallion Calif Prpts Co
Latitude:	34.401655	Longitude:	-118.639119
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SW
2 - 3 Miles — **OIL_GAS** — **CA00011166**

Well Number:	133	Status:	Plugged and abandoned-dry hole
API Number:	03712887	Operator:	Oryx Energy Co.
Latitude:	34.401605	Longitude:	-118.657611
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

South
1 - 2 Miles — **OIL_GAS** — **CA00012420**

Well Number:	115	Status:	Completed oil
API Number:	03713294	Operator:	Medallion Calif Prpts Co
Latitude:	34.401452	Longitude:	-118.635262
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012435**

Well Number:	101	Status:	Completed gas
API Number:	03713281	Operator:	Medallion Calif Prpts Co
Latitude:	34.401368	Longitude:	-118.642110
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012441**

Well Number:	109	Status:	Completed oil
API Number:	03713288	Operator:	Medallion Calif Prpts Co
Latitude:	34.401373	Longitude:	-118.632033
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00011145**

Well Number:	98	Status:	136
API Number:	03713278	Operator:	Oryx Energy Co.
Latitude:	34.401273	Longitude:	-118.647984
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SSE
1 - 2 Miles — **OIL_GAS** — **CA00011174**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03712613	Operator:	Oryx Energy Co.
Latitude:	34.401215	Longitude:	-118.625593
Region:	2	Lease:	Newhall Corp.-Wolfson
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012398**

Well Number:	150	Status:	Completed oil
API Number:	03712652	Operator:	Medallion Calif Prpts Co
Latitude:	34.400628	Longitude:	-118.643242
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00011159**

Well Number:	57	Status:	136
API Number:	03712869	Operator:	Oryx Energy Co.
Latitude:	34.400633	Longitude:	-118.633068
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012378**

Well Number:	53	Status:	Completed oil
API Number:	03700070	Operator:	Medallion Calif Prpts Co
Latitude:	34.400601	Longitude:	-118.639246
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012408**

Well Number:	13	Status:	Completed oil
API Number:	03712632	Operator:	Medallion Calif Prpts Co
Latitude:	34.400556	Longitude:	-118.641637
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012406**

Well Number:	128	Status:	Completed oil
API Number:	03712882	Operator:	Medallion Calif Prpts Co
Latitude:	34.400510	Longitude:	-118.635290
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00011141**

Well Number:	8	Status:	Plugged and abandoned oil
API Number:	03712627	Operator:	Oryx Energy Co.
Latitude:	34.400424	Longitude:	-118.639481
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012380**

Well Number:	19	Status:	Completed oil
API Number:	03712638	Operator:	Medallion Calif Prpts Co
Latitude:	34.400273	Longitude:	-118.643826
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

South
1 - 2 Miles — **OIL_GAS** — **CA00011171**

Well Number:	15	Status:	Plugged and abandoned oil
API Number:	03712634	Operator:	Oryx Energy Co.
Latitude:	34.400228	Longitude:	-118.637345
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012344**

Well Number:	80	Status:	Completed oil
API Number:	03713259	Operator:	Medallion Calif Prpts Co
Latitude:	34.400233	Longitude:	-118.630250
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012375**

Well Number:	50	Status:	Plugged and abandoned oil
API Number:	03712863	Operator:	Medallion Calif Prpts Co
Latitude:	34.400173	Longitude:	-118.635511
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012422**

Well Number:	118	Status:	Completed gas
API Number:	03713296	Operator:	Medallion Calif Prpts Co
Latitude:	34.400144	Longitude:	-118.637997
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012384**

Well Number:	22	Status:	Plugged and abandoned oil
API Number:	03712641	Operator:	Medallion Calif Prpts Co
Latitude:	34.400086	Longitude:	-118.646126
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
1 - 2 Miles — **OIL_GAS** — **CA00011143**

Well Number:	85	Status:	136
API Number:	03713264	Operator:	Oryx Energy Co.
Latitude:	34.400023	Longitude:	-118.627790
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012364**

Well Number:	71	Status:	Completed oil
API Number:	03713250	Operator:	Medallion Calif Prpts Co
Latitude:	34.399995	Longitude:	-118.636071
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00011134**

Well Number:	61	Status:	Plugged and abandoned oil
API Number:	03712873	Operator:	Oryx Energy Co.
Latitude:	34.399819	Longitude:	-118.633035
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SSE
1 - 2 Miles — **OIL_GAS** — **CA00011175**

Well Number:	2-7	Status:	Plugged and abandoned oil
API Number:	03712614	Operator:	Oryx Energy Co.
Latitude:	34.399762	Longitude:	-118.625771
Region:	2	Lease:	Newhall Corp.-Wolfson
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012427**

Well Number:	123	Status:	Completed oil
API Number:	03713300	Operator:	Medallion Calif Prpts Co
Latitude:	34.399348	Longitude:	-118.631520
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012437**

Well Number:	105	Status:	Completed oil
API Number:	03713284	Operator:	Medallion Calif Prpts Co
Latitude:	34.399089	Longitude:	-118.635275
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012330**

Well Number:	95	Status:	Completed oil
API Number:	03713275	Operator:	Medallion Calif Prpts Co
Latitude:	34.399072	Longitude:	-118.644607
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SSW
1 - 2 Miles — **OIL_GAS** — **CA00011146**

Well Number:	30	Status:	Plugged and abandoned oil
API Number:	03712648	Operator:	Oryx Energy Co.
Latitude:	34.398936	Longitude:	-118.643101
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012346**

Well Number:	82	Status:	Oil well converted to water disposal
API Number:	03713261	Operator:	Medallion Calif Prpts Co
Latitude:	34.398705	Longitude:	-118.644657
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
1 - 2 Miles — **OIL_GAS** — **CA00012404**

Well Number:	16	Status:	Completed oil
API Number:	03712635	Operator:	Medallion Calif Prpts Co
Latitude:	34.398624	Longitude:	-118.641791
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00011161**

Well Number:	11	Status:	Plugged and abandoned oil
API Number:	03712630	Operator:	Oryx Energy Co.
Latitude:	34.398612	Longitude:	-118.635003
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance | Database | EDR ID Number

South
1 - 2 Miles | **OIL_GAS** | **CA00012354**

Well Number:	55	Status:	134
API Number:	03712867	Operator:	Medallion Calif Prpts Co
Latitude:	34.398571	Longitude:	-118.630682
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | **OIL_GAS** | **CA00011157**

Well Number:	5	Status:	Plugged and abandoned oil
API Number:	03712624	Operator:	Oryx Energy Co.
Latitude:	34.398424	Longitude:	-118.637341
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | **OIL_GAS** | **CA00012361**

Well Number:	69	Status:	Completed oil
API Number:	03712348	Operator:	Medallion Calif Prpts Co
Latitude:	34.398417	Longitude:	-118.632561
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | **OIL_GAS** | **CA00011140**

Well Number:	79	Status:	136
API Number:	03713258	Operator:	Oryx Energy Co.
Latitude:	34.398406	Longitude:	-118.628660
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance | Database | EDR ID Number

South
1 - 2 Miles | **OIL_GAS** | **CA00012405**

Well Number:	18	Status:	Plugged and abandoned oil
API Number:	03712637	Operator:	Medallion Calif Prpts Co
Latitude:	34.398318	Longitude:	-118.633195
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | **OIL_GAS** | **CA00012352**

Well Number:	90	Status:	Completed oil
API Number:	03713269	Operator:	Medallion Calif Prpts Co
Latitude:	34.398310	Longitude:	-118.640767
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | **OIL_GAS** | **CA00011133**

Well Number:	6	Status:	Plugged and abandoned oil
API Number:	03712625	Operator:	Oryx Energy Co.
Latitude:	34.398284	Longitude:	-118.639583
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles | **OIL_GAS** | **CA00012341**

Well Number:	74	Status:	Completed gas
API Number:	03713253	Operator:	Medallion Calif Prpts Co
Latitude:	34.397992	Longitude:	-118.637507
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

SSE
2 - 3 Miles — **OIL_GAS** — **CA00011176**

Well Number:	3-5	Status:	Plugged and abandoned oil
API Number:	03712615	Operator:	Oryx Energy Co.
Latitude:	34.397752	Longitude:	-118.619935
Region:	2	Lease:	Newhall Corp.-Wolfson
Section:	25	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
1 - 2 Miles — **OIL_GAS** — **CA00012347**

Well Number:	83	Status:	Completed oil
API Number:	03713262	Operator:	Medallion Calif Prpts Co
Latitude:	34.397611	Longitude:	-118.625051
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012430**

Well Number:	126	Status:	Completed oil
API Number:	03712880	Operator:	Medallion Calif Prpts Co
Latitude:	34.397520	Longitude:	-118.630159
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00011185**

Well Number:	4	Status:	Plugged and abandoned oil
API Number:	03712623	Operator:	Oryx Energy Co.
Latitude:	34.397141	Longitude:	-118.635448
Region:	2	Lease:	Ranch San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance — Database — EDR ID Number

South
1 - 2 Miles — **OIL_GAS** — **CA00012327**

Well Number:	92	Status:	Completed oil
API Number:	03713272	Operator:	Medallion Calif Prpts Co
Latitude:	34.396986	Longitude:	-118.634592
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
2 - 3 Miles — **OIL_GAS** — **CA00012351**

Well Number:	9	Status:	Plugged and abandoned oil
API Number:	03712628	Operator:	Medallion Calif Prpts Co
Latitude:	34.396931	Longitude:	-118.641918
Region:	2	Lease:	Rancho San Francisco
Section:	27	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles — **OIL_GAS** — **CA00012356**

Well Number:	60	Status:	136
API Number:	03712872	Operator:	Medallion Calif Prpts Co
Latitude:	34.396745	Longitude:	-118.628691
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
1 - 2 Miles — **OIL_GAS** — **CA00012376**

Well Number:	51	Status:	Completed oil
API Number:	03712864	Operator:	Medallion Calif Prpts Co
Latitude:	34.396733	Longitude:	-118.630947
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

South
1 - 2 Miles | **OIL_GAS** | **CA00011183**

Well Number:	1	Status:	Plugged and abandoned oil
API Number:	03712620	Operator:	Oryx Energy Co.
Latitude:	34.396683	Longitude:	-118.637431
Region:	2	Lease:	Ranch San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | **OIL_GAS** | **CA00012362**

Well Number:	7	Status:	Completed oil
API Number:	03712626	Operator:	Medallion Calif Prpts Co
Latitude:	34.396671	Longitude:	-118.639707
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles | **OIL_GAS** | **CA00012366**

Well Number:	73	Status:	Completed oil
API Number:	03713252	Operator:	Medallion Calif Prpts Co
Latitude:	34.396613	Longitude:	-118.626457
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | **OIL_GAS** | **CA00012433**

Well Number:	10	Status:	Completed oil
API Number:	03712629	Operator:	Medallion Calif Prpts Co
Latitude:	34.396484	Longitude:	-118.632944
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

South
2 - 3 Miles | **OIL_GAS** | **CA00012409**

Well Number:	130	Status:	Completed oil
API Number:	03712884	Operator:	Medallion Calif Prpts Co
Latitude:	34.396445	Longitude:	-118.640268
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles | **OIL_GAS** | **CA00012349**

Well Number:	88	Status:	036
API Number:	03713267	Operator:	Medallion Calif Prpts Co
Latitude:	34.396179	Longitude:	-118.621185
Region:	2	Lease:	Rancho San Francisco
Section:	25	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles | **OIL_GAS** | **CA00012333**

Well Number:	99	Status:	Completed oil
API Number:	03713279	Operator:	Medallion Calif Prpts Co
Latitude:	34.396163	Longitude:	-118.624061
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles | **OIL_GAS** | **CA00011177**

Well Number:	4-5	Status:	Plugged and abandoned oil
API Number:	03712616	Operator:	Oryx Energy Co.
Latitude:	34.395879	Longitude:	-118.617688
Region:	2	Lease:	Newhall Corp.-Wolfson
Section:	25	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

South
2 - 3 Miles | **OIL_GAS** | **CA00012414**

Well Number:	14	Status:	Completed oil
API Number:	03712633	Operator:	Medallion Calif Prpts Co
Latitude:	34.395152	Longitude:	-118.631109
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | **OIL_GAS** | **CA00011184**

Well Number:	3	Status:	Plugged and abandoned oil
API Number:	03712622	Operator:	Oryx Energy Co.
Latitude:	34.394860	Longitude:	-118.635153
Region:	2	Lease:	Ranch San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | **OIL_GAS** | **CA00012424**

Well Number:	12	Status:	Plugged and abandoned oil
API Number:	03712631	Operator:	Medallion Calif Prpts Co
Latitude:	34.394753	Longitude:	-118.637298
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | **OIL_GAS** | **CA00012381**

Well Number:	2	Status:	Completed oil
API Number:	03712621	Operator:	Medallion Calif Prpts Co
Latitude:	34.394727	Longitude:	-118.633015
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SSE
2 - 3 Miles | **OIL_GAS** | **CA00011139**

Well Number:	78	Status:	Plugged and abandoned oil
API Number:	03713257	Operator:	Oryx Energy Co.
Latitude:	34.394692	Longitude:	-118.624488
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | **OIL_GAS** | **CA00012434**

Well Number:	100	Status:	Completed oil
API Number:	03713280	Operator:	Medallion Calif Prpts Co
Latitude:	34.394668	Longitude:	-118.638161
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | **OIL_GAS** | **CA00011153**

Well Number:	43	Status:	136
API Number:	03712857	Operator:	Oryx Energy Co.
Latitude:	34.394590	Longitude:	-118.628831
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles | **OIL_GAS** | **CA00012353**

Well Number:	91	Status:	Plugged and abandoned-dry hole
API Number:	03713270	Operator:	Medallion Calif Prpts Co
Latitude:	34.394369	Longitude:	-118.618793
Region:	2	Lease:	Rancho San Francisco
Section:	25	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

South
2 - 3 Miles | **OIL_GAS** | **CA00012348**

Well Number:	87	Status:	Completed oil
API Number:	03713266	Operator:	Medallion Calif Prpts Co
Latitude:	34.394335	Longitude:	-118.634652
Region:	2	Lease:	Rancho San Francisco
Section:	26	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles | **OIL_GAS** | **CA00011186**

Well Number:	91	Status:	Plugged and abandoned oil
API Number:	03713271	Operator:	Oryx Energy Co.
Latitude:	34.394339	Longitude:	-118.619154
Region:	2	Lease:	Ranch San Francisco
Section:	25	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles | **OIL_GAS** | **CA00011178**

Well Number:	5-5	Status:	Plugged and abandoned oil
API Number:	03712617	Operator:	Oryx Energy Co.
Latitude:	34.394288	Longitude:	-118.614897
Region:	2	Lease:	Newhall Corp.-Wolfson
Section:	25	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | **OIL_GAS** | **CA00012328**

Well Number:	93	Status:	Completed oil
API Number:	03713273	Operator:	Medallion Calif Prpts Co
Latitude:	34.394049	Longitude:	-118.628014
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

South
2 - 3 Miles | **OIL_GAS** | **CA00012345**

Well Number:	81	Status:	Completed oil
API Number:	03713260	Operator:	Medallion Calif Prpts Co
Latitude:	34.393239	Longitude:	-118.630727
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | **OIL_GAS** | **CA00011148**

Well Number:	34	Status:	Plugged and abandoned oil
API Number:	03712848	Operator:	Oryx Energy Co.
Latitude:	34.393161	Longitude:	-118.633157
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles | **OIL_GAS** | **CA00012343**

Well Number:	77	Status:	Completed oil
API Number:	03713256	Operator:	Medallion Calif Prpts Co
Latitude:	34.393159	Longitude:	-118.622675
Region:	2	Lease:	Rancho San Francisco
Section:	36	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | **OIL_GAS** | **CA00012368**

Well Number:	36	Status:	Plugged and abandoned oil
API Number:	03712850	Operator:	Medallion Calif Prpts Co
Latitude:	34.393110	Longitude:	-118.630378
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance | Database | EDR ID Number

SSE
2 - 3 Miles | **OIL_GAS** | **CA00011150**

Well Number:	37	Status:	136
API Number:	03712851	Operator:	Oryx Energy Co.
Latitude:	34.393077	Longitude:	-118.626334
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | **OIL_GAS** | **CA00012397**

Well Number:	149	Status:	Completed oil
API Number:	03712651	Operator:	Medallion Calif Prpts Co
Latitude:	34.393039	Longitude:	-118.633617
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | **OIL_GAS** | **CA00012392**

Well Number:	31	Status:	Plugged and abandoned oil
API Number:	03712649	Operator:	Medallion Calif Prpts Co
Latitude:	34.392956	Longitude:	-118.628634
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles | **OIL_GAS** | **CA00012331**

Well Number:	96	Status:	Completed oil
API Number:	03713276	Operator:	Medallion Calif Prpts Co
Latitude:	34.392238	Longitude:	-118.616366
Region:	2	Lease:	Rancho San Francisco
Section:	36	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance | Database | EDR ID Number

South
2 - 3 Miles | **OIL_GAS** | **CA00012399**

Well Number:	151	Status:	Completed oil
API Number:	03712653	Operator:	Medallion Calif Prpts Co
Latitude:	34.391926	Longitude:	-118.629748
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles | **OIL_GAS** | **CA00011151**

Well Number:	39	Status:	136
API Number:	03712853	Operator:	Oryx Energy Co.
Latitude:	34.391584	Longitude:	-118.624342
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | **OIL_GAS** | **CA00012357**

Well Number:	64	Status:	Completed oil
API Number:	03712877	Operator:	Medallion Calif Prpts Co
Latitude:	34.391463	Longitude:	-118.628809
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

South
2 - 3 Miles | **OIL_GAS** | **CA00012350**

Well Number:	89	Status:	Completed oil
API Number:	03713268	Operator:	Medallion Calif Prpts Co
Latitude:	34.391404	Longitude:	-118.627480
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

South
2 - 3 Miles | **OIL_GAS** | **CA00012369**

Well Number:	38	Status:	Plugged and abandoned oil
API Number:	03712852	Operator:	Medallion Calif Prpts Co
Latitude:	34.391367	Longitude:	-118.626333
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSW
2 - 3 Miles | **OIL_GAS** | **CA00008320**

Well Number:	1	Status:	Plugged and abandoned-dry hole
API Number:	03720085	Operator:	Union Oil Co of Ca
Latitude:	34.391242	Longitude:	-118.645217
Region:	2	Lease:	R.S.F.
Section:	34	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles | **OIL_GAS** | **CA00012413**

Well Number:	139	Status:	Completed oil
API Number:	03712892	Operator:	Medallion Calif Prpts Co
Latitude:	34.391064	Longitude:	-118.622780
Region:	2	Lease:	Rancho San Francisco
Section:	36	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles | **OIL_GAS** | **CA00012342**

Well Number:	76	Status:	Completed oil
API Number:	03713255	Operator:	Medallion Calif Prpts Co
Latitude:	34.390795	Longitude:	-118.620289
Region:	2	Lease:	Rancho San Francisco
Section:	36	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Direction / Distance | Database | EDR ID Number

SSE
2 - 3 Miles | **OIL_GAS** | **CA00012401**

Well Number:	153	Status:	Completed oil
API Number:	03712655	Operator:	Medallion Calif Prpts Co
Latitude:	34.390584	Longitude:	-118.625977
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

SSE
2 - 3 Miles | **OIL_GAS** | **CA00012367**

Well Number:	33	Status:	Plugged and abandoned oil
API Number:	03712847	Operator:	Medallion Calif Prpts Co
Latitude:	34.389545	Longitude:	-118.624664
Region:	2	Lease:	Rancho San Francisco
Section:	35	Township:	04N
Range:	17W	Map Number:	253
Base and Meridian:	San Bernardino	Total Depth:	Not Reported
Spud Date:	Not Reported	Abandonment Date:	Not Reported

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zip	Total Sites	> 4 Pci/L	Pct. > 4 Pci/L
91355	13	0	0.00

Federal EPA Radon Zone for LOS ANGELES County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 91355

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.750 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002. 7.5-Minute DEMs correspond to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

ADDITIONAL ENVIRONMENTAL RECORD SOURCES

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STATE RECORDS

California Drinking Water Quality Database
Source: Department of Health Services
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations for District 2, 3, 5 and 6
Source: Department of Conservation
Telephone: 916-323-1779

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

BA Environmental, Phase I Environmental Site Assessment of Proposed SCE Substation Site and Soil Disposal Site, Valencia, California, May 2010

PHASE I ENVIRONMENTAL SITE ASSESSMENT

OF

PROPOSED SCE SUBSTATION SITE AND SOIL DISPOSAL SITE VALENCIA, CALIFORNIA

FOR

GATZKE DILLON & BALLANCE LLP

BA ENVIRONMENTAL
A Division of Building Analytics

File No. 110046
May 2010

BA ENVIRONMENTAL
A Division of Building Analytics

PHASE I ENVIRONMENTAL SITE ASSESSMENT

of

Proposed SCE Substation Site
and Soil Disposal Site
Valencia, California

This report has been prepared for:

Gatzke Dillon & Balance, LLP
Counsel for Newhall Land
1525 Faraday Avenue, Suite 150
Carlsbad, CA 92008

May 25, 2010
File No. 110046

Russell M. Cote, M.Sc., P.G. No. 7139
Manager, Environmental Services
Report Author

Michael E. Williams
President

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312."

BA ENVIRONMENTAL
A Division of Building Analytics
www.BAEnvironmental.com

CORPORATE OFFICE
502 S. VERDUGO DRIVE, SUITE 200
BURBANK, CALIFORNIA 91502
TOLL FREE 1-888-440-7225
818-841-2575
818-841-2576 FAX

EXECUTIVE SUMMARY

The subject site is known as the Proposed SCE Substation Site and Soil Disposal Site, located within Potrero Canyon. For the purpose of this report, the subject site has been divided into two parts, SCE Substation Site and the Soil Disposal Site. Currently there are two proposed alternatives for the SCE Substation Site. There is only one configuration for the Soil Disposal Site. SCE Substation Site Alternative 1 consists of approximately 6.61 acres (288,000 square feet) of land, while SCE Substation Site Alternative 2 consists of approximately 8.86 acres (386,000 square feet) of land. The Soil Disposal Site consists of approximately 12.09 acres (527,000 square feet) of land. The total gross acreage of land for the subject site is 18.7 acres (815,000 square feet) for Alternative 1 and 20.95 acres (913,000 square feet) for Alternative 2.

The review of historical documents indicates that the subject property was occupied by vacant undeveloped land utilized for cattle grazing from prior to 1903 through the present. Portions of the subject property were utilized for dry farming in the 2000s. Oil production began on the Soil Disposal Site in the early 1950s, which continued until around 1997.

BA Environmental conducted a visual reconnaissance of the subject site. The subject site was occupied predominantly by vacant undeveloped land used for cattle grazing. Portions of the subject site were also observed to be used for dry farming. Past oil field production was observed in the northern portion of the Soil Disposal Site. One abandoned oil well is located on the Soil Disposal Site. No areas of significant staining were observed on-site. No areas of distressed or discolored vegetation were observed on-site during the site reconnaissance. No evidence of illegal dumping or releases were observed on the subject site. No underground storage tanks (USTs), aboveground storage tanks (ASTs), floor drains, waste water clarifiers, of hazardous materials usage or storage were observed at the subject site. No buildings or structures were observed on the subject site.

BA Environmental reviewed selected government environmental databases. The subject site was not listed on any of the environmental databases searched. One address, 26835 Pico Canyon, was listed on the Toxic Pits, Historic UST, HAZNET, EMI and CHMIRS database. This site is located approximately 4,200 to 5,200 feet down-gradient of the subject site. The status of the Toxic Pits case was reported to have been closed on December 7, 1990. According to the Historical UST database, one 14,000-gallon UST was installed at this site. This UST was reported to be used to store “waste.” This UST was not listed on the LUST database, indicating that there had been no reported releases from the UST. This address was also listed three times on the CHMIRS database. One listing was for the release of approximately two barrels of crude oil and production water. This release occurred when a production pipeline ruptured. A second listing was for the release of approximately 30 barrels of crude oil. This release occurred when a split between a top stave and the top of a tank occurred. The third listing was for the release of approximately eight barrels of crude oil. This release occurred when a backhoe which was cleaning up a previous release broke an existing 2” pipeline. Based on the distance

and down-gradient location of this facility from the subject site, there is a low potential for this site to have impacted the subject property. No other facilities were located within a 1.0-mile radius of the subject site.

This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property, except for the following:

- One abandoned oil well exists on the subject site;
- One possible former sump may exist on the subject property;
- Old unused petroleum pipelines may exist beneath the subject property;
- Crude oil may have been used to coat an on-site roadway. This roadway may have been impacted with petroleum hydrocarbons; and
- As the subject site has been used for oil production, methane gas may exist beneath the subject site.

BA Environmental makes the following general recommendations regarding the subject property:

- If disturbed, if located within an area of redevelopment, or if the surface grade changes, all former oil wells located on the subject property should be re-abandoned according to all applicable local and state regulations. Any crude oil-impacted soil encountered during re-abandonment should be remediated;
- The area of potential former on-site sump should be assessed for potential impact to the subject site;
- Abandoned petroleum pipelines may exist beneath the subject site. These pipelines should be removed and assessed prior to redevelopment of the subject site; and
- If buildings or structures are intended to be constructed within the former oil production area, a methane survey may be prudent.

Since this area has been historically used for oil production, structures or contamination which could not be reasonably identified in this investigation may exist. BA Environmental recommends that any stained areas or unidentified structures encountered during grading operations should be assessed upon discovery.

TABLE OF CONTENTS

Page

INTRODUCTION 1

OBJECTIVE AND SCOPE OF WORK 1

SITE DESCRIPTION 3

GEOLOGY AND HYDROGEOLOGY 4

OIL WELLS AND OIL FIELDS 4

HISTORICAL REVIEW 5

INTERVIEWS 11

SITE RECONNAISSANCE AND IMPROVEMENTS 11

ADJACENT LAND USE 16

AGENCY CONTACTS 17

GOVERNMENT RECORDS REVIEW 19

ADDITIONAL NON-ASTM SCOPE ASSESSMENT 26

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS 28

LIMITATIONS 29

GLOSSARY OF ACRONYMS 31

REFERENCES 32

FIGURES

Figure 1: **Site Vicinity**
Figure 2: **SCE Substation Site Alternative 1**
Figure 3: **SCE Substation Site Alternative 2**
Figure 4: **POI Map**

TABLES

Table 1: **Points of Interest (POI)**
Table 2: **Location of Electrical Transformers**
Table 3: **Oil Well Locations**
Table 4: **Government Records Report**

TABLE OF CONTENTS (continued)

SITE PHOTOGRAPHS

APPENDICES

Appendix A: Historical Aerial Photographs
Appendix B: Historical Topographic Maps
Appendix C: Historical Fire Insurance Maps
Appendix D: City Directories
Appendix E: Water Quality Report
Appendix F: DOGGR Well Records
Appendix G: DOGGR Oil Well Abandonment Procedures
Appendix H: Preparer's Qualifications
Appendix I: Government Records Report

PHASE I ENVIRONMENTAL SITE ASSESSMENT
Proposed SCE Substation Site
and Soil Disposal Site
Valencia, California

INTRODUCTION

BA Environmental (a Division of Building Analytics) is pleased to submit this Phase I Environmental Site Assessment (ESA) report to **Gatzke Dillon & Ballance LLP**, Counsel for Newhall Land. This report is regarding the proposed SCE substation site and soil disposal site, located in Valencia, California.

This report was prepared in accordance with the BA Environmental Proposal and Contract dated May 4, 2010.

OBJECTIVE AND SCOPE OF WORK

The purpose of the ESA is to identify, to the extent feasible, recognized environmental conditions. The identification of the presence or lack of recognized environmental conditions will "permit a user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA liability (hereinafter, the "landowner liability protections," or "LLPs"): that is, the practice that constitutes "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined at 42 U.S.C. §9601(35)(B)" (ASTM E1527-05).

This Phase I ESA meets or exceeds the general requirements of the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments E1527-05, and the United States Environmental Protection Agency All Appropriate Inquiry (AAI) Rule (as defined in the Code of Federal Regulations 40 CFR part 312). The ASTM standard practice defines good commercial and customary practice for conducting ESAs using reasonable inquiry. The scope of services for this Phase I ESA consisted of several tasks, including:

- A reconnaissance of the site and its vicinity;
- Interviews with current owners and occupants of the subject property, and personnel at local government agencies;
- A compilation of the property history, including the review of previous environmental reports regarding the subject property (if available);
- A review of pertinent local regulatory agency files;
- An agency list search of facilities with recorded environmental issues located within the radii required by ASTM E1527-05; and
- A summary of our findings, conclusions and recommendations.

Additional services that were provided include:

- A visual survey and review of a map of designated wetlands;
- A visual mold survey;
- A visual asbestos survey of suspect asbestos-containing materials (ACMs);
- A visual lead-based paint survey; and
- A review of a survey and map of radon zones.

As per ASTM Practice E1527-05, there are no deviations from, or deletions of, the general requirements of this standard practice contained in this report. This Phase I ESA has been performed by, or under the direct supervision of an "environmental professional," as defined in ASTM E1527-05 and the EPA AAI Rules.

A Phase I ESA is a non-intrusive examination. As such, it is not a full and complete assessment of all environmental conditions. Adverse conditions may exist that could not be discovered by such an assessment. No ESA can completely eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a subject property. The ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with a property. The practices of ASTM E1527-05 recognizes reasonable limits of time and cost. The term "All appropriate inquiry" does not mean an exhaustive assessment of a clean property. There is a point at which the cost of information obtained, or the time required to gather it outweighs the usefulness of the information, and in fact may interrupt or interfere with the orderly or timely completion of a property transaction. One of the purposes of ASTM E1527-05 is to identify a balance between limiting the costs and time demands inherent in performing an ESA and the reduction of uncertainty about unknown conditions resulting from additional information. BA Environmental has made every reasonable effort to discover and interpret the information and current conditions regarding the site within the time available. We will recommend prudent additional investigations, if deemed necessary.

Several terms are commonly used throughout this report. For the purpose of this report, the **site vicinity** refers to an area within a 1-mile radius of the subject site. The term **adjacent property** includes those properties next to or across a street or a railroad track from the subject property. **Adjoining properties** are those which directly abut the subject property. **Recognized environmental conditions** (RECs) refers to "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies." ASTM E1527-05. The term de minimis refers to having such a low or minimal risk that it is not considered to be of concern. "Conditions determined to be de minimis are not recognized environmental conditions." ASTM E1527-05.

A Historical REC (HREC) is defined as "an environmental condition which in the past would have been considered a REC but which may not be considered a REC currently." If a past release of a hazardous substances or petroleum product that has occurred at the subject property and has been remediated, and the remediation has been accepted by the responsible regulatory agency (for example, as evidenced by the issuance of a no further action letter or equivalent), this condition shall be considered an HREC.

SITE DESCRIPTION

The subject property consists of two small vacant parcels located approximately 2.37 miles south of State Highway 126 and 2.74 miles west of Interstate Freeway 5 (Golden State Freeway). The subject site is known as the Proposed SCE Substation Site and Soil Disposal Site, located within Potrero Canyon. The subject property is located in the unincorporated County of Los Angeles, near the City of Valencia, California. For the purpose of this report, the subject site has been divided into two parts, SCE Substation Site and the Soil Disposal Site.

The subject property is predominantly occupied by undeveloped land, with some past oil field production (one abandoned oil well) on the Soil Disposal Site and agricultural use on portions of the SCE Substation Site and the Soil Disposal Site. High voltage transmission lines and a high pressure natural gas pipeline traverse the eastern portion of the SCE Substation Site. Currently there are two proposed alternatives for the SCE Substation Site. There is only one configuration for the Soil Disposal Site. SCE Substation Site Alternative 1 consists of approximately 6.61 acres (288,000 square feet) of land, while SCE Substation Site Alternative 2 consists of approximately 8.86 acres (386,000 square feet) of land. The Soil Disposal Site consists of approximately 12.09 acres (527,000 square feet) of land. The total gross acreage of land for the subject site is 18.7 acres (815,000 square feet) for Alternative 1 and 20.95 acres (913,000 square feet) for Alternative 2. Primary vehicular access is from several dirt roads north of Pico Canyon Road.

Adjacent properties consist of predominantly vacant undeveloped land. Ten active or abandoned oil wells are located on adjacent properties surrounding the two sites. In addition, some of the adjacent properties are used for agricultural field crops (Figures 1, 2 and 3).

Topographic Map Review

The property is depicted on the Newhall and Via Verde, California Topographic Quadrangle maps of the United States Geological Survey (USGS, 1995). The location of the subject site is at Latitude 34° 23' 41.6" North, Longitude 118° 37' 16.3'' West of the Prime Meridian. The subject site is located on the northwestern portion of Los Angeles County. The subject site is located in the eastern portion of Potrero Canyon within the northeastern portion of the Santa Susana Mountains. State Highway 126 is located approximately 2.37 miles north of the subject site, while the Interstate Freeway 5 (Golden State Freeway) is located approximately 2.74 miles east of the subject site. Pico Canyon Road is located approximately 0.25 miles southwest of the subject site. The subject site is located approximately 4 miles southwest of San Francisquito Canyon and 5.3 miles west-southwest of Soledad Canyon. The San Gabriel Mountains are located approximately 5.0 miles east of the subject site. The Pico (site) or former Mentryville site is located approximately 1.1 miles southeast of the subject property. The subject site

is depicted predominantly as undeveloped land. The subject site is located within the eastern portion of the Newhall-Potrero Oil Field. One oil well (POI #6) was depicted to be located on the Soil Disposal Site. Nine oil wells (POI #s1, 4, 10, 12, 15, 16, 17, 19, and 20) are located on adjacent properties surrounding the subject property. Three oil sumps (POI #s 2, 5 and 13) were depicted on adjacent properties surrounding the subject site. The surrounding area is predominantly depicted as being undeveloped land, with oil fields surrounding the subject site.

The topography of the subject site is highly variable and consists of gently and steeply sloping hillsides and sloping valley floor. The elevation at the site ranges from approximately 1,280 feet above mean sea level (msl) to approximately 1,500 feet above msl.

An unnamed intermittent stream is depicted approximately 350 to 700 feet south and southwest of the subject site. A second unnamed intermittent stream is depicted approximately 1,000 feet northeast of the subject site. No other major bodies of surface water (i.e., oceans, lakes, rivers, streams, etc.) are depicted within a 1.0-mile radius of the site. The Santa Clara River is depicted approximately 2.23 miles to the northwest of the subject site.

GEOLOGY AND HYDROGEOLOGY

The subject site is located in Potrero Canyon, within the Santa Susana Mountains. Underlying sediments consist of alluvial and flood plain deposits of silt, sands and gravels. Sand is medium to coarse grained, and cobbles are found to increase in size with depth. The Plio-Pleistocene Saugus Formation, a thin to moderately thick bedded non-marine deposit, ranging from reddish-brown siltstones, silty sandstones to conglomerates, underlies the Quaternary alluvial sediments and outcrops in the northern and southern portion of the subject property. The Newhall Segment of the San Gabriel Fault, which is classified as a late Quaternary fault which cuts strata of Pleistocene age, is located within 500 feet of the subject site (CDMG, 1994).

No groundwater data was available for the subject site. An intermittent stream is located approximately 350 to 700 feet south of the subject site. The primary groundwater aquifer beneath the subject site is likely alluvial sediments. Based on the general geology and topography of the subject site, groundwater is likely at less than 100 feet below ground surface (bgs). Groundwater flow direction is expected to be to the west in the general direction of Potrero Valley and towards the Santa Clara River.

OIL WELLS AND OIL FIELDS

A review of relevant Munger oil and gas field maps and Division of Oil, Gas and Geothermal Resources (DOGGR) Regional Wildcat Map indicated that the subject site is located within the Newhall-Potrero Oil Field. According to the Munger and DOGGR maps, there was one oil well located on the subject property (POI #6). This oil well was listed as Rancho San Francisco 88 (Munger, 1993; DOGGR, 2010). In addition, DOGGR and Munger maps indicate that ten active and abandoned oil wells are located on surrounding adjacent properties (POI #s 1, 4, 10, 12, 15, 16, 17, 19, 20 and 21) A review of topographic maps revealed that only nine oil wells were depicted that were also identified on DOGGR maps. The topographic maps do not depict one of the oil wells listed in DOGGR records (POI # 21). Because of the proximity of these off-site oil wells to the subject site, or the potential for impact by on-site grading activities, the

documentation for all ten off-site wells identified was reviewed. Five of the off-site nearby wells remain active (POI #s1, 4, 12, 15 and 16). Five of the off-site nearby wells have been plugged and abandoned (POI #s 10, 17, 19, 20 and 21). A list of on-site and nearby off-site oil wells is provided in Table 3 below and is shown in Figure 4. Field observations as well as Global Positioning System (GPS) coordinates for each of these active or abandoned oil wells is provided in Table 1.

HISTORICAL REVIEW

As part of the historical review, BA Environmental reviewed available historical aerial photographs for the years 1928, 1947, 1952, 1968, 1976, 1989, 1994, 2002 and 2005 (EDR, 2010b); historical topographic maps for the years 1903, 1910, 1916, 1940, 1947, 1952, 1969 and 1995) (EDR, 2010c); city directories for the years between 1972 and 2007 (EDR, 2010d) and building records (County of Los Angeles, 2010). No historical fire insurance maps were available for the subject property (EDR, 2010e). Copies of the above historical documents are provided in Appendices A through D.

Historical Aerial Photographs

1928
The proposed SCE Substation Site and the Soil Disposal Site was occupied by vacant undeveloped land likely used for cattle grazing. Pico Canyon Road (dirt) was observed to traverse generally from east to west south of the subject site. A dirt road which generally traversed from the northeast to southwest was observed to the east of the subject site. No oil wells or structures were observed within the subject site vicinity during this time.

1947
The proposed SCE Substation Site and the Soil Disposal Site continued to be occupied by vacant undeveloped land likely used for cattle grazing. Pico Canyon Road which was observed to traverse generally from east to west south of the subject site was paved. A dirt road which generally traversed from the northeast to southwest was observed to the east of the subject site, and a second dirt road which generally traversed from the east to the west was located to the southwest of the subject site. High tension power transmission lines were observed to traverse from northeast to southwest along the eastern boundary of the proposed SCE Substation Site. A single-family residence was present approximately 0.34 miles southwest of the subject site at the address identified in the historical city directories (26825 W. Pico Road). Oil production activities were present approximately 0.48 miles to the west-southwest and approximately 0.53 miles to the southeast of the subject site. The majority of the remaining surrounding properties remained vacant undeveloped land.

1952
The proposed SCE Substation Site and the Soil Disposal Site continued to be predominantly occupied by vacant undeveloped land likely used for cattle grazing. An oil well (POI #6) was present in the northern portion of the Soil Disposal Site. Also observed was what appeared to be a possible location of an associated drilling sump (POI #22) and a small structure in the general area of POI #7. A paved or oil coated road was observed to traverse the southern portion of the proposed SCE Substation Sites and along the northeastern and northwestern boundaries of the Soil Disposal Site. Soil disturbance of the SCG high pressure natural gas line which was observed during the site reconnaissance was observed to traverse the southeastern portion of the subject site. Pico

Canyon Road (paved) was observed to traverse generally from east to west to the south of the subject site. High tension power transmission lines were observed to traverse from northeast to southwest along the eastern boundary of the proposed SCE Substation Site. A single-family residence was present approximately 0.34 miles southwest of the subject site at the address identified in the historical city directories (26825 W. Pico Road). Oil wells (POI #s 1, 4, 10, 12, 15, 16, 17, 19 and 20) were present on nearby adjacent properties surrounding the subject property. An oil sump (POI #2) was present just to the south of the oil well at POI #1. What appeared to be an oil sump was present at POI #5. A cleared area was observed in the area of the oil sump located at POI #13. Oil production tank batteries were observed approximately 0.27 miles to the north-northeast, 0.29 miles to the west, 0.53 miles and 0.59 miles to the southeast. Oil production activities, including oil wells and sumps, were observed approximately 0.35 miles to the northwest and 0.5 to 0.6 miles to the southeast. The majority of the remaining surrounding properties remained vacant undeveloped land.

1968

The proposed SCE Substation Site and the Soil Disposal Site continued to be predominantly occupied by vacant undeveloped land likely used for cattle grazing. An oil well (POI #6) was present in the northern portion of the Soil Disposal Site. The possible associated drilling sump (POI # 22) and small structure (POI #7) were no longer visible. A paved or oil coated road was observed to traverse the southern portion of the proposed SCE Substation Sites and along the northeastern and northwestern boundaries of the Soil Disposal Site. The soil disturbance of the SCG high pressure natural gas line which was observed during the site reconnaissance was now faintly visible. Pico Canyon Road (paved) was observed to traverse generally from east to west to the south of the subject site. High tension power transmission lines were observed to traverse from northeast to southwest along the eastern boundary of the proposed SCE Substation Site. A single-family residence was present approximately 0.34 miles southwest of the subject site at the address identified in the historical city directories (26825 W. Pico Road). The oil company field office at the address which was identified in the historical city directories (26835 W. Pico Road) was present approximately 0.25 miles southwest of the subject site. Oil wells (POI #s 1, 4, 10, 12, 15, 16, 17, 19 and 20) were present on nearby adjacent properties surrounding the subject property. The oil sumps located at POI #s 2, 5 and 13 were no longer visible. Oil production tank batteries were observed approximately 0.24 miles southwest, 0.27 miles to the north-northeast, 0.29 miles to the west, 0.53 miles and 0.59 miles to the southeast. Oil production activities, including oil wells and sumps, were observed approximately 0.35 miles to the northwest, 0.5 miles to the southwest and 0.5 to 0.6 miles to the southeast. The majority of the remaining surrounding properties remained vacant undeveloped land.

1976

The proposed SCE Substation Site and the Soil Disposal Site continued to be predominantly occupied by vacant undeveloped land likely used for cattle grazing. An oil well (POI #6) was present in the northern portion of the Soil Disposal Site. A paved or oil coated road was observed to traverse the southern portion of the proposed SCE Substation Sites and along the northeastern and northwestern boundaries of the Soil Disposal Site. Pico Canyon Road (paved) was observed to traverse generally from east to west to the south of the subject site. High tension power transmission lines were observed to traverse from northeast to southwest along the eastern boundary of the proposed SCE Substation Site. A single-family residence was present approximately 0.34 miles southwest of the subject site at the address identified in the historical city directories (26825 W. Pico Road). The oil company field office at the address which was identified in the historical city directories (26835 W. Pico Road) was present approximately 0.25 miles southwest of the subject site. Oil wells (POI #s 1, 4, 10, 12, 15,

16, 17, 19 and 20) were present on nearby adjacent properties surrounding the subject property. Oil production tank batteries were observed approximately 0.24 miles southwest, 0.27 miles to the north-northeast, 0.29 miles to the west, 0.53 miles and 0.59 miles to the southeast. Oil production activities, including oil wells and sumps, were observed approximately 0.35 miles to the northwest, 0.5 miles to the southwest and 0.5 to 0.6 miles to the southeast. The majority of the remaining surrounding properties remained vacant undeveloped land.

1989

The proposed SCE Substation Site and the Soil Disposal Site continued to be predominantly occupied by vacant undeveloped land likely used for cattle grazing. An oil well (POI #6) was present in the northern portion of the Soil Disposal Site. The road which was observed to traverse the southern portion of the proposed SCE Substation Sites and along the northeastern and northwestern boundaries of the Soil Disposal Site appeared to be dirt. Pico Canyon Road (paved) was observed to traverse generally from east to west to the south of the subject site. High tension power transmission lines were observed to traverse from northeast to southwest along the eastern boundary of the proposed SCE Substation Site. A single-family residence was present approximately 0.34 miles southwest of the subject site at the address identified in the historical city directories (26825 W. Pico Road). The oil company field office at the address which was identified in the historical city directories (26835 W. Pico Road) was present approximately 0.25 miles southwest of the subject site. Oil wells (POI #s 1, 4, 12, 15, 16, 17, 19 and 20) were present on nearby adjacent properties surrounding the subject property. The oil well at POI #10 appeared to have been abandoned and the pump unit was no longer present. Oil production tank batteries were observed approximately 0.24 miles southwest, 0.27 miles to the north-northeast, 0.29 miles to the west, 0.53 miles and 0.59 miles to the southeast. Oil production activities, including oil wells and sumps, were observed approximately 0.35 miles to the northwest and 0.5 to 0.6 miles to the southeast. The majority of the remaining surrounding properties remained vacant undeveloped land.

1994

The proposed SCE Substation Site and the Soil Disposal Site continued to be predominantly occupied by vacant undeveloped land likely used for cattle grazing. An oil well (POI #6) was present in the northern portion of the Soil Disposal Site. The road which was observed to traverse the southern portion of the proposed SCE Substation Sites and along the northeastern and northwestern boundaries of the Soil Disposal Site appeared to be dirt. Pico Canyon Road (paved) was observed to traverse generally from east to west to the south of the subject site. High tension power transmission lines were observed to traverse from northeast to southwest along the eastern boundary of the proposed SCE Substation Site. A single-family residence was present approximately 0.34 miles southwest of the subject site at the address identified in the historical city directories (26825 W. Pico Road). The oil company field office at the address which was identified in the historical city directories (26835 W. Pico Road) was present approximately 0.25 miles southwest of the subject site. Oil wells (POI #s 1, 4, 12, 15 and 16) were present on nearby adjacent properties surrounding the subject property. The oil wells located at POI #s 10, 17, 19 and 20, appeared to have been abandoned and the well pads somewhat overgrown with vegetation. Oil production tank batteries were observed approximately 0.27 miles to the north-northeast, 0.29 miles to the west and 0.53 miles to the southeast. Oil production activities, including oil wells and sumps, were observed approximately 0.35 miles to the northwest and 0.5 to 0.6 miles to the southeast. The majority of the remaining surrounding properties remained vacant undeveloped land.

2002
The proposed SCE Substation Site and the Soil Disposal Site continued to be predominantly occupied by vacant undeveloped land likely used for cattle grazing or possibly dry farming. The oil well located at POI #6 appeared to have been abandoned and the pad no longer maintained. The road which was observed to traverse the southern portion of the proposed SCE Substation Sites and along the northeastern and northwestern boundaries of the Soil Disposal Site appeared to be dirt. Pico Canyon Road (paved) was observed to traverse generally from east to west to the south of the subject site. High tension power transmission lines were observed to traverse from northeast to southwest along the eastern boundary of the proposed SCE Substation Site. A single-family residence was present approximately 0.34 miles southwest of the subject site at the address identified in the historical city directories (26825 W. Pico Road). The oil company field office at the address which was identified in the historical city directories (26835 W. Pico Road) was present approximately 0.25 miles southwest of the subject site. Oil wells (POI #s 1, 4, 12, 15 and 16) were present on nearby adjacent properties surrounding the subject property. The oil wells located at POI #s 10, 17, 19 and 20, appeared to have been abandoned and the well pads somewhat overgrown with vegetation. Oil production tank batteries were observed approximately 0.29 miles to the west and 0.53 miles to the southeast. Oil production activities, including oil wells and sumps, were observed approximately 0.35 miles to the northwest and 0.5 to 0.6 miles to the southeast. The majority of the remaining surrounding properties remained vacant undeveloped land or possibly used for dry farming.

2005
The proposed SCE Substation Site and the Soil Disposal Site continued to be predominantly occupied by vacant undeveloped land likely used for cattle grazing and dry farming. The oil well located at POI #6 appeared to have been abandoned and the pad no longer maintained. The road which was observed to traverse the southern portion of the proposed SCE Substation Sites and along the northeastern and northwestern boundaries of the Soil Disposal Site appeared to be dirt. Pico Canyon Road (paved) was observed to traverse generally from east to west to the south of the subject site. High tension power transmission lines were observed to traverse from northeast to southwest along the eastern boundary of the proposed SCE Substation Site. A single-family residence was present approximately 0.34 miles southwest of the subject site at the address identified in the historical city directories (26825 W. Pico Road). The oil company field office at the address which was identified in the historical city directories (26835 W. Pico Road) was present approximately 0.25 miles southwest of the subject site. Oil wells (POI #s 1, 4, 12, 15 and 16) were present on nearby adjacent properties surrounding the subject property. The oil wells located at POI #s 10, 17, 19 and 20, appeared to have been abandoned and the well pads somewhat overgrown with vegetation. An oil production tank battery was observed approximately 0.53 miles to the southeast of the subject site. Oil production activities, including oil wells and sumps, were observed approximately 0.35 miles to the northwest and 0.5 to 0.6 miles to the southeast. The majority of the remaining surrounding properties remained vacant undeveloped land or utilized for dry farming.

Historical Fire Insurance Maps

Historical fire insurance maps have been primarily used by insurance underwriters to determine the risk involved in insuring individual buildings in urban areas against loss due to fire. When available, these maps can provide information regarding the historical use of a particular site and its adjacent properties. Historical fire insurance maps were not available for the subject property.

Historical City Directories

A review of historical city directories revealed the subject site was vacant from at least 1972 through the present. Two addresses within the search distance were listed on the city directories. 26825 W. Pico Road is located approximately 0.34 miles southwest of the subject site. This address was listed as residential in 2007. There were no other listings for this address. The second address, 26835 W. Pico Road, is located approximately 0.25 miles southwest of the subject site. This address was listed as being occupied by the Sun Oil Company in 1972, Sun Exploration and Production in 1989 and DMK Offshore Energy Inc. in 2000 and 2007. This address was the field office for these companies. No other addresses were located on Pico Road in the search radius.

Historical Topographic Maps

1903, 1910 and 1916
The proposed SCE Substation Site and the Soil Disposal Site was depicted as vacant undeveloped land. Pico Canyon Road (dirt) was depicted to traverse generally from east to west south of the subject site. A dirt road which generally traversed from the northeast to southwest was depicted to the east of the subject site. No oil wells of structures were depicted on the maps within the subject site vicinity during this time.

1940
The proposed SCE Substation Site and the Soil Disposal Site continued to be depicted as vacant undeveloped land. Pico Canyon Road which was depicted to traverse generally from east to west south of the subject site was paved. A dirt road which generally traversed from the northeast to southwest was depicted to the east of the subject site. High tension power transmission lines were depicted to traverse from northeast to southwest along the eastern boundary of the proposed SCE Substation Site. Oil wells were depicted approximately 0.98 miles to the west of the subject site. The majority of the remaining surrounding properties were depicted as vacant undeveloped land.

1947
The proposed SCE Substation Site and the Soil Disposal Site continued to be depicted as vacant undeveloped land. Pico Canyon Road, which was depicted to traverse generally from east to west south of the subject site, was paved. A dirt road which generally traversed from the northeast to southwest was depicted to the east of the subject site. The high tension power transmission lines which traverse from northeast to southwest along the eastern boundary of the proposed SCE Substation Site were not depicted on this map. Oil wells were depicted approximately 0.98 miles to the west of the subject site in the Newhall-Potrero Oil Field. Oil wells were also depicted approximately 0.48 miles to the west-southwest of the subject site. The majority of the remaining surrounding properties were depicted as vacant undeveloped land.

1952
The proposed SCE Substation Site and the Soil Disposal Site continued to be depicted as predominantly vacant undeveloped land. An oil well (POI #6) was depicted in the northern portion of the proposed Soil Disposal Site. A paved road was depicted to traverse the southern portion of the proposed SCE Substation Sites and along the northeastern and northwestern boundaries of the Soil Disposal Site. Pico Canyon Road (paved) was observed to traverse generally from east to west to the south of the subject site. A paved road was also depicted to traverse from generally northeast to southwest east of the subject property. High tension power transmission lines were depicted to

traverse from northeast to southwest along the eastern boundary of the proposed SCE Substation Site. A single-family residence was depicted approximately 0.34 miles southwest of the subject site. Oil wells (POI #s 1, 4, 10, 12, 15, 16, 17, 19 and 20) were depicted on nearby adjacent properties surrounding the subject property. Oil sumps were depicted on adjacent properties at POI #s 2, 5 and 13. Oil production tank batteries were depicted approximately 0.27 miles to the north-northeast, 0.29 miles to the west, 0.53 miles and 0.59 miles to the southeast. Oil production activities, including oil wells and sumps, were observed approximately 0.35 miles to the northwest, 0.37 miles to the southwest and 0.5 to 0.6 miles to the southeast. The majority of the remaining surrounding properties were depicted as vacant undeveloped land.

1969, 1988 and 1995
The proposed SCE Substation Site and the Soil Disposal Site continued to be depicted as predominantly vacant undeveloped land. An oil well (POI #6) was depicted in the northern portion of the proposed Soil Disposal Site. A paved road was depicted to traverse the southern portion of the proposed SCE Substation Sites and along the northeastern and northwestern boundaries of the Soil Disposal Site. Pico Canyon Road (paved) was observed to traverse generally from east to west to the south of the subject site. A paved road was also depicted to traverse from generally northeast to southwest east of the subject property. High tension power transmission lines were depicted to traverse from northeast to southwest along the eastern boundary of the proposed SCE Substation Site. A single-family residence was depicted approximately 0.34 miles southwest of the subject site. A second smaller structure was depicted adjacent to the single-family residence. An oil field production office was depicted approximately 0.25 miles southwest of the subject site. Oil wells (POI #s 1, 4, 10, 12, 15, 16, 17, 19 and 20) were depicted on nearby adjacent properties surrounding the subject property. Oil sumps were depicted on adjacent properties at POI #s 2, 5 and 13. Oil production tank batteries were depicted approximately 0.27 miles to the north-northeast, 0.29 miles to the west, 0.53 miles and 0.59 miles to the southeast. A large oil production facility was depicted approximately 0.88 miles west of the subject site. Oil production activities, including oil wells and sumps, were observed approximately 0.35 miles to the northwest, 0.37 miles to the southwest and 0.5 to 0.6 miles to the southeast. The majority of the remaining surrounding properties were depicted as vacant undeveloped land.

Building Records

The Los Angeles County Department of Public Works Building and Safety Department was contacted regarding building permits and certificates of occupancy for the site. Several small structures have been identified in historical documents in the southern portion of the subject site; however, no building records could be found for these structures.

Review of Previous Environmental Reports

No previous environmental reports for the subject site were provided to BA Environmental for review.

Historical Summary

The review of historical documents indicates that the subject property was occupied by vacant undeveloped land utilized for cattle grazing from prior to 1903 through the present. Portions of the subject property were utilized for dry farming in the 2000s. Oil production began on the Soil Disposal Site in the early 1950s, which continued until around 1997. Historical wells, sumps and other items of interest have been assigned Points of Interest (POI) numbers, which are included in Table 1 and shown in Figure 4.

Environmental Liens and Deed Restrictions

BA Environmental was not supplied a copy of a Chain-of-Title for review nor was BA Environmental provide a copy of a legal review of the Chain-of-Title by the property owners legal counsel. The EDR Radius Map report searched databases for Federal Superfund Liens, US Engineering Controls, US Institutional Controls, and Deed Restrictions. According to the EDR report, **no** Federal Superfund Liens, US Engineering Controls, US Institutional Controls, or Deed Restrictions exist for the subject site (EDR, 2010a).

INTERVIEWS

As the subject property is a vacant parcel, no one was available for interview regarding the subject property.

SITE RECONNAISSANCE AND IMPROVEMENTS

On May 13, 2010, BA Environmental performed a visual reconnaissance of the subject site identified as the proposed SEC Substation Site and Soil Disposal Site, located within Potrero Valley. The subject property is located in the unincorporated County of Los Angeles, near the City of Valencia, California (Figure 1). Mr. Russell M. Cote of BA Environmental performed the site reconnaissance, unescorted.

The subject site is known as the Proposed SCE Substation Site and Soil Disposal Site, located within Potrero Canyon. For the purpose of this report, the subject site has been divided into two parts, SCE Substation Site and the Soil Disposal Site. Currently there are two proposed alternatives for the SCE Substation Site. There is only one configuration for the Soil Disposal Site. SCE Substation Site Alternative 1 consists of approximately 6.61 acres (288,000 square feet) of land, while SCE Substation Site Alternative 2 consists of approximately 8.86 acres (386,000 square feet) of land. The Soil Disposal Site consists of approximately 12.09 acres (527,000 square feet) of land. The total gross acreage of land for the subject site is 18.7 acres (815,000 square feet) for Alternative 1 and 20.95 acres (913,000 square feet) for Alternative 2. Primary vehicular access is from several dirt roads north of Pico Canyon Road.

The Soil Disposal Site and the two alternate SCE Substation Sites are shown in Figures 2 and 3.

The subject property is predominantly occupied by undeveloped land, and areas used for agricultural field crops. One oil well was formerly located on the northern edge of the Soil Disposal Site. High voltage transmission lines and a SCG high pressure natural gas pipeline traverse the eastern edge of the proposed SCE Substation Site. One dirt/partially

paved road traverses the southwestern portion of the proposed SCE Substation Site and runs along the northwestern and northeastern boundaries of the Soil Disposal Site. The subject site is covered by native vegetation, including grasses, bushes, and trees, as well as semi-cultivated field crops. Various indigenous animals, including mule deer, coyotes, jackrabbits, cottontail rabbits, skunk, opossums, various small mammals, rattlesnakes, various other reptiles, and various birds, inhabit the undeveloped areas of the subject property. Cattle were also observed to be grazing in the semi-cultivated field crops.

Various indications of past and present usage of the subject site and adjacent properties were observed during the site reconnaissance. These visual indications included abandoned and active oil well locations, cleared areas, pipeline markers, abandoned and active pipelines, roads, debris, cultivated areas, former oil production sumps, etc. For cataloging purposes, each of these items was labeled as "Points of Interest" (POIs) and was assigned a number. Global Positioning System (GPS) coordinates were collected for each POI. POI numbers were also assigned to past evidence observed in historical documents (e.g., historical aerial photographs and historical topographic maps). The POIs are listed, with GPS coordinates, and described in Table 1. Locations of all of the POIs are shown in Figure 4.

No structures were observed on either the SCE Substation Site or the Soil Disposal Site. In addition, no structures were observed on any of the adjacent properties. No visible evidence of hazardous materials was observed on the subject site.

Portions of the subject site as well as some of the adjacent properties were observed to be used for dry farming. No evidence of irrigation systems or unusual staining was observed in these areas on the day of the site reconnaissance. No pesticide samples were collected in these areas.

No visible evidence of AST or USTs were observed on the subject site. No visible evidence of USTs was observed on any of the adjacent properties. One approximate 1,000-gallon AST on a raised metal framework (POI #18) was observed on an adjacent property to the east of the proposed SCE Substation Site. This AST appeared similar to those used to store water for road construction. Based on visual observations, it did not appear that this AST has been recently used.

No evidence of oil production was observed on the proposed SCE Substation Site. One abandoned oil well (POI #6) was observed in the northern portion of the Soil Disposal Site. The former well location was marked with a yellow painted pipe which had the well number and date of abandonment welded on it. No visible evidence of debris or oil staining was observed on the pad surrounding this well location.

During the site reconnaissance, a total of ten oil well locations were observed on adjacent properties, within close proximity to the subject site (POI #s 1, 4, 10, 12, 15, 16, 17, 19, 20 and 21). Five of the off-site nearby wells were active (POI #s 1, 4, 12, 15 and 16). Five of the off-site nearby wells have been plugged and abandoned (POI #s 10, 17, 19, 20 and 21). There did not appear to be any significant staining on the ground near any of the abandoned well locations. Significant oil staining, and in some cases tar clumps or asphaltic sand, was observed around the active oil wells or on their associated pads.

On the day of the site reconnaissance, no visible evidence of oil sumps was observed on the subject property. A cleared area which may have been the location of a former drilling sump was observed on the Soil Disposal Site in a 1952 historical aerial photograph, just south of the former on-site oil well (POI #6). On the day of the site reconnaissance, no visible evidence of the possible former drilling sump, oil staining, asphaltic sand or tar clumps were observed.

No active oil sumps were observed on any of the adjacent properties on the day of the site reconnaissance. Historically, three sumps (POI #s 2, 5 and 13) were present on the adjacent properties. All three sumps were depicted on the topographic map. No visible evidence of the oil sumps at POI #s 2 and 13 was observed on the day of the site reconnaissance. No visible evidence of oil staining, asphaltic sand or tar clumps were observed at either of these two former oil sump locations. A leveled pad was observed at the location of the former oil sump POI #5. No visible evidence of oil staining, asphaltic sand or tar clumps were observed at this former oil sump location. All three of the former oil sump locations were being used for dry farming on the day of the site reconnaissance.

On the day of the site reconnaissance, a small steel fenced enclosure (POI #7) was observed in the western portion of the Soil Disposal Site. The enclosure appears to protect some type of access or pipe. The purpose of this structure is unknown. No visible staining was observed within the enclosure on the day of the site reconnaissance. A review of the 1952 aerial photograph revealed some type of small structure in the general vicinity of the fenced enclosure observed on the day of the site reconnaissance.

What appeared to be two access covers (POI #s 8 and 9) which may have been associated with some type of pipeline were observed on an adjacent property to the west of the Soil Disposal Site. No visible staining was observed around these two possible access covers.

A flattened area (POI #11) was observed on an adjacent property to the west-southwest of the subject site. This area is located just north of the former oil well located at POI #10. This flattened area may have been a support area used during the drilling of the former oil well located at POI #10. No staining was observed on this flattened area. Currently this area is being used for dry farming.

Numerous small diameter oil pipelines were observed on adjacent properties to the east, west and south of the subject site. These pipelines ranged in size from 2” to 8” in diameter. Some of the pipelines were observed on the surface. Most of the surface pipelines appeared to still be in use. Belowground oil pipelines associated with the former oil well (POI #6) may still exist beneath the Soil Disposal Site. Belowground oil pipelines may also exist in the immediate site vicinity.

It appears that the road which traverses the southwestern portion of the proposed SCE Substation Site and runs along the northwestern and northeastern boundaries of the Soil Disposal Site was formerly paved or coated with crude oil. This roadway is impacted with residual petroleum hydrocarbons.

Storm water either sheet flows across the subject property and into small intermittent streams, which flow into the Santa Clara River channel, or naturally percolates into the soil.

No visible evidence of spills or ponded liquids was observed during the site reconnaissance. No corroded or degraded metal or concrete surfaces were observed. No unusual odors were detected on-site on the day of the site reconnaissance.

No areas of stained soil, or significantly stained asphalt or concrete, or distressed or discolored vegetation were observed on-site during the site reconnaissance, other than those described above.

BA Environmental did not observe issues of environmental concern, such as significantly stained pavement or concrete floors, USTs, ASTs, floor drains, waste water clarifiers, or hazardous materials usage or storage, at the subject property, other than those described above.

Pits, Ponds and Lagoons

Pits, ponds and lagoons are often associated with the disposal of solid and liquid wastes, which may include hazardous materials. According to ASTM Standard E1527-05, pits, ponds and lagoons are "man-made or natural depressions in the ground surface that are likely to hold liquid or sludge containing hazardous substances or petroleum products." Information obtained from the assessment indicated that pits, ponds and lagoons do not currently exist, or have ever existed on the subject site or any of the adjacent properties.

Septic Tanks and Cesspools

Septic tanks and cesspools are often associated with the disposal of wastewater from structures that are not served by public sewer systems. Septic tanks and cesspools may be associated with hazardous materials, if such materials have been inappropriately disposed of in the past via sinks. No residential, commercial or retail buildings were observed on the subject site at the time of the site reconnaissance, and no evidence of septic tanks or cesspools was visually identified.

Wells, Cisterns and Sumps

No water wells were observed on the subject site. One small-diameter groundwater monitoring well (2") was observed on an adjacent property to the south of the subject property (POI #14). According to Newhall Land personnel, this well is utilized for groundwater elevation data used for engineering purposes as part of the planned construction of the future developments. The location of this groundwater monitoring well is provided in Table 1 and shown in Figure 4.

The subject site is located within the Newhall-Potrero Oil Field. One oil well was formerly located on the subject property (POI #6). This oil well was Rancho San Francisco 88 which was abandoned in 1997. On the day of the site reconnaissance, the location of this abandoned well was marked by a pipe painted yellow with the well number and date of abandonment welded on it. It appears that this former on-site oil production well was abandoned under the supervision of DOGGR. (See the Agency Contacts section below.) The well location is currently occupied by a partially cleared pad. No significant oil staining was observed on this pad.

Ten active and abandoned oil wells are located on surrounding adjacent properties (POI #s 1, 4, 10, 12, 15, 16, 19, 20 and 21). A review of topographic maps revealed that only nine oil wells were depicted that were also identified on DOGGR maps. The topographic maps do not depict one of the oil wells listed in DOGGR records (POI #21). This well, Rancho San Francisco 91-A, was abandoned but was located on the same pad as the active well Rancho San Francisco 91-5 (POI #4). Because of the proximity of these off-site oil wells to the subject site, or the potential for impact by on-site grading activities, the documentation for all ten off-site wells identified was reviewed. Five of the off-site nearby wells remain active (POI #s 1, 4, 12, 15 and 16). Five of the off-site nearby wells have been plugged and abandoned (POI #s 10, 17, 19, 20 and 21). The active well locations (POI #s 1, 4, 12, 15 and 16) were observed to have significant oil staining around the well head. Scattered staining was also observed in areas of these active oil well pads. No significant amounts of asphaltic sand, tar clumps and/or oil staining were observed around each of the abandoned oil well pads. Locations of all of the active and abandoned oil production wells are provided in Table 1 and shown in Figure 4.

A review of historical documents as well as observations made during the site reconnaissance revealed that there appeared to be no active or historical oil production sumps located on the subject property. A total of three suspect and identified oil production sumps have existed or were observed on surrounding adjacent on-site (POI #s 2, 5 and 13). Currently, no active sumps exist on any of the adjacent properties. On the day of the site reconnaissance, the location of the former sump located at POI #5 was occupied by a leveled pad and planted with an agricultural field crop. No visible staining was observed. The other two former sumps, located at POI #s 2 and 13, were observed to be relatively level ground planted with an agricultural field crop. No soil staining was observed at either of these former sump locations.

Other unidentified former oil sumps related to the drilling of on-site or adjacent oil wells may also have existed on-site, which were not visible on the day of the site reconnaissance or present in any of the historical documents reviewed. The locations of identified oil sumps are provided in Table 1 and are shown in Figures 4.

Polychlorinated Biphenyls (PCBs)

Federal regulations put into effect following the Toxic Substance Control Act (TSCA) require that electrical transformers be labeled to identify their PCB content. The manufacture and distribution of PCBs was banned in 1979. No electrical transformers were observed on the subject site. A total of six pole-mounted electrical transformers were observed in two locations on nearby adjacent properties. Locations of the on-site electrical transformers are provided in Table 2 and shown in Figure 4. All of the transformers appeared to be of relatively recent manufacture. No staining was observed on the exteriors or on the ground surface beneath the transformers. The transformers are likely owned and operated by Southern California Edison Company (SCE). SCE would be responsible for all maintenance and environmental conditions regarding the on-site transformers.

BA Environmental did not observe other equipment on-site likely to contain PCBs.

On-Site Storage Tanks

No evidence for the presence of present day on-site fuel storage tanks, such as fuel dispensers, fill ports, aboveground vents or piping, was observed during the site reconnaissance. According to the Los Angeles County Department of Public Works, Environmental Programs, and the State of California Department of Water Resources, USTs are not currently present on the subject site.

On the day of the site reconnaissance, BA Environmental did not observe any evidence of oil storage tanks on the subject property or directly adjacent properties.

Pipelines

Numerous oil pipelines are located in the immediate site vicinity. These pipelines ranged in size from 2" to 8" in diameter. Some of the pipelines were observed on the surface. All of these petroleum pipelines service the local oil fields. None of these pipelines appeared to cross the subject property. A Southern California Gas Company (SCG) natural gas pipeline was observed to traverse the southeastern edge of the subject property. Pipeline markers were visible on the surface.

Utilities

Electric service is provided by Southern California Edison (SCE). No natural gas service is provided to the subject property. No water service is supplied to the subject site. Water service for the immediate vicinity is currently provided by the Newhall Land production wells. Water services for nearby developments are provided by the Valencia Water Company. No sanitary sewer services are provided to the subject site.

Drinking Water

Municipal water service is supplied by the Valencia Water Company, which obtains approximately 50% of its water from the Castaic Lake Water Agency and the other 50% from shallow groundwater aquifers. According to the Santa Clarita Valley 2009 Annual Water Quality Report, there are no MCL violations, and the drinking water supplied by this municipal supplier meets all drinking water standards. A copy of the Santa Clarita Valley 2009 Annual Water Quality Report for the Valencia municipal water system is included in Appendix E.

ADJACENT LAND USE

During the reconnaissance of the surrounding area within a 0.25-mile radius, BA Environmental observed that the subject site is located in an area of vacant, agricultural, and oil production properties.

Adjacent properties consist of predominantly vacant undeveloped land. Ten active or abandoned oil wells are located on adjacent properties surrounding the two sites. In addition, some of the adjacent properties are used for agricultural field crops.

AGENCY CONTACTS

California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR)

BA Environmental visited the office of the DOGGR regarding oil well abandonment records for the subject site. The review of DOGGR records revealed one oil well located on the subject property. This well, POI #6, is located on the northern edge of the Soil Disposal Site. This on-site oil well was also depicted on the topographic map as well as on DOGGR maps. Reportedly, the well was abandoned on February 20, 1997. Additionally, ten oil wells have been identified off-site, which are in close proximity to the development or are potentially in the grading footprint (POI #s 1, 4, 10, 12, 15, 16, 17, 19, 20 and 21). Because of the proximity of these off-site oil wells to the subject site, or the potential for impact by on-site grading activities, the documentation for all ten off-site wells identified was reviewed. Five of the off-site nearby wells remain active (POI #s 1, 4, 12, 15 and 16). Five of the off-site nearby wells have been plugged and abandoned (POI #s 10, 17, 19, 20 and 21). The locations of the on-site and nearby off-site oil wells are provided in Tables 1 and 3 and shown in Figure 4. Well records obtained from the DOGGR for the on-site oil wells are included as Appendix F.

Table 3
Oil Wells Located on Subject Site

Section	Township	Range	Development	Operator	Well No.	Year Abandoned	Point of Interest
36	4 North	17 West	Potrero Valley (off-site)	Vintage Prod. California LLC	Rancho San Francisco 76-5	Active	16
36	4 North	17 West	Potrero Valley (off-site)	Vintage Prod. California LLC	Rancho San Francisco 77	Active	15
26	4 North	17 West	Potrero Valley (off-site)	Oryx Energy	Rancho San Francisco 78	1982	10
25	4 North	17 West	Soil Disposal Site (on-site)	Medallion California Properties Co	Rancho San Francisco 88	1997	6
25	4 North	17 West	Potrero Valley (off-site)	Oryx Energy	Rancho San Francisco 91-A	1950	21
25	4 North	17 West	Potrero Valley (off-site)	Vintage Prod. California LLC	Rancho San Francisco 91-5	Active	4
36	4 North	17 West	Potrero Valley (off-site)	Vintage Prod. California LLC	Rancho San Francisco 96-5	Active	1

Section	Township	Range	Development	Operator	Well No.	Year Abandoned	Point of Interest
26	4 North	17 West	Potrero Valley (off-site)	Vintage Prod. California LLC	Rancho San Francisco 99-5	Active	12
25	4 North	17 West	Legacy Village (LV POI #33) (off-site)	Oryx Energy	Newhall Corp. Wolfson 3-5	1989	20
25	4 North	17 West	Legacy Village (LV POI #32) (off-site)	Oryx Energy	Newhall Corp. Wolfson 4-5	1989	19
25	4 North	17 West	Legacy Village (LV POI #31) (off-site)	Oryx Energy	Newhall Corp. Wolfson 5-5	1989	17

DOGGR also supplied requirements for well abandonment procedures. A copy of the DOGGR oil well abandonment procedures is included in Appendix G. BA Environmental spoke with Mr. Steve Mulqueen regarding well abandonment. According to Mr. Mulqueen, the abandoned oil wells need to be located and plotted on the site plan for the project and submitted in triplicate to the DOGGR. Locating the wells is accomplished by hiring a surveyor to locate each well, using "location record" for each well. After this is accomplished, the well needs to be excavated. Following excavation, the well needs to be tested for gas leakage and inspected for fluid leakage by DOGGR personnel. If the well leaks or is not abandoned properly, the well may need to be re-abandoned. If fill soil is to be placed over the oil well, the casing may need to be extended to within five feet of finished grade. If the well is located within an area planned to be excavated, the well will need to be re-abandoned and the casing cut five feet below grade. If a structure is proposed within ten feet of an abandoned/re-abandoned well, the site plans should include an approved well-vent system designed to vent natural gases to the atmosphere. If a structure is within 25 feet of an abandoned/re-abandoned well, and the permitting agency is Los Angeles County, an approval letter would be required.

Los Angeles County Department of Public Works, Environmental Programs (LACDPW)

BA Environmental visited the office of the LACDPW on May 13, 2010 regarding USTs, hazardous materials storage and hazardous materials permits for the subject property. According to the LACDPW no files exist for the subject property.

California State Regional Water Quality Control Board (RWQCB)

BA Environmental searched the RWQCB's Geotracker database for UST Program, Spills, Leaks, Investigations and Cleanups (SLIC) Program, and Well Investigation Program (WIP) files for the subject site. According to the RWQCB's Geotracker database, no files exist for the subject property. BA Environmental submitted a written request for files at the RWQCB for the above RWQCB programs. According to the RWQCB, no files were available for the subject property.

California State Department of Toxic Substance Control (DTSC)

BA Environmental searched the ENVIROSTOR database for any files regarding contamination beneath the subject site. According to the DTSC's ENVIROSTOR database, no active files exist for the subject property. BA Environmental also submitted a written request for files at the DTSC. According to the DTSC, no files were available for the subject property.

Santa Clarita Valley Sanitation District (SCVSD)

The SCVSD was contacted on May 11, 2010 regarding permits associated with wastewater clarifiers and wastewater discharge. According to the SCVSD, no files exist for the subject property.

South Coast Air Quality Management District (AQMD)

BA Environmental searched the AQMD's Facility Information Detail (FIND) database for AQMD records regarding air emissions permits for the subject property. According to the AQMD's FIND database, no files exist for the subject property.

GOVERNMENT RECORDS REVIEW

Regulatory compliance is a primary element of an ESA. Failure to comply with governmental regulations can result in fines, and can expose businesses or individuals to liabilities from which the law would otherwise shield them. The presence of hazardous wastes or hazardous materials, on-site or at neighboring sites, may present certain liabilities. Environmental Data Resources, Inc. (EDR) searches over 900 federal, state and local databases nationwide to provide the most recent information regarding the hazardous materials sites within the site vicinity, and which are identified below (EDR, 2010a). EDR searches each database to the radius specified in ASTM E1527-05 and the EPA AAI Rules. A copy of the EDR Radius Report is provided in Appendix I. Due the size of the subject property, an extended search radius was used for the database search. This search radius was the required 1.0 mile radius (per ASTM E1527-05) plus 2.0 miles. Sites of potential environmental concern are described at the end of this section in Table 4.

1. The Federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), also known as the Superfund Act, protects the victims and the environment in the event of a hazardous materials spill. This act primarily addresses cleanup of designated Superfund hazardous waste sites (HWS). To achieve its stated purpose, CERCLA established a hazardous Substances Trust Fund, the Emergency Response Trust Fund, and the Post-Closure Liability Trust Fund. These funds compensate the victims and provide money necessary for the decontamination of the environment. The Environmental Protection Agency (EPA) compiles a list of known contaminated sites that are under consideration for the Superfund List. This list is known as the CERCLIS database. According to the January 2010 version of this document, **no** CERCLIS site is located within a 0.5-mile radius of the subject property.

   CERCLIS No Further Remedial Action Planned (CERCLIS-NFRAP) sites are CERCLIS sites which have been removed and archived from the inventory of active CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site. According to the June 2009 version of this document, **no** CERCLIS-NFRAP sites are located within a 0.5-mile radius of the subject property.

2. The US EPA maintains the National Priority List (NPL) under CERCLA 42 U.S.C. Section 9601 (1985). Once a site has been designated on the CERCLIS, the EPA ranks it to determine the potential risk to human health and the environment. Only those CERCLIS sites which present the greatest risk are added to the NPL, which qualifies the sites to receive CERCLA remedial funding. According to the March 2010 version of this document, **no** NPL site is located within a 1.0-mile radius of the subject property.

   The US EPA maintains the Delisted National Priority List (NPL) or National Priority List Deletions under 40 CFR 300.425(e). The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) established the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425(e), sites may be deleted from the NPL where no further response is appropriate. According to the March 2010 version of this document, **no** Delisted NPL sites are located within a 1.0-mile radius of the subject property.

   The US EPA maintains the National Priority List (NPL) Liens list, which is a listing of Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens. This database is not updated. According to the October 1991 version of this document, the subject property **is not listed** as an NPL Liens site.

3. The CERCLA Lien Information database (LIEN 2) lists Federal CERCLA (Superfund) liens that exist by operation of law at any site or property at which the EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. According to the February 2010 version of this database, the subject property **is not listed** as a LIEN 2 site.

4. The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal, in addition to enforcing penalties against violators. The RCRA Facilities database is a compilation by the EPA of facilities which generate, store, transport, treat or dispose of hazardous waste. Small quantity generator (SQG) facilities produce between 100 kilograms and 1,000 kilograms of hazardous waste per month. Large quantity generator (LQG) facilities produce more than 1,000 kilograms of hazardous waste per month. RCRA-CESQG (Conditionally Exempt Small Quantity Generators) generates less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. RCRA-NonGen (Non Generators) do not presently generate hazardous waste.

   According to the January 2010 listing of hazardous waste treatment, storage and disposal facilities (TSDFs), **no** TSD facilities are located within a 0.5-mile radius of the subject site.

   The Resource Conservation and Recovery Information System TSDFs CORRACTS report contains information pertaining to TSDFs which have conducted, or are currently conducting, a corrective action as regulated under RCRA.

   According to the December 2009 version of the CORRACTS document, **no** CORRACTS facilities are located within a 1.0-mile radius of the subject property.

   According to the January 2010 listing of hazardous waste generators, **no** large quantity generator (LQG) facilities, **no** small quantity generator (SQG) facilities, **no** RCRA- Conditionally Exempt Small Quantity Generator (CESQG) facilities, are located within a 0.25-mile radius of the subject property. The subject property is **not** identified on the RCRA Non Generators (NonGen) database.

5. The Emergency Response Notification System (ERNS) is a national database used to collect information on reported releases of oil and hazardous substances. The database contains information from spill reports made to federal authorities, including the EPA, the US Coast Guard, the National Response Center, and the Department of Transportation. According to the December 2009 version of this document, there have been **no reported releases** of hazardous substances at the subject property.

6. The EPA maintains a listing of Engineering Controls Sites (US Eng Controls). This listing is of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods intended to eliminate pathways for regulated substances to enter environmental media or affect human health. According to the December 2009 version of this document, **no** US Eng Controls sites are located within a 0.5-mile radius of the subject property.

7. The EPA maintains a listing of Sites with Institutional Controls (US Inst Controls). This listing is of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls. According to the December 2009 version of this document, **no** US Inst Controls sites are located within a 0.5-mile radius of the subject property.

8. The EPA maintains a listing of Brownfield Sites in the United States (US Brownfields). Brownfields are properties addressed by Cooperative Agreements recipients and Targeted Brownfields Assessments (TBA). The TBA program is designed to help states, tribes, and municipalities minimize the uncertainties of contamination often associated with Brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments and to promote cleanup and redevelopment of Brownfields throughout the county. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA, and must use EPA funds provided through BCRLF cooperative agreement for specified Brownfields-related cleanup activities. According to the October 2009 version of this document, the subject property **is not listed** as a US Brownfields site.

9. Department of Justice, Consent Decree Library maintains a list of the Superfund (CERCLA) Consent Decrees (CONSENT). These are major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites, which are released periodically by United States District Courts after settlement by parties to litigation matters. According to the August 2009 version of this document, **no** CONSENT sites are located within a 1.0-mile radius of the subject property.

10. The California Department of Toxic Substance Control's (DTSC) RESPONSE database, previously known as the Cal-Sites Annual Work Plan, is a listing of known hazardous waste sites undergoing remediation. According to the February 2010 version of this document, **no** RESPONSE sites are located within a 1.0-mile radius of the subject site.

11. The DTSC's ENVIROSTOR database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal NPL; State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. ENVIROSTOR provides similar information that was available in Cal-Sites, and provides additional information including identification of formerly-contaminated properties that have been released for reuse, environmental deed restrictions, and risk characterization information. According to the February 2010 version of this database, **no** ENVIROSTOR sites are located within a 1.0-mile radius of the subject site.

12. The DTSC maintains a database known as the HIST Cal-Sites list that includes historical potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Cal-Sites database. This database is no longer updated by the state agency, and has been replaced by ENVIROSTOR. According to the August 2005 version of this database, **no** Historical Cal-Site sites are located within a 1.0-mile radius of the subject property.

13. The DTSC maintains the California Hazardous Materials Incident Report System (known as CHMIRS), which contains information on reported hazardous material incidents (accidental releases or spills). According to the December 2007 version of this database, **three** CHMIRS sites are located within a 1.0-mile radius of the subject property. (See Table 4, below.)

14. The DTSC maintains a listing of property locations with environmental liens for California where DTSC is a lien holder (CA LIENS). According to the January 2010 version of this database, the subject property is **not** identified on the CA LIENS database.

15. The DTSC maintains the Deed Restrictions listing (DEED). The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after it has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners. According to the March 2010 version of this database, the subject property is **not** identified on the DEED database.

16. The DTSC maintains a list of Voluntary Cleanup Program Properties (VCP). This list contains low threat level properties with either confirmed or unconfirmed releases, and the project proponents have requested that the DTSC oversee investigation and/or cleanup activities, and have agreed to provide coverage for DTSC's costs. According to the February 2010 version of this database, **no** VCP site is located within a 0.5-mile radius of the subject property.

17. The DTSC developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds, known as the Bond Expenditure Plan (BEP). This list is not updated. According to the October 1989 version of this database, **no** BEP site is located within a 1.0-mile radius of the subject property.

18. The California Environmental Protection Agency (Cal-EPA) maintains the California Facility Inventory Database (CA-FID). The CA-FID contains an historical listing of active and inactive UST locations from the State Water Resources Control Board. This database is not updated. According to the October 1994 version of this database, the subject property **is listed** on the CA-FID database.

19. The State of California State Water Resources Control Board (SWRCB) formerly contracted with an independent company to update and maintain the Statewide Environmental Evaluation and Planning System (SWEEPS) UST listing in the early 1980s. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS UST list. According to the June 1994 version of this document, **no** SWEEPS UST sites are listed as being within a 0.25-mile radius of the subject property.

20. The State of California State Water Resources Control Board (SWRCB) maintains the California Leaking Underground Storage Tank (LUST) list. According to the March 2010 version of this document, **no** LUST sites are listed as being within a 0.5-mile radius of the subject property.

21. The SWRCB maintains an inventory (CA UST) of registered USTs. According to the March 2010 version of this document, **no** UST sites are listed as being within a 0.25-mile radius of the subject property.

22. The SWRCB maintains the Hazardous Substance Storage Container Database, which is a listing of Historic UST (Hist UST) sites. According to the October 1990 version of this database, the subject site **is not listed** as a Hist UST.

23. The SWRCB maintains an inventory (AST) of registered Aboveground Petroleum Storage Tank facilities. According to the August 2009 version of this database, **no** ASTs have been identified within a 0.25-mile radius the subject property.

24. The SWRCB maintains the Spills, Leaks, Investigations and Clean-up (SLIC) records. According to the March 2010 version of this database, **no** SLIC sites are located within a 0.5-mile radius of the subject property.

25. The California Governor's Office of Planning and Research annually publishes a listing of potential and confirmed HWS sites throughout the State of California under Government Code Section 65962.5. This list is also known as the Cortese List, which is no longer updated. According to the January 2010 version of this list, **no** Cortese sites are located within a 1.0-mile radius of the subject site.

26. The California Integrated Waste Management Board maintains a list of permitted solid waste landfills (SWF/LF), incinerators and transfer stations. According to the February 2010 version of this database, **no** SWF/LF site is located within a 0.5-mile radius of the subject property.

27. The DTSC maintains a Clandestine Drug Labs (CDL) database that is a listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work. According to the December 2009 version of this database, the subject site **is not listed** as a CDL.

28. BA Environmental reviewed the list of "orphan" sites, which have inadequate address information and are therefore no plotted on the GIS radius map. **Seventeen (17)** "orphan" sites were listed. The "orphan" sites appear to be located at distances greater than 0.25 miles from the subject property. Based on the distances of the "orphan" sites from the subject property, environmental impact to the subject property from these orphan sites is unlikely.

Table 4
GOVERNMENT-LISTED DATABASES
IDENTIFIED SITES OF POTENTIAL ENVIRONMENTAL CONCERN

Site of Concern and Address	Distance and Direction from Subject Property	Databases	Regulatory Status	Potential Environmental Impact
Oryx, Western Dist.Gas Plant 26835 W. Pico Canyon Road	4,270 feet Southeast (down-gradient)	Toxic Pits	Status of the case was reported to be closed, 12/7/90	Low
26835 Pico Canyon Road	5,270 feet Southeast (down-gradient)	CHMIRS	Release of approximately two barrels of crude oil and product water when collection pipeline ruptured	Low
Gas Plant 26835 Pico Canyon Rd	5,270 feet Southeast (down-gradient)	Hist. UST CHMIRS HAZNET EMI	Reportedly one 14,000-gallon waste tank was installed in 1984; Not reported on LUST database; Reported release of approximately eight barrels of crude oil on-site when a backhoe broke a 2" pipeline	Low
26835 West Pico Canyon Road	5,270 feet Southeast (down-gradient)	CHMIRS	Release of approximately 30 barrels of crude oil when a split between a top stave and the top of the tank occurred	Low

The subject site was not listed on any of the environmental databases searched.

One address, 26835 Pico Canyon, was listed on the Toxic Pits, Historic UST, HAZNET, EMI and CHMIRS database. This site is located approximately 4,200 to 5,200 feet down-gradient of the subject site. The status of the Toxic Pits case was reported to have been closed on December 7, 1990.

According to the Historical UST database, one 14,000-gallon UST was installed at this site. This UST was reported to be used to store "waste." This UST was not listed on the LUST database, indicating that there had been no reported releases from the UST.

This address was also listed three times on the CHMIRs database. One listing was for the release of approximately two barrels of crude oil and production water. This release occurred when a production pipeline ruptured. A second listing was for the release of approximately 30 barrels of crude oil. This release occurred when a split between a top stave and the top of a tank occurred. The third listing was for the release of approximately eight barrels of crude oil. This release occurred when a backhoe which was cleaning up a previous release broke an existing 2" pipeline. Based on the distance and down-gradient location of this facility from the subject site, there is a low potential for this site to have impacted the subject property.

No other facilities were located within a 1.0-mile radius of the subject site.

ADDITIONAL NON-ASTM SCOPE ASSESSMENT

Visual Asbestos Survey

BA Environmental performed a visual survey of suspect friable and non-friable asbestos-containing materials (ACMs). Although the use of asbestos in the manufacture of most building materials was for the most part discontinued by 1979, some non-friable ACMs, such as roofing material and floor coverings (floor tile and mastic), were manufactured and used into the mid 1980s.

- Friable materials are materials which can be crumbled, pulverized, or reduced to powder by hand pressure when dry.
- Non-friable materials are materials in which the fibers have been locked in by a bonding agent, coating, or binder, and may not release fibers during normal use and handling. Improper handling, such as grinding or sanding of non-friable ACMs, will render these materials friable.

No residential, commercial or retail structures were observed on the subject site. No suspect ACMs were observed on the subject site.

Visual Mold Survey

BA Environmental performed a visual mold survey in accessible areas at the subject property. BA Environmental did not assess areas not readily accessible, nor did they conduct a destructive or invasive survey. It is possible that significant fungal spore growth inside walls, insulation, attic spaces, or other areas can exist and not be visible on the finished surfaces of a building's interior spaces. BA Environmental did not: (1) perform a mold/fungi inspection, (2) perform any building material surface mold sampling, or (3) perform air sampling for mold spores at the subject property as part of this Phase I.

No residential, commercial or retail structures were observed on the subject site.

Visual Lead-Based Paint Survey

Lead was a major ingredient in paint pigment prior to and through the 1940s. While other pigments were used in the 1950s, the use of lead in paint continued until the mid 1970s. In 1978, the Consumer Products Safety Commission banned paint and other surface coating materials that are lead-containing.

BA Environmental performed a visual lead-based paint survey in accessible areas at the subject property. No residential, commercial or retail structures were observed on the subject site. No other structures which may have lead-based paint were observed on the subject site.

Radon Gas Survey

Radon is a radioactive gas that occurs naturally in the environment and cannot be seen, smelled or tasted. The human health effect associated with exposure to elevated levels of radon is an increased risk of developing lung cancer. The US Environmental Protection Agency (EPA) and the US Center for Disease Control are concerned about the increased risk of lung cancer developing in individuals exposed to above average levels of radon in their homes or offices. In order to address these concerns, the US EPA conducted a radon survey and presented the results for various counties in 1993.

The EPA's map of Radon Zones assigns each of the 3,141 counties in the United States to one of three zones. The zone designations were determined by assessing five factors that are known to be important indicators of radon potential: (1) indoor radon measurements, (2) geology, (3) aerial radioactivity surveys, (4) soil parameters, and (5) foundation types. The subject property falls within the designation of Zone 2. Zone 2 counties have a predicted average indoor radon screening level of greater than or equal to two pico curies per liter (pCi/l) of air and less than or equal to four pCi/l of air. According to the EPA, of the two sites tested within the subject site's zip code, 100% of the 1st floor living areas tested were reported to have radon levels below 4pCi/l. The average radon concentration for 1st floor living areas was reported to be 0.750 pCi/l. According to the California Radon database, 13 sites were tested in the subject site's zip code. All of these sites were reported to have radon levels below four pCi/l. It is BA Environmental's opinion, based upon these results, that there is a low potential that radon is a concern for the subject property.

Methane Zones

Methane is a naturally occurring hydrocarbon produced by the breakdown of organic material, including petroleum hydrocarbons, which can migrate through soils and sediments. Methane gas is flammable and is considered a hazardous substance by the American Congress of Government Industrial Hygienists (ACGIH), the Department of Transportation (DOT), and the National Fire Protection Association (NFPA). According to county and state agencies, the subject site is not located within an identified methane zone. As the subject site is located within the Newhall-Potrero Oil Field, and portions of the subject site have been used for oil production, there is a potential for methane gas to exist beneath the subject site.

Wetlands and Flood Plains

During the site reconnaissance and drive-by survey of the surrounding area, BA Environmental observed no indications of wetlands. According to the Environmental Data Resources, Inc. (EDR) report, no wetland per the National Wetlands Inventory (1994) is located within an approximate 1.0-mile radius of the subject site. According to information provided in the EDR report, the subject site is not located within a 100- or 500-year flood zone per the Federal Emergency Management Agency (FEMA).

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

BA Environmental has performed a Phase I ESA, in conformance with the scope and limitations of ASTM Practice E1527-05, regarding the proposed SCE Substation Site and Soil Disposal Site, located in Valencia, California. Any exceptions to, or deletions from, this practice are described in the Objective and Scope of Work section of this report.

This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property, except for the following:

- One abandoned oil well exists on the subject site;
- One possible former sump may exist on the subject property;
- Old unused petroleum pipelines may exist beneath the subject property;
- Crude oil may have been used to coat an on-site roadway. This roadway may have been impacted with petroleum hydrocarbons; and
- As the subject site has been used for oil production, methane gas may exist beneath the subject site.

BA Environmental makes the following general recommendations regarding the subject property:

- If disturbed, if located within an area of redevelopment, or if the surface grade changes, all former oil wells located on the subject property should be re-abandoned according to all applicable local and state regulations. Any crude oil-impacted soil encountered during re-abandonment should be remediated;
- The area of potential former on-site sump should be assessed for potential impact to the subject site;
- Abandoned petroleum pipelines may exist beneath the subject site. These pipelines should be removed and assessed prior to redevelopment of the subject site; and
- If buildings or structures are intended to be constructed within the former oil production area, a methane survey may be prudent.

Since this area has been historically used for oil production, structures or contamination which could not be reasonably identified in this investigation may exist. BA Environmental recommends that any stained areas or unidentified structures encountered during grading operations should be assessed upon discovery.

LIMITATIONS

This report contains all of the limitations inherent in the methodologies that are referred to in ASTM E1527-05. BA Environmental has made every reasonable effort to discover and interpret the information and current conditions regarding the site within the time available. This assessment has been completed under the time and cost restraints implemented by the client. There is a possibility that, even with the proper application of the methodologies outlined in ASTM E1527-05, there may exist on the subject property conditions that could not be identified within the scope of the assessment or which are not reasonably identifiable from reasonably ascertainable information. This assessment is a visual, non-intrusive investigation, and conditions may exist at the site that cannot be identified solely by visual observation. No sampling, destructive, or subsurface investigation of any type has been conducted on-site, unless expressly stated in the Objective and Scope of Work section above. All conclusions and recommendations are based on: the visual observations made on the day of the site reconnaissance; the interviews with current owners and occupants of the subject property (if available), and personnel at local government agencies; the compilation of the property history, including the review of previous environmental reports regarding the subject property (if available); the review of pertinent local regulatory agency files; the agency list search of facilities with recorded environmental issues located within the radii required by ASTM E1527-05; and the review of a survey and maps and applicable zones. BA Environmental is not responsible for identifying any environmental issues or site conditions which may have occurred after the site reconnaissance. This assessment relied upon information obtained from the site reconnaissance and from relevant regulatory agencies. BA Environmental believes that the information contained herein is reliable. However, BA Environmental cannot guarantee the accuracy of information provided by others. This assessment has been completed in general accordance with ASTM E1527-05 and accepted practices of the environmental industry.

This report is not intended to address, assess, or otherwise determine whether soil or groundwater contamination, waste emplacement, existing or threatened mold/fungus growth, asbestos containing building materials, and/or lead-based paint actually exists at the subject property. Such determination would require comprehensive subsurface exploration and/or other sampling activities, which were beyond the scope of service for this assessment. Additionally, this report does not serve as a comprehensive subsurface wetlands, mining, oil, pipeline, and/or gas well investigation.

This report summarizes an environmental investigation conducted for the subject property. Although conditions at neighboring properties may impact the subject property and, to the extent they were identified, were included in the subject property evaluation, this report does not serve as an assessment of sites other than the subject property.

Glossary Of Acronyms

(for words that frequently appear in environmental reports)

ASTs = aboveground storage tanks

ACMs = asbestos-containing materials

BTEX = benzene, toluene, ethylbenzene and xylenes

bgs = below ground surface

EDR = Environmental Data Resources, Inc.

LQG = Large Quantity Generator of hazardous waste

LUSTs = leaking underground storage tanks

MCL = maximum concentration limit

MTBE = methyl-tertiary-butyl ether

mg/kg = milligrams per kilogram

mg/l = milligrams per liter

PCE = perchloroethene

ppb = parts per billion

ppm = parts per million

SQG = Small Quantity Generator of hazardous waste

TCE = trichloroethene

TPH-d = Total Petroleum Hydrocarbons as diesel

TPH-g = Total Petroleum Hydrocarbons as gasoline

TRPH = Total Recoverable Petroleum Hydrocarbons

ug/kg = micrograms per kilogram

ug/l = micrograms per liter

USTs = underground storage tanks

VOCs = volatile organic compounds

REFERENCES

California State Department of Toxic Substance Control (DTSC), ENVIROSTOR web site http://www.envirostor.dtsc.ca.gov/public/, searched May 17, 2010.

California State Water Resources Control Board (CWRCB), Geotracker web site http://geotracker.swrcb.ca.gov/, searched May 17, 2010

California Department of Conservation, Division of Mines and Geology (CDMG), 1994 Fault Activity Map of California and Adjacent Areas (1:750,000 scale).

California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR), On-Line Mapping System, http://maps.conservation.ca.gov/doms/index.html, searched May 12, 2010.

County of Los Angeles Public Works Department, Building and Safety Division, agency visit May 13, 2010.

Environmental Data Resources (EDR), 2007a, Radius Map with GeoCheck® EDR-Radius Map Report No. 2763855.2s, dated May 6, 2010.

EDR, 2010b, Aerial Photography Print Services, Inquiry No. 2763885.5, dated May 6, 2010

EDR, 2010c, Historical Topographic Map Report, Inquiry No. 2763885.4, dated May 6, 2010

EDR, 2010d, Historical Directory Report, Inquiry No. 2763885.6, dated May 6, 2010

EDR, 2010e, Sanborn® Map Report, Inquiry No. 2763885.3s, dated May 6, 2010

Environmental Protection Agency (EPA), 1993, Map of Radon Zones.

Los Angeles County Department of Public Works, Environmental Programs (LACDPW), agency visit, May 13, 2010

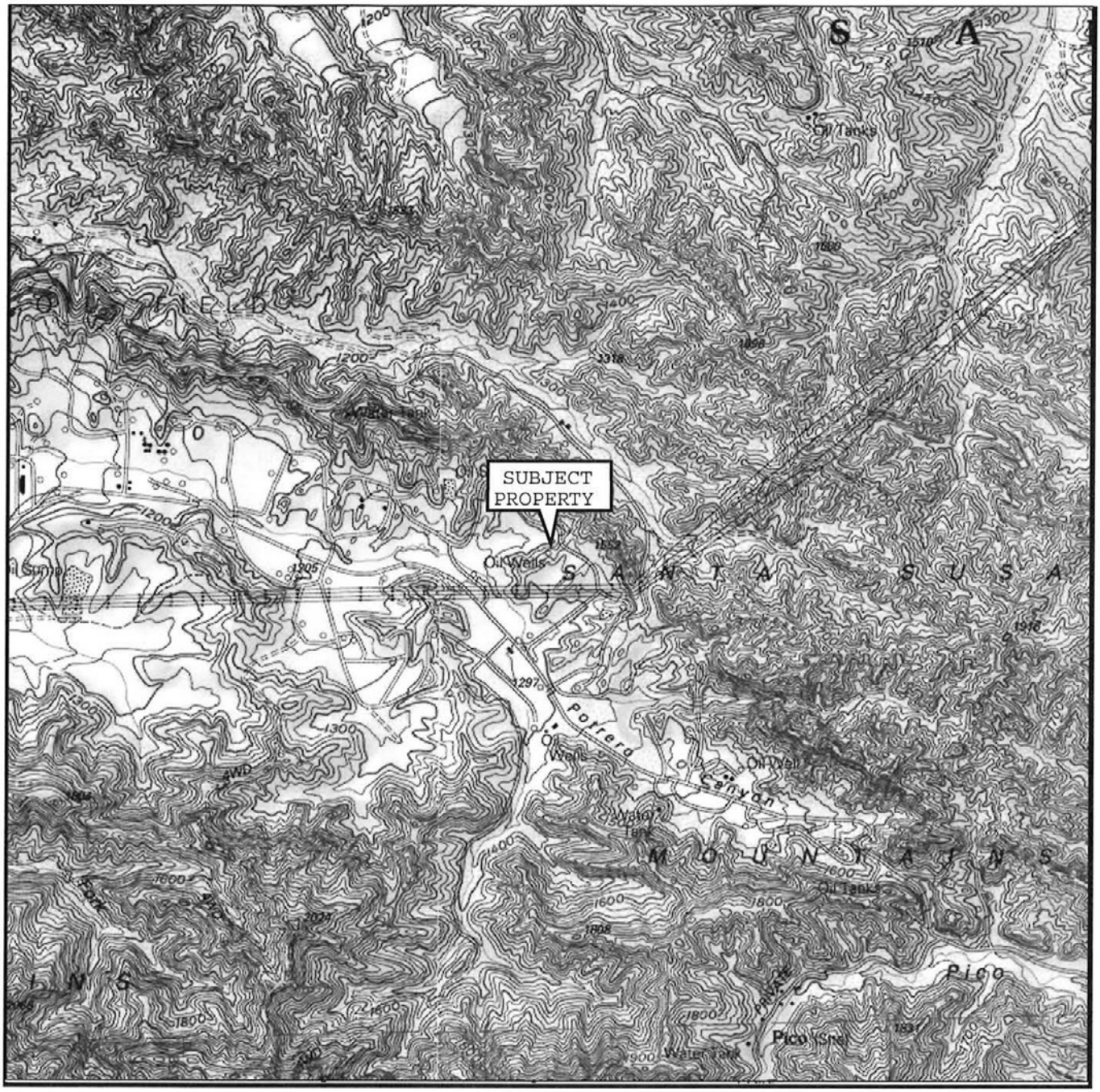
Munger Map Book of California/Alaska Oil and Gas Fields, 37th Edition, June 1993

Santa Clarita Valley Sanitation District (SCVSD), agency contact, May 12, 2010

South Coast Air Quality Management Control District (AQMD) web page http://www.aqmd.gov/webappl/fim/prog/search.aspx, searched April 26, 2010

United States Geological Survey Map, Newhall, California Quadrangle, 1995

FIGURES



NORTH

Reference: USGS Newhall and Via Verde Quadrangles, California
7.5 Minute Series

SITE VICINITY
SCALE - 1:24,000

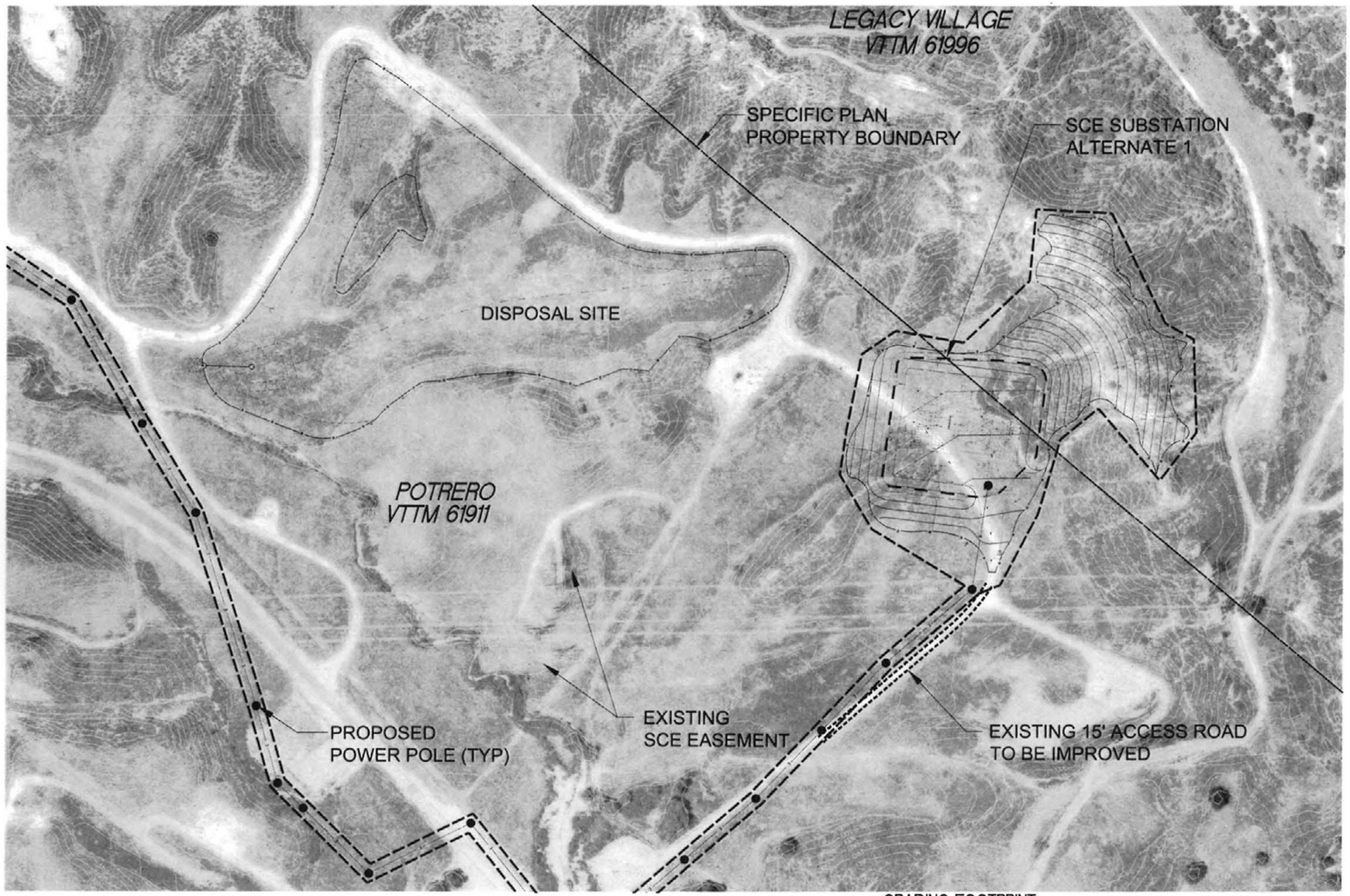
BA ENVIRONMENTAL

PHASE I ENVIRONMENTAL SITE ASSESSMENT

PROJECT: **Proposed SCE Substation Site and Soil Disposal Site Valencia, California**

PROJECT NO.
110046

FIGURE
1



GRADING FOOTPRINT

SCE SUBSTATION ALT. 1	288,000 SF
DISPOSAL SITE	527,000 SF
TOTAL	815,000 SF

SCE SUBSTATION ALTERNATE 1

PSOMAS

DATE: 04-28-10 REVISED ON:
JOB No: 1NLF010200 SHEET 1 OF 2

NEWHALL RANCH

BA ENVIRONMENTAL

NORTH

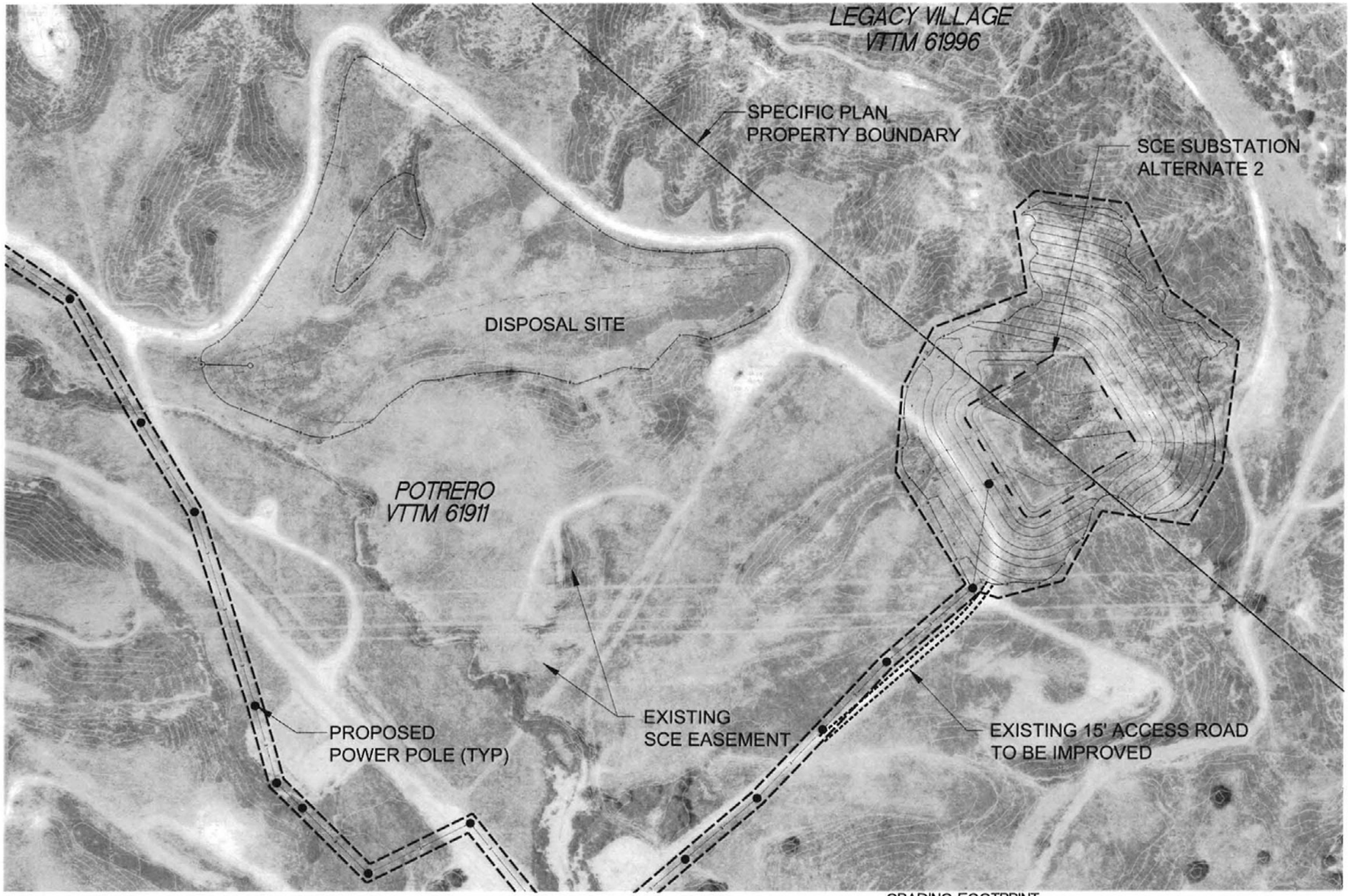
Site Plan

PHASE I ENVIRONMENTAL SITE ASSESSMENT
SCE Substation Alternate 1

PROJECT: **Proposed SCE Substation Site and Soil Disposal Site Valencia, California**

PROJECT NO. **110046**

FIGURE **2**



GRADING FOOTPRINT

SCE SUBSTATION ALT. 2	386,000 SF
DISPOSAL SITE	527,000 SF
TOTAL	913,000 SF

SCE SUBSTATION ALTERNATE 2

PSOMAS

DATE: 04-28-10 REVISED ON:

NEWHALL RANCH

BA ENVIRONMENTAL

NORTH

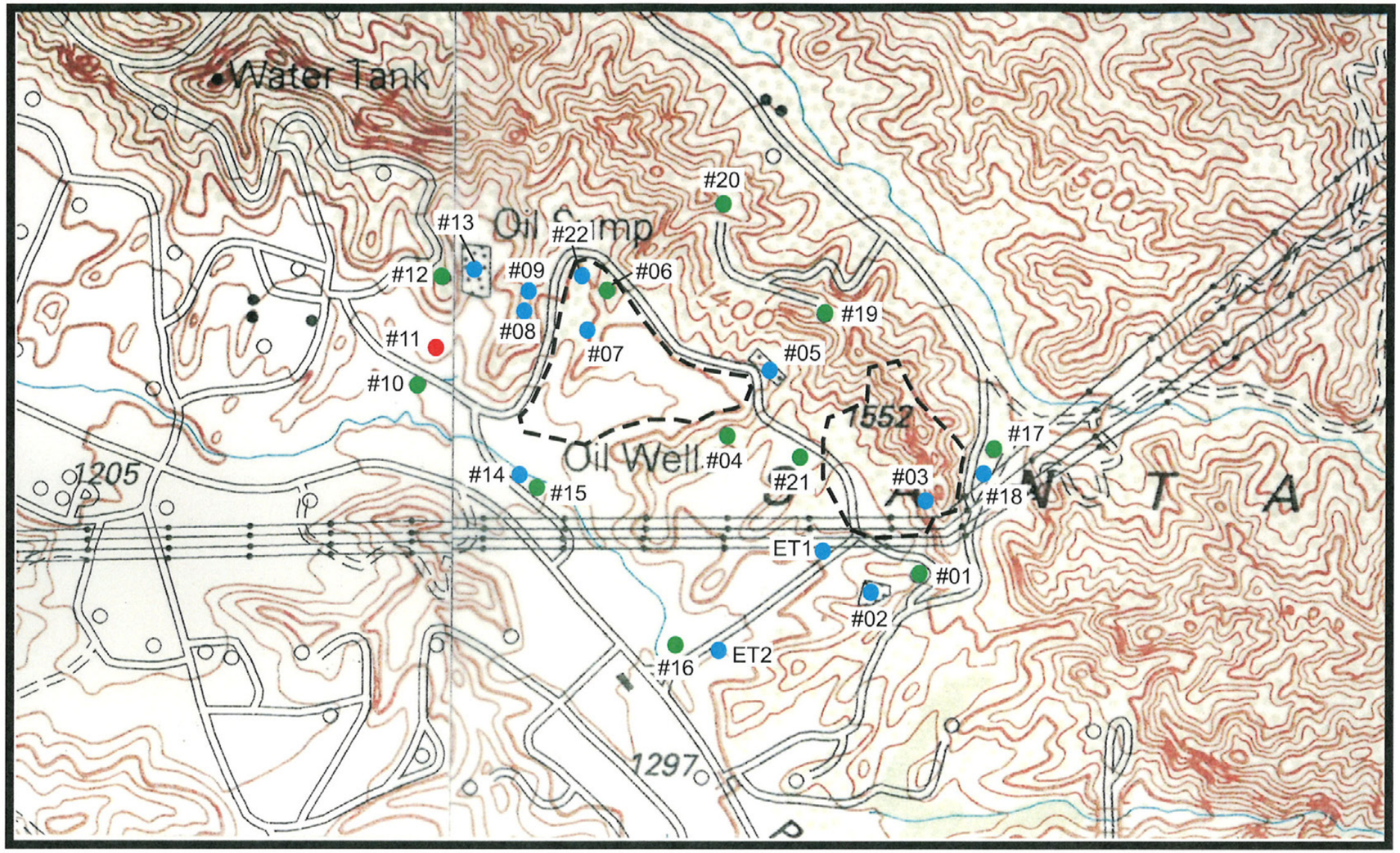
Site Plan

PHASE I ENVIRONMENTAL SITE ASSESSMENT
SCE Substation Alternate 2

PROJECT: **Proposed SCE Substation Site and Soil Disposal Site Valencia, California**

PROJECT NO. **110046**

FIGURE **3**



LEGEND

- = Location of Identified Former Oil Well or Suspect Oil Well
- = Exploratory Pads or Unidentified Cleared Areas
- = Other Points of Intrest

#1 = POI Designation
ET1 = Electrical Transformer Designation
= Spine Flowers

0 200 400
Approximate Scale, feet

BA ENVIRONMENTAL

NORTH

Site Plan

PHASE I ENVIRONMENTAL SITE ASSESSMENT
Point of Intrest (POI) Map

PROJECT: **Proposed SCE Substation Site and Soil Disposal Site Valencia, California**

PROJECT NO. **110046**

FIGURE **4**

TABLES

Table 1
Points of Interest
Proposed SCE Substation Site
and Soil Disposal Site
Valencia, California

Location Number	Item of Interest	Project Development	Approximate Elevation*	GPS Coordinates**	Remarks
#01	Active Oil Well Rancho San Francisco #96-5	Potrero Valley (off-site)	1,351'	N 34° 23' 33.8" W 118° 37' 06.1"	Visual observation Some oil staining around well head Observed on DOGGR Map, topographic maps and aerial photographs Installed: 1958 TD: 9,719' Abandoned: Active
#02	Location of former oil sump	Potrero Valley (off-site)	1,327'	N 34° 23' 32.2" W 118° 37' 07.9"	Visual observation No visible staining or tar clumps Depicted on topographic maps Observed on aerial photographs
#03	Southern California Gas (SCG) pipeline marker	SCE Substation Site (on-site)	1,348'	N 34° 23' 36.0" W 118° 37' 06.3"	Visual observation Pipeline location observed in aerial photographs
#04	Active Oil Well Rancho San Francisco #91-5	Potrero Valley (off-site)	1,352'	N 34° 23' 40.8" W 118° 37' 16.4"	Visual observation Heavy oil staining around well head Observed on DOGGR Map, topographic maps and aerial photographs Installed: 1950 TD: 9,838' Abandoned: Active

Location Number	Item of Interest	Project Development	Approximate Elevation*	GPS Coordinates**	Remarks
#05	Location of former oil sump	Potrero Valley (off-site)	1,332’	N 34° 23’ 44.5” W 118° 37’ 14.2”	Visual observation No visible staining or tar clumps Depicted on topographic maps Observed on aerial photographs Currently used for dry farming
#06	Abandoned Oil Well Rancho San Francisco #88	Soil Disposal Site (on-site)	1,302’	N 34° 23’ 47.1” W 118° 37’ 24.6”	Visual observation Well marker present No debris present No staining or tar clumps Observed on DOGGR Map, topographic map and aerial photographs Installed: 1949 TD: 9,376’ Abandoned: 1997
#07	Small fenced enclosure	Soil Disposal Site (on-site)	1,289’	N 34° 23’ 44.9” W 118° 37’ 26.0”	Visual observation Purpose unknown
#08	Unknown access cover	Potrero Valley (off-site)	1,309’	N 34° 23’ 44.2” W 118° 37’ 31.2”	Visual observation Possible access to pipeline
#09	Unknown access cover	Potrero Valley (off-site)	1,317’	N 34° 23’ 45.5” W 118° 37’ 30.4”	Visual observation Possible access to pipeline
#10	Abandoned Oil Well Rancho San Francisco #78	Potrero Valley (off-site)	1,216’	N 34° 23’ 42.8” W 118° 37’ 35.5”	Visual observation Well marker present No debris present No staining or tar clumps Observed on DOGGR Map, topographic map and aerial photographs Installed: 1948 TD: 9,458’ Abandoned: 1982

Location Number	Item of Interest	Project Development	Approximate Elevation*	GPS Coordinates**	Remarks
#11	Flattened area	Potrero Valley (off-site)	1,241’	N 34° 23’ 44.7” W 118° 37’ 35.1”	Visual observation No visible staining Possible storage area for Well Rancho San Francisco #78
#12	Active Oil Well Rancho San Francisco #99-5	Potrero Valley (off-site)	1,320’	N 34° 23’ 48.6” W 118° 37’ 34.5”	Visual observation Heavy oil staining and tar clumps around well head Observed on DOGGR Map, topographic maps and aerial photographs Installed: 1951 TD: 9,838’ Abandoned: Active
#13	Location of former oil sump	Potrero Valley (off-site)	1,266’	N 34° 23’ 48.2” W 118° 37’ 33.2”	Visual observation No visible staining or tar clumps Depicted on topographic maps Observed on aerial photographs Currently used for dry farming
#14	Groundwater monitoring well	Potrero Valley (off-site)	1,255’	N 34° 23’ 38.0” W 118° 37’ 30.0”	Visual observation Depth to groundwater approximately not measured Well depth unknown
#15	Active Oil Well Rancho San Francisco #77	Potrero Valley (off-site)	1,249’	N 34° 23’ 37.5” W 118° 37’ 28.4”	Visual observation Some oil staining around well head Observed on DOGGR Map, topographic maps and aerial photographs Installed: 1948 TD: 9,180’ Abandoned: Active

Location Number	Item of Interest	Project Development	Approximate Elevation*	GPS Coordinates**	Remarks
#16	Active Oil Well Rancho San Francisco #76-5	Potrero Valley (off-site)	1,284’	N 34° 23’ 29.4” W 118° 37’ 18.2”	Visual observation Some oil staining around well head Observed on DOGGR Map, topographic maps and aerial photographs Installed: 1948 TD: 9,198’ Abandoned: Active
#17	Abandoned Oil Well Oryx Energy Corp. Newhall Corp. Wolfson 5-5	Legacy Village (off-site)	1,416’	N 34° 23’ 41.4” W 118° 37’ 02.4”	Visual observation Well marker not present Some minor oil staining around well location Observed on DOGGR Map, topographic maps and aerial photographs Installed: 1951 TD: 10,526’ Abandoned: 1989
#18	Approximate 3,000-gallon water tank	Legacy Village (off-site)	1439’	N 34° 23’ 38.8” W 118° 37’ 01.7”	Visual observation On raised steel frame work Similar top those used in road construction
#19	Abandoned Oil Well Oryx Energy Corp. Newhall Corp. Wolfson 4-5	Legacy Village (off-site)	1,448’	N 34° 23’ 46.9” W 118° 37’ 11.9”	Visual observation Well marker present Scattered concrete and asphalt debris Some oil staining approximately 150 feet east-northeast of the well location Observed on DOGGR Map, topographic maps and aerial photographs Installed: 1950 TD: 10,658’ Abandoned: 1989

Location Number	Item of Interest	Project Development	Approximate Elevation*	GPS Coordinates**	Remarks
#20	Abandoned Oil Well Oryx Energy Corp. Newhall Corp. Wolfson 3-5	Legacy Village (off-site)	1,460’	N 34° 23’ 52.8” W 118° 37’ 19.5”	Visual observation Well marker present Scattered concrete and asphalt debris Observed on DOGGR Map, topographic maps and aerial photographs Installed: 1950 TD: 11,044’ Abandoned: 1989
#21	Abandoned Oil Well Rancho San Francisco #91A	Potrero Valley (off-site)	1,342’	N 34° 23’ 39.6” W 118° 37’ 12.3”	Well marker not present No visible concrete and asphalt debris No visible staining Observed on DOGGR Map Installed: 1950 TD: 1,299’ Abandoned: 1950
#22	Suspected location of former oil sump	Soil Disposal Site (on-site)	1207’	N 34° 23’ 47.8” W 118° 37’ 26.1”	No visible staining Observed in 1952 aerial photograph

Notes:
GPS coordinates were collected using hand held equipment. This equipment was accurate to between 15 and 45 feet.

GPS = Global Positioning System
* = Elevations based on hand held GPS equipment
** = GPS coordinates based on hand held GPS equipment

Table 2
Locations of Electrical Transformers
Proposed SCE Substation Site
and Soil Disposal Site
Valencia, California

Location Number	Number of Transformers	Type	Approximate Elevation*	GPS Coordinates**	Remarks
ET1	3	Pole Mounted	1,295’	N 34° 23’ 34.2” W 118° 37’ 11.9”	New cylindrical type Off-site
ET 2	3	Pole Mounted	1,277’	N 34° 23’ 29.9” W 118° 37’ 16.8”	New cylindrical type Off-site

Notes:
GPS coordinates were collected using hand held equipment. This equipment was accurate to between 15 and 45 feet.

GPS = Global Positioning System
* = Elevations based on hand held GPS equipment
** = GPS coordinates based on hand held GPS equipment

SITE PHOTOGRAPHS

1

1. View of SCE substation site looking northeast.

2

2. View of SCE substation site looking north.

3

3. View of SCE substation site looking northwest.

4

4. View of SCE substation site looking southwest.

5

5. View of SCE substation site looking southeast.

6

6. View of SCE substation site looking east.

7

7. Near by oil well Rancho San Francisco 96-1 (POI #1).

8

8. Location of former nearby oil sump (POI #2).

9

9. Location of former near by oil well Wolfson 5-5 (POI #17).

10

10. View of Soil Disposal Site looking east.

11

11. View of Soil Disposal Site looking east.

12

12. View of Soil disposal Site looking southeast.

13

13. View of Soil Disposal Site looking north.

14

14. View of Soil Disposal Site looking west.

15

15. View of Soil Disposal Site looking northwest.

16

16. View of Soil Disposal Site looking southwest.

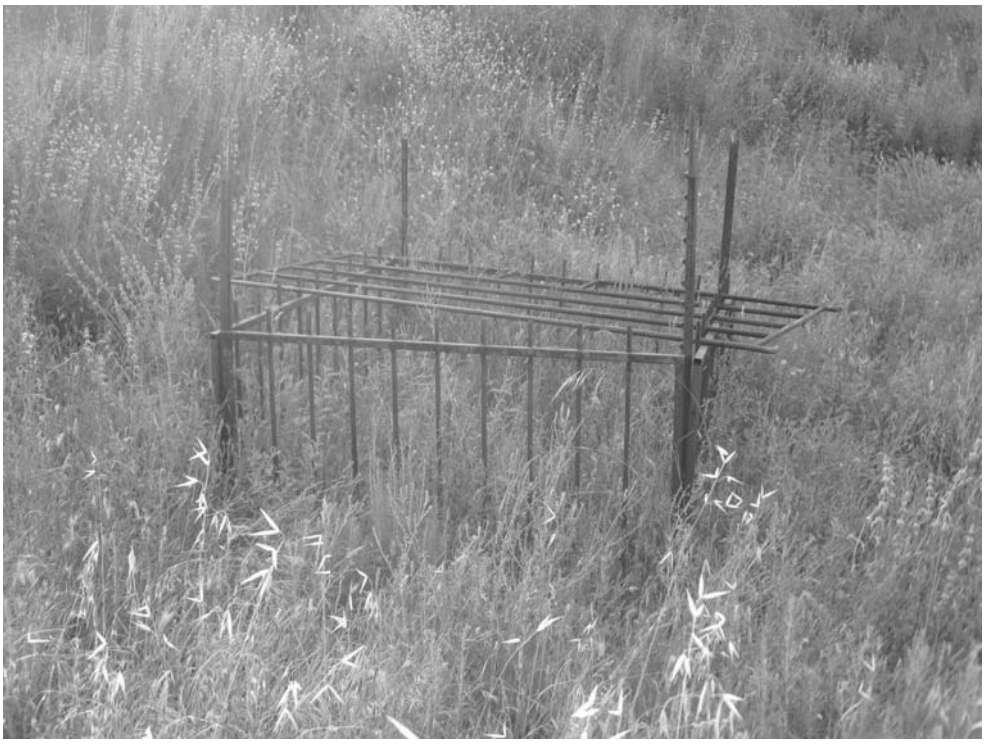
17

17. Location of former on-site oil Well Rancho San Francisco 88 (POI #6).

18

18. Location of former on-site suspected oil sump (POI #22).

19



19. Small on-site fenced enclosure (POI #7).

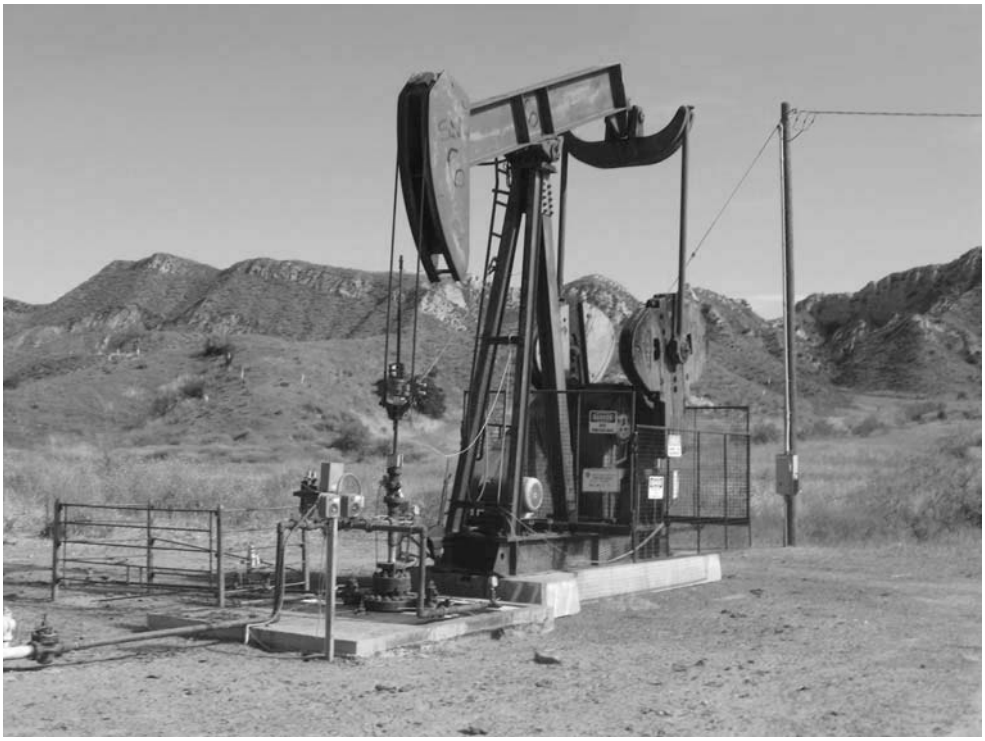
20

20. Near by oil well Rancho San Francisco 91-5 (POI #4).

21

21. Location of nearby former oil sump (POI #5).

22



22. Near by oil well Rancho San Francisco 77 (POI #15).

APPENDICES

APPENDIX A:

Historical Aerial Photographs

Pico Canyon Road
Pico Canyon Road
Valencia, CA 91355

Inquiry Number: 2763885.5
May 11, 2010

The EDR Aerial Photo Decade Package

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report AS IS. Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2010 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

Date EDR Searched Historical Sources:

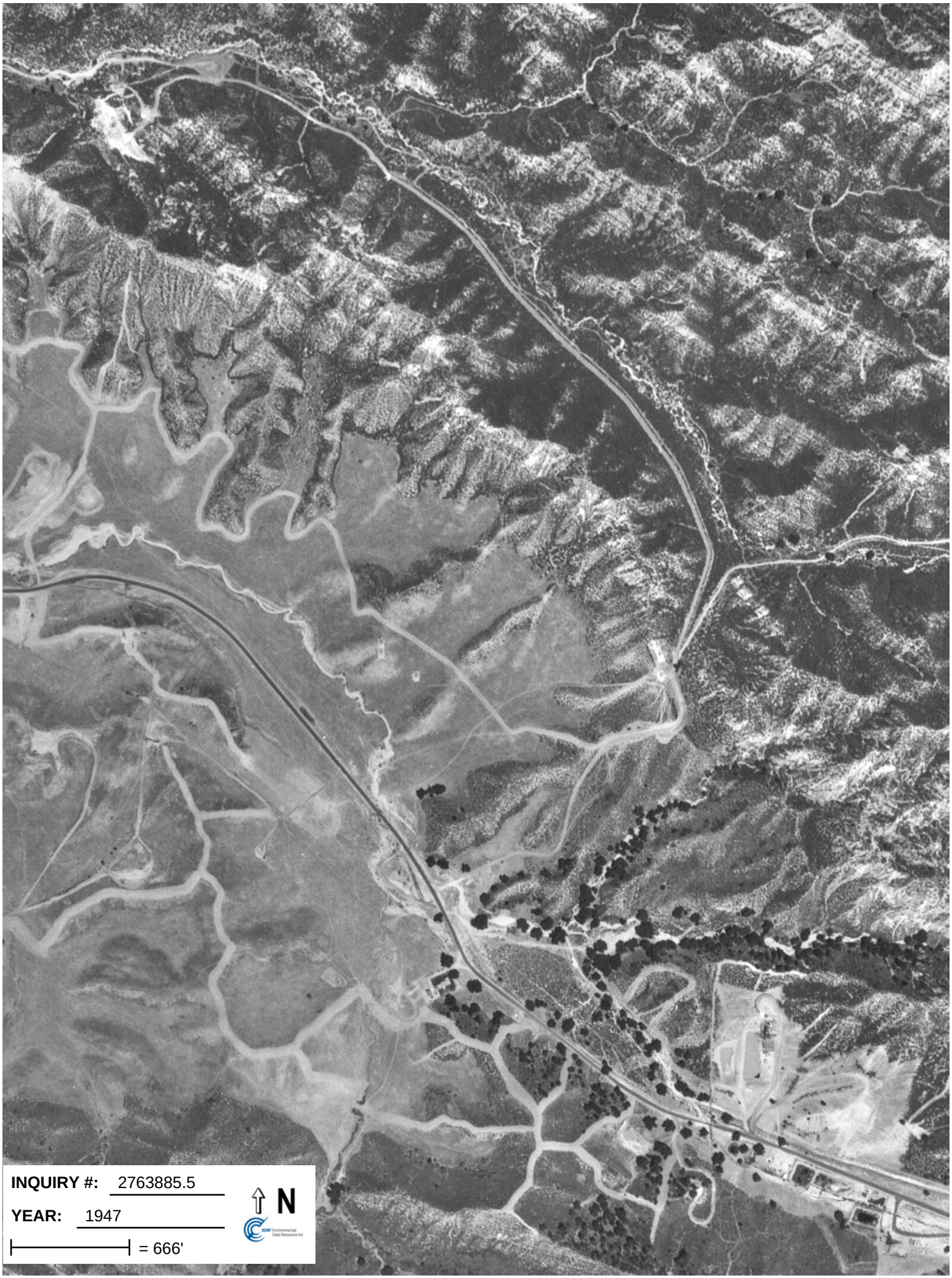
Aerial Photography May 11, 2010

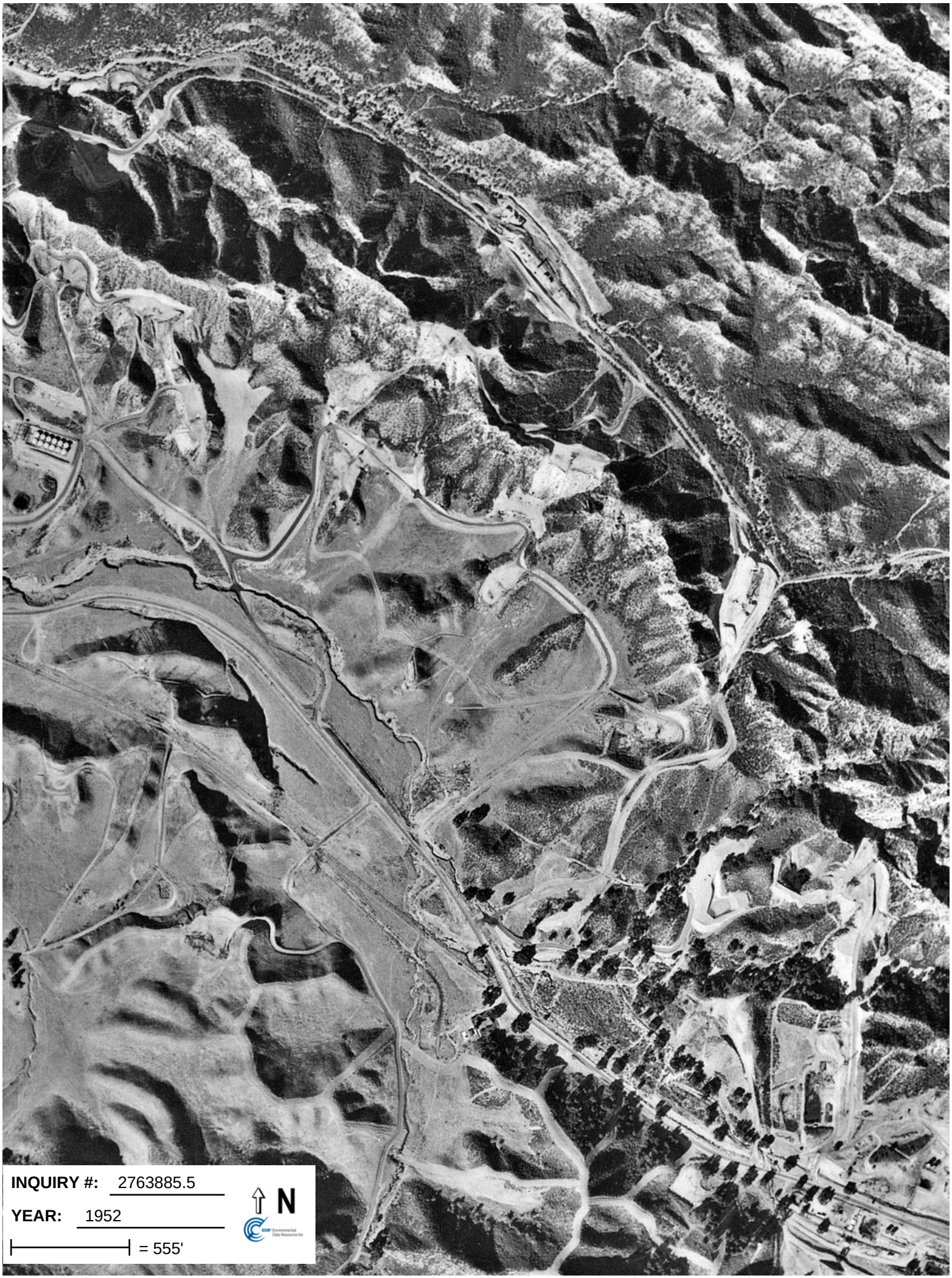
Target Property:

Pico Canyon Road
Valencia, CA 91355

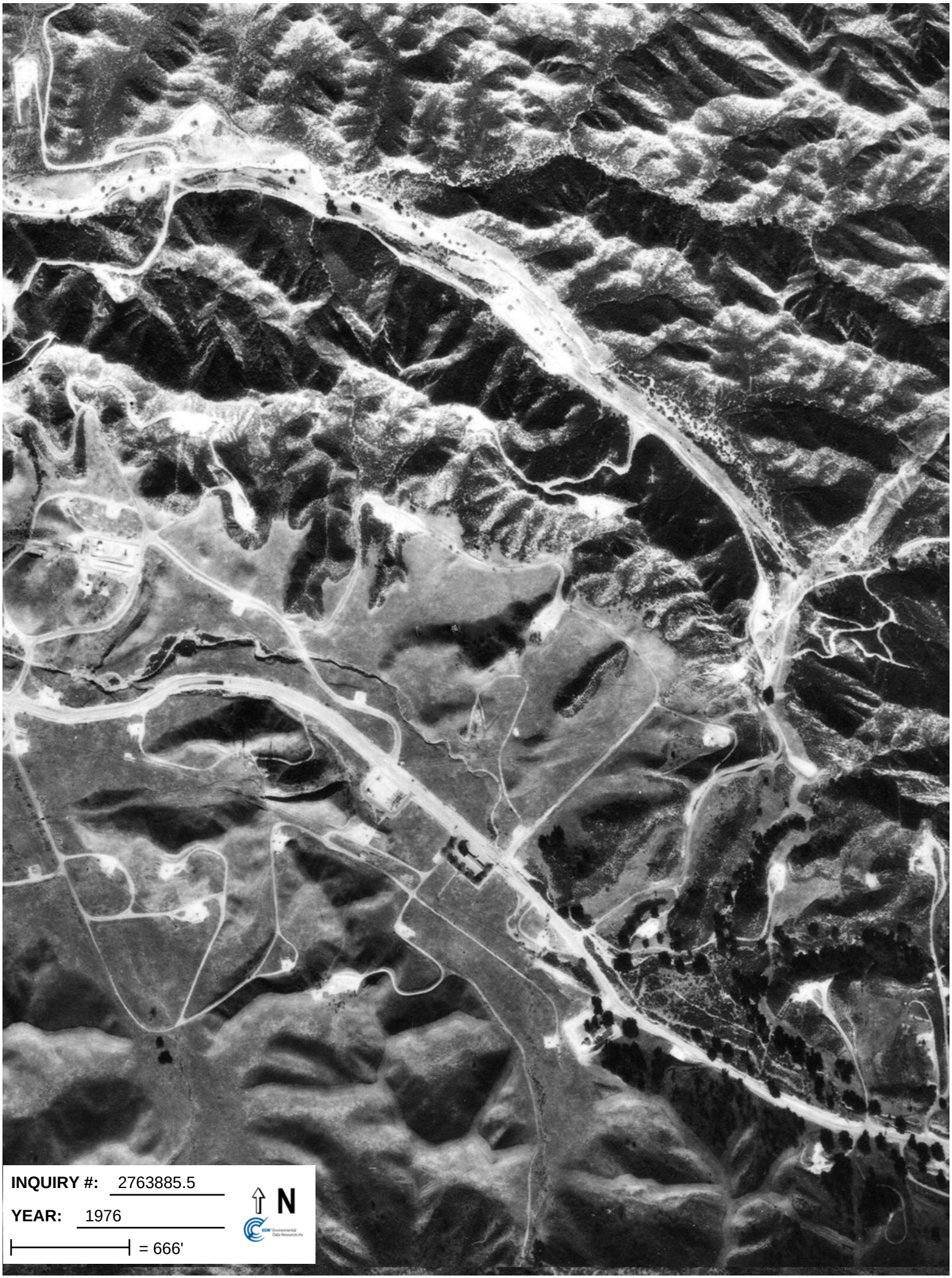
Year	***Scale***	***Details***	***Source***
1928	Aerial Photograph. Scale: 1"=500'	Flight Year: 1928	Fairchild
1947	Aerial Photograph. Scale: 1"=666'	Flight Year: 1947	Fairchild
1952	Aerial Photograph. Scale: 1"=555'	Flight Year: 1952	Pacific Air
1968	Aerial Photograph. Scale: 1"=480'	Flight Year: 1968	Teledyne
1976	Aerial Photograph. Scale: 1"=666'	Flight Year: 1976	Teledyne
1989	Aerial Photograph. Scale: 1"=666'	Flight Year: 1989	USGS
1994	Aerial Photograph. Scale: 1"=666'	Flight Year: 1994	USGS
2002	Aerial Photograph. Scale: 1"=666'	Flight Year: 2002	USGS
2005	Aerial Photograph. Scale: 1"=604'	Flight Year: 2005	EDR

INQUIRY #: 2763885.5
YEAR: 1928
= 500'
N


INQUIRY #: 2763885.5
YEAR: 1947
= 666'
N

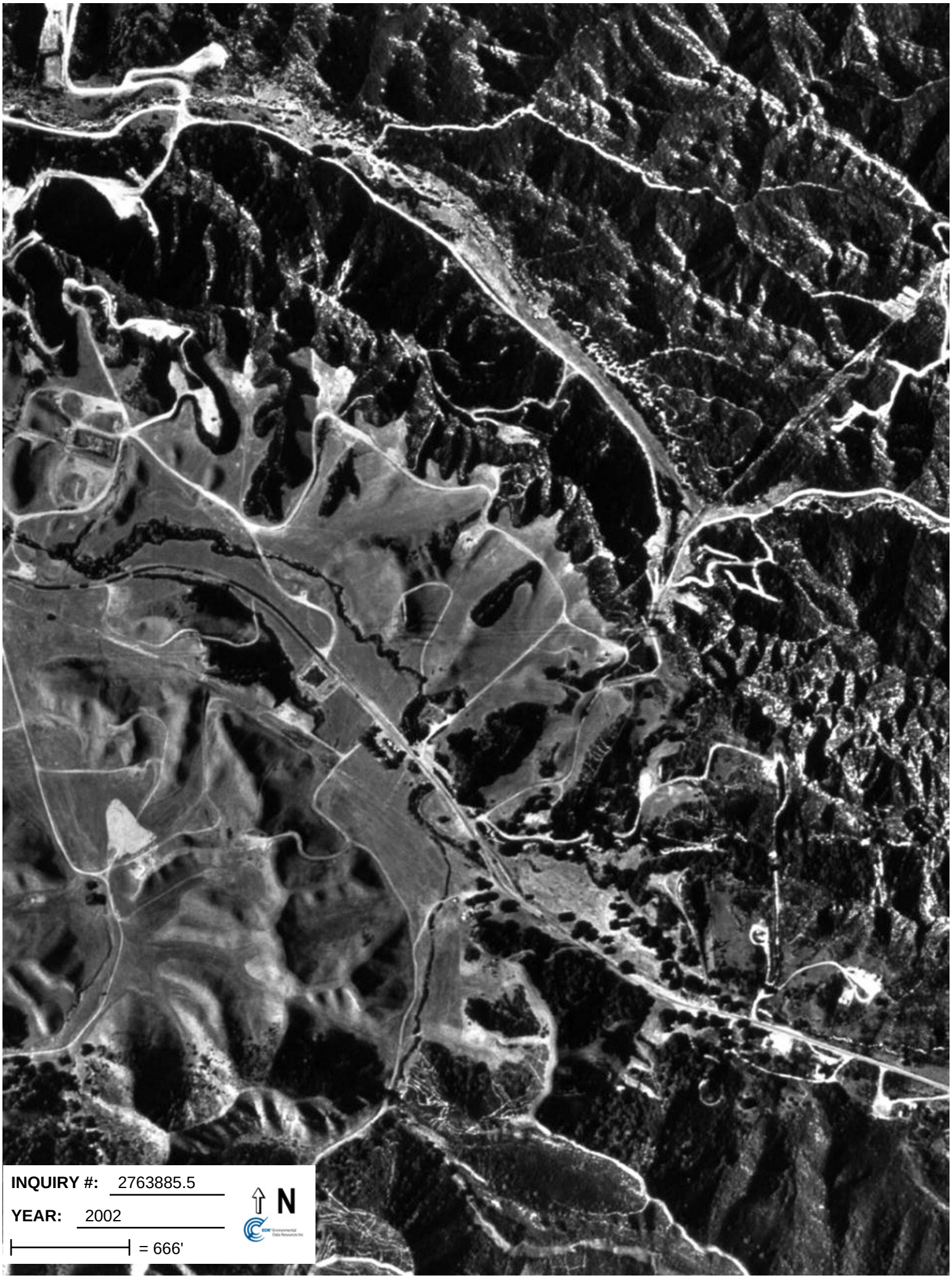

INQUIRY #: 2763885.5
YEAR: 1952
= 555'
N

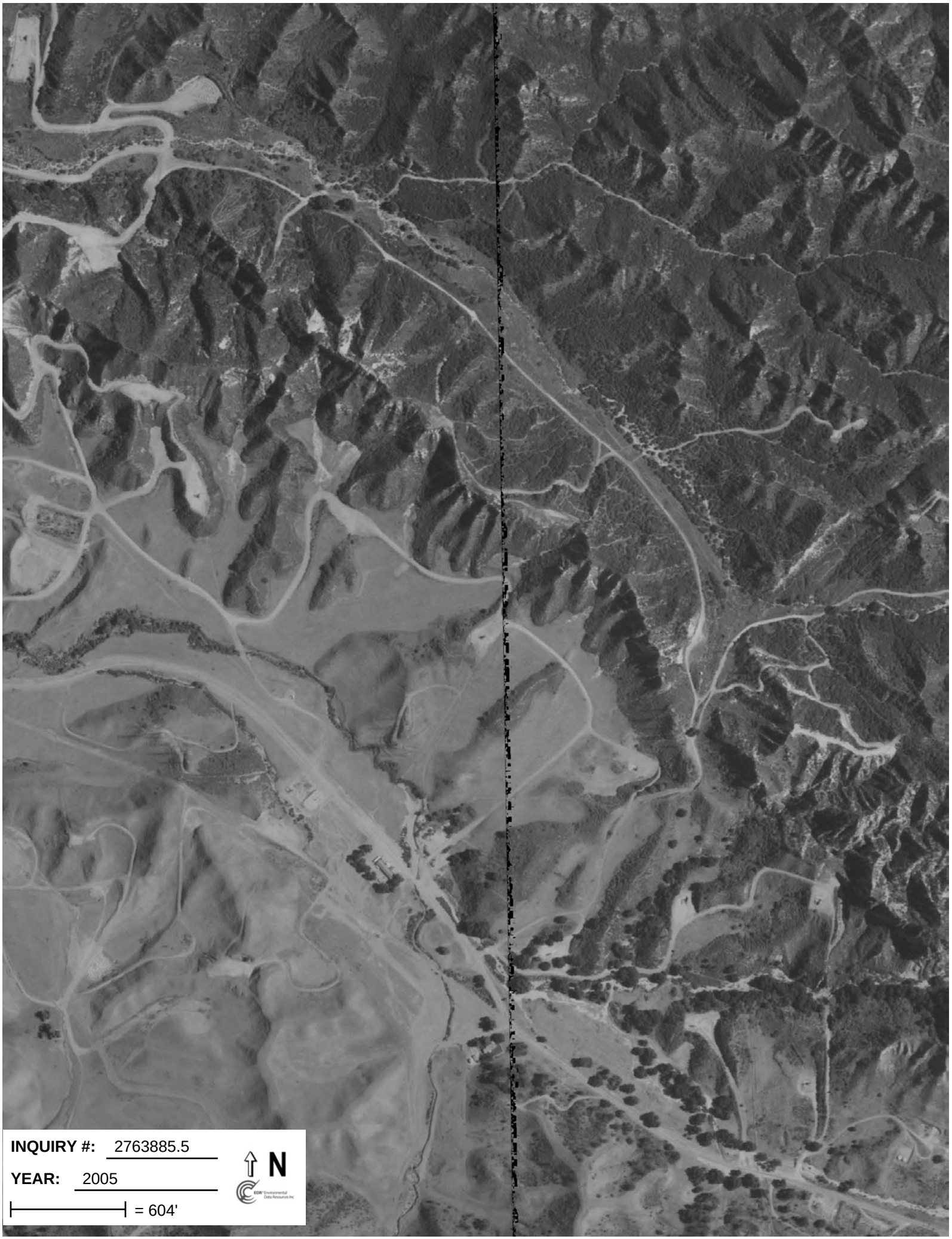
INQUIRY #: 2763885.5
YEAR: 1968
= 480'
N


INQUIRY #: 2763885.5
YEAR: 1976
= 666'
N

INQUIRY #: 2763885.5
YEAR: 1989
= 666'
N

INQUIRY #: 2763885.5
YEAR: 1994
= 666'
N


INQUIRY #: 2763885.5
YEAR: 2002
= 666'
N


INQUIRY #: 2763885.5
YEAR: 2005
= 604'
N

APPENDIX B:

Historical Topographic Maps

Pico Canyon Road
Pico Canyon Road
Valencia, CA 91355

Inquiry Number: 2763885.4
May 07, 2010

The EDR Historical Topographic Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report AS IS. Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2010 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

Historical Topographic Map

N	TARGET QUAD NAME: CAMULOS MAP YEAR: 1903 SERIES: 30 SCALE: 1:125000	SITE NAME: Pico Canyon Road ADDRESS: Pico Canyon Road Valencia, CA 91355 LAT/LONG: 34.3949 / 118.6212	CLIENT: Building Analytics CONTACT: Russ Cote INQUIRY#: 2763885.4 RESEARCH DATE: 05/07/2010

Historical Topographic Map

N	TARGET QUAD NAME: SOUTHERN CA SHEET 3 MAP YEAR: 1910 SERIES: 60 SCALE: 1:250000	SITE NAME: Pico Canyon Road ADDRESS: Pico Canyon Road Valencia, CA 91355 LAT/LONG: 34.3949 / 118.6212	CLIENT: Building Analytics CONTACT: Russ Cote INQUIRY#: 2763885.4 RESEARCH DATE: 05/07/2010

Historical Topographic Map

N	TARGET QUAD NAME: SANTA SUSANA MAP YEAR: 1916 SERIES: 15 SCALE: 1:62500	SITE NAME: Pico Canyon Road ADDRESS: Pico Canyon Road Valencia, CA 91355 LAT/LONG: 34.3949 / 118.6212	CLIENT: Building Analytics CONTACT: Russ Cote INQUIRY#: 2763885.4 RESEARCH DATE: 05/07/2010

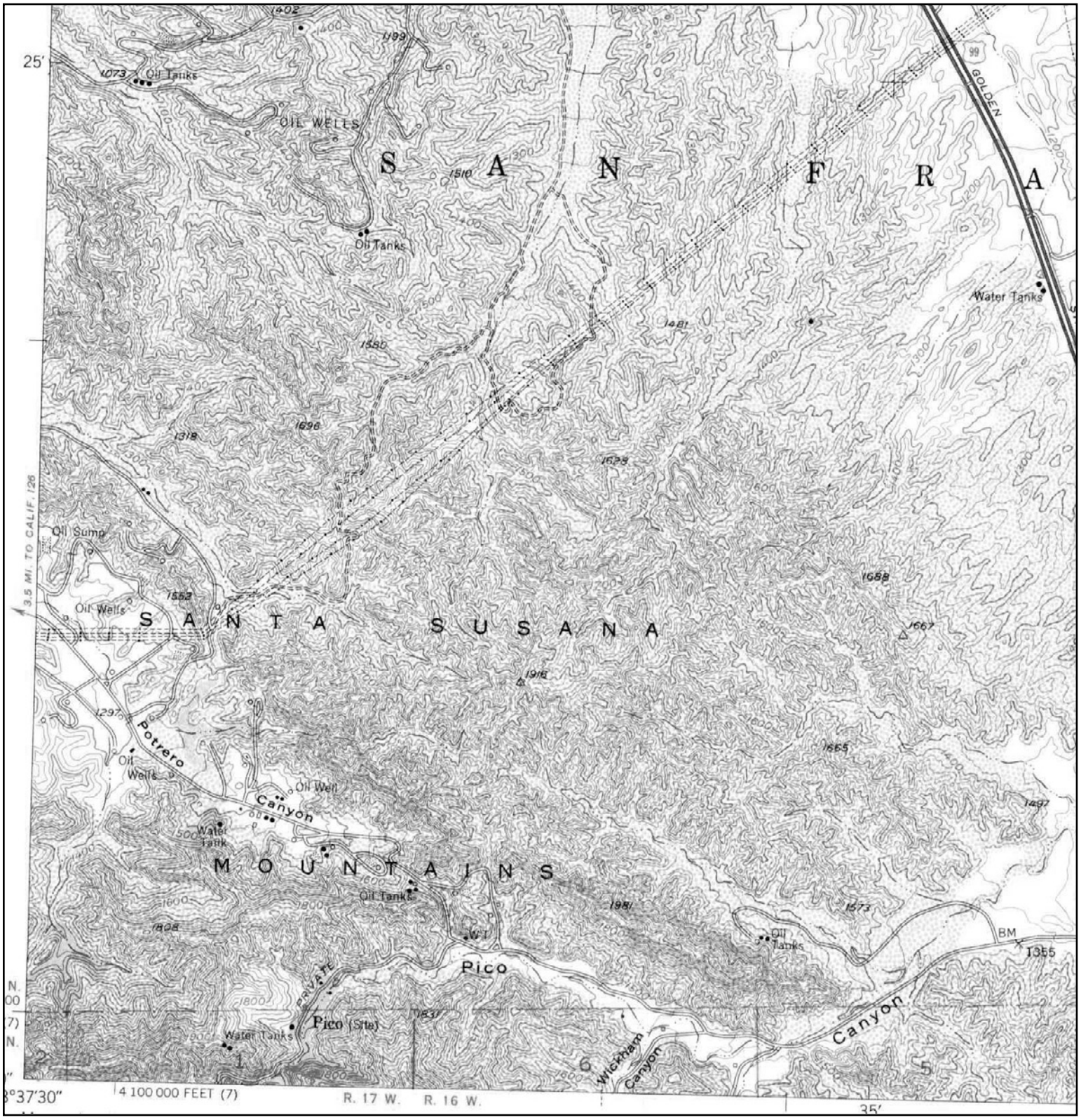
Historical Topographic Map

N	TARGET QUAD NAME: PICO MAP YEAR: 1940 SERIES: 6 SCALE: 1:24000	SITE NAME: Pico Canyon Road ADDRESS: Pico Canyon Road Valencia, CA 91355 LAT/LONG: 34.3949 / 118.6212	CLIENT: Building Analytics CONTACT: Russ Cote INQUIRY#: 2763885.4 RESEARCH DATE: 05/07/2010

Historical Topographic Map

N	TARGET QUAD NAME: SANTA SUSANA MAP YEAR: 1947 SERIES: 15 SCALE: 1:50000	SITE NAME: Pico Canyon Road ADDRESS: Pico Canyon Road Valencia, CA 91355 LAT/LONG: 34.3949 / 118.6212	CLIENT: Building Analytics CONTACT: Russ Cote INQUIRY#: 2763885.4 RESEARCH DATE: 05/07/2010

Historical Topographic Map



N	TARGET QUAD NAME: NEWHALL MAP YEAR: 1952 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Pico Canyon Road ADDRESS: Pico Canyon Road Valencia, CA 91355 LAT/LONG: 34.3949 / 118.6212	CLIENT: Building Analytics CONTACT: Russ Cote INQUIRY#: 2763885.4 RESEARCH DATE: 05/07/2010

Historical Topographic Map

N	TARGET QUAD NAME: NEWHALL MAP YEAR: 1969 PHOTOREVISED FROM:1952 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Pico Canyon Road ADDRESS: Pico Canyon Road Valencia, CA 91355 LAT/LONG: 34.3949 / 118.6212	CLIENT: Building Analytics CONTACT: Russ Cote INQUIRY#: 2763885.4 RESEARCH DATE: 05/07/2010

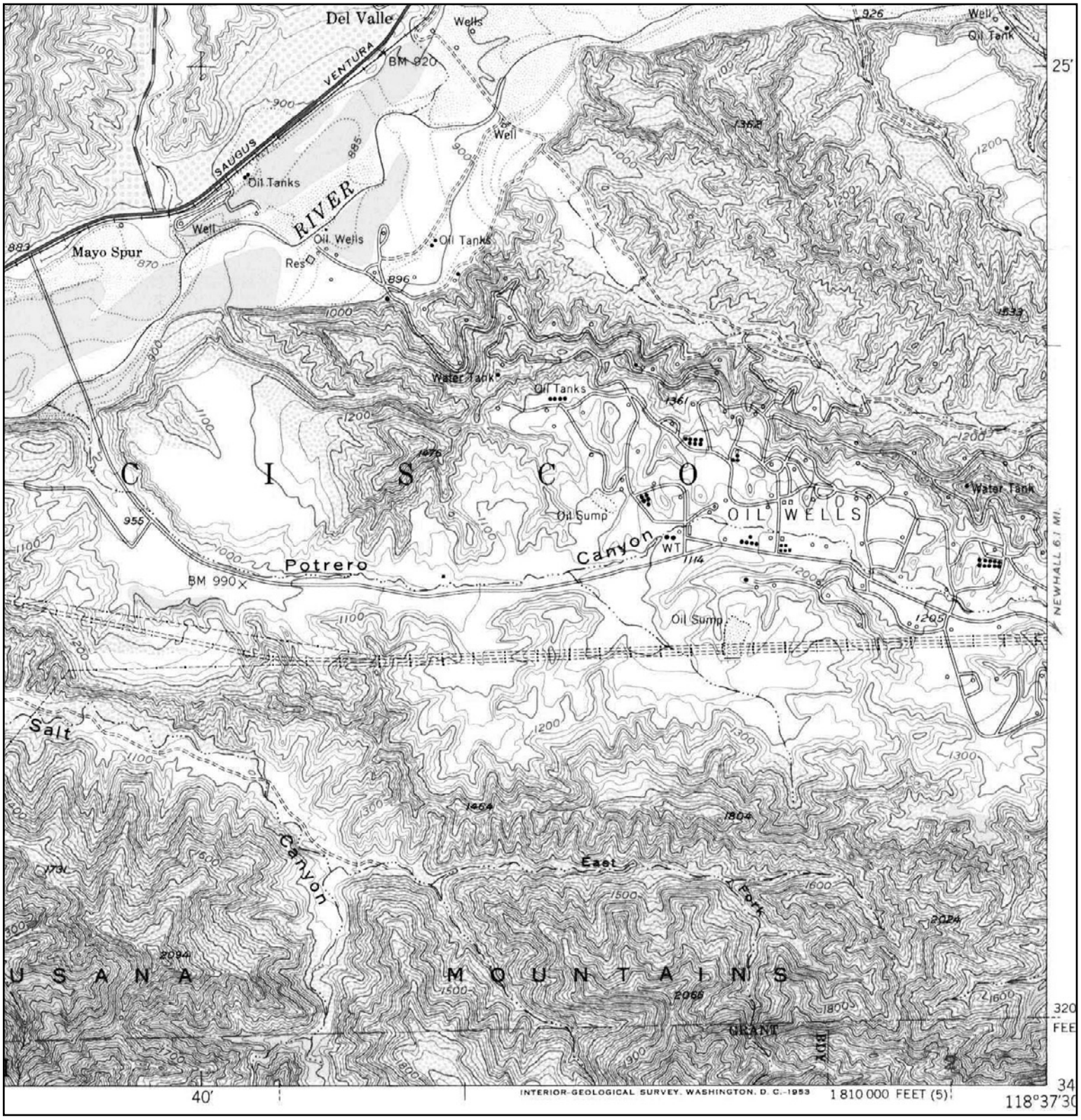
Historical Topographic Map

N	TARGET QUAD NAME: NEWHALL MAP YEAR: 1988 PHOTOREVISED FROM:1952 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Pico Canyon Road ADDRESS: Pico Canyon Road Valencia, CA 91355 LAT/LONG: 34.3949 / 118.6212	CLIENT: Building Analytics CONTACT: Russ Cote INQUIRY#: 2763885.4 RESEARCH DATE: 05/07/2010

Historical Topographic Map

N	TARGET QUAD NAME: NEWHALL MAP YEAR: 1995 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Pico Canyon Road ADDRESS: Pico Canyon Road Valencia, CA 91355 LAT/LONG: 34.3949 / 118.6212	CLIENT: Building Analytics CONTACT: Russ Cote INQUIRY#: 2763885.4 RESEARCH DATE: 05/07/2010

Historical Topographic Map



N	ADJOINING QUAD NAME: VAL VERDE MAP YEAR: 1952 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Pico Canyon Road ADDRESS: Pico Canyon Road Valencia, CA 91355 LAT/LONG: 34.3949 / 118.6212	CLIENT: Building Analytics CONTACT: Russ Cote INQUIRY#: 2763885.4 RESEARCH DATE: 05/07/2010

Historical Topographic Map

N	ADJOINING QUAD NAME: VAL VERDE MAP YEAR: 1969 PHOTOREVISED FROM:1952 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Pico Canyon Road ADDRESS: Pico Canyon Road Valencia, CA 91355 LAT/LONG: 34.3949 / 118.6212	CLIENT: Building Analytics CONTACT: Russ Cote INQUIRY#: 2763885.4 RESEARCH DATE: 05/07/2010

Historical Topographic Map

N	ADJOINING QUAD NAME: VAL VERDE MAP YEAR: 1988 PHOTOREVISED FROM:1952 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Pico Canyon Road ADDRESS: Pico Canyon Road Valencia, CA 91355 LAT/LONG: 34.3949 / 118.6212	CLIENT: Building Analytics CONTACT: Russ Cote INQUIRY#: 2763885.4 RESEARCH DATE: 05/07/2010

Historical Topographic Map

N	ADJOINING QUAD NAME: VAL VERDE MAP YEAR: 1991 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Pico Canyon Road ADDRESS: Pico Canyon Road Valencia, CA 91355 LAT/LONG: 34.3949 / 118.6212	CLIENT: Building Analytics CONTACT: Russ Cote INQUIRY#: 2763885.4 RESEARCH DATE: 05/07/2010

Historical Topographic Map

N	ADJOINING QUAD NAME: VAL VERDE MAP YEAR: 1995 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Pico Canyon Road ADDRESS: Pico Canyon Road Valencia, CA 91355 LAT/LONG: 34.3949 / 118.6212	CLIENT: Building Analytics CONTACT: Russ Cote INQUIRY#: 2763885.4 RESEARCH DATE: 05/07/2010

APPENDIX C:

Historical Fire Insurance Maps

Pico Canyon Road
Pico Canyon Road
Valencia, CA 91355

Inquiry Number: 2763885.3
May 06, 2010

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

5/06/10

Site Name:
Pico Canyon Road
Pico Canyon Road
Valencia, CA 91355

Client Name:
Building Analytics
502 S. Verdugo Drive
Burbank, CA 91502

EDR Inquiry # 2763885.3

Contact: Russ Cote

EDR® Environmental Data Resources Inc

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Building Analytics were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: Pico Canyon Road
Address: Pico Canyon Road
City, State, Zip: Valencia, CA 91355
Cross Street:
P.O. # 110046
Project: 110046
Certification # C7E3-427D-9B55

Sanborn® Library search results
Certification # C7E3-427D-9B55

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

Building Analytics (the client) is permitted to make up to THREE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

Disclaimer - Copyright and Trademark notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2010 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

APPENDIX D:

City Directories

Pico Canyon Road
26835 W Pico Canyon Rd
Valencia, CA 91355

Inquiry Number: 2763885.6
May 11, 2010

The EDR-City Directory Abstract

Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction orforecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2009 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc. or its affiliates is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

2009 Enhancements to EDR City Directory Abstract

New for 2009, the EDR City Directory Abstract has been enhanced with additional information and features. These enhancements will make your city directory research process more efficient, flexible, and insightful than ever before. The enhancements will improve the options for selecting adjoining properties, and will speed up your review of the report.

City Directory Report. Three important enhancements have been made to the EDR City Directory Abstract:

1. *Executive Summary.* The report begins with an Executive Summary that lists the sources consulted in the preparation of the report. Where available, a parcel map is also provided within the report, showing the locations of properties researched.

2. *Page Images.* Where available, the actual page source images will be included in the Appendix, so that you can review them for information that may provide additional insight. EDR has copyright permission to include these images.

3. *Findings Listed by Location.* Another useful enhancement is that findings are now grouped by address. This will significantly reduce the time you need to review your abstracts. Findings are provided under each property address, listed in reverse chronological order and referencing the source for each entry.

Options for Selecting Adjoining Properties. Ensuring that the right adjoining property addresses are searched is one of the biggest challenges that environmental professionals face when conducting city directory historical research. EDR's new enhancements make it easier for you to meet this challenge. Now, when you place an order for the EDR City Directory Abstract, you have the following choices for determining which addresses should be researched.

1. *You Select Addresses and EDR Selects Addresses.* Use the "Add Another Address" feature to specify the addresses you want researched. Your selections will be supplemented by addresses selected by EDR researchers using our established research methods. Where available, a digital map will be shown, indicating property lines overlaid on a color aerial photo and their corresponding addresses. Simply use the address list below the map to check off which properties shown on the map you want to include. You may also select other addresses using the "Add Another Address" feature at the bottom of the list.

2. *EDR Selects Addresses.* Choose this method if you want EDR's researchers to select the addresses to be researched for you, using our established research methods.

3. *You Select Addresses.* Use this method for research based solely on the addresses you select or enter into the system.

4. *Hold City Directory Research Option.* If you choose to select your own adjoining addresses, you may pause production of your EDR City Directory Abstract report until you have had a chance to look at your other EDR reports and sources. Sources for property addresses include: your Certified Sanborn Map Report may show you the location of property addresses; the new EDR Property Tax Map Report may show the location of property addresses; and your field research can supplement these sources with additional address information. To use this capability, simply click "Hold City Directory research" box under "Other Options" at the bottom of the page. Once you have determined what addresses you want researched, go to your EDR Order Status page, select the EDR City Directory Abstract, and enter the addresses and submit for production.

Questions? Contact your EDR representative at 800-352-0050. For more information about all of EDR's 2009 report and service enhancements, visit www.edrnet.com/2009enhancements

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2007	Haines Criss-Cross Directory	X	X	X	-
2000	Haines Criss-Cross Directory	X	X	X	-
1989	Haines Criss-Cross Directory	X	X	X	-
1981	Haines Criss-Cross Directory	-	X	X	-
1972	Haines Criss-Cross Directory	X	X	X	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

26835 W Pico Canyon Rd
Valencia, CA 91355

FINDINGS DETAIL

Target Property research detail.

Year	*Uses*	*Source*
2007	DKM Offshore Energy Inc	Haines Criss-Cross Directory
2000	DKM Offshore Energy Inc	Haines Criss-Cross Directory
1989	Sun Explrtn & Prdctn	Haines Criss-Cross Directory
1972	Sun Oil Company	Haines Criss-Cross Directory

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

W Pico Canyon Rd

W Pico Canyon Rd

Year	*Uses*	*Source*
2007	No other addresses (26700-26999) block W Pico Canyon Rd	Haines Criss-Cross Directory
2000	No other addresses (26700-26999) block W Pico Canyon Rd	Haines Criss-Cross Directory
1989	No other addresses (26700-26999) block W Pico Canyon Rd	Haines Criss-Cross Directory
1981	No address listings beyond (24901) W Pico Canyon Rd	Haines Criss-Cross Directory
1972	No address listings beyond (24901) W Pico Canyon Rd	Haines Criss-Cross Directory

26825 W Pico Canyon Rd

Year	*Uses*	*Source*
2007	Residential	Haines Criss-Cross Directory
2000	No Return	Haines Criss-Cross Directory
1989	No Return	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY: ADDRESS NOT LISTED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not listed in the research source.

Address Researched	Address Not Listed in Research Source
26835 W Pico Canyon Rd	1981

ADJOINING PROPERTY: ADDRESSES NOT LISTED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not listed in research source.

Address Researched	Address Not Listed in Research Source
W Pico Canyon Rd	No Years Found
26825 W Pico Canyon Rd	1981, 1972

APPENDIX E:

Water Quality Report

The Santa Clarita Valley 2009 Water Quality Report

The Castaic Lake Water Agency (CLWA) and the local water retailers are committed to maintaining high quality water for their customers, and you will find detailed information about the Santa Clarita Valley's (SCV) water in this 2009 Annual Water Quality Report. The California Department of Public Health (DPH) requires that water agencies publish a report like this to provide background on the quality of your water, and show you how it meets or exceeds federal and state drinking water standards.

CLWA and the retailers also work to ensure you and your neighbors have a reliable water supply at a reasonable price. In February, responding to the third consecutive year of drought conditions, Governor Schwarzenegger declared a state of emergency due to the current drought and requested an immediate reduction in water use.

Along with all valley water retailers, CLWA is taking action by supplementing imported State Water Project (SWP) water with banked supplies. At this time, we need residents to also do your part by conserving water inside and outside homes. Fixing leaks, planting drought tolerant plants, and making sure your sprinklers water your lawn—and not your sidewalk—are just a few easy ways you can save water. To reach conservation goals, residents must reduce outdoor watering to no more than three times per week during the early morning or evening hours.

Additionally, our new rebate program for water-saving tools makes it even easier for residents save water and money. Visit us on the web at www.clwa.org, www.scvh2o.org or your retailer's website for more information, and be sure to check out our easy water conservation tips.

If you have any questions about this report or water quality, please contact us at 661-297-1600. Additional information is available from local water retailers, whose contact information is supplied at the end of this report.

Sincerely,

Dan Masnada
General Manager
CLWA

Steve Cole
General Manager
NCWD

Mauricio Guardado
Retail Manager
SCWD

Robert DiPrimio
President
VWC

NOTE: All of the test results in this report were run in 2008 unless noted otherwise. If you do not find a chemical listed in this report, it was not found in any test performed on local water. Your local water supplier is therefore in compliance with all drinking water regulations unless a specific violation is noted.

CASTAIC LAKE WATER AGENCY

CLWA SANTA CLARITA WATER DIVISION

NEWHALL COUNTY-WATER DISTRICT

VALENCIA WATER COMPANY

REMEMBER:
Use Water Wisely, It's a Way of Life

Here in the Santa Clarita Valley, we receive so little rain. So just like we asked you last summer, Castaic Lake Water Agency wants all customers to rethink household and outdoor water habits and reduce water use even more during hot, dry months.

We have three easy ways to save water in your yards and gardens this summer.

ONE. Make sure your sprinklers work and don't aim at the sidewalk. You'll save 500 gallons per month.

TWO. Don't forget a 25 cent washer to fix leaks and save 600 gallons per month.

THREE. Plant drought tolerant plants and save 750 gallons per month.

And don't forget - it's important to water only between the hours of 9 p.m. and 6 a.m. for no more than 10 minutes per station.

By conserving water, you help your water providers help you. To find out how, visit clwa.org or scvh2o.org

FOR MORE INFORMATION

CASTAIC LAKE WATER AGENCY
David Kimbrough | 661-297-1600 x223
E-mail: dkimbrough@clwa.org | Website: www.clwa.org
The Castaic Lake Water Agency is governed by a Board of Directors that meets at 6:30 pm on the second and fourth Wednesdays of each month at the Rio Vista Administration Building, 27234 Bouquet Canyon Road.

CLWA SANTA CLARITA WATER DIVISION
Cathy Hollomon | 661-259 -2737
E-mail: chollomon@scwater.org | Website: www.clwa.org
The Santa Clarita Water Division is a division of the CLWA. The CLWA Retail Operations Committee meets at 6:30 pm on the second Monday of each month at the SCWD office, 22722 Soledad Canyon Road.

NEWHALL COUNTY WATER DISTRICT
Ryan Bye | 661-259-3610
E-mail: rbye@ncwd.org | Website: www.ncwd.org
The Newhall County Water District is governed by a Board of Directors that meets at 6:30 pm on the second Thursday of each month at the District Board Room, 23655 Newhall Avenue, Suite "C."

VALENCIA WATER COMPANY
James Saenz | 661-294-0828
E-mail: jsaenz@valenciawater.com | Website: www.valenciawater.com
The Valencia Water Company is a public water utility regulated by the California Public Utilities Commission. The office is located at 24631 Avenue Rockefeller.

Este informe contiene información muy importante sobre su agua beber. Si usted quisiera el texto en español para este reporte, comuníquese con David Kimbrough al numero de teléfono 661-297-1600 x223.

CASTAIC LAKE WATER AGENCY

PRST STD
U.S. POSTAGE
PAID
PERMIT NO. 440
SANTA CLARITA, CA

CLWA PROVIDES WATER TO LOCAL PURVEYORS

CLWA receives and treats surface water from the SWP and other imported sources. The SWP consists of facilities operated by the California Department of Water Resources to conserve and convey water to SWP contractors for use as agricultural or urban supply. CLWA operates two water treatment plants, the Earl Schmidt Filtration Plant (ESFP) in Castaic and the Rio Vista Water Treatment Plant (RVWTP) in Saugus. The SCV's four water purveyors distribute the treated SWP water along with groundwater from the shallow Alluvial aquifer and the deeper Saugus formation. Water quality information for your area is presented in the table contained in this report.

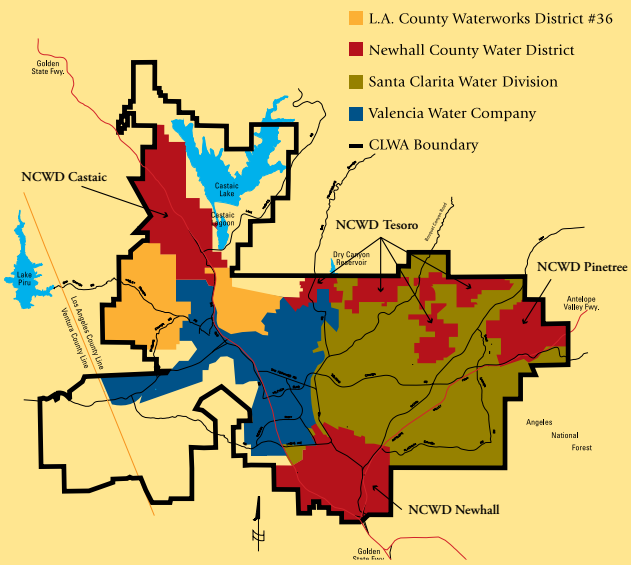
CLWA Santa Clarita Water Division (SCWD) provides water to a portion of the City of Santa Clarita and unincorporated portions of Los Angeles County in the communities of Saugus, Canyon Country and Newhall. Customers received approximately 61% SWP water and 39% local groundwater in 2008.

Los Angeles County Waterworks District #36 (LACWD #36) serves customers located in Hasley Canyon and the community of Val Verde. LACWD #36 provides its own Water Quality Report to its customers.

Newhall County Water District (NCWD) serves customers located in the Castaic, Newhall, Pinetree and Tesoro del Valle areas. In 2008, Castaic customers received 54% SWP water and 46% local groundwater, Newhall customers received 16% SWP water and 84% local groundwater, and Pinetree customers received 78% SWP water and 22% local groundwater. Tesoro del Valle customers received 100% SWP water.

Valencia Water Company (VWC) supplies water to customers in Valencia, Stevenson Ranch, and portions of Castaic, Saugus, and Newhall. In 2008, VWC customers received 50% SWP water and 49% local groundwater and 1% recycled water was delivered to large landscape customers.

Castaic Lake Water Agency Service Area



CHEMICALS IN THE NEWS – PERCHLORATE

Perchlorate, a chemical used in making rocket and ammunitions propellants, has been a water quality concern in the SCV for the past few years. It was detected in 1997 in four Saugus Formation wells operated by the purveyors, near the former Whittaker-Bermite facility. These four wells have not been used as sources of supply since 1997. In November 2002, perchlorate was detected in an Alluvial well adjacent to the Whittaker site, and it was immediately closed.

In 2002, CLWA and the U.S. Army Corps of Engineers signed a cost-sharing agreement for a feasibility study of the area. All proceedings and data are available to the public through a California Department of Toxic Substances Control (DTSC) information repository and public meetings. A notification level of 6 ug/L was determined in early 2004. DPH has adopted 6 ug/L as an MCL for perchlorate since that time.

The purveyors and the DTSC signed an oversight agreement in 2003 regarding studies of treatment technologies for removing perchlorate from water supplies, and also have been working with DPH for the necessary permits for these treatment processes. Treatment method pilot studies were conducted during 2003, and in 2004 CLWA and the purveyors selected ion exchange as the preferred treatment method for removing perchlorate. Design of the CLWA treatment facilities and related pipelines was complete in 2007. Construction of the treatment facility and pipelines began in November 2007 and water will begin treatment in summer 2009.

Under federal and state law, the owners of the Whittaker-Bermite property have the responsibility for the groundwater cleanup. A final settlement to remediate and treat the contaminated water was completed and executed by the parties in April 2007.

WATER QUALITY DEFINITIONS

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) and the California Department of Public Health (DPH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. USEPA, DPH and the California Environmental Protection Agency (CalEPA) set goals and legal standards for the quality of drinking water. These standards are intended to protect consumers from contaminants in drinking water. Most of the standards are based on the concentration of contaminants, but a few are based on a Treatment Technique (TT) to remove the contaminant. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline.

When a contaminant is regulated based on concentration, there are three levels that are listed: 1) **Detection Limit for Report (DLR)**, 2) the **Public Health Goal (PHG)** or **Maximum Contaminant Level Goal (MCLG)**, and 3) the **Maximum Contaminant Level (MCL), Action Level (AL) or Notification Level (NL).**

The DLR is the smallest concentration of a contaminant that can be measured and reported. DLRs are set by DPH (same as MRL, Minimum Reporting Level, set by USEPA).

PHG and MCLG are the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the USEPA. PHGs are set by Cal EPA.

A Primary MCL is the highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible.

Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

ALs are federal standards developed by USEPA that address the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

NLs are state guidelines developed by DPH that address the concentration of a contaminant which, if exceeded, triggers public notification.

TTs are a required process intended to reduce the level of a contaminant in drinking water.

Maximum residual disinfectant level (MRDL): the level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap. MRDLs are set by the USEPA.

Maximum Residual Disinfectant Level Goal (MRDLG): the level of a disinfectant added for water treatment below which there is no known or expected risk to health.

METALS AND SALTS

Metals and salts are tested in wells once every three years and in Castaic Lake water every month. Small quantities of naturally occurring arsenic are found in Castaic Lake and in a few wells. These are present due to the natural erosion of the rocks that water travels over or through. Inorganic compounds such as salts and metals can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

A number of naturally occurring salts are found in both surface and well water. These include chloride, fluoride, nitrate, nitrite, calcium, magnesium, potassium, and sodium. Taken together they are called Total Dissolved Solids (TDS). Calcium and magnesium together are called "hardness" and can deposit as scale.

Nitrate in drinking water at levels above 45 mg/L is a health risk for infants less than six months of age. High nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. High nitrate levels may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are pregnant or caring for an infant, you should ask for advice from your health care provider. Nitrates are tested at least annually.

While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The USEPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

DISINFECTION BY-PRODUCTS

The CLWA uses ozone and chloramines to disinfect its water. Disinfection By-Products (DBPs), which include Trihalomethanes (THMs) and Haloacetic Acids (HAA5) are generated by the interaction between naturally occurring organic matter and disinfectants such as chlorine and ozone. THMs and HAA5 are measured at several points in each system and averaged once per quarter and reported as a running annual average.

Ozone is a very powerful disinfectant that not only kills organisms that no other disinfectant can but also destroys organic chemicals that causes unpleasant tastes and odors. However, ozone can also interact with bromide, a naturally occurring salt, to produce bromate. According to the USEPA and the DPH some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer. As a result, CLWA is required to analyze the water leaving its two treatment plants for bromate once per month under federal regulations (State has also adopted D/DBP Rule).

MICROBIOLOGICAL

Microbial contaminants, such as viruses and bacteria, can be naturally occurring or result from urban storm water runoff, sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

The most important microbiological drinking water tests are for bacteria. Water is tested throughout the systems weekly for Total Coliform bacteria and for Escherichia coli (E. coli). The presence of E. coli indicates fecal contamination of waters. No E.coli was detected in any drinking waters in the SCV last year. Total coliforms are a group of bacteria that indicate water quality may have deteriorated. The MCL for total coliforms is 5% of all monthly tests showing positives for larger systems.

Additional microbiological tests for the water-borne parasites cryptosporidium parvum and giardia lamblia were performed on Castaic Lake water, and none were detected.

RADIOLOGICAL TESTS

Radioactive compounds can be found in both ground and surface waters, and can be naturally occurring or be the result of oil and gas production and mining activities. Testing is conducted for two types of radioactivity: alpha and beta. If none is detected at concentrations above five picoCuries per liter no further testing is required. If it is detected, the water must be checked for uranium and radium.

LEAD AND COPPER

The local water retailers are required to sample for lead and copper at specific consumer taps every three years. The results for lead and copper are reported as the 90th percentile. The 90th percentile is the result that is greater than 90% of all the results. Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested by a private laboratory and flush your tap for 30 seconds to two minutes before using tap water. Additional information is available from the USEPA Safe Drinking Water Hotline 1-800-426-4791.

ORGANIC COMPOUNDS

Organic chemical contaminants, including synthetic and volatile organic chemicals, are by products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems. Organic compounds also include pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses. Water is tested for two types of organic compounds: volatile organic compounds (VOCs) and non-volatile synthetic organic compounds (SOCs). These organic compounds are synthetic chemicals produced from industrial and agricultural uses. Castaic Lake is checked annually for VOCs and SOCs. Local wells are tested at least annually for VOCs and periodically for SOCs. Tetrachloroethylene (PCE) was found in trace levels (below the MCL in groundwater in the SCV. Some people who use water containing tetrachloroethylene in excess of the MCL over many years may experience liver problems, and may have an increased risk of getting cancer.

DRINKING WATER SOURCE ASSESSMENT AND PROTECTION

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are by products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the DPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

As part of DPH requirements, the retailers of the SCV conducted a Drinking Water Source Assessment and Protection (DWSAP) study for all of their groundwater sources. This study enables DPH and water utilities to collect information about each drinking water source and surrounding residential, commercial, and industrial activities. It was completed and provided to DPH in 2002.

As part of the program, "surrounding activities" which include schools, medical offices, gas stations and various other facilities around each water source are categorized and ranked as "possible contaminating activities" (PCA). Below is a list of PCAs that may have contributed to trace levels of contaminants in local wells. Trace levels of PCE (below the MCL) have been detected in three wells.

- Automobile/gas stations, auto shops - tetrachloroethylene (PCE)
- Dry cleaners - PCE
- Known contaminant plumes - perchlorate

In addition, a known perchlorate contaminant plume has been identified and several wells have tested positive for perchlorate. In October 2007, DPH adopted an MCL of 6 ug/L for this contaminant. Prior to October, a PHG of 6 ug/L and a notification level (NL) of 6 ug/L were established by the Office of Health Hazard Assessment and the DPH respectively.

In 2008, all of the surface water supplied to the SCV was provided by or delivered through the SWP via Castaic Lake. The Department of Water Resources produces a watershed sanitary survey (WSS) of the SWP watersheds every five years. The last survey was published in 2001. Based on that WSS, a DWSAP study for Castaic Lake was completed in 2003. The study found that Castaic Lake supplies are considered to be most vulnerable to septic and sewage lift stations, recreational activities, boating, traffic accidents and spills, grazing livestock, algal blooms and fires.

Additional DWSAP information is available upon request from your local water retailers. Contact names and numbers are supplied at the end of this report.

The Results of Thousands of Tests on Your Water

PARAMETERS/ CONSTITUENTS	Units	MCL (AL)	MCLG (PHG)	DLR	Castaic Lake Water Agency Wholesale Division			Castaic Lake Water Agency Santa Clarita Division			Valencia Water Company			Newhall County Water District Castaic			Newhall County Water District Newhall			Newhall County Water District Pinetree			Newhall County Water District Tesoro[1]		
INORGANICS					Minimum	Maximum	Typical	Minimum	Maximum	Typical	Minimum	Maximum	Typical	Minimum	Maximum	Typical	Minimum	Maximum	Typical	Minimum	Maximum	Typical	Minimum	Maximum	Typical
Aluminum	ug/L	1000	(60)	50	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	250	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR			
Arsenic	ug/L	10	0.004	2	2.0	5.4	3.1	<DLR	2.3	<DLR	<DLR	3.8	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	3.9	2.3			
Fluoride[2]	mg/L	2	(1)	0.1	<DLR	<DLR	<DLR	0.30	0.50	0.3	0.24	0.8	0.4	0.37	0.54	0.44	0.31	0.40	0.31	0.37	0.44	0.38			
Nitrate (as NO3)	mg/L	45	(45)	2	2.1	3.4	2.7	12	31	21	6.3	20	12.4	<DLR	9	2.3	8	32	23	11	27	12			
ORGANICS																									
Tetrachloroethylene[3]	ug/L	5	(0.06)	0.5	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	0.5	<DLR			
DISINFECTION BY-PRODUCTS																									
Bromate RVTP	ug/L	10	0	5	<DLR	6.0	<DLR																		
Bromate ESFP	ug/L	10	0	5	<DLR	11	8.4																		
Haloacetic Acids (HAA5)	ug/L	60	N/A	1.0	2.0	8.1	4.4	0	31	5.2	0	18	3.8	1.3	10.0	4.7	<DLR	7.8	1.7	1.1	10.0	4.6	3.9	11.0	6.8
Trihalomethanes, Total (TTHMs)	ug/L	80	N/A	0.5	8.0	23.0	16.0	0	120	25.5	0	56	22	6.8	53.0	21.1	<DLR	31.0	7.7	2.4	30.0	16.3	21.0	52.0	31.8
MICROBIOLOGICAL																									
Coliform % Positive Samples	%	5	0		0	4	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
CLARITY / TURBIDITY																									
Surface Water Only RVWTP	NTU	TT = 1 NTU	None		0.05	0.25	0.09																		
		TT = 95% of Samples < 0.2 NTU			100	100	100																		
Surface Water Only ESFP	NTU	TT = 1 NTU	None		0.05	0.20	0.11																		
		TT = 95% of Samples < 0.2 NTU			100	100	100																		
RADIOLOGICAL																									
Alpha Activity, Gross	pCi/L	15	0	3	<DLR	5.4	<DLR	<DLR	5.3	<DLR	<DLR	11	<DLR	<DLR	7.6	<DLR	3.4	3.4	3.4	<DLR	8	6			
Beta Activity, Gross	pCi/L	50	0	4	<DLR	8.8	<DLR							<DLR	<DLR	<DLR									
Radium 228	pCi/L	5	0.019	1	<DLR	<DLR	<DLR	<DLR	1.2	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR	<DLR				<DLR	<DLR	<DLR			
Uranium	pCi/L	20	(0.5)	2			NA	<DLR	4.4	<DLR	<DLR	2.9	<DLR	<DLR	<DLR	<DLR				<DLR	7.4	2.7			
Year of Analysis						2008			2005			2008			2008			2008			2005				
LEAD AND COPPER (Retailers Only)								90th Percentile	Tested	Above the AL	90th Percentile	Tested	Above the AL	90th Percentile	Tested	Above the AL	90th Percentile	Tested	Above the AL	90th Percentile	Tested	Above the AL	90th Percentile	Tested	Above the AL
Copper	ug/L	(1300)	(170)	50			NA	489	30	0	690	32	1	769	21	0	1121	31	2	1003	20	2	180	20	0
Lead	ug/L	(15)	(2)	5			NA	6	30	0	6	32	1	8.4	21	0	5.7	31	0	2.6	20	0	12	20	1
Year of Analysis									2006			2007			2006			2006			2006			2008	
SECONDARY STANDARDS					Minimum	Maximum	Typical	Minimum	Maximum	Typical	Minimum	Maximum	Typical	Minimum	Maximum	Typical	Minimum	Maximum	Typical	Minimum	Maximum	Typical			
Chlorides[4]	mg/L	250/500/600			69	77	71	64	102	84	26	123	67	72	98	79	38	44	41	76	130	99			
Color	Units	15			5	10	5	<5	<5	<5	<5	<5	<5	<5	5	<5	<5	<5	<5	<5	<5	<5			
Odor-Threshold	Units	3			1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1			
Sulfates[4]	mg/L	250/500/600		1	38	55	49	96	172	143	122	390	214	120	310	185	160	210	185	110	140	120			
Turbidity	NTU	5			0.44	1.87	1.02	0.08	0.13	0.09	0.01	.44	.11	0.05	0.64	0.33	0.05	0.18	0.12	0.10	0.15	0.11			
Total Dissolved Solids[4]	mg/L	500/1000/1500			251	360	297	599	786	716	359	975	717	468	652	576	526	638	582	552	826	653			
Conductivity[4]	uS / cm	900/1600/2200			474	597	529	981	1242	1128	933	1308	1098	761	1240	946	822	972	897	955	1060	1155			
ADDITIONAL TESTS																									
Calcium	mg/L				24	32	28	85	130	108	77	140	99	55	110	76	83	110	97	80	100	90			
Magnesium	mg/L				11	13	12	23	43	32	22	40.4	30.5	22	39	29	19	28	24	18	25	22			
Sodium	mg/L				50	62	55	83	93	88	56	105	81.2	60	89	73	49	57	53	76	160	115			
Potassium	mg/L				2.4	3.1	2.7	2	4	3.3	1.7	4.6	3.3	3.1	4.5	3.8	2.2	2.2	2.2	2.9	4.0	3.5			
Hardness as CaCO3	mg/L				105	133	121	328	457	407	223	516	369	228	435	308	285	390	338	274	353	315			
pH	Units				7.41	8.06	7.85	7.2	7.4	7.2	7.26	7.63	7.45	7.40	7.56	7.52	7.29	7.35	7.32	7.25	7.27	7.26			
Alkalinity as CaCO3	mg/L				79	97	88	291	344	314	194	285	231	113	181	142	151	166	159	215	272	239			

Key for the Charts used in this Report

1 All values for Tesoro Water are the same as CLWA, except in the specific rows shown.

2 Depending on annual temperatures.

3 Some people who use water containing tetrachloroethylene in excess of the MCL over many years may experience liver problems, and may have an increased risk of getting cancer.

4 There are three MCLs for these parameters: The first is the recommended, long term. The second is the upper, long term. The third is short term.

AL Action Level

DLR Detection Limit for Reporting

ESFP Earl Schmidt Filtration Plant

MCL Maximum Contaminant Level

MCLG Maximum Contaminant Level Goal

ug/L Microgram / Liter

mg/L Milligram / Liter

mS Millisiemens / Centimeter

NTU Nephlometric Turbidity Units

NA Not Analyzed/Not Applicable

pCi/L Picocurie / Liter

PHG Public Health Goal

RVTP Rio Vista Treatment Plant

APPENDIX F:

DOGGR Well Records

PROPERTY/WELL TRANSFER OR ACQUISTION

Medallion California Properties

to

Vintage Production California LLC (V1370)

Effective December 26, 2006

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

REPORT OF PROPERTY AND WELL TRANSFER

Field or county: Newhall-Potrero		District: 2 Ventura
Former owner: DKM Offshore Energy, Inc.	Operator code: D0230	Date: 10-1-94

Name and location of well(s)

All wells previously owned by DKM Energy, Inc.
in Sec. 25, 26, 27, 31, 35, 36, T. 4N, R. 17W SBB&M.

Except:
"Rancho San Francisco" 152 (037-12654)

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Operator code	Type of organization
10-1-94	Medallion California Properties Company	M4805	Corporation
	Address: 1400 Easton Dr., #133, Bakersfield, CA. 93309		Telephone No.: (805) 395-3029

Reported by: Medallion California Properties Company

Confirmed by: DKM Offshore Energy

New operator new status (status abbreviation)	Request designation of agent
PA	
Old operator new status (status abbreviation)	Remarks

Deputy Supervisor: Patrick J. Kinnear

Signature: Patrick J. Kinnear

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121	TKC		Map and book 252+253	PC	1-3099
Form OGD140			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files	TKC	
Electric logs	TKC		Computer Files		
Production reports	TKC				

OGD156 (5/98)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
NEWHALL-POTRERO	2
Former owner	**Date**
Sun Oil Company	Mar. 31, 1983

Name and location of well(s)

Sections 21, 22, 25, 26, 27, 28, 35, 36, T4N. R. 17W.

ALL WELLS

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Type of organization
1/1/82	Sun Exploration & Production Co.	Company
	Address P.O. Box 55060 Valencia, Ca. 91355	**Telephone No.** (805) 257-6200

Reported by
Sun Oil Company

Confirmed by
Sun Exploration & Production Co.

New operator new status (status abbreviation)	Request designation of agent
PA	on file
Old operator new status (status abbreviation)	**Remarks**
Ab	NAME CHANGE ONLY

Deputy Supervisor	Signature
Murray W. Dosch	Murray W. Dosch

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form ODG148			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs					
Production reports					

Change of designation May 18, 1977 to "Rancho San Francisco" 76

.00.
RNIA STATE PRINTING OFFICE

SUBMIT LOG IN DUPLICATE

FILL THIS [illegible]K IN WITH TYPEWRITER. WRITE ON ONE SIDE OF PAPE[illegible]

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
NOV 30 1948
LOS ANGELES, CALIFORNIA

WELL SUMMARY REPORT

Operator BARNSDALL OIL COMPANY Field NEWHALL-POTRERO

Well No. Rancho San Francisco 76-5 Sec. 36, T. 4 N., R. 17 W., S.B. B. & M.

Location 7255.08' (S) (N) & 1196.80' E. from Cor. 1 Elevation of kelly bushing 1283 ground or conc. mat 1273.48 above sea level feet.

In compliance with the provisions of Chapter 93, Statutes of 1939, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date 11-29-48 Signed R. E. Foss

H. M. Stanier (Engineer or Geologist) T. J. Prohoda (Superintendent) Title R. E. FOSS Agent (President, Secretary or Agent)

Commenced drilling 6-24-48 Completed drilling 10-25-48 Drilling tools Rotary

Total depth 9198' Plugged depth 8824'

Junk None

GEOLOGICAL MARKERS	DEPTH

Commenced producing 10-25-48 (date) Flowing/~~gas lift~~/pumping (cross out unnecessary words)

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production	447		4.9	256	380	Vac.
Production after 30 days	219		0.4	122	960	510

Casing Record (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing landed in	Number of Sacks of Cement	Depth of Cementing if through perforations
13 3/8"	226'	Surface	48#	New	Smls.	H-40	17"	175	
7"	8375'	Surface	23, 26 & 29#	New	Smls.	N80, J55	11"	600	
5"	9197'	8342'	18#	New	Smls.	N80	6"	—	

Perforations

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
5"	9196 ft.	8896 ft.	168-1/4" Rd. holes/ft.	4	1"	Shop
5"	8816 ft.	8381 ft.	" " "	4	1"	"
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				

MAP | MAP BOOK | CARDS | BOND | FORMS 114 | 121

Electrical Log Depths 9197' (Attach Copy of Log)

JOM-JSH

FORM 103. 62984 9-46 47,500
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
NOV 30 1948
LOS ANGELES, CALIFORNIA

History of Oil or Gas Well

OPERATOR BARNSDALL OIL COMPANY FIELD NEWHALL-POTRERO

Well No. Rancho San Francisco 76-5, Sec. 36, T. 4 N., R. 17 W., S.B. B. & M.

Signed R. E. Foss
R. E. FOSS

Date 11-29-48 Title Agent
(President, Secretary or Agent)

Use this form in reporting all important operations at the well, together with the dates thereof, in the order of their performance. Such operations include drilling, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, or deepened; size, weight and length of casing landed, cemented, or removed, amount and location of perforations; number of sacks of cement used in cementing or plugging operations, number of feet of cement drilled out of casing, location of top and bottom of cement plugs. If the well was dynamited, give date, dimensions and weight of all shots. If tests were made give interval tested and results of tests, such as, amount and nature of fluids recovered.

Date	
1948	
6-24	Spudded in w/12¼" bit.
6-25	Ran and cemented 13 3/8" 48# casing @ 226' in 17" hole w/175 sx. 2% gel.
7-24	First Run Schlumberger Electric Log to 5501' in hole (11" hole)
8-17	Second Run Schlumberger Electric Log to 8380' in hole (11" hole)
8-18	Ran 8384.91' of 7" casing (383.56' - 29# N80, 1826.19' - 26# N80, 1792.26' - 23# N80, 2907.40' - 23# J55, 1475.49' - 26# J55) (T&C Smls. csg.) Cemented @ 8375' w/600 sx.
8-21	Found top of cement @ 8059'
8-22	Drilled out to 8365'. Ran Sperry Sun Survey.
	Shot 4 - 3/8" holes @ 8355'
	Ran Johnston Tester on 3½" D.P. Packet set @ 8328' & tailpc. to 8346'. 1020' of mud cushion. Valve open for 60 min. thru 3/8" bottom bean. Medium blow 2 min., light blow 38 min., med. blow 15 min., light blow 5 min., Recovered 457' of mud including 270' while pulling out. W.S.O. witnessed & approved by Paul Betts of D.O. & G.
8-24	Found shoe @ 8375'. Drilled ahead with 6" bit.
9-21	Depth 9103'. Third Run Schlumberger Electric Log.
9-25	Depth 9197'. Fourth Run Schlumberger Electric Log.
9-26	Ran 854.48' - 5" - 18# liner. H. 9197' w/top @ 8342'. Perforated w/168 - 1/4" holes per ft. 9197'-8896' & 8816'-8381'.
9-28	Cmt'd. behind 5" liner blank (8816'-8896') with 25 sx. Permanente Hi-Temp. Backscuttled 30 C.F. cement.
9-29	Found top of cmt. @ 8881'
9-30	Drilled cement to 8889'.
	Shot 4 - 3/8" holes @ 8885'
	Cmt'd. behind liner blank w/25 sx. Colton Hi-Temp. Backscuttled 28 C.F. cmt.
10-1	Found top of cmt. @ 8889'
10-3	Cmt'd. behind liner blank w/15 sx. Permanente Hi-Temp cement
10-4	Found no cmt. in hole. Ran Halliburton straddle tool & found shot holes @ 8886' & 8887'. Checked top of plug @ 8891'.
10-5	Cmt'd. behind liner blank w/35 sx. Colton Hi-Temp. cmt. Backscuttled 30 C.F. slurry.
10-6	Found top of cmt. @ 8811'. Cleaned out to 8891'.
	5th Job. Cmt'd. behind liner blank w/35 sx. Permanente Modified cmt. Backscuttled 32 C.F. slurry.
10-7	Found top of cmt. @ 8815'. Drilled out cmt. to 8890'.
10-9	6th Job. Cmt'd. behind blank w/35 sx. Permanente Modified cmt. Backscuttled 30 C.F. slurry.

DIVISION OF OIL AND GAS
RECEIVED
NOV 30 1948
LOS ANGELES, CALIFORNIA

1948

10-10 Found top of cmt. @ 8815'. Drilled out cmt. to 8891'.

10-11 7th Job. Cmt'd. behind blank w/20 sx. Permanente Modified cmt. Backscuttled 25 C.F. slurry

10-12 Found top of cmt. @ 8819'. Drilled out to 8891'.

10-13 8th Job. Cmt'd. behind blank w/25 sx. Permanente Modified cmt. Backscuttled.

10-14 Found top of cmt. @ 8819'. Drilled cmt. to 8890'.
9th Job. Cmt'd. behind blank w/25 sx. Permanente Modified cmt. Backscuttled.

10-15 Found top of cmt. @ 8820'. Drilled cmt. to 8891'.

10-16 10th Job. Cmt'd. behind blank w/25 sx. Permanente Modified cmt. Backscuttled. Max. press. 5350#.

10-17 Found top of cmt. @ 8815'. Drilled out to 8891'. Squeeze #11. Cmt'd. behind blank w/25 sx. Colton Hi-Temp cmt. Max. press. 5000#. Backscuttled 21 C.F. cmt.

10-18 Found top of cmt. @ 8821'. Bottom of cmt. @ 8842'. Found top of plug @ 8910', which is 19' lower than original depth of 8891'.

10-19 Ran Johnston Tester on 2½" tbg. Set packer @ 8855' w/tailpc. to 8867'. No bean or trip valve. 1030' of mud cushion. Opened valve @ 5:01 P.M., Med. blow, declining to no blow in 2 min. Fluid level held at surface. Raised packer 5' @ 5:15 P.M. Fluid level dropped- filled hole. Opened valve @ 5:20 P.M. Same med. blow, declining to no blow in 2 min. Fluid level held at surface. Pulled loose @ 6:05 P.M. Recovered 337' (11 C.F.) of mud, no gas or oil.

10-20 Found plug @ 8910'. Chased plug to 8819'. Drilled 1 foot cement. Washed down to 9101'. Drilled cmt. to 9134'. Cleaned out to bottom @ 9190'.
Ran Johnston Tester on 2½" tbg. Set packer @ 8851' w/tailpc. to 8864'. 1030' mud cushion. 3/8" bottom bean. No trip valve. Tester open 23 hrs. 54 min. Med. steady blow 7 min., faint blow 65 min., dead 50 min., very faint 20 min., dead 33 min., very faint 1 hr. 50 min., very light 1 hr., dead 1 hr. 25 min., very faint 1 hr. 30 min., dead 2 hrs., very faint 20 mins., light steady 22 min., faint blow 4 hrs. 28 min., light steady 22 min., faint 7 hrs. 30 min. Recovered 481' net of fluid (including 160' swabbed out). 4 stds. w/oil staining, 4 stds. oily & gassy mud Btm. std. oily, gassy mud with some water.

10-22 Washed perforations 9196'-8381'.

10-23 Ran Johnston Tester with packer set @ 8852' and tailpc. to 8865'. No trip valve. 3/8" bottom bean. 180' mud cushion. Opened valve @ 1:06 A.M. Med. blow for 7 min., then dead w/faint blow until 3:00, dead to 3:15, faint blow to 4:27, dead to 5:30 & faint blow until packer pulled loose at 2:15 P.M. Net rise of 398' of gassy mud, trace of oil and no water.
Laid cmt. plug from bottom w/80 sx. Colton Hi-Temp. cmt. thru tbg. hung @ 9196'. Backscuttled @ 8818'.

10-24 Found top of cement @ 8824'.
Ran 2½" production tubing. Hung 8798'.

10-25 Changed from mud to salt water to oil.

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121

JOM-JSH

BARNSDALL OIL COMPANY

Form 5-OD

DIVISION OF OIL AND GAS
RECEIVED
OCT 20 1948

CORE RECORD

COUNTY LOS ANGELES FIELD OR DIST. NEWHALL-POTRERO COMPANY BARNSDALL OIL COMPANY WELL (R.S.F. NO) 76-5

LOCATION 7255.08' S & 11,496.80' E from Corner "J" LOS ANGELES, CALIFORNIA T. 4N R. 17W ELEV. 1283' KB

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1948												
8/24	Reed #1	6"	8418	8429	6	54				5.8	Brown, massive, biscuit-bedded and medium to fine grained in upper 2½', soft to loose in lower portion and medium to coarse grained(almost small-pebbly). Contains one 3" streak of sandstone shell 1½' from top that indicates 28° dip. Core shows uniform and good saturation and odor and yellow to pale amber cuts.	F
									0.2		Conglomerate: Quartzite and granitic pebbles to 1½" that probably account for less recovery of soft sand noted above.	
8/25	" #2	"	8469	8479	1.3	13			1.0	x	Conglomerate: composed of pebbles to 1/4" in a sandy and hard small-pebbly matrix. 25% of fragments are of fine to medium grained, light gray-brown, friable oil sand with a good oil odor and saturation and amber cut.	F
									0.3		Sandstone Shell: Dull gray, medium grained, ill-sorted, hard, impermeable, with an oil sand contact at base giving an irregular but average 30° dip.	
8/26	" #3	"	8494	8501	1.2	17			1.2		Conglomerate: Hard pebbles and cobbles (to 2") with showing of oil in occasional fragments of small-pebbly conglomerate.	F
8/29	" #4	"	8548	8553	0.6	12			0.2		Conglomerate: Pebbles to 1½" in hard, coarse grained matrix.	D
										0.4	Oil Sand: Gray to brown, hard, fine to coarse grained, ill-sorted, low to negligible permeability with spotty staining, amber cut, biscuit parting.	
8/31	" #5	"	8599	8602	0	—					Lost core-head cones and legs(Conglomerate inferred.)	
9/8	" #6	"	8701	8701	0						Very hard-last 3 cones.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse. Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

COUNTY

FIELD OR DIST.

CORE RECORD

DIVISION OF OIL AND GAS

COMPANY RECEIVED

-2- OCT 29 19

LOS ANGELES, CALIFORNIA

WELL (R.S.F.No) 76-5

LOCATION

SECT. 36 T. 4-N R. 17-W ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION (INCLUDE COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES)	F/D
1948												
9/12	Hughes #7	6"	8846	8856	7.5	75	x			4.0	Interbedded Oil Sand and Siltstone: Siltstone is gray-brown, fine sandy, fairly hard, micro-micaceous. Oil sand is fine to very fine grained, firm, difficultly friable, quite biotetic, fairly low permeability, good odor and saturation - about 25% of core. 35° dips.	D
										3.5	Oil Sand: Brown, massive, uniform, fine to coarse grained, biscuit parting, good odor and even saturation, firm, friable, brown cuts.	
9/14	" #8	"	8907	8915	1.5	19	1.5				Shale: Brown, clayey, poor-platy, slightly brittle somewhat fractured and slickensided with one good 36° dip. No sign of sand or oil.	F
9/16	" #9	"	8973	8975½	1.0	40%	1.0				Siltstone: Dark brown, massive to vaguely bedded, fine grained, clayey, fairly hard, micro-micaceous, with scattered to common carbonaceous fragments and rare fish scales, contains several fractures at 40° to 55°, showing a little oil. Dip 36°. No sand noted.	F
9/19	" #10	"	9039	9042	1.5	50	1.5				Siltstone: ditto, badly fractured and slickensided at angles of 75° to 35°. No sand. 47° dip.	D
/21	" #11	"	9099	9103	—	—					2' cavings - no oil odor.	F
9/22	" #12	"	9129	9132	2.0	67	2.0				Siltstone, as above, rather badly fractured and slickensided. Contains one 3" streak at base that is quite hard and dense and gives good 27° dips. No sand or fresh oil noted.	F
	" #13	"	9180	9183	2.6		2.6				Siltstone: ditto, somewhat fractured and slickensided w/slight evidence of oil on fractures. Dip 28°-30°. No sand noted.	D

FORMS 121 114 BOND CARDS MAP BOOK MAP

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.
HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.
TEXTURE: C or Cse Coarse. Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.
SORTING: E Even, G Good, P Poor, F Fair.
MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

FORM 109-A

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(FORMATION TESTER)

No. T 1-48584

Los Angeles 15, Calif. August 26, 1948

Mr. R. E. Foss
Los Angeles 15, Calif.
Agent for BARNSDALL OIL COMPANY

DEAR SIR: "Rancho San Francisco"

Your well No. 76-5, Sec. 36, T. 4 N., R. 17 W., S.B. B & M.
Newhall-Potrero Field, in Los Angeles County, was tested for water shut-off
on August 23, 1948. Mr. Paul Betts, Inspector, designated by the supervisor,
was present as prescribed in Secs. 3222 and 3223, Ch. 93, Stat. 1939; there were also present
W. Stanier, Engineer; J. Murphy, Drilling Superintendent.

Shut-off data: 7 in 23, 26, 29 lb. casing was cemented xxxxx at 8375 ft.
on August 18, 1948 in 11 in. hole with 600 sacks of cement
xxxxx of which 58 sacks was left in casing.
Casing record of well: 13-3/8" cem. 228'; 7" cem. 8375'; four 1/2" test holes at 8355'.
W. S. O.

Present depth 8380 ft. Bridged with cement from 8375 ft. to 8365 ft. Cleaned out to 8365 ft. for test.
A pressure of xxx lb. was applied to the inside of casing for xxx min. without loss after cleaning out to xxx ft.
A Johnston tester was run into the hole on 3-1/2 in. drill pipe-~~tubing~~ with 1020 ft. of ~~water~~ mud cushion, and packer set at 8328 ft. with tailpiece to 8346 ft.
Tester valve, with 3/8 in. bean, was opened at 5:00 p.m. and remained
open for 1 hr. and xxx min. During this interval there was a medium, steady blow for 2 min., a light, steady blow for 38 min., a medium, steady blow for 15 min., and a light, steady blow for 5 min.

THE INSPECTOR ARRIVED AT THE WELL AT 9:00 P. M. AND MR. STANIER REPORTED:
1. An 11" rotary hole was drilled from 228' to 8380'.
2. Electrical core readings showed the top of the "5th zone" at 8375'.
3. The 7" casing was run into the hole and cemented as noted above.
4. The 7" casing was shot-perforated with four 1/2" holes at 8355' for this test.
5. A Johnston tester was run as noted above.
6. During the time that the tester was pulled out of the hole, the valve was inadvertently opened three times, and allowed an estimated 2.2 bbl. of fluid to enter the drill pipe.

THE INSPECTOR NOTED:
1. When the drill pipe was removed, 284' of medium, slightly oil-stained, drilling fluid and 273' of thin, gassy, Impermex, drilling fluid was found in the drill pipe above the tester, equivalent to 4.5 bbl.
2. The recording pressure bomb chart showed that the tester valve was open 1 hr.

The test was completed at 10:45 p.m.

THE WATER SHUT-OFF ABOVE THE PERFORATIONS AT 8355' IS APPROVED.

PWB:OH
R/Ma
cc- Company

R. D. BUSH, State Oil and Gas Supervisor
By E. H. Messer, Deputy

90092 5-48 12,500 ② SPO

FORM 109-D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-18453

Mr. R. E. Foss, Los Angeles 15, Calif. July 16, 1948

Los Angeles 15, Calif.

Agent for BARNSDALL OIL COMPANY

DEAR SIR:

Operations at your well No. "Rancho San Francisco" 76-5 Sec. 36, T. 4 N., R. 17 W., S. B. B. & M., Newhall-Potrero Field, in Los Angeles County, were witnessed by Paul W. Betts, Inspector on July 5, 1948. There was also present Jim Murphy, Drilling Superintendent, representative of the supervisor, Sam Joaquin, Driller

Casing Record 13-3/8" cem. 225'; T.D. 3500' | Junk xxx

The operations were performed for the purpose of inspecting blowout prevention equipment and installation.

The inspector arrived at the well at 6:00 p.m. and Mr. Murphy reported:

1. A 17-1/4" rotary hole was drilled from surface to 225'.
2. On June 25, 1948, 13-3/8" 48 lb. casing was cemented at 225' with 175 sacks of cement plus 2-1/2% aquagel.
3. Cement returned to the surface.
4. An 11" rotary hole was drilled from 225' to 3500'.

THE INSPECTOR NOTED that the well was equipped with the following blowout prevention equipment:

1. A Shaffer double cellar control gate for closing in the well with the drill pipe out of the hole and for closing around the 4-1/2" drill pipe.
2. The controls for the above equipment were located outside the derrick.
3. A 2" mud fill-up line, with a 2" high pressure plug, into the 13-3/8" casing, below the above equipment.

The inspection was completed at 6:15 p.m.

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

cc - Company

R/ma

PWB:ES

R. D. BUSH
State Oil and Gas Supervisor

By E. A. Musser Deputy

59352 6-46 15M
STATE PRINTING OFFICE

FORM 111.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-45176

Los Angeles 15, Calif. June 24, 19 48

Mr. R. E. Foss

Los Angeles 15, Calif.

Agent for BARNSDALL OIL COMPANY

Dear Sir:

Your proposal to drill Well No. "Rancho San Francisco" 76-5, Section 36, T. 4 W., R. 17 W. S.B. B. & M., Newhall-Potrero Field, Los Angeles County, dated June 15, 1948, received June 18, 19 48, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:

"The well is 7255.08 feet S., and 11496.80 feet E. from Corner "J"
kelly bushing 1283
The elevation of the ground above sea level is 1273.48 feet.
conc.mat 1280
We estimate that the first productive oil or gas sand should be encountered at a depth of about 8450 feet."

PROPOSAL:

"We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing	Weight	Grade and Type	Depth	Landed or Cemented
13 3/8"	48#	H40 Smls.	300	Cmt'd.
7"	23, 26 & 29#	N 80 Smls.	8450	Cmt'd.
5-1/2"	17#	J 55 Smls.	8800	Hung

Well is to be drilled with rotary tools.
It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT

1. Mud fluid consistent with good drilling practice shall be used and the column of mud fluid maintained at all times to the surface, particularly while pulling the drill pipe.
2. Blowout prevention equipment, sufficient to provide a complete close-in of the well under pressure at any time, shall be installed.
3. Any hole to be sidetracked in any oil or gas zone shall be filled with cement, if possible.
4. THIS DIVISION SHALL BE NOTIFIED AS FOLLOWS
   (a) To inspect the installed blowout prevention equipment before drilling below 1500'.
   (b) To witness a test of the effectiveness of the 7" shut-off.

cc - Company

CLB:ES W/R

Blanket bond.

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Musser Deputy

FORM 105.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
JUN 18 1948
LOS ANGELES, CALIFORNIA

037-13255

Notice of Intention to Drill New Well 4

This notice must be given and surety bond filed before drilling begins.

Los Angeles Calif. June 15 1948

DIVISION OF OIL AND GAS

Los Angeles, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of drilling well No. "Rancho San Francisco" 76-5, Sec. 36, T. 4 N. JLW R. 17 W., S.B. B. & M., Newhall-Potrero Field, Los Angeles County.

Lease consists of

The well is 7255.08 feet N. or S., and 1496.80 feet E. or W. from Corner "J"
(Give location in distance from section corners or other corners of legal subdivision)

The elevation of the ground above sea level is 1273.48 feet.
kelly bushing 1283
conc.mat 1280

We estimate that the first productive oil or gas sand should be encountered at a depth of about 8450 feet.

We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing, Inches	Weight, Lb. Per Foot	Grade and Type	Depth	Landed or Cemented
13 3/8"	48#	H40 Smls.	300	Cmt'd.
7"	23, 26 & 29#	N 80 Smls.	8450	Cmt'd.
5-1/2"	17#	J 55 Smls.	8800	Hung

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing.

Address 714 W. Olympic Boulevard
Los Angeles 15, California

Telephone number RI 5171

BARNSDALL OIL COMPANY
(Name of Operator)

By A E Ford
Agent

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
18A JLW	JLW				

PROPERTY/WELL TRANSFER OR ACQUISTION

Medallion California Properties

to

Vintage Production California LLC (V1370)

Effective December 26, 2006

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

REPORT OF PROPERTY AND WELL TRANSFER

Field or county: Newhall-Potrero		District: 2 Ventura
Former owner: DKM Offshore Energy, Inc.	Operator code: D0230	Date: 10-1-94

Name and location of well(s)

All wells previously owned by DKM Energy, Inc.
in Sec. 25, 26, 27, 31, 35, 36, T. 4N, R. 17W SBB&M.

Except:
"Rancho San Francisco" 152 (037-12654)

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange: 10-1-94	New owner: Medallion California Properties Company	Operator code: M4805	Type of organization: Corporation
	Address: 1400 Easton Dr., #133, Bakersfield, CA. 93309		Telephone No.: (805) 395-3029

Reported by: Medallion California Properties Company

Confirmed by: DKM Offshore Energy

New operator new status (status abbreviation): PA	Request designation of agent
Old operator new status (status abbreviation)	Remarks

Deputy Supervisor: Patrick J. Kinnear

Signature: Patrick J. Kinnear

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121	TKC		Map and book 252+253	PC	1-3099
Form OGD140			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files	TKC	
Electric logs	TKC		Computer Files		
Production reports	TKC				

OGD156 (5/98)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P290- 65
Field Code 500
Area Code 00
New Pool Code 30
Old Pool Code 30

PERMIT TO CONDUCT WELL OPERATIONS

F.E. Armijo, Agent
Oryx Energy Company
25322 W. Rye Canyon Road
P.O. Box 55060
Valencia, CA. 91355

Ventura, California
February 14, 1990

Your proposal to rework well "Rancho San Francisco" 77, A.P.I. No. 037-13256, Section 36, T. 4 N, R. 17W, S.B. B.&M., Newhall Potrero field, any area, 5th pool, Los Angeles County, dated 2/1/90, received 2/9/90, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Blowout prevention equipment conforming to DOG Class II 2M requirements shall be installed and maintained in operating condition at all times.
2. Hole fluid of a quality and in sufficient quantity is used to control all subsurface conditions in order to prevent blowouts.
3. Any sump used during these operations shall be thoroughly cleaned and filled with earth as soon as operations are completed.
4. This office shall be consulted before initiating any changes or additions to this proposed operation, or if operations are to be suspended.

Blanket Bond
SF:ljg

Work done
1/11/91
history ORIG

Engineer Steve Fields

Phone (805) 654-4761

M.G. MEFFERD, State Oil and Gas Supervisor

By _____ for
Patrick J. Kinnear
Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
OG111

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Notice of Intention to Rework Well

VISION OF OIL AND
RECEIVED
FEB 9 1990
ANTA BARBARA, CALIFORNIA

This notice and indemnity or cash bond shall be filed, and approval given, before rework begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

FOR DIVISION USE ONLY		
BOND	OGD114	OGD121
33	✓	✓

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3. Public Resources Code, notice is hereby given that it is our intention to rework well No. Rancho San Franciso #77-~~X~~, API No. 04-037-13256, Sec. 36, T. 4N, R. 17W, S.B B. & M., Newhall-Potrero Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 9180'

2. Complete casing record, including plugs and perforations:

   - 13-3/8", 53#, J-55, surface casing @ 254'
   - 7", 23#, 26#, 29#, N-80 & J-55 productive csg @ 8481'
   - 5½", 17#, J-55 liner from 8455-9178' perforated w/ 192 ¼" RHPF w/ 16R x 1"C from 8497-8947' & 9007-9112'. 4-3/8" holes @ 8471'

3. Present producing zone name 5th Zone Zone in which well is to be recompleted 5th

4. Present zone pressure 530 (est.) New zone pressure Same

5. Last produced 12/89 (Date) | 6 (Oil, B/D) | 0 (Water, B/D) | 359 (Gas, Mcf/D)

   or

6. Last injected _____ (Date) | _____ (Water, B/D) | _____ (Gas, Mcf) | _____ (Surface pressure, psig.)

The proposed work is as follows:

Convert well from Flowing to Gas Lift.

1) Pump ±100 bbls hot water down tbg & csg.
2) Pull tbg out of hole & run in hole w/ csg scraper.
3) Pull csg scraper out of hole & run in hole w/ packer, set nipple, gas lift valves & 2-7/8" tbg. Packer set @ 8412'.
4) Return well to production by gas lift.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address 25322 WEST RYE CANYON ROAD (Street)

VALENCIA (City) CA (State) 91355-0560 (Zip)

Telephone Number (805) 257-6200

ORYX ENERGY COMPANY (Name of Operator)

By F. E. Armijo 2-1-90 (Date)

F. E. ARMIJO (Name)

Type of Organization CORPORATION (Corporation, Partnership, Individual, etc.)

OG107 (8-75—GSRI—15M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
NEWHALL-POTRERO	2
Former owner	**Date**
Sun Oil Company	Mar. 31, 1983

Name and location of well(s)

Sections 21, 22, 25, 26, 27, 28, 35, 36, T4N. R. 17W.

ALL WELLS

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Type of organization
1/1/82	Sun Exploration & Production Co.	Company
	Address	**Telephone No.**
	P.O. Box 55060 Valencia, Ca. 91355	(805) 257-6200

Reported by
Sun Oil Company

Confirmed by
Sun Exploration & Production Co.

New operator new status (status abbreviation)	Request designation of agent
PA	on file
Old operator new status (status abbreviation)	**Remarks**
Ab	NAME CHANGE ONLY

Deputy Supervisor	Signature
Murray W. Dosch	Murray W. Dosch

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form ODG148			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs					
Production reports					

Change of designation May 18, 1977 to "Rancho San Francisco" 77

All of SUNRAY DX OIL COMPANY wells in field transferred 10-25-68 to SUN OIL COMPANY - DX DIVISION. Form 156, 11-20-68. See ownership file.

SUBMIT LOG IN DUPLICATE

STATE PRINTING OFFICE — FILL T —ANK IN WITH TYPEWRITER. WRITE ON ONE SIDE OF P/ —Y

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
DEC 15 19[illegible]
LOS ANGELES, CALIFORNIA

WELL SUMMARY REPORT

Operator BARNSDALL OIL COMPANY Field NEWHALL-POTRERO

Well No. Rancho San Francisco 77-5 Sec. 36, T. 4 N., R. 17 W., S.B. B. & M.

Location 644.8' S. & 10709.3' E. from Cor. J Elevation of ~~ground~~ kelly bushing 1262.70 above sea level feet.
conc. mat 1252.70

In compliance with the provisions of Chapter 93, Statutes of 1939, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date Dec. 14, 1948

Signed R. E. Foss

H. M. Stanier (Engineer or Geologist) T. J. Prehoda (Superintendent) Title R. E. FOSS Agent (President, Secretary or Agent)

Commenced drilling 8-21-48 Completed drilling 11-15-48 Drilling tools Rotary

Total depth 9180' Plugged depth —

Junk None

GEOLOGICAL MARKERS — DEPTH

Commenced producing 11-15-48 (date) Flowing/~~gas lift~~/pumping (cross out unnecessary words)

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production	507	33.6	1.5	293	760	120
Production after 6 ~~30~~ days	219	33.6	.4	122	960	510

CASING RECORD (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing landed in	Number of Sacks of Cement	Depth of Cementing if through perforations
13 3/8"	254'	Surface	52.74#	New	Smls.	J-55	17½"	250	
7"	8481'	Surface	29,26&23#	New	Smls.	N80 & J55	11"	600	
5½"	9178'	8455'	17#	New	Smls.	J-55	7" & 6"	(Hung)	

PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
5½"	9112.15 ft.	9007.31 ft.	1/4" Rd. Holes (192/ft)	16	1"	Western Perf.
5½"	8947.09 ft.	8896.50 ft.	" " " "	16	1"	" "
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				

MAP | MAP BOOK | CARDS | BOND | FORMS 114 | 121

Electrical Log Depths 1931', 8525', 8980' & 9180' (Attach Copy of Log)

FR/JSH

FORM 103. 62984 9-46 47,500
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
DEC 1 [illegible]
LOS ANGELES, CALIFORNIA

History of Oil or Gas Well

OPERATOR BARNSDALL OIL COMPANY FIELD NEWHALL-POTRERO

Well No. Rancho San Francisco 77-5, Sec. 36, T. 4 N., R. 17 W., S.B. B. & M.

Signed R. E. Foss
R. E. FOSS

Date December 14, 1948

Title Agent
(President, Secretary or Agent)

Use this form in reporting all important operations at the well, together with the dates thereof, in the order of their performance. Such operations include drilling, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, or deepened; size, weight and length of casing landed, cemented, or removed, amount and location of perforations; number of sacks of cement used in cementing or plugging operations, number of feet of cement drilled out of casing, location of top and bottom of cement plugs. If the well was dynamited, give date, dimensions and weight of all shots. If tests were made give interval tested and results of tests, such as, amount and nature of fluids recovered.

Date	
1948	
8-21	Spudded in w/11" bit.
8-22	Depth 494'. Opened hole to 17½" to 254'. Ran and cmt'd. 13 3/8" - 52.74# csg. cmt'd. @ 254' w/250 sx.
9-10	Depth 4931'. First run Schlumberger Electric Log in 11" hole.
10-17	Depth 8525'. Second run Schlumberger Electric Log in 11" hole.
10-19	Ran 7" 29#, 26# & 23# N-80 & J-55 casing cmt'd. @ 8481' w/600 sx.
10-23	Drilled out to 8472' & shot 4 - 3/8" holes @ 8471'. Changed over to Impermex mud. Ran Johnston Tester w/plr. set @ 8441' and w/1000' mud cushion. Left valve open 1 hr. Fluid to surface in 57 min. Blew mud cushion. Had gas & oil flow. No free water. W.S.O. approved by Lloyd White of Div. of Oil & Gas.
11-3	Depth 8980'. Third run Schlumberger Electric Log in 6" hole.
11-9	Depth 9180'. Fourth run Schlumberger Electric Log in 6" hole.
11-13	Ran 723.41' of 5½" 17# liner hung @ 9178' w/top @ 8455'. Perf. w/192 - 1/4" rd. holes per ft. 9112.15' to 9007.31' and 8947.09' to 8896.50'.
11-14	Ran production tubing.
11-15	Well flowing.

MAP	MAP BOOK	CARDS	BOND	FORMS 114	121
					EO

FR/JSH

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

DIVISION OF OIL & GAS
RECEIVED
DEC 15 1950
Ranger, San Francisco

COUNTY Los Angeles FIELD OR DIST. Newhall-Potrero COMPANY BARNSDALL OIL COMPANY WELL R.S.F.No.77-5

LOCATION 6442.84' S & 10,709.34' E from Corner "J" Sec. 36 T. 4N R. 17W ELEV. 1262.70

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
~~1948~~												
10/24	Reed #1	6"	8558	8563	0.4	8			0.4		Conglomerate, coarse sand matrix with oil staining, with fragments of 2"+ granitic cobble.	F
10/26	" #2	"	8617	8625	2.5	28			2.5	x	Sandstone, blue gray, massive, hard, coarse grained, ill sorted, broken up in part, with some fragments and occasional biscuits of brown, fairly hard oil sand.	F
10/27	" #3	"	8674	8679	2.0	40			1.0		Conglomerate, fragments of pebbles 2"+ in diameter with occasional oil stains.	
									1.0		Sandstone Shell, gray, massive, hard, coarse grained with scattered 1/4"+ pebbles with one steep fracture with live oil. No dips.	F
10/30	" #4	"	8742	8747	1	20				1/2	Fragments tight oil sand, gray, massive, coarse, pebbly.	D
									1/2		Sandstone shell, gray, very hard, massive, medium to coarse, scattered pebbles.	
10/31	" #5	"	8799	8807	6	75				6	Oil Sand, rich brown, massive, fine to medium grained in top 4', coarse grained in lower 2', with a streak of siltstone 3" from base, giving 35° dip. Whole core is well saturated and moderately friable with fair indicated permeability.	D
11/1	" #6	"	8847	8855	1.5	19			0.7		Conglomerate, loose pebbles to 1½" with occasional fragments of oil sand.	F
										0.8	Oil Sand, brown, massive, fine to medium grained, firm to fairly hard, low permeability, good saturation.	
11/2	" #7	"	8913	8920	2.1	30				0.6	Oil Sand, loose, medium to coarse grained, washed, but with light amber cut.	F
									0.7		Sandstone shell, fine to medium grained, very hard	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.
HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.
TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.
SORTING: E Even, G Good, P Poor, F Fair.
MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

DIVISION OF OIL AND GAS
RECEIVED Rotunda San Francisco
DEC 15 19[illegible]

COUNTY | FIELD OR DIST. | COMPANY BARNSDALL OIL COMPANY | WELL (R.S.F.No.) 77-5

LOCATION -2- LOS ANGELES CALIFORNIA | SECT. | T. | R. | ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	RECOVERY SHALE	RECOVERY SAND	RECOVERY SHELL	RECOVERY OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
~~1940~~			8913	8920	cont...						with calcite filled fractures and with one siltstone streak giving fair 28° dip.	
										0.8	Oil Sand, gray, coarse, friable, permeable.	
11/4	Reed #8	6"	8980	8991	0.8	7				0.8	Oil Sand, brownish gray, massive, firm, friable, coarse grained, ill sorted, good oil odor. No dip.	F
11/5	" #9	"	9040	9046	1.0				1.0		Conglomerate, pebbles to 2"	D
11/7	" #10	"	9098	9105	6.0		x		6.0	x	Interbedded sandstone (65%), Siltstone (10%) & Oil Sand (25%), Sandstone is gray, fine to coarse grained, quite hard and impermeable. Siltstone is interbedded with sandstone and gives rough 40° dips. Oil Sand is brown, massive, difficultly friable, fine to very coarse grained and with a low permeability and varying saturation.	D
11/8	" #11	"	9159	9165	3.5		3.5				Shale, dark brown, well bedded, poker chip parting in places, with occasional fish remains and carbonaceous fragments, almost a clay shale. Good 36° dips. Shows a few bedding-plane slickensides.	F
											T.D.9180.	
											Rolfe S.Johnson	

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
					ECC

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.
HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.
TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.
SORTING: E Even, G Good, P Poor, F Fair.
MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

FORM 109-A

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(FORMATION TESTER)

No. T 1-48916

Los Angeles 15, Calif. November 5, 1948

Mr. R. E. Foss
Los Angeles 15, Calif.
Agent for BARNSDALL OIL COMPANY

DEAR SIR: "Rancho San Francisco"
Your well No. 77-5, Sec. 36, T. 4 N., R. 17 W., S. B. B & M.
Newhall-Potrero Field, in Los Angeles County, was tested for water shut-off on October 24, 1948. Mr. J. L. White, Inspector, designated by the supervisor, was present as prescribed in Secs. 3222 and 3223, Ch. 93, Stat. 1939; there were also present T. H. Preboda, Superintendent; D. L. Caldwell, Engineer.

Shut-off data: 7 in. 23,26,29 lb. casing was cemented xxxx at 8481 ft. on October 19, 1948 in 11 in. hole with 600 xxxx sacks of cement of which 46 sacks was left in casing.

Casing record of well: 13-3/8" cem. 254'; 7" cem. 8481'; four 3/8" test holes 8471', W.S.O.

Present depth 8525 ft. Bridged with cement from 8481 ft. to 8473 ft. Cleaned out to 8473 ft. for test. A pressure of 1000 lb. was applied to the inside of casing for 15 min. without loss after cleaning out to 8235 ft. A Johnston tester was run into the hole on 3-1/2 in. drill pipe ~~tubing~~ with 1000 ft. of ~~water~~ mud cushion, and packer set at 8441 ft. with tailpiece to 8459 ft. Tester valve, with 3/8 in. bean, was opened at 9:08 p.m., October 23, 1948 and remained open for 1 hr. and 05 min. During this interval there was a light, steady blow for 12 min.; a medium, steady, blow for 3 min.; and a strong, steady blow for 50 min. Gas reached the surface in 30 minutes and fluid in 50 minutes, and the well flowed mud cushion and clean oil for 15 minutes.

THE INSPECTOR ARRIVED AT THE WELL AT 2:30 A. M. AND MR. CALDWELL, ENGINEER, REPORTED:

1. An 11" rotary hole was drilled from 254' to 8525'.
2. Electrical core readings showed the top of the 5th zone at 8495'.
3. Cement was drilled out of the 7" casing from 8235' to 8473' (equivalent to 44 sacks), and the casing was cleaned out to 8473'.
4. The 7" casing was shot with four 3/8" holes at 8471' for this test.
5. A Johnston tester was run as noted above.
6. The well flowed clean oil for one hour after the valve was closed leaving only 870' of fluid in the drill pipe.

THE INSPECTOR NOTED:

1. When the drill pipe was removed, 540' of gassy oil and 330' of gassy, oily, drilling fluid was found in the drill pipe above the tester, equivalent to 6.5 bbl.
2. The recording pressure bomb chart showed that the tester valve was open 1 hr. and 5 min. and that the valve had opened momentarily while pulling the packer loose, thus accounting for the drilling fluid in the bottom of the drill pipe.

The test was completed at 4:00 a.m.

THE WATER SHUT-OFF ABOVE THE PERFORATIONS AT 8471' IS APPROVED.

JLW:OH

cc- Company

R. D. BUSH, State Oil and Gas Supervisor

By E. H. Meesser, Deputy

90092 5-48 12,500 ② SPO

FORM 109-D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-48585

Los Angeles 15, Calif. August 26, 1948

Mr. R. E. Foss
Los Angeles 15, Calif.
Agent for BARNSDALL OIL COMPANY

DEAR SIR:

Operations at your well No. 77-5 Sec. 36, T. 4 N., R. 17 W., S.B. B. & M., "Rancho San Francisco" Newhall-Potrero Field, in Los Angeles County, were witnessed by Paul Betts, Inspector representative of the supervisor, on August 23, 1948. There was also present W. D. Wiley, Drilling Foreman; B. Moore, Driller.

Casing Record 13-3/8" cem. 254'. T. D. 494'.

Junk xxxxx

The operations were performed for the purpose of inspecting blowout prevention equipment and installation.

The inspector arrived at the well at 8:45 p.m. and Mr. Wiley reported:

1. A 17-1/2" rotary hole was drilled from 15' to 254'.
2. On August 22, 1948, 13-3/8", 52.74 lb. casing was cemented at 254' with 250 sacks of cement.
3. Cement returned to the surface.
4. An 11" rotary hole was drilled from 254' to 494'.

THE INSPECTOR NOTED THAT THE WELL WAS EQUIPPED WITH THE FOLLOWING BLOWOUT PREVENTION EQUIPMENT:

1. A Shaffer double cellar control gate for closing in the well with the drill pipe out of the hole, and for closing around the 4-1/2" drill pipe.
2. The controls for the above equipment were located outside the derrick.
3. A 2" mud fill-up line, with a 2" high pressure Nordstrom plug valve, into the 13-3/8" casing below the above equipment.

The inspection was completed at 9:00 p.m.

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

PWB:OH

cc- Company

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Musser Deputy

86681 2-48 16,250 ② SPOI

CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-45390

Los Angeles 15, Calif. August 10, 1948

MR. R. E. Foss
Los Angeles 15, Calif.

Agent for BARNSDALL OIL COMPANY

DEAR SIR:

Your proposal to drill "Rancho San Francisco" Well No. 77-5, Section 36, T. 4 N., R. 17 W., S.B. B. & M., Newhall-Potrero Field, Los Angeles County, dated Aug. 4, 1948, received Aug. 5, 1948, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:

"The well is 6442.84 feet S. and 10709.34 feet E. from Corner "J"

The elevation of the derrick floor above sea level is	kelly bushing	1262.70
	conc. mat	1259.70 feet.
		1252.70

We estimate that the first productive oil or gas sand should be encountered at a depth of about 8475 feet."

PROPOSAL:

"We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing	Weight	Grade and Type	Depth	Landed or Cemented
13 3/8"	48#	H-40	250	Cemented
7"	26# & 23#	N 80 & J 55 Smls.	8475	Cemented
5-1/2"	17#	J-55 Smls.	9165	Hung

Well is to be drilled with rotary tools.
It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT

1. Mud fluid consistent with good drilling practice shall be used and the column of mud fluid maintained at all times to the surface, particularly while pulling the drill pipe.
2. Blowout prevention equipment, sufficient to provide a complete close-in of the well under pressure at any time, shall be installed.
3. Any hole to be sidetracked in any oil or gas zone shall be filled with cement, if possible.
4. THIS DIVISION SHALL BE NOTIFIED AS FOLLOWS:
   (a) To inspect the installed blowout prevention equipment before drilling below 1500'.
   (b) To witness a test of the effectiveness of the 7" shut-off.

CLE:ON

cc- Company

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Musser Deputy

Blanket bond.

FORM 105.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

037-13256

Notice of Intention to Drill New Well 4

This notice must be given and surety bond filed before drilling begins

RECEIVED
AUG 5 - 1948

Los Angeles, Calif. August 4, 1948

DIVISION OF OIL AND GAS

Los Angeles, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of drilling well No. "Rancho San Francisco" 77-5, Sec. 36, T. 4 N., R. 17 W., S.B. B. & M., Newhall-Potrero Field, Los Angeles County. JLW

Lease consists of

The well is 6442.84 feet N. or S., and 10709.34 feet E. or W. from Corner "J"
(Give location in distance from section corners or other corners of legal subdivision)

The elevation of the kelly bushing 1262.70, derrick floor 1259.70, ground or conc. mat 1252.70 above sea level is feet.

We estimate that the first productive oil or gas sand should be encountered at a depth of about 8475 feet.

We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing, Inches	Weight, Lb. Per Foot	Grade and Type	Depth	Landed or Cemented
13 3/8"	48#	H-40	250	Cemented
7"	26# & 23#	N 80 & J 55 Smls.	8475	Cemented
5-1/2"	17#	J 55 Smls.	9165	Hung

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
18A JLW	JLW		Blanket		

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing.

Address 714 W. Olympic Boulevard
Los Angeles 15, California

Telephone number RI 5171

BARNSDALL OIL COMPANY
(Name of Operator)

By R. E. Fox
Agent

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

FORM 159

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF WELL ABANDONMENT

Santa Paula, Caliifornia

September 20, 1982

Mr. J. B. Carroll, Jr., Agent
Sun Exploration & Production Co.
Box 55060
Valencia, CA 91355

DEAR SIR:

Your report of abandonment of Well No. "Rancho San Francisco" 78 (037-13257) Sec. 26, T. 4N, R 17W, S. B. B. & M., Newhall-Potrero field, Los Angeles County, dated 6/21/82, received 6/23/82, has been examined in conjunction with records filed in this office.

A review of the reports and records shows that the requirements of this Division, which are based on all information filed with it, have been fulfilled.

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
253	MS 9-25-82			ERP ✓	✓

M. G. MEFFERD
~~JOHN F. MATTHEWS, JR.~~
State Oil and Gas Supervisor

By Murray W. Dosch
Murray W. Dosch, *Deputy Supervisor*

18234-705 10-73 4M OSP

OPERATOR Sun
LSE & NO RSF 78
MAP 253

	( )	( )	( )	( )	( )	( )
INTENTION	ABAND					
NOTICE DATED	3-5-82					
P-REPORT NUMBER	282-105					
CHECKED BY/DATE	MS 9-21-82					
MAP LETTER DATED	9-25-82					
SYMBOL	⊕					

	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED
NOTICE	3-10-82											
HISTORY	6-23-82											
SUMMARY	5-5-82											
IES/ELECTRIC LOG												
DIRECTIONAL SURV												
CORE/SWS DESCRIP												
OTHER												
RECORDS COMPLETE	9-21-82	MS										

ENGINEERING CHECK

T-REPORTS	✓
OPERATOR'S NAME	✓
WELL DESIGNATION	✓
LOC & ELEV	✓
SIGNATURE	✓
SURFACE INSPECTION	✓
FINAL LETTER OK	

CLERICAL CHECK

POSTED TO 121 _____ 170 _____ MAILED _____ FINAL LETTER OK

MAILED _____

RELEASED BOND _____

REMARKS: 5/6/82 Surf. insp. ok (Ida Trapnell)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
NEWHALL-POTRERO	2
Former owner	**Date**
Sun Oil Company	Mar. 31, 1983

Name and location of well(s)

Sections 21, 22, 25, 26, 27, 28, 35, 36, T4N. R. 17W.

ALL WELLS

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Type of organization
1/1/82	Sun Exploration & Production Co.	Company
	Address: P.O. Box 55060, Valencia, Ca. 91355	Telephone No.: (805) 257-6200

Reported by: Sun Oil Company

Confirmed by: Sun Exploration & Production Co.

New operator new status (status abbreviation)	Request designation of agent
PA	on file
Old operator new status (status abbreviation)	**Remarks**
Ab	NAME CHANGE ONLY

Deputy Supervisor	Signature
Murray W. Dosch	Murray W. Dosch

OPERATOR STATUS ABBREVIATIONS

- PA – Producing Active
- NPA – No Potential, Active
- PI – Potential Inactive
- NPI – No Potential, Inactive
- Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form ODG148			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs					
Production reports					

Form OG100 (7/79)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

API No. 037-13257

WELL SUMMARY REPORT

Operator: SUN EXPLORATION AND PRODUCTION COMPANY

Well: RANCHO SAN FRANCISCO #78

Field: NEWHALL-POTRERO

County: LOS ANGELES

Sec.	T.	R.	B.&M.
26	4N	17W	SB

Location (Give surface location from property or section corner, street center line and/or California coordinates)

5881.70 S & 10109.35 E FROM CORNER "J" RSF LEASE

Elevation of ground above sea level: 1239.97

Commenced drilling (date) P&A: 4/6/82

Completed drilling (date) P&A: 4/12/82

Commenced producing (date): N/A

☐ Flowing ☐ Pumping ☐ Gas lift

Name of producing zone(s): 5TH ZONE

Total depth

(1st hole)	(2nd)	(3rd)
9458		

Present effective depth: N/A

Junk: NONE

DIVISION OF OIL AND GAS RECEIVED MAY 5 1982 SANTA PAULA, CALIFORNIA

Depth measurements taken from top of: ☐ Derrick Floor ☐ Rotary Table ☒ Kelly Bushing

Which is +10 feet above ground

GEOLOGICAL MARKERS	DEPTH
5TH ZONE	9195-9412

Formation and age at total depth: NEWHALL POTRERO (MIOCENE)

	Clean Oil (bbl per day)	Gravity Clean Oil	Percent Water including emulsion	Gas (Mcf per day)	Tubing Pressure	Casing Pressure
Initial Production	N/A					
Production After 30 days						

CASING RECORD (Present Hole)

Size of Casing (API)	Top of Casing	Depth of Shoe	Weight of Casing	Grade and Type of Casing	New or Second Hand	Size of Hole Drilled	Number of Sacks or Cubic Feet of Cement	Depth of Cementing (if through perforations)
13 3/8"	SURFACE	230'	54.5	J-55	NEW	17 1/2"	210 SX	
7"	SURFACE	8618'	29,26,23	N-80, J-55	NEW	11"	624 SX	
5 1/2"	8582'	9457'	17	J-55	NEW	11"	HUNG	

PERFORATED CASING (Size, top, bottom, perforated intervals, size and spacing of perforation and method.)

192 - 1/4" RD, HOLES PER FT, FROM 9415-9200, 9162-9025, 8944-8800, 8759-8618

Was the well directionally drilled? If yes, show coordinates at total depth

☐ Yes ☒ No

Electrical log depths: 9454

Other surveys: NONE

In compliance with Sec. 3215, Division 3 of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Name: L. B. CARROLL, JR.

Title: DISTRICT ENGINEER

Address: 25322 W RYE CANYON ROAD

City: VALENCIA

Zip Code: 91355-0560

Telephone Number: 805/257-6200

Signature: L B Carroll Jr.

Date: APR 30 1982

SUBMIT IN DUPLICATE

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
JUN 23 1982
SANTA PAULA, CALIFORNIA

History of Oil or Gas Well

Operator SUN EXPLORATION AND PRODUCTION COMPANY
SUN PRODUCTION DIVISION
Well RSF #78 Field or County Newhall Potrero
A.P.I. No. 037-13257 Sec. 26, T 4N, R 17W SB B. & M.
Date 6/21/82, 19 Name L. B. CARROLL, JR. (Person submitting report) Title Agent (President, Secretary or Agent)

Signature L B Carroll Jr.

P. O. Box 55060, Valencia, California 91355-0560 (Address)
(805) 257-6200 (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date	
1982	
4/6	TD 9459/13-3/8" 54.5# J-55 CSG @ 230' CMT w 210 SXS/7" 29#, 26# & 23# N80-J55 CSG @ 8618 CMT w 600 SXS/5½" 17# J55 LNR @ 9459 TOP @ 8582/PERFS 8618-8759, 8800-8944, 9025-9162, 9200-9415/THIS WELL HAD EXTENSIVE WRK IN OCT 1980 TO REPAIR CSG FAILURE (COLLAPSE) ALONG w STUCK TBG IN LNR/THIS WRK WAS UNSUCCESSFUL & IS RECOMMENDED FOR P&A/ MIRU/BLED WELL DN/INSTL BOE/POOH w 90 JTS 2-7/8 TBG/RIH (HYDROTST TO 5000#) w 5½" 17# CMT RET ON 2-7/8 TBG TO 8590/UNABL TO SET RET/PULLING OUT OF HOLE/SIFN/
4/7	POOH w RET/MURRY DOSCH w DOG APPROVD 300' PLUG FRM 8607-8307/RIH w 2-7/8" TBG TO 8600/MX & PMP 64 FT³ CL "G" NEET CMT/DISP w 260 FT³ WTR/POOH TO 8250/REVERSE OUT APPROX 45 FT CMT/POOH TO 7000/WOC 4 HRS/RIH TAG CMT @ 8550/REVERSE OUT/MX & PMP 54 FT³ CL "G" CMT/DISPL w 260 FT³ WTR/POOH TO 8250/REVERSE OUT/POOH TO 7000/SIFN/
4/8	RIH TAG CMT @ 8480/CHG OVR TO 74# MUD/MX & PMP 43 FT³ CL "G" CMT/DISPL w 259 FT³ MUD/POOH TO 8200/REVERSE OUT w NO RTNS FOR 30 BBLS/PMP 10 BBLS DN TBG/POOH TO 7000/TBG PULLING WET/PMP DN TBG/TBG PLUGGED/POOH/SIFN/
4/9	FINISHD POOH/LAYD DN 1 PLUGGED JT/RIH TAGD CMT @ 8280/WITNESS & OK'D BY DOG (ROBERT HAUSER)/POOH TO 3670/BJ PMP 10 FT³ FRSH WTR/MX & PMP 50 SXS CL "G" CMT/ DISPL w 3 FT³ FRSH WTR 97 FT³ 74# MUD/POOH w 20 JTS/REVERSE w 8 BBLS/NO RTNS/ FND RTN LINE ON CMT TRUCK CLOSED/REVERSE w NO CMT RTNS/WOC 4 HRS/RIH FND TOC @ 3596/RU BJ SET SECOND PLUG SAME AS ABOVE/POOH 1200' ABOV CMT PLUG/SIFN/
4/10	RIH TAG CMT @ 3472/WITNESS & OK'D BY DOG ROBERT HOUSER/POOH/RIH w GEARHART/PERF 4 - ½" HOLES @ 680/RIH w 7" CMT RET ON 2-7/8" TBG/SET @ 578/RIGGED UP BJ/ESTABLSH BRK DN @ 2½ BPM @ 500 PSI/MX & PMP 91 SXS CL "G" CMT/FINAL SQ PRES @ 2250 PSI/ PULL OUT OF RET/PMP 14 SXS/DISPL w 10 FT³ MUD/POOH TO 278/REVERSE OUT/POOH/ SI UNTIL 4-12-82/
4/12	RIH TAG CMT @ 435/WITNESS & OK'D BY DOG (ROB HABEL)/POOH TO 60'/MX & PMP CMT TO SURF/POOH/RD/DROP FRM RPT UNTIL SURF WRK COMPLETE/
4/23	COMPLETED P&A SURF WRK/
5/7	FINAL REPORT/

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 282-91

DIVISION OF OIL AND GAS

Report on Operations

Mr. J. E. Carroll, Jr., Agent
Sun Exploration & Production Co.
Box 55060
Valencia, CA 91355

Santa Paula, Calif.
April 28, 1982

Your operations at well "Rancho San Francisco" 78, API No. 037-13257,
Sec. 26, T. 4N R. 17W SB B.& M. Newhall-Potrero Field, in Los Angeles County,
were witnessed on 4/23/82. R. Habel, representative of
the supervisor, was present from 0900 to 0930. There were also present D.Lopez,Drilling
Foreman, CPS; J. Britton, Sun Representative
Present condition of well: 13 3/8" cem 230'; 7" cem 8618'; 5 1/2" liner cem 8582-9459',
perf. 8588' WSO, perf 8590' Co.WSO, perf (at intervals) 8618-9415'. Junk: 2 3/8"
tbg 8607-9400'. T.D. 9458'. Plugged with cem 8600-8280', 3670-3472', 680-435',
60' - 5'.

The operations were performed for the purpose of abandonment

DECISION:

THE LOCATION AND HARDNESS OF THE CEMENT PLUG AT 5' IS APPROVED.

site restored to satisfactory condition NS 5/5/82

b

M. G. MEFFERD
State Oil and Gas Supervisor

By
Deputy Supervisor
Murray W. Dosch

OG109(12-80-15M)

B.L.H. 91 pw

Form OGD10 (6/80)

DIVISION OF OIL AND GAS
Cementing/Plugging Memo

Operator Sun Exploration and Production Co. Well No. "Rancho San Francisco" '78
API No. 037-13257 Sec. 26, T. 4N, R. 17W, SB B&M
Field Newhall-Potrero, County Los Angeles. On 4/23/82,
Mr. B. Hable, representative of the supervisor was present from 0900 to 0930.
There were also present D. Lopez, D.E., CDS; J. Britton, Sun
Casing record of well: 13⅜" cem. 230'. 7" cem. 8618'. 5½" lnr. cem. 8582'-9459', perf. 8588 WSO, perf. 8590' Co. WSO, perf. (at intervals) 8618'-9415'. Junk; 2⅜" tbg 8607'-9400'. T.D. 9458'. Plugged w/cem. 8600'-8280', 3670'-3472', 680'-435', 60'-5'.
The operations were performed for the purpose of abandonment

☐ The plugging/cementing operations as witnessed and reported are approved.
☑ The location and hardness of the cement plug @_____' is approved.

Hole size:_____" fr._____' to_____', _____" to_____' & _____" to_____'

Casing				Cemented			Top of Fill		Squeezed Away	Final Press.	Perfs.
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			

Casing/tubing recovered:_____" shot/cut at_____', _____', _____' pulled fr._____';
_____" shot/cut at_____', _____', _____' pulled fr._____'.
Junk (in hole):_____
Hole fluid (bailed to) at_____'. Witnessed by_____

Mudding	Date	Bbls.	Displaced	Poured	Fill	Engr.

Cement Plugs		Placing	Placing Witnessed		Top Witnessed			
Date	Sx./cf	MO & Depth	Time	Engr.	Depth	Wt/Sample	Date & Time	Engr.
4/7	64 cf	OE Tbg 8600'	—	—	8550'	wt	—	—
4/8	54 sx	OE Tbg 8550'	—	—	8480'	wt		
4/8	43 cf	OE Tbg 8480	—	—	8280'	wt.	4/9 1400	RLH
4/9	50 sx	OE Tbg 3670	—	—	3472'	wt.	4/10 0800	RLH
4/11	105 sx	OE Tbg 680'	—	—	435'	wt	4/12 0830	RSH
4/12	13 cf	OE Tbg 60'	—	—	5'	Sample	4/23 0930	RSH

488 Combo

FORM OG111(10/81/DWRR/5M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

PW

No. P 282-105

REPORT ON PROPOSED OPERATIONS

500 (field code)
00 (area code)
30 (new pool code)
30 (old pool code)

Mr. L. B. Carroll, Jr., Agent
Sun Exploration and Production Co.
Box 55060
Valencia, CA 91355

Santa Paula, California
March 16, 1982

Your proposal to abandon well "Rancho San Francisco" 78,
A.P.I. No. 037-13257, Section 26, T. 4N, R. 17W, SB B. & M.,
Newhall-Potrero field, any area, 5th pool,
Los Angeles County, dated 3/5/82, received 3/10/82 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Hole fluid of sufficient quality and quantity shall be maintained in the hole to control any subsurface condition, and a reserve supply shall be on hand for emergencies.
2. All portions of the hole not plugged with cement shall be filled with inert mud fluid having a minimum density of 72 lbs/cu.ft. or a minimum gel shear strength (10 min) of 20 lbs/100 sq.ft., (30 sacks of Bentonite per 100 bbls. of water).
3. Blowout prevention equipment of at least DOG Class II 2M shall be installed and maintained in operating condition at all times.
4. Sufficient cement shall be forced below 8590' to fill the hole down to 9400'.
5. This office shall be consulted before initiating any changes or additions to this proposed operation, or if operations are to be suspended.
6. THIS DIVISION SHALL BE NOTIFIED TO WITNESS THE LOCATION AND HARDNESS OF THE CEMENT PLUG AT 8450' OR ABOVE, 3480' OR ABOVE, 480' OR ABOVE, THE PLACING OF THE CEMENT PLUG IN THE HOLE AND 13 3/8" x 7" ANNULUS FROM 30' TO 5'.

APRIL 7 1982
MO - J BRITTON

Blanket Bond
RLH:b

1. Could not set the Retainer in liner
2. Knew was Sand 9400' to 8607' & fill to 8607'
3. Can not cut retainer in 7" casing, Bad casing 7" @ 3580' - 3652'

Program Change
1. Will set Cement Plug in casing from 8607' to 8307' ODC to witness

M. G. MEFFERD, State Oil and Gas Supervisor

By Murray W. Dosch, Deputy Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
MAR 10 1982
SANTA PAULA, CALIFORNIA

pw

Notice of Intention to Abandon Well

This notice must be given at least five days before work is to begin.

FOR DIVISION USE ONLY			
CARDS	BOND	FORMS	
		114	121
	—	✓	✓

DIVISION OF OIL AND GAS

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon Well No. RANCHO SAN FRANCISCO #78, API No. 037-13257, Sec. 26, T. 4N, R. 17W, SB B. & M., NEWHALL-POTRERO Field, LOS ANGELES County, commencing work on MARCH 15, 19 82.

The present condition of the well is: SHUT-IN

1. Total depth: 9458

2. Complete casing record, including plugs and perforations:

SEE ATTACHMENT A & B

3. Last produced 3/78 (Date) 11 (Oil, B/D) 248 (Gas, Mcf/D) 0 (Water, B/D)

or

4. Last injected ____ (Date) ____ (Water, B/D) ____ (Gas, Mcf/D) ____ (Surface pressure)

Additional data for dry hole (show depths)

5. Oil or gas shows

6. Stratigraphic markers:

7. Formation and age at total depth:

8. Base of fresh water sands: 680'

The proposed work is as follows:

1. MIRU. INSTALL BOP. FILL HOLE W/LEASE WATER.
2. RIH W/5 1/2" 17# CEMENT RETAINER AND STRINGER ON TBG AND SET AT 8590'.
3. RU HOWCO AND PUMP 100 SX. CLASS 'G' CEMENT. UNSTAB AND LAY A BALANCED 140' PLUG TO 8450' ON TOP OF RETAINER.
4. POH TO 7500'. WOC 4 HRS. CONTACT DOG. TAG TOC.
5. LOAD HOLE W/72# MUD (330 BBLS). POH TO 3670'.
6. SPOT 50 SX. CLASS 'G' CEMENT ACROSS BAD PIPE FROM 3670' TO 3480'.
7. POH TO 2500'. WOC 4 HRS. CONTACT DOG. TAG TOC. POH.
8. RU PERFORATORS AND SHOOT 4-1/2" HOLES AT 680' (BASE OF F/W SANDS).
9. RIH W/CEMENT RETAINER AND STINGER ON TBG AND SET @ 580'. PUMP 200 SX. CLASS 'G' CEMENT.
10. UNSTAB FROM RETAINER AND LAY A 100' BALANCED CMT. PLUG ON TOP OF RETAINER. POH.
11. CONTACT DOG & TAG TOC. LAY A 25' CMT PLUG (30'-5'). CONTACT DOG.
12. CUT CSG. 5' BELOW SURF., REMOVE CELLAR AND LINES & CLEAR LOC. WELD PLATE & MARKER. CONTACT DOG.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address 25322 W RYE CANYON ROAD (Street)
VALENCIA (City) CALIFORNIA (State) 91355-0560 (Zip)
Telephone Number 805/257-6200

SUN EXPLORATION AND PRODUCTION COMPANY
SUN PRODUCTION DIVISION (Name of Operator)
By [signature] (Name) 3/5/82 (Date)
Type of Organization CORPORATION (Corporation, Partnership, Individual, etc.)

OG108 (12-73-GSR1-15M)

SUBMIT LOG IN DUPLICATE

FILL BLANK IN WITH TYPEWRITER. WRITE ON ONE SIDE OF PAPER ONLY

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

RECEIVED
MAR 11 1949
LOS ANGELES, CALIFORNIA

WELL SUMMARY REPORT

Operator BARNSDALL OIL COMPANY Field NEWHALL-POTRERO

Well No. Rancho San Francisco 78-5 Sec. 26, T. 4 N., R. 17 W., S.B. B. & M.

Location 5881.70' S. & 10109.35' E. from Cor. "J" Elevation of ~~ground or~~ kelly bushing 1250 above sea level 1239.97 conc. mat feet.

In compliance with the provisions of Chapter 93, Statutes of 1939, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date March 10, 1949 Signed R. E. Foss

H. M. Stanier (Engineer or Geologist) T. J. Prehoda (Superintendent) Title R. E. FOSS Agent (President, Secretary or Agent)

Commenced drilling 11-22-48 Completed drilling 2-22-49 Drilling tools Rotary

Total depth 9458' Plugged depth

GEOLOGICAL MARKERS — DEPTH

Junk

Commenced producing 2-23-49 (date) Flowing/~~gas lift/pumping~~ (cross out unnecessary words)

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production	418	33.0	3.8	183	180	---
Production 2-28 after 30 days	400	33.0	0.2	247	300	---

CASING RECORD (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing landed in	Number of Sacks of Cement	Depth of Cementing if through perforations
13 3/8"	230'	Surface	54.5	New	Lapweld	J-55	17" & 17½"	210	
7"	8618'	Surface	29,26,23#	New	Smls.	N80 & J55	11"	624	24 sx. c.p. 8590'
5½"	9457'	8582'	17#	New	Smls.	J-55	11" & 6"	Hung	

PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
5 1/2"	9415 ft.	9200 ft.	192 - ¼" Rd. holes/ft.	16	1"	Western Perf.
	9162 ft.	9025 ft.				
	8944 ft.	8800 ft.				
	8759 ft.	8618 ft.				
	ft.	ft.				

MAP | MAP BOOK | CARDS | BOND | FORMS 114 | 121

Electrical Log Depths 9454' (Attach Copy of Log)

FR-JSH

FORM 103. 62984 9-46 47,500
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

RECEIVED
MAR 11 1949
LOS ANGELES, CALIFORNIA

OPERATOR BARNSDALL OIL COMPANY FIELD NEWHALL-POTRERO

Well No. Rancho San Francisco 78-5, Sec. 26, T. 4 N., R. 17 W., S.B. B. & M.

Signed R. E. Foss
R. E. FOSS

Date March 10, 1949 Title Agent
(President, Secretary or Agent)

Use this form in reporting all important operations at the well, together with the dates thereof, in the order of their performance. Such operations include drilling, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, or deepened; size, weight and length of casing landed, cemented, or removed, amount and location of perforations; number of sacks of cement used in cementing or plugging operations, number of feet of cement drilled out of casing, location of top and bottom of cement plugs. If the well was dynamited, give date, dimensions and weight of all shots. If tests were made give interval tested and results of tests, such as, amount and nature of fluids recovered.

Date	
1948	
11-22	Depth 248'. Spudded in w/11" bit.
11-23	Depth 458'. Opened 11" hole to 17½" to 230' Ran & Cmt'd. 13 3/8" csg. @ 230' w/210 sx.
11-24	Depth 458'. Drilled ahead w/11" bit.
12-10	Depth 4666'. 1st Run Schlumberger Electric Log.
	Depth 4734'. Drilled ahead w/11" bit.
1949	
1-22	Depth 8665'. Second Run Schlumberger Electric Log. Ran & cmt'd. 7" 29#, 26# & 23# N80 & J55 csg. @ 8618' w/600 sx.
1-27	Depth 8608'. Shot 4 - 3/8" holes @ 8590' w/McCullough gun.
1-28	Ran Johnston Tester w/1000 ft. of mud cushion & set packer @ 8566' w/tailpc. to 8581'. Opened valve thru a 3/8" btm. bean for 1 hr. Light blow 50 min. & dead 10 min. Recovered 10 stands of drilling fluid & oily-gas cut fresh water mud of 130 G/G salinity. Test witnessed & WSO not approved by Norm Sampson of the D. O. & G. Squeezed an est. 24 sx. thru holes @ 8590' w/max. pressure of 6800#. Used Model "K" magnesium retainer set @ 8582'.
1-29	Depth 8608'. Shot 4 - 3/8" holes @ 8588' w/McCullough gun. Ran Johnston Tester w/1000' mud cushion & set packer @ 8568' w/tailpc. to 8581'. Opened valve thru a 3/8" btm. bean for 1 hr. Strong puff 1/2 min., dead 59½ min. Recovered 50 ft. of drilling fluid. Test witnessed & WSO approved by Norm Sampson of the D. O. & G.
	Depth 8684'. Drilled ahead w/6" bit.
2-13	Depth 9290'. Third Run Schlumberger Electric Log.
	Depth 9305'. Drilled ahead w/6" bit.
2-17	Depth 9458'. Fourth Run Schlumberger Electric Log. Stopped @ 8782'.
2-18	Depth 9458'. Fourth Re-Run Schlumberger Electric Log. Ran to 9454'. Changed to oil base mud.
2-20	Depth 9458'. Hung 5½" - 17# perf. & blank liner @ 9457' w/top @ 8582'. Used Burns plain type hanger & open shoe.
2-21	Ran production tubing hung @ 9406'.
2-22	Changed from Black Magic to oil. On production.

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121

FR-JSH

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY Los Angeles FIELD OR DIST. Newhall-Potrero COMPANY BARNSDALL OIL COMPANY Rancho San Francisco WELL (R.S.F.No.) 78-5

LOCATION 5881.70' S & 10,109.35' E from corner "J" SECT. 26 T. 4N R. 17W ELEV. 1250KB

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1949												
1/31	Reed #1	6"	8684	8689	1/2	10			1/2		Shell: fragments of very hard conglomerate of pebbles to 1/4" in matrix of medium to coarse grained sand with a faint oil odor.	D
2/1	" #2	"	8749	8753	1/4	6			1/4		Shell: coarse grained and pebbly with pebbles to 1/2".	D
2/3	" #3	"	8793	8798	1/4	5			1/4		Shell: ditto	D
2/7	Globe Basket		8960		0.4					0.2	Oil sand: yellow-brown, massive, firm, difficultly friable, coarse grained, ill-sorted, strong oil odor.	F
							0.2				Siltstone, dark gray brown, massive to bedded, hard, with good 35° dip.	
	14' cored											
	1' recovered											
	7% recovery											

RECEIVED
MAR 25 1949
LOS ANGELES, CALIFORNIA

R. S. JOHNSON

MAP | MAP BOOK | CARDS | BOND | FORMS 114 121

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc, Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.
HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.
TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.
SORTING: E Even, G Good, P Poor, F Fair.
MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

FORM 109-A (10-48)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(FORMATION TESTER)

No. T 1-49307

Los Angeles 15, Calif. February 3, 1949

Mr. R. E. Foss
Los Angeles 15, Calif.
Agent for BARNSDALL OIL COMPANY

DEAR SIR: Your well No. "Rancho San Francisco" 78-5, Sec. 26, T. 4 N., R. 17 W., S.B. B & M. Newhall-Potrero Field, in Los Angeles County, was tested for water shut-off on January 30, 1949. Mr. N. N. Sampson, Inspector, designated by the supervisor, was present as prescribed in Secs. 3222 and 3223, Ch. 93, Stat. 1939; there were also present T. J. Prohoda, Drilling Superintendent; Frank Rieber, Engineer.

Shut-off data: 7 in. 23,26,29 lb. casing was re-cemented through perforations at 8590 ft. on January 28, 1949 in 11 in. hole with 60 sacks of cement of which 5 sacks was left in casing.

Casing record of well: 13-3/8" cem. 230'; 7" cem. 8618', c.p. 8590'; four 1/2" test holes 8588', W. S. O.

Present depth 8665 ft. Bridged with cement from 8618 ft. to 8608 ft. Cleaned out to 8608 ft. for test. A pressure of xxx lb. was applied to the inside of casing for xxx min. without loss after cleaning out to xxx ft. A Johnston tester was run into the hole on 3-1/2 in. drill pipe-~~tubing~~ with 1000 ft. of water-mud cushion, and packer set at 8568 ft. with tailpiece to 8581 ft. Tester valve, with 3/8 in. bean, was opened at 6:58 a.m. and remained open for 1 hr. and xxx min. During this interval there was a strong blow for 30 seconds, and no blow thereafter.

INSPECTOR N. N. SAMPSON VISITED THE WELL FROM 5:00 - 7:00 A. M., JANUARY 28, 1949, AND MR. RIEBER REPORTED:

1. An 11" rotary hole was drilled from 230' to 8665'.
2. On January 23, 1949, 7", 23, 26, and 29 lb. casing was cemented at 8618' with 600 sacks of cement.
3. Cement was drilled out of the 7" casing from 8372' to 8608 (equivalent to 43 sacks), and the casing was cleaned out to 8608'.
4. Electrical core readings showed the top of the Fifth zone at 8624'.
5. The 7" casing was shot-perforated with four 3/8" holes at 8590'.
7. A Johnston tester was run into the hole on 3-1/2" drill pipe and packer set at 8566'.
8. The tester valve was opened at 12:11 a.m. and remained open 1 hr. During this interval there was a light blow for 50 min., and no blow thereafter.

THE INSPECTOR NOTED:

1. When the drill pipe was removed, 910' of light, watery, mud with a trace of oil was found in the drill pipe above the tester, equivalent to 6.8 bbl.
2. Water filtered from fluid samples taken from 90' and 10' above the bottom of the drill pipe tested 130 grains of salt per gallon, respectively.

THE OPERATOR DECIDED TO RECEMENT.

THE INSPECTOR ARRIVED AT THE WELL AT 10:45 A. M., AND MR. RIEBER REPORTED:

1. On January 28, 1949, a cement retainer was set at 8582' and the 7" casing was recemented through perforations at 8590' with 60 sacks of cement of which 30 sacks was squeezed away under a final pressure of 6800 lb.
2. Cement was drilled out of the 7" casing from 8582' to 8608' (equivalent to 5 sacks), and the casing was cleaned out to 8608'.
3. The 7" casing was shot-perforated with four 3/8" holes at 8588' for this test.
4. A Johnston tester was run as noted above.

R. D. BUSH, State Oil and Gas Supervisor

By (CONTINUED ON PAGE 2), Deputy

98241 10-48 25M SPO

FORM 109-X. 91197 9-40 8M
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
OR
Special Report on Operations Witnessed

No. T 1-49307
Page 2

BARNSDALL OIL COMPANY

Well No. "Rancho San Francisco" 78-5, Sec. 26, T. 4 N., R. 17 W., S. B. B. & M.,

THE INSPECTOR NOTED:

1. When the drill pipe was removed, 50' of light drilling fluid was found in the drill pipe above the tester, equivalent to 0.4 bbl.
2. The recording pressure bomb chart showed that the tester valve was open 1 hr.

The test was completed at 11:30 a.m.

THE WATER SHUT-OFF ABOVE THE PERFORATIONS AT 8588' IS APPROVED.

NNS:OH

MM/R

cc- Company

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Meesser Deputy

FORM 109-D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-49095

Los Angeles 15, Calif. December 15, 1948

Mr. R. E. Foss
Los Angeles 15, Calif.
Agent for BARNSDALL OIL COMPANY

DEAR SIR: "Rancho San Francisco"

Operations at your well No. 78-5 Sec. 26, T. 4 N., R. 17 W., S.B. B. & M., Newhall-Potrero Field, in Los Angeles County, were witnessed by J. L. White, Inspector, representative of the supervisor, on December 8, 1948. There was also present J. O. McDonald, Engineer; C. T. Miller, Driller.

Casing Record	Junk
13-3/8" cem. 230'. T. D. 4091'.	xxxx

The operations were performed for the purpose of inspecting blowout prevention equipment and installation.

The inspector arrived at the well at 4:45 a.m. and Mr. McDonald reported:

1. An 11" rotary hole was drilled from the surface to 230' (opened to 17-1/2").
2. On November 23, 1948, 13-3/8", 54.5 lb. casing was cemented at 230' with 175 sacks of cement.
3. Cement returned to the surface.
4. An additional 35 sacks of cement was pumped into the hole around the 13-3/8" casing at the surface.
5. An 11" rotary hole was drilled from 230' to 4091'.

THE INSPECTOR NOTED THAT THE WELL WAS EQUIPPED WITH THE FOLLOWING BLOWOUT PREVENTION EQUIPMENT:

1. A Shaffer double cellar control gate for closing in the well with the drill pipe out of the hole, and for closing around the 4-1/2" drill pipe.
2. The controls for the above equipment were located outside the derrick.
3. A 2" mud fill-up line with a 2" high pressure stopcock into the 13-3/8" casing below the above equipment.

The inspection was completed at 5:00 a.m.

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

JLW:OH

cc- Company

R. D. BUSH
State Oil and Gas Supervisor
By E. H. Musser Deputy

86681 2-48 16,250 ② SPO

FORM 111.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-45883

Los Angeles 15, Calif. November 16, 1948

MR. R. E. Foss

Los Angeles 15, Calif.

Agent for BARNSDALL OIL COMPANY

DEAR SIR:

Your proposal to drill "Rancho San Francisco" Well No. 78-5,

Section 26, T. 4 N., R. 17 W., S.B.B. & M., Newhall-Potrero Field, Los Angeles County,

dated Nov. 8, 1948, received Nov. 10, 1948, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:

"The well is 5881.70 feet S. and 10109.35 feet E. from corner "J"
kelly bushing 1250 feet
The elevation of the conc. mat above sea level is 1239.97
We estimate that the first productive oil or gas sand should be encountered at a depth of about 8640 feet."

PROPOSAL:

"We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing	Weight	Grade and Type	Depth	Landed or Cemented
13 3/8"	54#	J 55	250	Cemented
7"	23, 26, & 29#	J 55 & N 80	8640	"
5 1/2"	17#	J 55	9330	Hung

Well is to be drilled with rotary tools.
It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT

1. Mud fluid consistent with good drilling practice shall be used and the column of mud fluid maintained at all times to the surface, particularly while pulling the drill pipe.
2. Blowout prevention equipment, sufficient to provide a complete close-in of the well under pressure at any time.
3. Any hole to be sidetracked in any oil or gas zone shall be filled with cement, if possible.
4. THIS DIVISION SHALL BE NOTIFIED AS FOLLOWS:
   (a) To inspect the installed blowout prevention equipment before drilling below 1000'.
   (b) To witness a test of the effectiveness of the 7" shut-off.

CLB:ON

cc- Company

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Messer Deputy

Blanket bond.

FORM 105.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

VISION OF OIL AND GAS
RECEIVED
NOV 16 1948
LOS ANGELES, CALIFORNIA

037-13257

Notice of Intention to Drill New Well

This notice must be given and surety bond filed before drilling begins

16

Los Angeles Calif. November 8 1948

DIVISION OF OIL AND GAS

Los Angeles Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of drilling well No. Rancho San Francisco 78-5, Sec. 26, T. 4 N., R. 17 W., SB B. & M., Newhall Potrero Field, Los Angeles County.

Lease consists of

The well is 5881.70 feet ~~N.~~ S. or S., and 10109.35 feet ~~E.~~ W. or W. from corner "J"
(Give location in distance from section corners or other corners of legal subdivision)

The elevation of the ~~ground~~ kelly bushing or conc. mat above sea level is 1250 / 1239.97 feet.

We estimate that the first productive oil or gas sand should be encountered at a depth of about 8640 feet.

We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing, Inches	Weight, Lb. Per Foot	Grade and Type	Depth	Landed or Cemented
13 3/8"	54#	J 55	250	Cemented
7"	23, 26, & 29#	J 55 & N 80	8640	"
5½"	17#	J 55	9330	Hung

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
18A JCW	JCW	yf	Blanket	yf	yf

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing.

Address 714 W. Olympic Boulevard
Los Angeles 15, California

Telephone number RI 5171

BARNSDALL OIL COMPANY
(Name of Operator)

By R. E. Fee
Agent

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

Re 7-13

SOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF WELL PLUGGING AND ABANDONMENT

Ventura, California

April 15, 1997

Bradford A. DeWitt, Agent
Medallion Calif. Properties
1100 Mohawk St., Suite 154
Bakersfield, CA 93309

Your report of the plugging and abandonment of well "Rancho San Francisco" 88,

A.P.I. No. 037-13267, Section 25, T. 4N, R. 17W, SBB.& M.,

Newhall Potrero field, Los Angeles County,

dated December 23, 1996, received January 6, 1997, has been examined in conjunction with records filed in this office. We have determined that all of the requirements of this Division have been fulfilled relative to plugging and abandonment of the well, removal of well equipment and junk, and the filing of well records.

William F. Guerard, Jr
State Oil and Gas Supervisor

bmh

By
Patrick J. Kinnear
Deputy Supervisor

cc: Update

Modified OG159 (4/94)

OPERATOR Medallion CA Properties A.P.I. 037-13267

WELL NO. "Rancho San Francisco" '88 SECTION 25, T. 4 N, R. 17 W

MAP 253

INTENTION	Abandon					
NOTICE DATED	9-17-96					
P-REPORT NUMBER	P296-215					
CHECKED BY/DATE						
MAP LETTER DATED	6-24-06					
SYMBOL	*					

	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED
NOTICE	9-24-96											
HISTORY	1-6-97											
SUMMARY												
E-LOG												
MUD LOG												
DIPMETER												
DIRECTIONAL												
CORE/SWS												
CBL												

ENGINEERING CHECK

T-REPORTS	✓					
OPERATOR'S NAME	✓					
WELL NO.	✓					
LOC & ELEV	✓					
SIGNATURE	✓					
SURFACE INSP.	3-18-97 MD					
DRILL CARD						

RECORD'S COMPLETE _____ FINAL LETTER OK _____

MAILED _____

INJECTION BOOK _____ REMARKS: _____ RELEASED BOND _____

IDLE WELL LIST _____

SURFACE INSP. CARD _____

OK TO RELEASE FROM CONFIDENTIAL _____

ABANDONED-REMOVED FROM E.D.P. _____

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

No. T296-282

Report on Operations

Bradford A. Dewitt, Agent
MEDALLION CALIFORNIA PROPERTIES
1100 Mohawk St., Ste. 154
Bakersfield, CA 93309-7416

Ventura, California
December 30, 1996

Your operations at well "Rancho San Francisco" 88, API No. 037-13267, Sec. 25, T. 4N, R. 17W, S.B. B.&M. Newhall Potrero Field, in Los Angeles County, were witnessed on 11-7-96. Paul Cronmiller, representative of the supervisor, was present from 1200 to 1300. There were also present Von Fortenberry

Present condition of well: 13 3/8" cem 358'; 7" cem 9227', WSO perf @ 9210', perf @ 100', cavity shot @ 1100'; 5 1/2" ld 9205'-9996', perf @ int 9226'-9934'. TD 9998'. Junk: wireline tool below 9836' & packer @ 9133'. Plugged w/ cem 9836'-9096', 1100'-873' & 100'-10'.

The operations were performed for the purpose of abandonment.

DECISION:

The plugging operations as witnessed and reported are approved.

tkc

William F. Guerard, Jr.
State Oil and Gas Supervisor

By _____

Patrick J. Kinnear
Deputy Supervisor

OG109 (Modified 1993)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

HISTORY OF OIL OR GAS WELL

Operator Medallion California Properties Co. Field Newhall-Potrero County Los Angeles

Well "Rancho San Francisco" 88 Sec. 25, T 4N, R 17W, S. B. B. & M.

A.P.I. No. 037-13267 Name Claude D. Fiddler (Person submitting report) Title Engineer (President, Secretary, Agent)

Date December 23, 1996

Signature Claude D. Fiddler

1100 Mohawk Street, Suite 154, Bakersfield, CA 93309 (Address)

805/635-0465 (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date	
1996	
10/31	MIRU coil tubing unit. RD injection tree. RU Class II BOPE. RIH w/CT to 9,836 ft. Tagged top of fill and junk. Laid 145 ft^3 Class "G" cement plug from 9,836 ft. Pulled up hole to 8,000 ft. SIWFN.
11/1	RIH. Tagged cement at 9,096 ft. Tag witnessed by Paul Crowmiller, DOGGR. Filled hole from 9,096 ft to 1,100 ft w/9.6 ppg mud. POOH, RU perforators. RIH and made cavity shot at 1,100 ft. POOH, RD perforators. RIH and laid 64 ft^3 Class "G" cement plug from 1,100 ft to 800 ft. POOH, RD coil tubing unit. SIW.
11/4	RU CT unit. RIH and tagged cement at 873 ft. Tag witnessed by Paul Crowmiller, DOGGR. Filled well w/30 bbls 9.6 ppg mud to 100 ft. POOH. SIWFN.
11/5	RU perforators. RIH. Shot eight 1/2" holes at 100 ft. Pumped 82 ft^3 of Class "G" cement down 7". Got returns to surface in 7" x 13-3/8" annulus. Surface plug witnessed by Paul Crowmiller, DOGGR.

RECEIVED
JAN 6 1997
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
VENTURA, CALIFORNIA

SUBMIT IN DUPLICATE

VISION OF OIL, GAS, AND GEOTHERMAL RESOURCE

W 282

CEMENTING/PLUGGING MEMO

Operator MEDALLION CALIF PROPERTIES Well No. "RANCHO SAN FRANSISCO" 88
API No. 037-13267 Sec. 25, T. 4N, R. 17W, SB B&M
Field NEWHALL - POTRERO, County LOS ANGELES On NOV 5, 1996,
Mr. / Ms. PAUL CRONMILLER, representative of the supervisor, was present from 1200 to 1300.
There were also present MR VON FORTEN BERRY, CONTRACT SUPERVISOR
Casing record of well: 13 3/8" CEM 358'; 7" CEM 9227', WSO
PERF @ 9210', PERF @ 100', CAV SHOT @ 1100';
5 1/2" Ld 9205'-9996', PERF @ INT 9226'-9934', TD 9998'.
The operations were performed for the purpose of ABANDONMENT JUNK: WIRELINE TOOL
BELOW 9836' AND PACKER @ 9133'.
PLUGGED w/ CEM 9836'-9096', 1100'-873' & 100'-10'.

☒ The plugging/cementing operations as witnessed and reported are approved.

☐ The location and hardness of the cement plug @ _____' are approved.

Hole size: _____" fr. _____' to _____'; _____" to _____' & _____" to _____'

Casing				Cemented			Top of Fill		Squeezed Away	Final Press.	Perfs.
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			

Casing/tubing recovered: CAV " shot/cut at 1100'; 1110'; _____' pulled fr. _____';
PERF " shot/cut at 100'; - 8 SPF; _____' pulled fr. _____'.

Junk (in hole): _____

Hole fluid (bailed to) at _____'. Witnessed by _____

Mudding	Date	bbls.	Displaced	Poured	Fill	Engr.
9.6 PPG	11-1-96	306	9096' →			PC
EXCELLENT			1100			
QUALITY	11-4-96	30	873' → 100'			

Cement Plugs		Placing	Placing Witnessed		Top Witnessed			
Date	Sx./cf	MO & Depth	Time	Engr.	Depth	Wt/Sample	Date & Time	Engr.
10-31-96	145 cf	ctu @ 9836'	—	RPT'd	9096'	4K ctu wt	11-1-96 0630-0900	PC
	66 cf	ctu @ 1100	—	RPT'd	873'	ctu wt	11-4-96 1000-1200	PC
11-7-96	82 cf	CIRC	1200-1300	PC	SURFACE	RETURNS	11-7-96	PC

C/O TAG @ 9836 RPT 10-31-96 PC

OGD10 (11/93/GSR1/5M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

No. P296-215

PERMIT TO CONDUCT WELL OPERATIONS

500 (field code)
00 (area code)
-- (new pool code)
30 (old pool code)

WATERFLOOD

Bradford A. DeWitt, Agent
Medallion Calif. Properties
1100 Mohawk St. Suite 154
Bakersfield, CA 93309-7416

Ventura, California
September 30, 1996

Your _____ proposal to abandon well "Rancho San Francisco" 88, A.P.I. No. 037-13267, Section 25, T. 4N, R. 17W, S.B. B.&M., Newhall Potrero field, ---------- area, 5th pool, Los Angeles County, dated 9/17/96, received 9/24/96, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Blowout prevention equipment conforming to DOGGR Class II 2M requirements shall be installed and maintained in operating condition at all times.
2. Hole fluid of a quality and in sufficient quantity is used to control all subsurface conditions in order to prevent blowouts.
3. A diligent effort shall be made to clean out the well to at least 9,827'.
4. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of 72 lbs./cu. ft and a minimum gel-shear strength of 25 lbs./100 sq. ft.
5. This office shall be consulted before deviating from the proposed abandonment program.
6. Well site restoration is completed within 60 days following plugging and abandonment of the well.
7. THIS DIVISION SHALL BE NOTIFIED:
   a. To witness the location and hardness of the cement plugs at 9,105'.
   b. To witness the mudding of the well.
   c. To witness the location and hardness of the cement plug at 1,000'.
   d. To witness the placing of cement inside the 7" casing and all annuli.
   e. To inspect and approve the cleanup of the well site before approval of abandonment will be issued.

Blanket Bond
SAF:sf

Engineer Steven A. Fields

Phone (805) 654-4761

William F. Guerard, Jr.
State Oil and Gas Supervisor

By _____
Patrick J. Kinnear
Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

OG111 (Modified 1993)

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Notice of Intention to Abandon Well

File in Duplicate

FOR DIVISION USE ONLY			
CARDS	BOND	FORMS	
		OGD114	OGD121
✓		✓	✓

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon well "RANCHO SAN FRANCISCO" #88, API No. 03713267, Sec. 25 T. 4N, R. 17W, S.B. B. & M., NEWHALL-POTRERO Field, LOS ANGELES County, commencing work on SEPTEMBER 96, 1996.

The present condition of the well is:

1. Total depth 9998 FT

2. Complete casing record, including plugs and perforations (present hole) 13 3/8" CASING CMTD @ 358 FT. 7" CASING CMTD @ 9227 FT. PACKER AT 9130 FT

3. Last produced _____ (Date) (Oil, B/D) (Gas, Mcf/D) (Water, B/D)

(or)

4. Last injected PRE 1990 (Date) LAST INJECTION SURVEY 3-18-88 (Water, B/D) (Gas, Mcf/D) (Surface pressure)

Additional data for dry hole (show depths):

5. Oil or gas shows

6. Stratigraphic markers

RECEIVED
SEP 24 1996
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
VENTURA, CALIFORNIA

7. Formation and age at total depth

8. Base of freshwater sands _____

9. Is this a critical well according to the definition on the reverse side of this form? ☐ Yes ☒ No

The proposed work is as follows: SEE ATTACHED PROGRAM

5 1/2" LINER HUNG @ 9996 FT. TOL @ 9205 FT.
PERFORATED W/ 192 1/4" RHPF 9226 FT – 9495 FT, 9560 FT – 9736 FT & 9798 FT – 9934 FT.

It is understood that if changes in this plan become necessary, we are to notify you immediately.

Address 1100 MOHAWK ST (Street)
BAKERSFIELD (City) CA (State) 93309 (Zip)
Telephone Number (805) 635-0465 (Area Code) (Number)

MEDALLION CALIFORNIA PROPERTIES CO. (Name of Operator)
By CHARLES D. FIDDLER P.E. (Print Name)
(Signature) 9-17-96 (Date)

CRITICAL WELL

As defined in the California Administrative Code, Title 14, Section 1720 (a), "Critical well" means a well within:

(1) 300 feet of the following:
   (a) Any building intended for human occupancy that is not necessary to the operation of the well; or
   (b) Any airport runway.

(2) 100 feet of the following:
   (a) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
   (b) Any navigable body of water or watercourse perennially covered by water;
   (c) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
   (d) Any officially recognized wildlife preserve.

Exceptions or additions to this definition may be established by the supervisor upon his own judgement or upon written request of an operator. This written request shall contain justification for such an exception.

Proposed Abandonment Program
Rancho San Francisco Well #88
Newhall-Potrero Field, Los Angeles County

1. RU Coil Tubing Unit (CTU), install Class II BOPE, RIH and lay a Class "G" cement plug in 5 1/2" liner and 7" casing from 9,827 FT to 9,105 FT. Tag cement plug, DOGGR to witness location and hardness of plug. Fill 7" casing with 72# clay base mud from 9,105 FT to 1,100 FT.

2. RU perforators, RIH with cavity shot gear to 1,100 FT, make cavity shot. POOH with perforating gear. RIH with coil tubing clean out to bottom of cavity if necessary and set Class "G" cement plug from 1,100 FT to 1,000 FT. Tag top of plug. DOGGR to witness location and hardness of plug.

3. Fill 7" casing with 72# clay base mud from 1,000 FT to 100 FT.

4. RU perforators and shoot eight (8) 1/2" holes at 100 FT. RD perforators. RIH with coil tubing and circulate surface plug into 7" X 13 3/8" casing annulus and 7" casing. DOGGR to witness surface plugging. RD coil tubing unit.

5. Clear well location, cut off casing five feet below ground level and weld on required well identification marker. DOGGR to witness plug prior to welding ID plate. DOGGR to make final inspection of location after restoration.

CDF 9/17/96

RECEIVED
SEP 24 1996
DIVISION OF OIL, GAS, AND
GEOTHERMAL RESOURCES
VENTURA, CALIFORNIA

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

REPORT OF PROPERTY AND WELL TRANSFER

Field or county		District
Newhall-Potrero		2 Ventura
Former owner	**Operator code**	**Date**
DKM Offshore Energy, Inc.	D0230	10-1-94

Name and location of well(s)

All wells previously owned by DKM Energy, Inc.
in Sec. 25, 26, 27, 31, 35, 36, T. 4N, R. 17W SBB&M.

Except:
"Rancho San Francisco" 152 (037-12654)

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Operator code	Type of organization
10-1-94	Medallion California Properties Company	M4805	Corporation
	Address 1400 Easton Dr., #133 Bakersfield, CA. 93309		**Telephone No.** (805) 395-3029

Reported by
Medallion California Properties Company

Confirmed by
DKM Offshore Energy

New operator new status (status abbreviation)	Request designation of agent
PA	
Old operator new status (status abbreviation)	**Remarks**

Deputy Supervisor
Patrick J. Kinnear

Signature
Patrick J. Kinnear

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121	TKC		Map and book 252+253 PC		1-3099
Form OGD140			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files	TKC	
Electric logs	TKC		Computer Files		
Production reports	TKC				

OGD156 (5/98)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

REPORT OF PROPERTY AND WELL TRANSFER

Field or county: Newhall-Potrero		District: 2 Ventura
Former owner: Tidelands Oil Production Company	Operator code: T2975	Date: 11-1-92

Name and location of well(s)

All wells previously owned by Tidelands Oil Production Company, in Sec. 25, 26, 27, 31, 35, 36, T. 4N, R. 17W SBB&M.

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange: 11-1-92	New owner: DKM Offshore Energy, Inc.	Operator code: D0230	Type of organization: Corporation
	Address: 1100 Louisiana, Ste.4550 Houston, Texas 77002		Telephone No.: (713) 739-0312

Reported by: DKM Offshore Energy, Inc.

Confirmed by: Tidelands Oil Production Company

New operator new status (status abbreviation): PA	Request designation of agent
Old operator new status (status abbreviation)	Remarks

Deputy Supervisor: Patrick J. Kinnear

Signature: Patrick J. Kinnear PJK

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121	TKC		Map and book 252&253	PC	1-30-99
Form OGD140			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files	TKC	
Electric logs	TKC		Computer Files		
Production reports	TKC				

OGD156 (5/98)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
Newhall Potrero	2
Former owner	**Date**
Oryx Energy Company	May 15, 1991

Name and location of well(s)

Sec. 25, T. 4N., R. 17W., SBB&M

"Rancho San Francisco" 88 (037-13267)
"Rancho San Francisco" 91 (037-13270)

Sec. 35, T. 4N., R. 17W. SBB&M.

"Rancho San Francisco" 31 (037-12649)
"Rancho San Francisco" 33 (037-12847)
"Rancho San Francisco" 36 (037-12850)
"Rancho San Francisco" 38 (037-12852)
"Rancho San Francisco" 64 (037-12877)

Sec. 35, T. 4N., R. 17W., SBB&M

"Rancho San Francisco" 81 (037-13260)
"Rancho San Francisco" 89 (037-13268)
"Rancho San Francisco" 93 (037-13273)
"Rancho San Francisco" 94 (037-13274)
"Rancho San Francisco" 149(037-12651)
"Rancho San Francisco" 151(037-12653)
"Rancho San Francisco" 153(037-12655)

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Type of organization
1-1-91	Tidelands Oil Production Co. Address 925 Harbor Plaza Long Beach, CA 90801	Co. Telephone No. 213-436-9918

Reported by
Oryx Energy Company

Confirmed by
Tidelands Oil Production Co.

New operator new status (status abbreviation)	Request designation of agent
PA	
Old operator new status (status abbreviation)	**Remarks**
PA	

Deputy Supervisor
Patrick J. Kinnear

Signature
Patrick J. Kinnear

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form ODG148			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs					
Production reports					

OGD156 (6/90/GSR1/2M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
Newhall-Potrero	2
Former owner	**Date**
Sun Exploration and Production Co.	Aug. 7, 1989

Name and location of well(s)

Sec. 31, T. 4N., R. 16W., (ALL WELLS)

Secs. 21, 22, 25, 26, 27, 28, 35, 36, T. 4N., R. 17W. (ALL WELLS)

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner / Address	Type of organization / Telephone No.
5-3-89	Oryx Energy Co. P.O. Box 55060 Valencia, CA 91355	Co. 805-257-6200

Reported by
Sun Exploration & Production Co.

Confirmed by
Oryx Energy Co.

New operator new status (status abbreviation)	Request designation of agent
PA	
Old operator new status (status abbreviation)	**Remarks**
PA	(NAME CHANGE ONLY)

Deputy Supervisor	Signature
Patrick J. Kinnear	Patrick J. Kinnear

OPERATOR STATUS ABBREVIATIONS

- PA – Producing Active
- NPA – No Potential, Active
- PI – Potential Inactive
- NPI – No Potential, Inactive
- Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form ODG148			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs					
Production reports					

OGD156 (12-77-GSR1-2M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
NEWHALL-POTRERO	2
Former owner	**Date**
Sun Oil Company	Mar. 31, 1983

Name and location of well(s)

Sections 21, 22, 25, 26, 27, 28, 35, 36, T4N. R. 17W.

ALL WELLS

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner / Address	Type of organization / Telephone No.
1/1/82	Sun Exploration & Production Co. P.O. Box 55060 Valencia, Ca. 91355	Company (805) 257-6200

Reported by: Sun Oil Company

Confirmed by: Sun Exploration & Production Co.

New operator new status (status abbreviation)	Request designation of agent
PA	on file
Old operator new status (status abbreviation)	**Remarks**
Ab	NAME CHANGE ONLY

Deputy Supervisor	Signature
Murray W. Dosch	Murray W. Dosch

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form ODG148			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs					
Production reports					

OPERATOR Sun Oil
LSE & NO RSF 88
MAP 253

	( )	( )	( )	( )	( )	( )
INTENTION	Conv to WF.					
NOTICE DATED	9-12-80					
P-REPORT NUMBER	220-325					
CHECKED BY/DATE	FT 10-13-81					
MAP LETTER DATED	10-17-81					
SYMBOL	↗		*			

	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED
NOTICE	9-15-80											
HISTORY	6-5-81											
SUMMARY	—											
IES/ELECTRIC LOG	—											
DIRECTIONAL SURV	—											
CORE/SWS DESCRIP	—											
OTHER Inj Survey Slip note	6-30-82											
RECORDS COMPLETE												

ENGINEERING CHECK

T-REPORTS _____
OPERATOR'S NAME _____
WELL DESIGNATION _____
LOC & ELEV _____
SIGNATURE _____
SURFACE INSPECTION _____
FINAL LETTER OK _____

CLERICAL CHECK

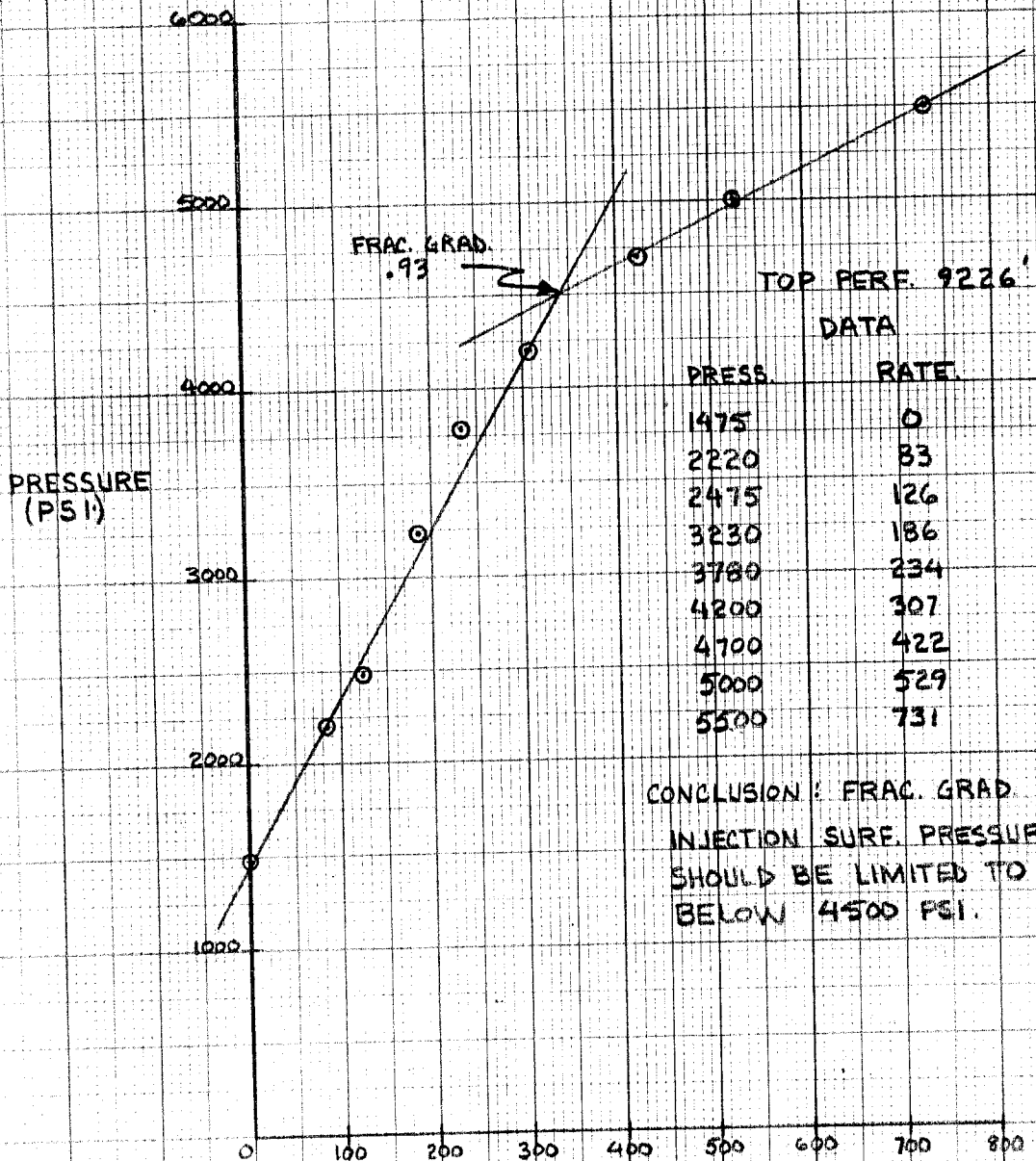
POSTED TO 121 _____ 170 MAILED _____ FINAL LETTER MAILED _____

RELEASED BOND _____

REMARKS: _____

STEP RATE TEST

SUN EXPLORATION AND PRODUCTION COMPANY
NEWHALL-POTRERO
"RSF" 88
6-30-82



DATA

PRESS.	RATE.	GR.
1475	0	.60
2220	83	.68
2475	126	.71
3230	186	.79
3780	234	.85
4200	307	.90
4700	422	.95
5000	529	.98
5500	731	1.04

CONCLUSION : FRAC. GRAD .93
INJECTION SURF. PRESSURE SHOULD BE LIMITED TO BELOW 4500 PSI.

TEST WITNESS BY : ROB HABEL D.O.G
DANTE CARAVAGGIO
SUN EXPLORATION

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
JUN 5 1981
SANTA PAULA, CALIFORNIA

History of Oil or Gas Well

Operator SUN OIL COMPANY Field or County Newhall-Potrero
Well Rancho San Francisco #88-5, Sec. 26, T 4N, R 17W, SB B. & M.
A.P.I. No. 037-13264 Name L. B. Carroll, Jr. (Person submitting report) Title Agent (President, Secretary or Agent)
Date 6/3/81, 19

Signature L B Carroll Jr.

Box 55060, Valencia, California 91355 (Address) (805) 257-6200 (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date	
1980	
11/12	TD 9998/PBTD/13-9/8" 54.5# J-55 CSG @ 358 CMTD w 275 SX 7" 23# 26# 29# J-55 & N080 CSG TO 9227, CMTD w 600 SX/4 - 3/4" WSO HOLES @ 9210/5½" 17# J-55 HYD F.J. LNR, 9205-9996, PERFD w 192 - ¼" RD HOLES/FT, 9226-9495, 9560-9736, 9798-9934/THIS WELL IS AN IDLE 5th ZONE PRODUCER/IT IS RECOMMENDED TO CONVERT THE WELL TO A WTR INJECTN WELL IN THE 5th ZONE AS PART OF THE 5th ZONE WTR FLOOD INITIATION/ CPS MIRU/SHUT DN TILL AM/
11/13	BLED WELL DN/REMOV PROD TREE/INSTLD BOE/PULLED SEAL ASSY NIP OUT OF BKR MOD "D" PKR @ 9133/RU CIRC PMP, PMPD DN TBG, FILLED HOLE w 120 BBLS LSE WTR/POH w 2-7/8" TBG & GAS LIFT MANRELS, MEASNG OUT OF HOLE/ SHUT JOB DN FOR RIG REPAIR/
11/14	BLED WELL DN/CONTD PULLNG & MEASNG 2-7/8" TBG OUT OF HOLE/MU BKR LATCH TYPE MOD "E" SEAL ASSY ON 2-7/8" TBG, HYDROTESTNG IN HOLE @ 5000 PSI/SIFN/
11/15	BLED WELL DN/PMPD 300 BBLS CLN LSE PROD WTR w 15 GAL K-700 & 15 GALS XC-370 (MXD) DN ANNULUS AS PKR FLUID/SEATD BKR MOD "E" SEAL ASSY IN BKR MOD "D" PKR @ 9133 w 1500# COMPRESSION ON PKR/LANDED TBG/ PRESSURE TESTD CSG TO 500 PSI OK/REMOVD BOE/INSTLD XMAS TREE/RDMO/ DROP FRM REPORT WAITINGON COMPLETION OF WTR INJECTN LINE TO WELL/
1981	
3/23	3-12 thru 3-19-81/7 DAY AVG/266 B/D @ 2750#/CSG 0#/FINAL REPORT/

FORM OGD 141

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P 280-328

REPORT ON PROPOSED OPERATIONS

500 (dist code)
00 (area code)
30 (pool code)

WATER FLOOD

Mr. L. B. Carroll, Agent
Sun Oil Company
23928 Lyons Avenue
Newhall, CA 91321

Santa Paula, California
Sept. 25, 1980

Your proposal to convert to waterflood well "Rancho San Francisco" 88, A.P.I. No. 037-13267, Section 25, T. 4N, R. 17W, S.B. B. & M., Newhall-Potrero field, any area, 5th pool, Los Angeles County, dated 9/12/80, received 9/15/80 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Hole fluid of sufficient quality and quantity shall be maintained in the hole to control any subsurface condition, and a reserve supply shall be on hand for emergencies.
2. Blowout prevention equipment of at least DOG Class II 2M, with a hydraulic actuating system, shall be installed and maintained in operating condition at all times.
3. The provision s as set forth in Section 1724.10 of the Division's onshore well regulations shall apply to this waterflood project.
4. A step rate test shall be run to insure that the proposed injection pressure will not frac the zone.
5. The base of fresh water is at 1100'.
6. The fresh water is protected by 13 3/8" casing cemented at 358' and 7" casing cemented at 9227' with sufficient cement to fill behind the casing to the surface and 7427' respectively.
7. Water to be injected tests about 25,875 TDS and is produced from neighboring oil wells and mixed with fresh water.
8. The injection zone from 9,226' to 9,934' contains a mixture of oil and water. The water tests about 18,500 TDS.
9. Approximate surface location of well: Fr Cor "J" 5493'S and 11025'E.
10. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:
    a. A step rate test. ok
    b. A survey to demonstrate that injected fluid is confined below 9,226'. waived NEA

Blanket Bond
MD:b
cc: Dept. of Water Resources
Regional Water Quality Control Bd.

M. G. MEFFERD, State Oil and Gas Supervisor

By John L. Hardoin, Deputy Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS RECEIVED
SEP 15 1980
SANTA PAULA, CALIFORNIA

DIVISION OF OIL AND GAS

Notice of Intention to Rework Well

This notice and indemnity or cash bond shall be filed, and approval given, before rework begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered canceled.

FOR DIVISION USE ONLY		
BOND	OGD114	OGD121
SB	✓	✓

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well No. RANCHO SAN FRANCISCO 88, API No. 037-13267,

Sec. 25, T. 4N, R. 17W, S.B. B. & M., NEWHALL POTRERO Field, LOS ANGELES County.

The present condition of the well is as follows:

1. Total depth.

9998'

2. Complete casing record, including plugs and perforations:

13 3/8" 54.5# & 68#, J-55 Smls. csg. cmt'd @ 358' w/275 sc. cmt.

7" 23#, 26# & 29#, J-55 & N-80 X-line csg. w/shoe @ 9227' cmt'd w/600 sx. 4 3/8" holes @ 9210' - WSO Baker Model "D" Ret. Prod. Pkr. @ 9130'.

5 1/2" 17#, J-55 Smsl. csg. as production liner w/open shoe @ 9996' and Burns plain hanger @ 9205'. Liner perf'd w/192-1/4" RHPF 9226-9495', 9560-9736', & 9798-9934'. 17 1/4" hole to 358'. 11" hole to 9378'. 6" hole to 9397'. 5 7/8" hole to 9998'.

3. Present producing zone name FIFTH Zone in which well is to be recompleted SAME

4. Present zone pressure 1700 New zone pressure SAME

5. Last produced	6-79 (Date)	3 (Oil, B/D)	0 (Water, B/D)	131 (Gas, Mcf/D)
or				
6. Last injected	N.A. (Date)	(Water, B/D)	(Gas, Mcf)	(Surface pressure, psig.)

The proposed work is as follows:

1. NO CHANGE TO CASING, CONVERT TO WIW.
2. HOOK UP WELLHEAD FOR INJECTION.
3. COMMENCE INJECTION OPERATIONS, ZONE IS ISOLATED ALREADY BY PACKER.
4. NOTIFY DOG & RUN INJECTION SURVEY.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address 23928 LYONS AVE. (Street)
NEWHALL, CALIFORNIA 91321 (City) (State) (Zip)
Telephone Number (805) 259-2440

SUN OIL COMPANY (DELAWARE) (Name of Operator)
By L. B. Carroll (by MGM) (Name L.B. CARROLL, JR.) 9/12/80 (Date)
Type of Organization CORPORATION (Corporation, Partnership, Individual, etc.)

(1-78-GSRI-15M)

Change of designation May 18, 1977 to "Rancho San Francisco" 88

WORK PERFORMED:

Drill ___ Redrill ___ Deepen ___

Plug ___ Alter casing ___

Water flood ___ Water disposal ___

Abandon ___

Other gas injection

STATUS: (Date)

Producing ✓

Recomp. prod. ___

Water flood ___

Water disposal ___

Abandoned ___

Other gas inj 11-26-70

MAP AND BOOK Pg 150 1-6-70 CDK

RECORDS FILED & DATE: Clerk

RECORDS & REQUIREMENTS CHECKED: Eng. ADG

✓ Summary (dup.)	1/4/71	✓
Log & Core (dup.)		
✓ History (dup.)	1/4/71	✓
E-log		
Radio log		
D. Survey		
Other		

(Check records for signature and correct name of operator or well, S. T. R. and field.)

Location ✓ Notice states ___

Elevation ✓ Notice states ___

Production Reports ___

(If production reports not received, make notation and inform Sr. Steno. when rec'd)

If stimulation or disposal well:
Form 121 ___ Folder ___

Surface inspection ___

Data needed None Clerk:

Request records ___ F 170 ___

Correct records ___ F 165 ___
(Specify) 105A ___

CARDS ___

BOND: ___

Hold ___ Reason ___

Release ___ Date Elig. ___ F 150b ___

End Premium year ___
Release requested ___ (Check)
Bond superseded ___ (one)
Well abandoned ___

FINAL LETTER ___ F 159 ___
and
FILE CLEARED ___ F 121 ___

Form 19-A

SUN OIL COMPANY

SOUTH CENTRAL REGION - NEWHALL DISTRICT

WELL SUMMARY REPORT

Field Newhall-Potrero

*Well No. Rancho San Francisco #88-5, Sec. 25, T. 4N, R. 17W, S.B. B. & M.

Location 5492.76'S & 11025.11'E from Corner "J"

Elevation of K.B. above sea level 1309.29'. K.B. above Concrete Mat / Ground 13.0'.

Date December 31, 1970

Signed J. R. Hinkle, District Engineer

Contractor California Production Service

Type Rig Pulling Unit

Commenced workover : 8-24-70 (Date)

Completed workover : 8-28-70 (Date)

WELL CONDITIONS PRIOR TO WORK

Total Depth 9998' Plugged Depth -

13 3/8" 54.5# & 68#, J-55, Smls. csg. cmt'd @ 358' w/275 sx. cmt.

7" 23#, 26#, & 29#, J-55 & N-80 X-line csg. w/shoe @ 9227' cmt'd w/600 sx.
4 - 3/8" holes @ 9210'-W.S.O.

5 1/2" 17#, J-55 Smls. csg. as production liner w/open shoe @ 9996' and Burns plain hanger @ 9205'. Liner perf'd w/192 - 1/4" RHPF 9226'-9495', 9560'-9736', & 9798'-9934'.

17 1/4" hole to 358'.
11" hole to 9378'.
6" hole to 9397'.
5 7/8" hole to 9998'.

WELL CONDITIONS AFTER WORK

Total Depth 9998' Plugged Depth -

13 3/8" 54.5# & 68#, J-55 Smls. csg. cmt'd @ 358' w/275 sc. cmt.

7" 23#, 26# & 29#, J-55 & N-80 X-line csg. w/shoe @ 9227' cmt'd w/600 sx.
4 - 3/8" holes @ 9210' - WSO
Baker Model "D" Ret. Prod. Pkr. @ 9130'

5 1/2" 17#, J-55 Smsl. csg. as production liner w/open shoe @ 9996' and Burns plain hanger @ 9205'. Liner perf'd w/192 - 1/4" RHPF 9226-9495' 9560-9736' & 9798-9934'.
17 1/4" hole to 358'.
11" hole to 9378'.
6" hole to 9397'.
5 7/8" hole to 9998'.

DIVISION OF OIL AND GAS
RECEIVED
JAN 5 1971
INGLEWOOD, CALIFORNIA

Commenced Producing 11/26/70 (Date) ~~Flowing/gas lift/pumping~~ Injecting

	Clean Oil Bbls. per day	Gravity Clean Oil	Per Cent Water Incl. Emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial ~~production~~ injection	-	-	-	1385	2875	-
Production after 28 days	-	-	-	1287	2900	-

Electrical Log Depths IES 9994' (Attach copy of Log)

WELL SUMMARY REPORT

FORM 103 SUBMIT IN DUPLICATE Δ OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR SUN OIL COMPANY FIELD NEWHALL-POTRERO

Well No. RANCHO SAN FRANCISCO 88-5 Sec. 25, T. 4N, R. 17W, S.B. B. & M.

Date December 31, 1970 Signed J. R. Hinkle, District Engineer

23928 Lyons Ave.
Newhall, Calif. 91321 (805) 259-2440 Title Agent
(Address) (Telephone Number) (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

Date	
1970	ALL MEASUREMENTS TAKEN FROM ORIGINAL K.B. WHICH IS 13.0' ABOVE CONCRETE MAT.
8-24	Moved in and rigged up pulling unit. Moved in Baker portable tank and circulating pump and filled tank w/lease crude. Killed well w/ lease crude and installed and tested B.O.E. Shut down job for night at 10:00 pm.
8-25	Resumed operations at 8:00 am. Pulled and measured tubing, servicing tubing collars with Baker-Seal. Made up and ran 7" 29# positive scraper. Scraper stopped at 2253' in tight spot. Pulled scraper and shut down job at 5:00 am, 8-26-70.
8-26	Resumed operations at 12:30 pm. Ran 5 23/32" ring gauge through bad spot at 2253'. Ran ring gauge to 9140' OK. Pulled ring gauge and ran 7", 29# Baker Rotovert casing scraper to top of liner at 9205'. Pulled scraper. Removed, cleaned and replaced remainder of 2 7/8" tubing collars using Baker-Seal thread lubricant. Preparing to run Baker Model "D" Retainer Production Packer at 8:00 am.
8-27	Using Dresser Atlas, ran Baker Model "D" Retainer Production Packer and set at 9130'. Ran 7", 26# Baker Model "C" Retrieveable Bridge Plug and set at 50'. Removed B.O.E. and Baash Ross Type "X" packoff assembly. Installed O.C.T. tubing spool with special packoff bushing and Hanson tested to 5000 psi. Installed B.O.E. and pulled Model "C" Retrieveable Bridge Plug. Ran redesigned tubing string and Hydrotested to 6000 psi. Shut down job at 1:30 am, 8-28-70. Will space out and land tubing in morning.
8-28	Finished running and Hydrotesting redesigned tubing at 6000 psi (Bottom 9818.57'). Spaced out, removed B.O.E., and landed tubing with 10,000 lbs. tension at packer. Installed OCT X-mas tree, and tested to 6000 psi. OK. Released rig at 4:00 pm, 8-28-70.
11-25	Using hot oil truck mixed and pumped 100 bbls. of DiChem High Aromatic Solvent blended with 715 gals. of DiChem Solvent "A" down tubing. Pressure increased during job from 220 psi to 3100 psi while pumping at 72 bbl/hr. Injected a total of 117 bbls. Wellhead pressure fell to zero rapidly on termination of job.

DIVISION OF OIL AND GAS
RECEIVED
JAN 5 1971
INGLEWOOD, CALIFORNIA

FORM 111

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS No. P 170-651

GAS INJECTION

Mr. B. L. Johnson, Agent
SUN OIL COMPANY
23928 Lyons Avenue
Newhall, California 91321

Inglewood, Calif.
July 24, 1970

DEAR SIR:

Your alter casing & convert (037-13267) proposal to to gas injection Well No. "Rancho San Francisco" 88-5 Section 25, T. 4 N., R. 17 W., S.B. B. & M., Newhall-Potrero Field, Los Angeles County, dated 7/21/70, received 7/22/70, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Adequate blowout prevention equipment shall be installed and maintained during all stages of work operations.
2. A monthly statement shall be filed with this Division on our Form 110-B showing the amount of gas injected and pressure required.
3. Injection shall cease if any evidence of damage or failure of water shut-off is observed, or upon written notice from this Division.
4. Sufficient records shall be kept to establish that no damage is occurring because of excessive injection pressure. Such records shall be open to inspection by personnel of this Division.

NOTE: Approx. Surface Location of Well: 5493' S., 11025' E. fr. corner "J".

ADS:nw

cc Company

Blanket Bond

W/S

F. E. KASLINE, State Oil and Gas Supervisor

By M B Alborighat II, Deputy

1 ① △ OSP

FORM 107

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS
RECEIVED
JUL 22 1970
INGLEWOOD, CALIFORNIA

DIVISION OF OIL AND GAS

Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

This notice must be given before work begins; one copy only

Newhall Calif. July 21, 19 70

DIVISION OF OIL AND GAS

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of ~~deepening, redrilling, plugging or~~ altering casing at Well No. "Rancho San Francisco" #88-5
(Cross out unnecessary words)

_____, Sec. 25, T. 4N, R. 17W, S.B. B. & M.

Newhall-Potrero Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth.
   9998' TD

2. Complete casing record, including plugs:
   13 3/8" 54.5# & 68#, J-55 Smls. csg. cmt'd @ 358' w/275 sx. cmt.
   7" 23#, 26#, & 29#, J-55 & N-80 Extr. line csg. w/shoe @ 9227' cmt'd w/600 sx.
   4 - 3/8" Holes @ 9210'-W.S.O.
   5 1/2" 17#, J-55, Smls. csg. as production liner w/open shoe @ 9996' and Burns plain hanger @ 9205'. Liner perf'd w/ 192 - 1/4" RHPF, 9226'-9495', 9560'-9736', 9798'-9934'.
   17 1/4" Hole to 358'.
   11" Hole to 9378'.
   6" Hole to 9397'.
   5 7/8" Hole to 9998' TD.

3. Last produced. June, 1970 (Date) | 12 (Oil, B/D) | 0 (Water, B/D) | 158 (Gas Mcf/D)

The proposed work is as follows:

1. MIRU pulling unit and kill well w/lease crude.
2. Pull tubing and make scraper run to 9205'.
3. Set Baker Model "D" Retainer Production Packer @ 9130'.
4. Change out X-mas tree, run injection tubing string and latch into Model "D".
5. Chemically treat well with 13-55 gal. drums of Di-Chem Solvent "A" premixed with 100 bbls. of Di-Chem High Aromatic Solvent.
6. Place well on injection at 1500 MCF/D rate. & Conv. to Gas Inj.

Alter casing

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121

23928 Lyons Avenue
Newhall, (Address) Calif. 91321
(805) 259-2440
(Telephone No.)

SUN OIL COMPANY
(Name of Operator)

By J.R. Hinkle by [illegible]
J. R. Hinkle, District Engineer

ADDRESS ONE COPY OF NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

61988-705 10-66 15M QSP

AM 100.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT LOG IN DUPLICATE

FIL[illegible]K IN WITH TYPEWRITER. WRITE ON ONE SIDE OF

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL & GAS
RECEIVED
JUL 5 1950
LOS ANGELES

WELL SUMMARY REPORT

Operator BARNSDALL OIL COMPANY Field NEWHALL-POTRERO

Well No. Rancho San Francisco 88-5 Sec. 25 "J", T. 4 N., R. 17 W., S. B. B. & M.

Location 5492.76' S. & 11025.11' E. from Cor. Elevation of ~~ground~~ kelly bushing above sea level 1309.29 feet.

In compliance with the provisions of Chapter 93, Statutes of 1939, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date June 30, 1950 Signed R. E. Foss

H. M. Stanley (Engineer or Geologist) T. J. Prehoda (Superintendent) Title R. E. Foss Agent (President, Secretary or Agent)

Commenced drilling 3-1-50 Completed drilling 5-18-50 Drilling tools Rotary

Total depth 9998' Plugged depth —

Junk None

GEOLOGICAL MARKERS	DEPTH

Commenced producing 5-18-50 (date) Flowing/~~gas lift~~/~~pumping~~ (cross out unnecessary words)

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production	273	27.8°	0.1	150	180	730
Production after 30 days	169	27.8°	0.1	79	150	520

Casing Record (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing landed in	Number of Sacks of Cement	Depth of Cementing if through perforations
13 3/8"	358'	Surface	54½ & 68	New	Smls.	J-55	11 & 17½"	275	
7"	9227'	Surface	23,26&29#	New	Smls.	J55 & N80	11"	600	1mc
5-1/2"	9996'	9205'	17#	New	Smls.	J-55	11,6 & 5 7/8"	Hung	Fill 1mc

Perforations

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
5-1/2"	9934 ft.	9798 ft.	1/4" round (192/ft.)	16	1"	Shop
	9736 ft.	9560 ft.				
	9495 ft.	9226 ft.				
	ft.	ft.				
	ft.	ft.				

Electrical Log Depths 5209', 9378', 9998' (Attach Copy of Log)

HMS-JSH

FORM 103. 62984 9-46 47,500
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL & GAS
RECEIVED
JUL 5 1950
LOS ANGELES

History of Oil or Gas Well

OPERATOR BARNSDALL OIL COMPANY FIELD NEWHALL-FOTRERO

Well No. Rancho San Francisco 88-5, Sec. 25, T. 4 N., R. 17 W. S.B. B. & M.

Signed R. E. Foss
R. E. FOSS

Date June 30, 1950

Title Agent
(President, Secretary or Agent)

Use this form in reporting all important operations at the well, together with the dates thereof, in the order of their performance. Such operations include drilling, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, or deepened; size, weight and length of casing landed, cemented, or removed, amount and location of perforations; number of sacks of cement used in cementing or plugging operations, number of feet of cement drilled out of casing, location of top and bottom of cement plugs. If the well was dynamited, give date, dimensions and weight of all shots. If tests were made give interval tested and results of tests, such as, amount and nature of fluids recovered.

1950
3-1 Depth 450'. Spudded in with 11" bit.
Opened 11" hole to 17½" to a depth of 358'.
Cemented 13 3/8" 54.5# & 68# T&C & S.J. J-55 csg. @ 358' w/275 sx. of construction cement containing 2% gel. Had cement returns to surface.

3-2 Depth 594'. Drilled out cement from 333' to 364' w/11" bit. Drilled ahead.

3-21 Depth 5209'. First Run of Schlumberger Electric Log to 5209'.

4-24 Depth 9378'. Second Run of Schlumberger Electric Log to 9378'.
Cemented 7" 23, 26 & 29# N-80 & J-55 Extreme Line casing with shoe at 9227' using 600 sx. cmt. (100 sx. @ 95# and 500 sx. @ 116#). Displ. w/2030 C.F. of mud. Used 2 rubber plugs. Plugs did not bump. Max. displacing press. 400#, final press. 0#

4-28 Depth 9215'. Drill out cement from 9054' to 9215' w/6" bit.
Shot 4 - 3/8" holes @ 9210' w/McCullough gun.
Ran Johnston Tester on 3½" d.p. using 1000' of mud cushion. Set packer @ 9186' w/tailpc. to 9202'. Opened @ 6:05 P.M. for one hour. Light blow 1 min., very light blow for 3 min., dead 56 min. Recovered 25' of mud. BHP chart showed tester open thruout test. Test witnessed and W.S.O. approved by Mr. Foster of the D. O. & G.

4-29 Depth 9379'. Drilled out cement from 9215' to 9227'.
Changed over to oil-base mud.

4-30 Depth 9397'. Reduced hole size to 5 7/8" at 9397'. Cored ahead.

5-16 Depth 9998'. Third Run Schlumberger Electric Log to 9998'.
Hung 5½" 17# F.J. perf. and blank liner w/Texas-Calif. type open shoe @ 9996'. Burns plain type hanger set @ 9205'.

5-17 Ran production tubing.

5-18 Changed over from oil-base mud to wash-oil, and completed well.

HMS-JSH

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

"Rush to San Francisco"

COUNTY Los Angeles FIELD OR DIST. Newhall-Potrero COMPANY BARNSDALL OIL COMPANY WELL (R.S.F.) 88-5

DIVISION OF OIL AND GAS
RECEIVED
JUN 13 1950
LOS ANGELES, CALIFORNIA

LOCATION 5492.76' S & 11,025.11' E from Corner "J" SECT. 25 T. 4N R. 17W ELEV. 1309.29KB

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1950 5/1	Mercury	5-7/8	9397	9427	30'	100					Conglomeratic oil sand, light amber to brown, fine to very coarse, common pebbles and cobbles to 4", micaceous, silty in upper 2'. Local calcite cemented streaks. Massive, firm, friable to locally crumbly. Hard, difficultly friable where calcite cemented. Good petroleum odor, even light brown stain. No cut taken. Locally tight. Permeability varies but generally fair.	F
5/2	"	"	9427	9455	28'	100				28'	Conglomeratic oil sand, similar to last above with cobbles and pebbles more prominent. 2' sandstone shell 4' from top of core. Generally tight.	F
5/2	"	"	9455	9485	30'	100				30'	Conglomeratic oil sand, as last above, but with no sandstone shell. Sand intervals are generally more permeable. Good petroleum odor, even brown stain, no cut taken.	F
5/3	"	"	9485	9504	19'	100				19'	Conglomeratic oil sand, similar to last above, but predominately sand. Fine to medium grained, micaceous, scattered coarse grains and grits, common pebbles up to 1/2". Firm, friable, massive. Good permeability, even light brown stain, good petroleum odor.	F
	"	"	9504	9526	22'	100				1/2'	Conglomerate oil sand, as last above, generally tight.	
							1/2'	x			Sandy silt, light gray to lead gray, finely sandy, micaceous, silty. Firm, friable, massive, locally brittle, calcite cemented along fractures, slickensides?	
										2'	Oil sand, light gray, brown, fine to medium grained, well sorted, irregular silt streaks. Firm, friable, massive. Even brown stain, good petroleum	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc, Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY FIELD OR DIST. COMPANY WELL R.S.F. 88-5

LOCATION -2- SECT. 25 T. 42 R. 7W ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
											odor, fair permeability.	
							19'	x		x	Interbedded sandy silt, silty oil sand, and silt-	
											stone, siltstone and sandy silt, similar to last	
											above, locally gray brown in color.	
											Oil sand as above in laminae from 1/2" to 1".	
											Locally gray, hard, calcite cemented, impermeable	
											but oil sand generally fair permeability. Firm,	
											friable, well bedded, dip 42°.(Good.) No fossils	
											noted. Light amber stain, good petroleum odor.	
5/6	Mercury	5-7/8"	9526	9556	30'	100%	30'	x	x	x	Interbedded finely sandy, siltstone, gray sand,	F
											sandstone shells, oil sand, similar to last above,	
											fine to medium grained sand generally, but bottom	
											3' common grits. Sandstone shells noted 3', 4',	
											12', 18', 21' from top of core. Even amber stains	
											locally, good petroleum odor, locally burnt, no cut t	
											taken. Dip 39-42°(good). Locally polished along	
											fractures.	
5/6	"	"	9556	9586	30'	100%	30'	x	x	x	Interbedded sandy siltstone, gray sand, fine tight	
											oil sand and coarse to pebbly oil sand, light gray	
											to gray brown, locally dull gray where silty. Sand	
											fine to coarse, poorly sorted, silty, micaceous.	
											Firm, friable, massive, local poker chip partings.	
											Light brown stain, good petroleum odor, no cut	
											taken, conglomerate oil sand, fine to coarse matrix,	
											with pebbles & grits to 1" of granitic material	
											and shale. Hard, difficultly friable, generally	
											massive, generally calcite cemented. Light brown	
											stain, petroleum odor, fair to poor permeability	
											generally tight. Siltstone, finely sandy,silty,	
											micaceous. Firm, friable, vaguely bedded, dip 38°.(Fair).	
5/6	"	"	9586	9616	30	100%	x	x	x	30'	Interbedded oil sand, conglomerate oil sand, sand-	F
											stone shells, and sandy silt, as last above.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc, Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY FIELD OR DIST. COMPANY WELL R.S.F. 88-5

LOCATION -3- SECT. 25 T. 47 R. 17W ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
											Generally calcite cemented, low permeability, tight.	
5/7	Mercury	5-7/8	9616	9646	30'	100			x	30'	Interbedded oil sand and conglomerate oil sand, light brown, fine to coarse grained matrix with cobbles and pebbles to 2"+. Irregular patches and streaks of light gray silt. Generally massive, but with questionable 42° dip, firm, friable to difficultly friable. Two 1' sandstone shells noted at 9633 and 9636'. Generally fair to good permeability, light amber stain, good petroleum odor. No cut taken.	F
5/8	"	"	9646	9676	30'	100				30'	Conglomerate oil sand, light gray to gray brown, fine to coarse matrix, silty locally, pebbles and cobbles to 2", poorly sorted. Massive, firm, difficultly friable, generally locally calcite cemented. One 6" sandstone shell 9658'. Generally poor permeability, locally good, light amber stain, good petroleum odor, no cut taken.	F
5/9	"	"	9676	9706	30	100				30'	Interbedded oil sand and conglomerate oil sand, light gray to gray brown, fine to coarse grained, silty, with pebbles and cobbles of 2"+. Massive, difficultly friable, firm, locally hard, locally calcite cemented. Permeability varies, top 6' good, generally fair permeability, two 1' sandstone at 9681', 9702'. Irregular patches of silt at 9706'.	F
5/9	"	"	9706	9736	30	100		x	2'		Interbedded conglomerate sand and siltstone. Siltstone, light gray, silty, finely sand, micaceous. Vaguely bedded, firm, friable, common carbonaceous material. Conglomerate sand similar to oil sand, last above but hard calcite cemented, with pebbles up to 2". Impermeable.	F

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

Ranch San Francisco

COUNTY | FIELD OR DIST. | COMPANY | WELL (R.S.F.) 88-5

LOCATION | SECT. 25 T. 4N R. 17W ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1950										28'	Interbedded oil sand and conglomerate oil sand, light brown, similar to last above, but with granitic and silt pebbles and cobbles up to 4". 1' siltstone streak at 9713', two 1' sandstone shell at 9724, 9731'. Light even amber stain, good petroleum odor, generally good permeability. Dip 39°(poor).	F
/10	Mercury	5-7/8	9736	9766	30'	100				14'	Conglomerate oil sand, light gray brown, fine to coarse grained matrix, pebbles and cobbles to 1½", locally calcite cemented, silty, with 1" silt, with 1' siltstone streak at 9746'. Massive, firm, friable, questionable. 41° dip. Common carbonaceous material. Tight, low permeability, amber, stain, good petroleum odor, no cut taken.	
							x			15'	Interbedded silty oil sand and siltstone, light gray brown to dull gray, micaceous, fine to medium grained. Firm, friable, massive, with common poker chip partings, except where predominately silty, where hard, fairly well bedded, dip 39° to 41°, difficultly friable. Light amber stain, tight, petroleum odor, locally burnt, no cut taken. Slickensides and gouge noted at 9756'. Bottom 2' hard, calcite cemented, very low permeability.	
									1'		Conglomerate sandstone shell, gray, fine to medium grained matrix with pebbles and cobbles to 2", micaceous. Hard, difficultly friable, massive, calcite cemented. No odor, stain or cut.	
5/11	"	"	9766	9796	30'	100				30	Conglomerate oil sand, light gray to gray brown, fine to coarse grained matrix with pebbles and cobbles to 2"+ of granitic material and siltstone. Hard difficultly friable, massive, irregular streaks (questionable bedding) of siltstone. Fractured and	F

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY | FIELD OR DIST. | COMPANY | WELL R.S.F. 88-5

LOCATION | -5- | SECT. 25 T. 4N R. 17W ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1950											and local slickensides?, calcite cemented generally. Very light oil stain, low permeability, good petroleum odor, no cut taken.	
5/11	Mercury	5-7/8	9796	9818	20	91				14'	Oil sand, light gray to gray, brown, fine to very coarse, pebbles and cobbles to 2" scattered locally. Sandy silt streaks 5' from top of core. Crumbly, easily friable, generally massive, siltstone streak, well bedded, dip 36°. Good permeability, spotty oil stain, petroleum odor, no cut taken. Highly fractured and slickensided locally.	F
										6'	Conglomerate oil sand, light gray, with locally gray brown cast, fine to coarse matrix with pebbles to 2". Hard, massive, calcite cemented, highly fractured, fair permeability, slickensides locally, gouge 1', 4', 6' from top of interval. Light petroleum odor, spotty oil stain.	
5/12	"	"	9818	9848	30'	100				30'	Conglomerate oil sand and silt streaks similar to last above.	
5/13	"	"	9848	9878	30'	100				30	Conglomerate oil sand and silt streaks similar to last above.	
5/14	"	"	9878	9908	30'	100				21'	Conglomerate oil sand as above, sandstone shells at 9886, 9894, 9900'.	
							9'	x		x	Siltstone and interbedded sand, gray to gray brown, silty, micaceous, with irregular streaks & patches of fine to coarse sand. Common fish remains, carbonaceous material. Hard, somewhat brittle, irregularly bedded, dip? Locally oil stains in coarse sand, generally barren.	
5/15	"	"	9908	9938	30'	100				16'	Oil sand, gray brown, fine to very coarse, poorly	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY | FIELD OR DIST. | COMPANY -6- | WELL Barnsdall Foraker 82-5

LOCATION | SECT. 25 T. 42 R. 17W ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
											sorted, silty, with irregular silt streaks at 7', 9' and 12' from top of core. Firm, friable, massive to fair bedding where silty, dip 42°(Fair). Spotty light to medium brown, good petroleum odor, no cut taken, low permeability generally due to silt streaks.	
							12'	x		x	Interbedded siltstone, oil stained sand and gray sand, similar to last above but with very spotty oil staining and larger percent silt. Siltstone, dull medium gray, with brown cast, finely sandy throughout with irregular patches and streaks of coarse grained sand, silty. Hard, brittle, locally well bedded, dip 39°(good). Slickensides locally, calcite cemented along some fractures. Carbonaceous material and fish remains.	F
5/15	Mercury	5-7/8"	9938	9968	30'	100	30'	x		x	Interbedded siltstone, oil stained sand, and gray sand, similar to last above. Dip 38°(good), conchoidal fractures, may be concretions. 9' interval 12' from top of core, highly broken, fractured, and slickensided. Common fish remains, carbonaceous material and shell cast. Light to very light spotty amber stains, fair petroleum odor. No cut taken.	
5/16	"	"	9968	9998	30'	100	30'	x			Siltstone, light gray to gray brown, silty, finely sand throughout, with patches of coarse sands 10', 15' from top of core, micaceous. Hard to firm, friable to brittle, well bedded, dip 39°. Compact, shale like locally. Fish remains and shell cast common. Highly broken locally.	F

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

FORM 109-A

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(FORMATION TESTER)

No. T 1-51135

Los Angeles 15, Calif. May 11, 1950

Mr. R. E. Foss
Los Angeles 15, Calif.
Agent for BARNSDALL OIL COMPANY

DEAR SIR:

Your well No. "Rancho San Francisco" 88-5 /, Sec. 25, T. 4 N., R. 17 W., S.B. B & M. Newhall-Potrero Field, in Los Angeles County, was tested for water shut-off on April 28, 1950. Mr. J. F. Foster, designated by the supervisor, was present as prescribed in Secs. 3222 and 3223, Ch. 93, Stat. 1939; there were also present A. O. Chancey, Drilling Foreman; C. Fyling, Driller.

Shut-off data: 7 in. 26 & 29 lb. casing was cemented xxxx at 9227 ft. on April 25, 1950 in 11 in. hole with 600 sacks of cement xxxxx of which 24 sacks was left in casing.

Casing record of well: 13-3/8" cem. 358'; 7" cem. 9227'; four 3/8" test holes 9210', W.S.O.

Present depth 9376 ft. Bridged with cement from 9227 ft. to 9215 ft. Cleaned out to 9215 ft. for test. A pressure of xxx lb. was applied to the inside of casing for xxx min. without loss after cleaning out to xxx ft. A Johnston tester was run into the hole on 3-1/2 in. drill pipe-~~tubing~~ with 1000 ft. of ~~water~~-mud cushion, and packer set at 9186 ft. with tailpiece to 9202 ft. Tester valve, with 3/8 in. bean, was opened at 6:05 p.m. and remained open for 1 hr. and xxx min. During this interval there was a light blow for 1 min.; a very light blow for 3 min.; and no blow thereafter.

THE INSPECTOR ARRIVED AT THE WELL AT 10:00 P. M. AND MR. CHANCEY REPORTED:

1. An 11" rotary hole was drilled from 358' to 9376'.
2. On April 28, 1950, 7", 26 and 29 lb. casing was cemented at 9227' with 600 sacks of cem.
3. Cement was drilled out of the 7" casing from 9094'-9215' (equivalent to 22 sacks), and the casing was cleaned out to 9215'.
4. The 7" casing was shot-perforated with four 3/8" holes at 9210' for this test, and the test was made as noted above.

THE INSPECTOR NOTED:

1. When the drill pipe was removed, 25' of light drilling fluid was found in the drill pipe above the tester, equivalent to 0.2 bbl.
2. The recording pressure bomb chart showed that the tester valve was open 1 hr.

The test was completed at 11:00 p.m.

THE WATER SHUT-OFF ABOVE THE PERFORATIONS AT 9210' IS APPROVED.

JFF:OM

cc- Company
F/W

R. D. BUSH, State Oil and Gas Supervisor

By E. H. Murer, Deputy

90092 5-48 12,500 ② SPO

FORM 109-D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-50930

Los Angeles 15, Calif. March 22, 1950

Mr. R. E. Foss
Los Angeles 15, Calif.
Agent for BARNSDALL OIL COMPANY

DEAR SIR:

Operations at your well No. 88-5 Sec. 25, T. 4 N., R. 17 W., S.B. B. & M., "Rancho San Francisco" Newhall-Potrero Field, in Los Angeles County, were witnessed by J. F. Foster, Inspector, representative of the supervisor, on March 9, 1950. There was also present Chris Fylling, Driller; W. T. Stokes, Derrickman.

Casing Record	Junk
13-3/8" cem. 358'. T.D. 2982'.	None

The operations were performed for the purpose of inspecting blowout prevention equipment and installation.

The inspector arrived at the well at 12:30 p.m. and Mr. Fylling reported:

1. A 17" rotary hole was drilled from the surface to 360'.
2. On March 1, 1950, 358' of 13-3/8", 54 lb. casing was cemented at 358' with 275 sacks of cement.
3. Cement returned to the surface.
4. An 11" rotary hole was drilled from 360' to 2982'.

THE INSPECTOR NOTED THAT THE WELL WAS EQUIPPED WITH THE FOLLOWING BLOWOUT PREVENTION EQUIPMENT:

1. A Shaffer double cellar control gate for closing in the well with the drill pipe out of the hole, and for closing around the 5" drill pipe.
2. The controls for the above equipment were located outside the derrick.
3. A 2" mud fill-up line with a 2" high pressure Nordstrom stopcock into the 13-3/8" casing below the above equipment.

The inspection was completed at 12:45 p.m.

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

JFF:OH

cc- Company
B/W

R. D. BUSH
State Oil and Gas Supervisor
By E. H. Nuesse Deputy

86681 2-48 16,250 ② SPO

FORM 111
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-47685

Los Angeles 15, Calif. December 29, 1949

Mr. R. E. Foss
Los Angeles 15, Calif.

121

Agent for BARNSDALL OIL COMPANY

Dear Sir:

Your proposal to drill Well No. 88-5 "Rancho San Francisco",
Section 25, T. 4 N., R. 17 W. S.B. B. & M., Newhall-Potrero Field, Los Angeles County,
dated Dec. 21, 1949, received Dec. 23, 1949, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:

"The well is 5492.76 feet S. and 11025.11 feet E. from Corner "J"
The elevation of the kelly bushing 1309.29 above sea level is 1296.29 feet
conc. mat
We estimate that the first productive oil or gas sand should be encountered at
a depth of about 9620 feet."

PROPOSAL:

"We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing	Weight	Grade and Type	Depth	Landed or Cemented
13 3/8"	54.5#	J-55 - Smls.	400'	Cemented
7"	32,29,26 & 23#	N-80 & J-55 Smls.	9620'	Cemented
5-1/2"	17#	N-80	10,110'	Hung

Well is to be drilled with rotary tools.
It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT

1. Blowout prevention equipment, sufficient to provide a complete close-in of the well under pressure at any time, shall be installed.
2. THIS DIVISION SHALL BE NOTIFIED AS FOLLOWS:
   (a) To inspect the installed blowout prevention equipment before drilling below 2000'.
   (b) To witness a test of the effectiveness of the 7" shut-off.

ABH:oh
R/F
cc- Company

R. D. BUSH
State Oil and Gas Supervisor

By E H Musser R Deputy

Blanket bond.

FORM 105
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

037-13267

13

DIVISION OF OIL & GAS
RECEIVED
DEC 28 1949
LOS ANGELES, CALIFORNIA

Notice of Intention to Drill New Well

This notice must be given and surety bond filed before drilling begins

Los Angeles Calif. Dec. 21 1949

DIVISION OF OIL AND GAS

Los Angeles Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of drilling well No. "Rancho San Francisco" 88-5 (J.F.F.), Sec. 25, T. 4 N., R. 17 W., S.B. B. & M., Newhall-Potrero Field, Los Angeles County.

Lease consists of

The well is 5492.76 feet ~~N~~ S., and 11025.11 feet E. ~~W~~. from Corner "J"
(Give location in distance from section corners or other corners of legal subdivision)

The elevation of the ~~ground~~ kelly bushing 1309.29 above sea level is feet.
conc.mat 1296.29

We estimate that the first productive oil or gas sand should be encountered at a depth of about 9620 feet.

We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing, Inches	Weight, Lb. Per Foot	Grade and Type	Depth	Landed or Cemented
13 3/8"	54.5#	J-55 - Smls.	400'	Cemented
7"	32,29,26 & 23#	N-80 & J-55 Smls.	9620'	Cemented
5-1/2"	17#	N-80	10,110'	Hung

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 17
18A 9.7.7.	J.7.7.	EB	Blanket	EB	EB

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing.

Address 714 W. Olympic Boulevard
Los Angeles 15, California

Telephone number RI 5171

BARNSDALL OIL COMPANY
(Name of Operator)

By R. E. Foss
R. E. FOSS Agent

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

FR-JSH

PROPERTY/WELL TRANSFER OR ACQUISTION

MEDALLION CALIFORNIA PROPERTYS COMPANY
TO
VINTAGE CALIFORNIA PRODUCTION LLC

EFFECTIVE 12/26/2006

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

REPORT OF PROPERTY AND WELL TRANSFER

Field or county		District
Newhall-Potrero		2 Ventura
Former owner	**Operator code**	**Date**
DKM Offshore Energy, Inc.	D0230	10-1-94

Name and location of well(s)

All wells previously owned by DKM Energy, Inc.
in Sec. 25, 26, 27, 31, 35, 36, T. 4N, R. 17W SBB&M.

Except:
"Rancho San Francisco" 152 (037-12654)

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Operator code	Type of organization
10-1-94	Medallion California Properties Company	M4805	Corporation
	Address 1400 Easton Dr., #133 Bakersfield, CA. 93309		**Telephone No.** (805) 395-3029

Reported by
Medallion California Properties Company

Confirmed by
DKM Offshore Energy

New operator new status (status abbreviation)	Request designation of agent
PA	
Old operator new status (status abbreviation)	**Remarks**

Deputy Supervisor
Patrick J. Kinnear

Signature
Patrick J. Kinnear

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121	TKC		Map and book 252 + 253	PC	1-3099
Form OGD140			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files	TKC	
Electric logs	TKC		Computer Files		
Production reports	TKC				

OGD156 (5/98)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

REPORT OF PROPERTY AND WELL TRANSFER

Field or county: Newhall-Potrero		District: 2 Ventura
Former owner: Tidelands Oil Production Company	Operator code: T2975	Date: 11-1-92

Name and location of well(s)

All wells previously owned by Tidelands Oil Production Company, in Sec. 25, 26, 27, 31, 35, 36, T. 4N, R. 17W SBB&M.

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange: 11-1-92	New owner: DKM Offshore Energy, Inc.	Operator code: D0230	Type of organization: Corporation
	Address: 1100 Louisiana, Ste.4550 Houston, Texas 77002		Telephone No.: (713) 739-0312

Reported by: DKM Offshore Energy, Inc.

Confirmed by: Tidelands Oil Production Company

New operator new status (status abbreviation): PA	Request designation of agent
Old operator new status (status abbreviation)	Remarks

Deputy Supervisor: Patrick J. Kinnear

Signature: Patrick J. Kinnear PJK

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121	TKC		Map and book 252253	PO	1-30-99
Form OGD140			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files	TKC	
Electric logs	TKC		Computer Files		
Production reports	TKC				

OGD156 (5/98)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
Newhall Potrero	2
Former owner	**Date**
Oryx Energy Company	May 15, 1991

Name and location of well(s)

Sec. 25, T. 4N., R. 17W., SBB&M

"Rancho San Francisco" 88 (037-13267)
"Rancho San Francisco" 91 (037-13270)

Sec. 35, T. 4N., R. 17W. SBB&M.

"Rancho San Francisco" 31 (037-12649)
"Rancho San Francisco" 33 (037-12847)
"Rancho San Francisco" 36 (037-12850)
"Rancho San Francisco" 38 (037-12852)
"Rancho San Francisco" 64 (037-12877)

Sec. 35, T. 4N., R. 17W., SBB&M

"Rancho San Francisco" 81 (037-13260)
"Rancho San Francisco" 89 (037-13268)
"Rancho San Francisco" 93 (037-13273)
"Rancho San Francisco" 94 (037-13274)
"Rancho San Francisco" 149(037-12651)
"Rancho San Francisco" 151(037-12653)
"Rancho San Francisco" 153(037-12655)

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner / Address	Type of organization / Telephone No.
1-1-91	Tidelands Oil Production Co. 925 Harbor Plaza Long Beach, CA 90801	Co. 213-436-9918

Reported by
Oryx Energy Company

Confirmed by
Tidelands Oil Production Co.

New operator new status (status abbreviation)	Request designation of agent
PA	
Old operator new status (status abbreviation)	**Remarks**
PA	

Deputy Supervisor	Signature
Patrick J. Kinnear	Patrick J. Kinnear

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form ODG148			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs					
Production reports					

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
Newhall-Potrero	2
Former owner	**Date**
Sun Exploration and Production Co.	Aug. 7, 1989

Name and location of well(s)

Sec. 31, T. 4N., R. 16W., (ALL WELLS)

Secs. 21, 22, 25, 26, 27, 28, 35, 36, T. 4N., R. 17W. (ALL WELLS)

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Type of organization
5-3-89	Oryx Energy Co.	Co.
	Address P.O. Box 55060 Valencia, CA 91355	**Telephone No.** 805-257-6200

Reported by Sun Exploration & Production Co.

Confirmed by Oryx Energy Co.

New operator new status (status abbreviation)	Request designation of agent
PA	
Old operator new status (status abbreviation)	**Remarks**
PA	(NAME CHANGE ONLY)

Deputy Supervisor	Signature
Patrick J. Kinnear	Patrick J. Kinnear

OPERATOR STATUS ABBREVIATIONS

- PA – Producing Active
- NPA – No Potential, Active
- PI – Potential Inactive
- NPI – No Potential, Inactive
- Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form ODG148			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs					
Production reports					

OGD156 (12-77-GSR1-2M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
NEWHALL-POTRERO	2
Former owner	**Date**
Sun Oil Company	Mar. 31, 1983

Name and location of well(s)

Sections 21, 22, 25, 26, 27, 28, 35, 36, T4N. R. 17W.

ALL WELLS

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner / Address	Type of organization / Telephone No.
1/1/82	Sun Exploration & Production Co. P.O. Box 55060 Valencia, Ca. 91355	Company (805) 257-6200

Reported by: Sun Oil Company

Confirmed by: Sun Exploration & Production Co.

New operator new status (status abbreviation)	Request designation of agent
PA	on file
Old operator new status (status abbreviation)	**Remarks**
Ab	NAME CHANGE ONLY

Deputy Supervisor	Signature
Murray W. Dosch	Murray W. Dosch

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form ODG148			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs					
Production reports					

SUBMIT LOG IN DUPLICATE

FILL T ...ANK IN WITH TYPEWRITER. WRITE ON ONE SIDE OF P... ...LY

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

WELL SUMMARY REPORT

Operator SUNRAY OIL CORPORATION Field NEWHALL-POTRERO

Well No. RANCHO SAN FRANCISCO #91-5 Sec. 25, T. 4N, R. 17W, S.B. B. & M.

Location 6120.49'S & 11759.99' E F/Corner 'J' Elevation of kelly bushing 1351.19 ground or ~~derrick floor~~ above sea level 1338.19 feet.

In compliance with the provisions of Chapter 93, Statutes of 1939, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date 12-29-50 Signed R. E. Foss

H.M. STANIER (Engineer or Geologist) T. J. PREHODA (Superintendent) Title R. E. Foss Agent (President, Secretary or Agent)

Commenced drilling 9-8-50 Completed drilling 11-29-50 Drilling tools Rotary

Total depth 9,838 Plugged depth --

Junk None

GEOLOGICAL MARKERS | DEPTH

Commenced producing 11-29-50 (date) Flowing/~~gas lift/rotary~~ (cross out unnecessary words)

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
RATE Initial production	750	30.8	3.0	838	300	850
for 31 AVG. Production ~~month~~ days	217	31.0	0.1	174	300	900

Casing Record (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing landed in	Number of Sacks of Cement	Depth of Cementing if through perforations
13-3/8	310	Surface	48	New	Smls.	H40	17½"	225	
7	9129	Surface	23,26,29	New	Smls.	J55, N80	11"	600	
5½	9833	9087	17	New	Smls.	J55	5-7/8		

Perforations

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
5½"	9769 ft.	9621 ft.	192 - ½" Rd. holes/ft.	16	1"	Shop
"	9558 ft.	9403 ft.	" " " " "	16	"	"
"	9351 ft.	9108 ft.	" " " " "	16	"	"
	ft.	ft.				
	ft.	ft.				

Electrical Log Depths 9,838 (Attach Copy of Log)

1015 W. Olympic Blvd.
Los Angeles 15, California
October 30, 1950

Mr. R. E. Foss
714 West Olympic Boulevard
Los Angeles 15, California

Agent for Sunray Oil Corporation

Dear Sir:

This will acknowledge receipt of and thank you for your letter of October 26, 1950, in which the correct location of well No. "Rancho San Francisco" 91-5, Sec. 25, T. 4 N., R. 17 W., S. B. B. & M., Newhall-Potrero field, is given as follows:

6120.49' S. and 11759.99' E. from corner "J".

This information has been added to our records.

Yours truly,

E. H. Musser

Deputy Supervisor

ERMA:jc

cc - R. G. Bush (2)
- Company

CORRECTIONS MADE AS FOLLOWS:	BY WHOM
FORM [illegible]	
[illegible]	
[illegible]	
[illegible]	
[illegible]	
[illegible]	
[illegible]	
[illegible]	
[illegible]	18A JLW

FORM 103. 62984 9-46 47,500
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR SUNRAY OIL CORPORATION FIELD NEWHALL-POTRERO

Well No. RANCHO SAN FRANCISCO #91-5, Sec. 25, T. 4N, R. 17W, S.B. B. & M.

Signed R. E. Foss

Date 12-29-50 Title R. E. Foss Agent
(President, Secretary or Agent)

Use this form in reporting all important operations at the well, together with the dates thereof, in the order of their performance. Such operations include drilling, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, or deepened; size, weight and length of casing landed, cemented, or removed, amount and location of perforations; number of sacks of cement used in cementing or plugging operations, number of feet of cement drilled out of casing, location of top and bottom of cement plugs. If the well was dynamited, give date, dimensions and weight of all shots. If tests were made give interval tested and results of tests, such as, amount and nature of fluids recovered.

Date	
1950	
9-8	Spudded in with 11" x 17½" hole opener.
9-9	T.D. 412'. 17½" hole to 310'. 11" hole to 412'. Cemented 13-3/8" - 48# - H40 T&C Csg. at 310' w/225 sx Colton Portland Cement Containing 2½% gel.
9-10	Drilled out cmt. & drilled ahead with 11" bit.
11-9	T.D. 9266'. 1st Run Schlumberger Electric Log. Cemented 7" - 23, 26 & 29# Csg. at 9129' with 600 sx. Colton Slow cmt. Plugs bumped.
11-11	Drilled out cmt. to 9119'. No cmt. on top of plugs. Found Float collar at 9038'.
11-12	Shot 4 - 3/8" holes at 9105'. Ran MOJ Tester with 1000' mud cushion. Packer at 9076'. with tailpiece to 9089'. Open 1 hour. Light blow 10 min. - dead balance of test. Rec. 70' of drilling fluid. WSO witnessed and approved by D.O. & G. Cleaned out to bottom & drilled ahead with 5-7/8" bit.
11-27	T.D. 9838'. 2nd. Run Schlumberger Electric Log. Hung 5½" 17# F.J. Liner at 9833' with top of hanger at 9087'. Perforated 9769'-9621', 9558'-9403', 9351'-9108' with 192 - ½" Rd. holes per foot.
11-28	Ran 2-7/8" production tubing to 9743'. Changed from Ken Oil to crude oil.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY Los Angeles FIELD OR DIST. Newhall-Potrero COMPANY SUNRAY OIL CORPORATION WELL R.S.F.No.191-5

LOCATION 6120.49 feet south and 11,759.99 feet east from Corner "J" SECT. 25 T. 4N R. 17W ELEV. 1351.19' KB

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1950												
11/14	Merc. Diam. #1	6"	9268	9298	30'	100				28½'	Oil conglomerate, heavy, massive, brittle, pebbles and cobs up to 4".	
										1½'	Oil sand, dark brown, massive, medium grained, hard to slightly friable, low to fair permeability.	
11/14	#2	"	9298	9328	30'	100				11½'	Oil sand, as above, but becoming coarse grained 1' from top and becoming pebbly in bassal 3', low to fair permeability.	
							1'				Siltstone, gray, hard, massive, no dips.	
										17½'	Oil conglomerate, as in last core, heavy, brittle, with very little sand between pebbles and cobs.	
11/15	#3	"	9328	9358	30'	100				30'	Oil conglomerate, ditto, with 2' of oil sand at 9334' and scattered thin sandy phases for next 7', then heavy brittle conglomerate for rest of core.	
11/16	#4		9358	9388	30'	100				11'	Oil conglomerate, ditto, heavy, brittle, hard, with one 10" boulder at top.	
										1'	Oil sand, dark brown, fairly hard, medium grained.	
										4½'	Oil conglomerate as last above.	
										2'	Oil sand, as last above.	
										11½'	Oil Conglomerate as last above.	
11/17	#5	"	9388	9418	30'	100				20'	Oil conglomerate, ditto with one thin streak of very hard gray sand 3' from top.	
										4'	Oil sand, brown, hard, coarse to very coarse.	
										6'	Oil conglomerate, as above with 6" siltstone at base giving good 38° dips.	
11/18	#6	"	9418	9448	30'	100	x			11'	Interbedded oil sand and siltstone, siltstone is dark brown and gives excellent 32-44° dips.	
										8'	Oil sand, dark brown, fairly hard, medium to occasionally coarse grained, good saturation in low permeability(?).	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY | FIELD OR DIST. | COMPANY | WELL R.S.F.No. 91-5

LOCATION -2- SECT. 2 T. 47 R. [illegible] ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1950												
										6'	Pebbly oil sand, dark brown, pebbles 1/8 to 1/4" in sand matrix, quite low porosity.	
										5'	Oil sand, as last above, with 6" of pebbly oil sand 1' from base.	
11/19	Merc. Diam. #7	6"	9448	9478	30'	100				6'	Oil sand ditto, slightly pebbly in part.	
										18'	Pebbly oil sand as last above, with several streaks up to 1' of non-pebbly but medium to coarse grained oil sand scattered throughout. Grades in basal 2' to:	
										6'	Conglomerate, hard, brittle, heavy, with 6" sand streak at base of core. No reliable dips.	
11/19	#8	" "	9478	9508	29'	97				2'	Oil conglomerate, ditto, sandy in part.	
										7'	Oil sand, brown, massive, medium grained, with occasional conglomeratic streaks.	
										10'	Oil conglomerate as above, sandy in part with 18" of oil sand 2' from top.	
										7'	Oil sand, brown, massive, fine to medium grained, moderately friable.	
										1'	Oil conglomerate as last above.	
									2'		Sandstone shell, medium to coarse grained, light brown to gray, very hard, with 2" of conglomerate at base.	
11/20	#9	" "	9508	9538	30'	100				27'	Oil conglomerate, heavy, brittle, very little sand, loose in part near middle.	
										3'	Oil sand, brown, fine grained, massive, silty, friable, good saturation.	
11/21	#10	" "	9538	9568	30'	100				2½'	Oil sand, ditto, fine to medium grained.	
										23'	Oil conglomerate, as last above with about 1' of oil sand.	
										4½'	Oil sand, light to medium brown, fine grained, quite	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.
HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.
TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.
SORTING: E Even, G Good, P Poor, F Fair.
MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY FIELD OR DIST. COMPANY WELL R.S.F.No. 91-5

LOCATION -3- SECT. T. R. ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1950											silty in cart, 40 to 45° indicated dips.	
11/21	Merc. Diam. #11	6"	9568	9598	30'	100				30'	Oil sand, medium brown, medium to coarse grained, generally quite pebbly with 1/8 to 1/4" pebbles, variable permeability.	
11/22	#12 "	"	9598	9628	30'	100				16'	Conglomerate, pebbles to 1", occasionally a little sandy.	
								X	X	14'	Oil sand, fine to coarse grained, gray to brown, friable to hard, gray streaks, look somewhat permeable but with good oil sand below. Gray streaks in top 5' of interval. Sand is pebbly in streaks in bottom 4'.	
11/23	#13 "	"	9628	9658	30'	100				8'	Pebbly oil sand, very pebbly with 1/8 and 1/4" pebbles and very little sand(20%).	
										22'	Oil sand, brown, massive, fine to medium grained, difficultly friable, good saturation, low permeability generally. Occasional pebbly streaks amounting to 1'.	
11/23	#14 "	"	9658	9688	30'	100				11'	Oil sand, brown to tan, medium to coarse grained, massive, difficultly friable, generally, with one silty streak showing good 40° dips.	
										7'	Oil conglomerate, varies from pebbly oil sand at top to heavy conglomerate at base.(15% sand).	
										3'	Oil sand, brown, medium to coarse grained, pebbly in part, massive, fairly hard.	
										8'	Oil Conglomerate, sandy to heavy with about 15% sand.	
11/24	#15 "	"	9688	9718	30'	100				30'	Oil Conglomerate, heavy, brittle, scattered cobbles, very little permeable sand(5%)	
11/25	#16 "	"	9718	9748	30'	100				9'	Oil Conglomerate as above, very little sand.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.
HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.
TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.
SORTING: E Even, G Good, P Poor, F Fair.
MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY | FIELD OR DIST. | COMPANY | WELL (R.S.F. No.) 91-5

LOCATION -4- SECT. T. R. ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1950												
										6'	Oil sand, light to medium brown, fine to coarse grained, moderately friable, quite silty in part.	
									2'		Sandstone shell, weakly oil stained, quite hard, very low permeability.	
										13'	Oil sand, brown, massive, fine to coarse grained, low to fair permeability, rare siltstone fragments.	
	Merc. Diam. 6"											
1/25	#17 "	"	9748	9778	30'	100	x	x	x	30'	Oil sand, brown, massive, fine to medium grained, with occasional siltstone fragments and streaks near base. Contains about 3' of shell and common streaks of poorly stained to gray sand particularly in lower half of core.	
11/26	#18 "	"	9778	9808	30'			x		7'	Oil sand, tan to gray, fine to medium grained with fine grained and silty gray streaks, probably lack of permeability.	
										8'	Silty oil sand, fine to occasionally medium grained, tan, generally bedded.	
							4½'				Shale, brown, platy, slightly fractured, good 40-45° dips.	
								10½'			Silty sand, generally gray, fine grained, quite silty with common brown silt streaks, occasionally lightly oil stained.	
1/27	#19 "	"	9808	9838	30'	100	3'	x			Sandy shale, shale as above with thin streaks of gray sand at top.	
								9'			Sand, gray to occasionally tan, permeable to silty, generally wet-looking.	
							10'				Shale, brown, massive to platy, hard, brittle, 40° dip.	
								8'			Sand, light gray, medium grained, friable, with 1/4 to 3/4" mud-invasion ring. Has several silty and thin shaley streaks.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.
HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.
TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.
SORTING: E Even, G Good, P Poor, F Fair.
MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

FORM 109-A (10-48)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(FORMATION TESTER)

No. T1-52060

Los Angeles 15, Calif. November 20, 1950

Mr. R. E. Foss
Los Angeles 15, Calif.
Agent for SUNRAY OIL CORPORATION

DEAR SIR: "Rancho San Francisco"

Your well No. 91-5, Sec. 25, T. 4 N., R. 17 W., S. B. B & M.
Newhall-Potrero Field, in Los Angeles County, was tested for water shut-off on November 12, 1950. Mr. N. N. Sampson, Inspector, designated by the supervisor, was present as prescribed in Secs. 3222 and 3223, Ch. 93, Stat. 1939; there were also present J. Beard and L. G. Mason, Drilling foremen 29

Shut-off data: 7 in 23, 26#/ lb. casing was cemented xxx at 9129 ft. on November 9, 1950 in 11 in. hole with 600 sacks of cement xxx of which 16 sacks was left in casing.

Casing record of well: 13-3/8" cem. 310'/ 7" cem. 9129'; 4, 3/8" test holes 9105', W.S.O.

Present depth 9266 ft. Bridged with cement from 9129 ft. to 9119 ft. Cleaned out to 9119 ft. for test. A pressure of xxx lb. was applied to the inside of casing for xxx min. without loss after cleaning out to xxx ft. A Johnston tester was run into the hole on 3-1/2 in. drill pipe ~~xxxxx~~ with 1000 ft. of ~~xxxx~~ mud cushion, and packer set at 9076 ft. with tailpiece to 9089 ft. Tester valve, with 3/8 in. bean, was opened at 10:32 a.m. and remained open for 1 hr. and xxx min. During this interval there was a light blow for 10 minutes and no blow thereafter.

THE INSPECTOR ARRIVED AT THE WELL AT 2:00 A.M. AND MR. BEARD REPORTED THE FOLLOWING:

1. An 11" rotary hole was drilled from 310' to 9266'.
2. Cement was drilled out of the 7" casing from 9038' to 9119', equivalent to 14 sacks, and the hole was cleaned out to 9119'.
3. The 7" casing was shot-perforated with 4, 3/8" holes at 9105'.

THE INSPECTOR NOTED THE FOLLOWING:

1. When the drill pipe was removed, 70' (net) of light oily drilling fluid was found in the drill pipe above the tester, equivalent to 0.5 bbl.
2. The recording pressure bomb chart showed that the tester valve was open 1 hour.

The test was completed at 2:50 a.m.

THE WATER SHUT-OFF ABOVE THE PERFORATIONS AT 9105' IS APPROVED.

cc - Company

NNS:ES

R. D. BUSH, State Oil and Gas Supervisor

By E. H. Wiesser, Deputy

FORM 109-D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-51853

Los Angeles 15, Calif. October 11, 1950

Mr. R. K. Foss
Los Angeles 15, Calif.
Agent for SUNRAY OIL CORPORATION

DEAR SIR: "Rancho San Francisco"

Operations at your well No. 91-5 Sec. 25, T. 4 N., R. 17 W., S. B. B. & M.,
Newhall-Potrero Field, in Los Angeles County, were witnessed by
N. N. Sampson, Inspector, representative of the supervisor,
on October 4, 1950. There was also present H. Stanier, Engineer

Casing Record	Junk
13-3/8" cem. 310'; T.D. 5790'.	None

The operations were performed for the purpose of inspecting blowout prevention equipment and [illegible] tion.

The inspector arrived at the well at 3:4[illegible] p.m. and Mr. Stanier reported:

1. A 17" rotary hole was drilled from surfece to 310'.
2. On September 9, 1950, 13-3/8" 48 lb. casing was cemented at 310' with 225 sacks of cement.
3. Cement returned to the surface.
4. An 11" rotary hole was drilled from 310' to 5790'.

THE INSPECTOR FOUND that the well was equipped with the following blowout prevention equipment:

1. A Shaffer double cellar control gate for closing in the well with the drill pipe out of the hole, and for closing around the 4-1/2" drill pipe.
2. A 2" mud fill-up line with a 2" high pressur stopcock, into the 13-3/8" casing below the above equipment.

The inspection was completed at 4:20 p.m.

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

cc - Company

NNS:ES

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Meussen Deputy

16330 10-49 17,500 ② SPO

FORM 111
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-48825

Los Angeles 15, Calif. September 19, 1950

MR. R. E. Foss

Los Angeles 15, Calif.

Agent for SUNRAY OIL CORPORATION

DEAR SIR:

Your "Rancho San Francisco" proposal to drill Well No. 91-5,

Section 25, T. 4 N., R. 17 W., S.B.B. & M., Newhall-Potrero Field, Los Angeles County,

dated Sept. 7, 1950, received Sept. 15, 1950, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES: 6120.49' 11759.99'

"The well is ~~6138.09~~ feet S. and ~~11782.09~~ feet E. from Corner "J"

The elevation of the kelly bushing / Conc. mat above sea level is 1351.19 / 1338.19 feet.

We estimate that the first productive oil or gas sand should be encountered at a depth of about 9225 feet."

PROPOSAL:

"We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing	Weight	Grade and Type	Depth	Landed or Cemented
13-3/8"	46	J-55 Smls	300	Cemented
7"	29, 26 & 23	N80 & J55 Smls	9225	Cemented
5-1/2"	17	N80 Smls	9800	Hung

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT

1. Blowout prevention equipment, sufficient to provide a complete close-in of the well under pressure at any time, shall be installed.
2. Any hole to be sidetracked in any oil or gas zone shall be filled with cement, if possible.
3. THIS DIVISION SHALL BE NOTIFIED AS FOLLOWS:
   (a) To inspect the installed blowout prevention equipment before drilling below 1000'.
   (b) To witness a test of the effectiveness of the 7" shut-off.

ERMA:OH

cc- Company

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Nuesser Deputy

Blanket bond.

JRM 105.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

037-13270

Notice of Intention to Drill New Well 13

This notice must be given and surety bond filed before drilling begins

LOS ANGELES Calif. SEPTEMBER 7 19 50

DIVISION OF OIL AND GAS

NEWHALL Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of drilling well No. RANCHO SAN FRANCISCO * (No) 91-5, Sec. 25, T. 4N, R. 17W, S.B. B. & M., Newhall-Potrero Field, Los Angeles County. JLW

Lease consists of

The well is ~~6158.09~~ 6120.49' feet N. or S., and ~~11782.99~~ 11759.99' * feet E. or W. from Corner "J"
(Give location in distance from section corners or other corners of legal subdivision)

The elevation of the ~~ground at derrick floor~~ kelly bushing 1351.19 above sea level is feet.
conc.mat 1338.19

We estimate that the first productive oil or gas sand should be encountered at a depth of about 9225 feet.

We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing, Inches	Weight, Lb. Per Foot	Grade and Type	Depth	Landed or Cemented
13-3/8"	46	J-55 Smls	300	Cemented
7"	29, 26 & 23	N80 & J55 Smls	9225	Cemented
5½"	17	N80 Smls	9800	Hung

Well is to be drilled with rotary tools.

* Cor. letter to co. 10/30/50 jc

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing.

Address 714 W. Olympic Boulevard
Los Angeles 15, California

Telephone number RI 5171

SUNRAY OIL COMPANY - (Barnsdall Division)
~~BARNSDALL EXPLORATION~~
(Name of Operator)

By R. E. Ford
Agent

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

MAP	MAP BOOK	CARDS	BOND	FORMS 114	121
18A JLW	JLW				

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
Newhall-Potrero	2
Former owner	**Date**
Sun Exploration and Production Co.	Aug. 7, 1989

Name and location of well(s)

Sec. 31, T. 4N., R. 16W., (ALL WELLS)

Secs. 21, 22, 25, 26, 27, 28, 35, 36, T. 4N., R. 17W. (ALL WELLS)

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner / Address	Type of organization / Telephone No.
5-3-89	Oryx Energy Co. P.O. Box 55060 Valencia, CA 91355	Co. 805-257-6200

Reported by
Sun Exploration & Production Co.

Confirmed by
Oryx Energy Co.

New operator new status (status abbreviation)	Request designation of agent
PA	
Old operator new status (status abbreviation)	**Remarks**
PA	(NAME CHANGE ONLY)

Deputy Supervisor	Signature
Patrick J. Kinnear	Patrick J. Kinnear

OPERATOR STATUS ABBREVIATIONS

- PA – Producing Active
- NPA – No Potential, Active
- PI – Potential Inactive
- NPI – No Potential, Inactive
- Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form OGD148			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs					
Production reports					

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
NEWHALL-POTRERO	2
Former owner	**Date**
Sun Oil Company	Mar. 31, 1983

Name and location of well(s)

Sections 21, 22, 25, 26, 27, 28, 35, 36, T4N. R. 17W.

ALL WELLS

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner / Address	Type of organization / Telephone No.
1/1/82	Sun Exploration & Production Co. P.O. Box 55060 Valencia, Ca. 91355	Company (805) 257-6200

Reported by: Sun Oil Company

Confirmed by: Sun Exploration & Production Co.

New operator new status (status abbreviation)	Request designation of agent
PA	on file
Old operator new status (status abbreviation)	**Remarks**
Ab	NAME CHANGE ONLY

Deputy Supervisor	Signature
Murray W. Dosch	Murray W. Dosch

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form ODG148			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs					
Production reports					

FORM 159 (9-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

REPORT OF WELL ABANDONMENT

Los Angeles 15, , California, September 22, 19 5

Mr. R. E. Foss
714 West Olympic Boulevard
Los Angeles 15, California

Agent for Sunray Oil Corporation

Dear Sir:

Your report of abandonment of Well No. "Rancho San Francisco" 91-A,
Sec. 25, T. 4 N., R. 17 W., S.B. B. & M., Newhall-Potrero oil field,
Los Angeles County, dated September 12, 1950, has been
examined in conjunction with records filed in this office.

A review of the reports and records shows that the requirements of this Division, which are based on all information filed with it, have been fulfilled.

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
	NNS		Blanket		

Yours truly,

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Russell
Deputy Supervisor

cc - Mr. R. D. Bush
Company

ee

15414 9-49 7500 SPO

FORM 157 (11-48)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

REPORT ON PROPOSED CHANGE OF WELL DESIGNATION

1015 West Olympic Boulevard
Los Angeles 15, California, September 15, 1950

Mr. E. E. Foss
714 W. Olympic Boulevard
Los Angeles 15, California

Agent for Sunray Oil Corporation

Dear Sir

Your request dated September 6, 1950, relative to change in designation of well(s) in the Newhall-Potrero field, District No. 1, has been received; and in accordance with Section 3203, Chapter 93, Statutes of 1939, reading in part as follows:

> "* * * The number or designation by which any well heretofore drilled has been known, and the number or designation specified for any well in a notice filed as required by Section 3203, shall not be changed without first obtaining a written consent of the Supervisor."

the proposed change in designation is hereby authorized as follows:

Sec. 25, T. 4 N., R. 17 W., S. B. B. & M.

Well No. "Rancho San Francisco" 91-5 will hereafter be known as your well No. "Rancho San Francisco" 91-4.

Corrections Made as Follows:	By Whom
Form 114	
" 115	
" 121	E.B.
" 148	
Cards	
Production Reports	
Well Records (Folders	
(Reports	
Field Maps	
Map Book	

eb
cc- Mr. R. D. Bush (2)
M. Cooley

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Meussdorffer
Deputy Supervisor

28131 5-50 2250 SPO

SUBMIT LOG IN DUPLICATE

FILL T LANK IN WITH TYPEWRITER. WRITE ON ONE SIDE OF PA ONLY

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

WELL SUMMARY REPORT

Operator SUNRAY OIL COMPANY Field Newhall-Potrero

Well No. Rancho San Francisco 91-A Sec. 25, T. 4N, R. 17W, S.B. B. & M.

Location 6138.09'S & 1782.09'E from Cor. 'J' Elevation of kelly bushing 1351.19 ground or ~~derrick floor~~ above sea level 1338.19 feet.

In compliance with the provisions of Chapter 93, Statutes of 1939, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date September 12, 1950 Signed R. D. Jones

H. M. Stamler (Engineer or Geologist) _____ (Superintendent) Title Agent (President, Secretary or Agent)

Commenced drilling August 30, 1950 Completed drilling September 5, 1950 Drilling tools Rotary

Total depth 1299 Plugged depth 276' Estimated

GEOLOGICAL MARKERS DEPTH

Junk 12' - 12-3/4" 40# C. 797' - 809'

Commenced producing Abandoned (date) Flowing/gas lift/pumping (cross out unnecessary words)

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production						
Production after 30 days						

CASING RECORD (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing landed in	Number of Sacks of Cement	Depth of Cementing if through perforations
12-3/4"	430'	Surface	45 & 49	--	Elec. Weld	B	17-1/4"	335	

PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				

Electrical Log Depths None (Attach Copy of Log)

FORM 103. 62984 9-46 47,500
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR SUNRAY OIL COMPANY FORMERLY KERN-KELLEY OIL COMPANY FIELD NEWHALL-POTRERO

Well No. RANCHO SAN FRANCISCO 91A, Sec. 25, T. 4N, R. 17W, S.B. B. & M.

Signed R. O. Fast

Date September 12, 1950 Title Agent
(President, Secretary or Agent)

Use this form in reporting all important operations at the well, together with the dates thereof, in the order of their performance. Such operations include drilling, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, or deepened; size, weight and length of casing landed, cemented, or removed, amount and location of perforations; number of sacks of cement used in cementing or plugging operations, number of feet of cement drilled out of casing, location of top and bottom of cement plugs. If the well was dynamited, give date, dimensions and weight of all shots. If tests were made give interval tested and results of tests, such as, amount and nature of fluids recovered.

Date	
8-30-50	Spudded in w/11" bit
9-1-50	Depth 497'. Opened hole to 442' with 17½" hole opener. Cemented 445' - 12-3/4" - 43.77# & 49.56# slip jt. casing at 442' with 335 sax Victor Construction cement.
9-2-50	Found plugs at 429'. Cement to 442'. Cleaned out to bottom and drilled ahead with 11" bit.
9-4-50	Depth 1299'. Ran on junk at 797'. Ran Schlumberger electric log. Found shoe of surface casing at 430'. Junk - 12' of surface casing 797' to 809'. Laid cement plug thru D.P. hung at 795' with 100 sax cement containing 20% sand (118# slurry).
9-5-50	Found top of cement at 727'. Drilled out to 730'. Laid cement plug thru D.P. hung at 460' with 100 sax Victor construction cement containing 20% sand. Estimated top cement 276'. Abandoned Well.

FORM 111.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-48843

Los Angeles 15, Calif. September 21, 1950

Mr. R. E. Foss

Los Angeles 15, Calif.

Agent for SUNRAY OIL CORPORATION

Dear Sir:

Your proposal to abandon "Rancho San Francisco" Well No. 91-A,

Section 25, T. 4 N., R. 17 W., S.B. B. & M., Newhall-Potrero Field, Los Angeles County,

dated Sept. 6, 1950, received Sept. 15, 1950, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

This well had not yet penetrated oil or gas measures.

THE NOTICE STATES:

"The present condition of the well is as follows:

1. Complete casing record.
   18-3/8" Conductor cemented at 24'.
   12-3/4" 43.77# & 49.56# C. 430'.
   11" Hole to 1299'.
   Junk in hole (12' 12-3/4" Csg., Larkin guide shoe) 797' to 809'
   Cement plug 795' to 730' (100 sx, 20% sand)
   Cement plug 460' to 276' (100 sx. 20% sand)
   Steel Plate welded on top of conductor."

PROPOSAL:

"The proposed work is as follows:

1. Well is abandoned.
2. This well will henceforth be called Rancho San Francisco #91A

Confirming phone conversation with Mr. Murray - Aaron 9/5/50."

DECISION:

THE PROPOSAL, COVERING WORK ALREADY COMPLETED, IS APPROVED.

EMMA:OH

cc- Company

R. D. BUSH
State Oil and Gas Supervisor

By C. V. Minderhout Deputy

Blanket bond.

FORM 108. 99470 11-48 14,250
② SPO

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Notice of Intention to Abandon Well

This notice must be given at least five days before work is to begin; one copy only

Newhall, Calif. September 6, 1950

DIVISION OF OIL AND GAS

Los Angeles, Calif.

In compliance with Secs. 3228, 3229, 3230, 3231 and 3232, Ch. 93, Stat. 1939, notice is hereby given that it is our intention to abandon well No. Rancho San Francisco 91-A

Sec. 25, T. 4N, R. 17W, SB B. & M. Newhall-Potrero Field,

Los Angeles County, commencing work on the 5th day

of September 1950.

The present condition of the well is as follows:

1. Complete casing record.

18-3/8" Conductor cemented at 24'.
12-3/4" 43.77# & 49.56# C. 430'.
11" Hole to 1299'.
Junk in hole (12' 12-3/4" Csg., Larkin guide shoe; 797' to 809'
Cement plug 795' to 739' (100 sx, 20% sand)
Steel Plate welded on top of conductor

Cement plug 460' to 276' (100 SX. 20% sand)

2. Last produced. _____ Date _____ Net oil _____ Gravity _____ Cut

The proposed work is as follows:

1. Well is abandoned.
2. This well will henceforth be called Rancho San Francisco #91A *

Confirming phone conversation with Mr. Murray - Aaron 9/5/50

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121

*Designation of well being changed from "Rancho San Francisco" 91-5. eb

Note: above amendment made by E.R.M.-A. as authorized by Co. in corrected sheet attached hereto and marked "memo" Edna

SUNRAY OIL CORPORATION (Barnsdall Division)
(Name of Operator)

By _____ Agent

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

ORM 111 (1-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

No. P 1-L8726

Los Angeles 15 Calif. August 21, 1950

MR. R. E. Foss

Los Angeles 15, Calif.

Agent for SUNRAY OIL CORPORATION

DEAR SIR:

Your proposal to drill Well No. "Rancho San Pedro" 91-25

Section 25, T. 4 S., R. 17 W., S. B. B. & M., Wm. Hall Potrero Field, Los Angeles County, dated Aug. 18, 1950, received Aug. 21, 1950, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:

"The well is 6137.00 feet S. and 11782.00 feet E. from Corner "J"

The elevation of the Kelly bushing / conc. mat above sea level is 1351.10 / 1338.10 feet.

We estimate that the first productive oil or gas sand should be encountered at a depth of about 9225 feet."

PROPOSAL:

"We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing	Weight	Grade and Type	Depth	Landed or Cemented
13 3/8"	46	J-55 Smls.	400	Cemented
7"	20, 26 & 23	N80 & J55 Smls.	9225	Cemented
5-1/2"	17	N-80 Smls.	9800	Hung

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT

1. Blowout prevention equipment, sufficient to provide a complete close-in of the well under pressure at any time, shall be installed.
2. THIS DIVISION SHALL BE NOTIFIED AS FOLLOWS
   (a) To inspect the installed blowout prevention equipment before drilling below 1000'.
   (b) To witness a test of the effectiveness of the 7" shut-off.

cc - Company

ABH:ES R

Blanket bond.

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Nuss Deputy

28489 6-50 19M SPC

FM 105.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

037- 13271

14

DIVISION OF OIL AND GAS
RECEIVED
AUG 21 1950
LOS ANGELES, CALIFORNIA

Notice of Intention to Drill New Well

This notice must be given and surety bond filed before drilling begins.

Los Angeles Calif. August 18 1950

DIVISION OF OIL AND GAS

Los Angeles Calif.

						FORMS	
						114	121
154	NNS						

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of drilling well No. "Rancho San Francisco" 91-5, Sec. 25, T. 4 N., R. 17 W., S.B. B. & M., Newhall-Potrero Field, Los Angeles County.

Lease consists of

The well is 6138.09 feet N. or S., and 11782.09 feet E. or W. from Corner "J"
(Give location in distance from section corners or other corners of legal subdivision)

The elevation of the ground or kelly bushing above sea level is 1351.19 feet.
conc. mat 1338.19

We estimate that the first productive oil or gas sand should be encountered at a depth of about 9225 feet.

We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing, Inches	Weight, Lb. Per Foot	Grade and Type	Depth	Landed or Cemented
13 3/8"	48	J-55 Smls.	400	Cemented
7"	29, 26 & 23	N80 & J55 Smls.	9225	Cemented
5-1/2"	17	N-80 Smls.	9800	Hung

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing.

SUNRAY OIL CORPORATION
~~BARNSDALL OIL COMPANY~~
(Name of Operator)

Address 714 W. Olympic Boulevard
Los Angeles 15, California

Telephone number RI 5171

By R. E. Foss
R. E. FOSS Agent

JOM-JSH

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

PROPERTY/WELL TRANSFER OR ACQUISTION

Medallion California Properties

to

Vintage Production California LLC (V1370)

Effective December 26, 2006

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

REPORT OF PROPERTY AND WELL TRANSFER

Field or county		District
Newhall-Potrero		2 Ventura
Former owner	**Operator code**	**Date**
DKM Offshore Energy, Inc.	D0230	10-1-94

Name and location of well(s)

All wells previously owned by DKM Energy, Inc.
in Sec. 25, 26, 27, 31, 35, 36, T. 4N, R. 17W SBB&M.

Except:
"Rancho San Francisco" 152 (037-12654)

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Operator code	Type of organization
10-1-94	Medallion California Properties Company	M4805	Corporation
	Address 1400 Easton Dr., #133 Bakersfield, CA. 93309		**Telephone No.** (805) 395-3029

Reported by
Medallion California Properties Company

Confirmed by
DKM Offshore Energy

New operator new status (status abbreviation)	Request designation of agent
PA	
Old operator new status (status abbreviation)	**Remarks**

Deputy Supervisor
Patrick J. Kinnear

Signature
Patrick J. Kinnear

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121	TKC		Map and book 252 + 253	PC	1-3099
Form OGD140			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files	TKC	
Electric logs	TKC		Computer Files		
Production reports	TKC				

OGD156 (5/98)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

REPORT OF PROPERTY AND WELL TRANSFER

Field or county: Newhall-Potrero		District: 2 Ventura
Former owner: Tidelands Oil Production Company	Operator code: T2975	Date: 11-1-92

Name and location of well(s)

All wells previously owned by Tidelands Oil Production Company, in Sec. 25, 26, 27, 31, 35, 36, T. 4N, R. 17W SBB&M.

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange: 11-1-92	New owner: DKM Offshore Energy, Inc.	Operator code: D0230	Type of organization: Corporation
	Address: 1100 Louisiana, Ste.4550 Houston, Texas 77002		Telephone No.: (713) 739-0312

Reported by: DKM Offshore Energy, Inc.

Confirmed by: Tidelands Oil Production Company

New operator new status (status abbreviation): PA	Request designation of agent
Old operator new status (status abbreviation)	Remarks

Deputy Supervisor: Patrick J. Kinnear

Signature: Patrick J. Kinnear PJK

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121	TKC		Map and book 252+253	PC	1-30-99
Form OGD140			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files	TKC	
Electric logs	TKC		Computer Files		
Production reports	TKC				

OGD156 (5/98)

OURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
Newhall Potrero	2
Former owner	**Date**
Oryx Energy Company	May 15, 1991

Name and location of well(s)

Sec. 36, T. 4N., R. 17W., SBB&M (continued)

"Rancho San Francisco" 42 (037-12856)
"Rancho San Francisco" 68 (037-13247)
"Rancho San Francisco" 70 (037-13249)
"Rancho San Francisco" 76 (037-13255)
"Rancho San Francisco" 77 (037-13256)
"Rancho San Francisco" 96 (037-13276)
"Rancho San Francisco" 106 (037-13285)
"Rancho San Francisco" 139 (037-12892)

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Type of organization
1-1-91	Tidelands Oil Production Co. Address 925 Harbor Plaza Long Beach, CA 90801	Co. Telephone No. 213-436-9918

Reported by
Oryx Energy Company

Confirmed by
Tidelands Oil Production Co.

New operator new status (status abbreviation)	Request designation of agent
PA	
Old operator new status (status abbreviation)	**Remarks**
PA	

Deputy Supervisor
Patrick J. Kinnear

Signature
Patrick J. Kinnear

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form ODG148			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs					
Production reports					

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
NEWHALL-POTRERO	2
Former owner	**Date**
Sun Oil Company	Mar. 31, 1983

Name and location of well(s)

Sections 21, 22, 25, 26, 27, 28, 35, 36, T4N. R. 17W.

ALL WELLS

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner / Address	Type of organization / Telephone No.
1/1/82	Sun Exploration & Production Co. P.O. Box 55060 Valencia, Ca. 91355	Company (805) 257-6200

Reported by: Sun Oil Company

Confirmed by: Sun Exploration & Production Co.

New operator new status (status abbreviation)	Request designation of agent
PA	on file
Old operator new status (status abbreviation)	**Remarks**
Ab	NAME CHANGE ONLY

Deputy Supervisor	Signature
Murray W. Dosch	Murray W. Dosch

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form ODG148			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs					
Production reports					

Change of designation May 18, 1977 to "Rancho San Francisco" 96

-

FORM 103 62984 9-46 47,500
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

HISTORY OF OIL OR GAS WELL

DIVISION OF OIL AND GAS
RECEIVED
JUL 22 1958
LOS ANGELES, CALIFORNIA

OPERATOR Sunray Mid-Continent Oil Company FIELD Newhall-Potrero, Los Angeles County

WELL NO. "Rancho San Francisco" 96-5, SEC. 36, T. 4N, R. 17W, S.B. B. & M.

SIGNED O. A. Graybeal

DATE July 18, 1958 TITLE O. A. Graybeal, AGENT
(PRESIDENT, SECRETARY OR AGENT)

Use this form in reporting all important operations at the well, together with the dates thereof, in the order of their performance. Such operations include drilling, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, or deepened; size, weight and length of casing landed, cemented, or removed, amount and location of perforations; number of sacks of cement used in cementing or plugging operations, number of feet of cement drilled out of casing, location of top and bottom of cement plugs. If the well was dynamited, give date, dimensions and weight of all shots. If tests were made give interval tested and results of tests, such as, amount and nature of fluids recovered.

DATE 1958

REPAIR JOB

All measurements are from original kelly bushing which is 13.30' above the concrete mat.

6/2 Commenced repair job at 9:00 a.m.
Rigged up and pulled rods and tubing.

6/3 CAMERA RUN #1 TO 4998'.
Ran Lane-Wells Bottom-Hole Stereographic Camera from 3865'-3892' and 4974'-4998'. A total of twenty exposures were made at three-foot intervals. Recovered ten pictures grading from good to very poor.

CAMERA RUN #2 TO 4984'.
Ran Lane-Wells Bottom-Hole Stereographic Camera to 4984'. Took 17 exposures from 4980'-4984'. Equipment failed to operate.

FEELER RUN #1 TO 4982'.
Ran 5 23/32" feeler on Lane-Wells wireline. Ran freely to 4982'. Stopped at 4982'.

VOLTAGE PROFILE RUN #1.
Ran Lane-Wells voltage profile log from 325'-4980'. Used 25' knife spacing. Results are inconclusive.

6/4 Ran 5 5/8" casing roller to 5145'. Ran freely.

Ran 5 7/8" casing roller to top of liner at 8981'. Had tight spot from 4980' to 4984'. Ran freely through remainder of casing.

6/5 Ran 9001.70' of 5" and 5 1/2" 14.87#, 15#, 20#, N-80, P-110, Tripleseal, LT&C, X-Line casing with lead seal bottom-hole packer set on liner hanger at 8981'. Weight before landing 114,000# net. Set 31,500# on lead seal packer and filled annulus. Fluid did not drop. Landed casing with 99,000# net. (15,000# on packer with 15" slack in casing.)

6/6 Made Hansen test to 4000 psi. O.K.

Pressure tested annulus to 700 psi. O.K.

LBC

DIVISION OF OIL AND GAS
RECEIVED
JUL 22 1958
LOS ANGELES, CALIFORNIA

DATE
1958

6/6 Cont. Ran 2 3/8" 47# J-55 EU 8-round tubing with 5 Camco kick-over gas lift valves.

Broke circulation at 9668' and curculated to 9700'. Hit small bridge at 9695'. Hung tubing at 9669'.

6/7 Released rig at 12:00 noon.

6/9 Installed plunger lift tree and lines. Started well on gas lift at 4:00 p.m.

PRODUCTION SUMMARY

Date 1958	Gross	Cut	Net	Gravity	Bean	PRESSURE Tubing	PRESSURE Casing	Circ. Gas	Net Gas	GOR	
6/9	198	0.2	198	31.0	48"/64"	160	640	698	22	111	Wash oil
6/10	170	0.2	170	30.5	48"/64"	135	560	775	49	288	Wash oil
6/11	121	0.2	121	30.6	48"/64"	110	510	510	62	512	Wash oil
6/12	104	0.1	104	30.8	48"/64"	100	490	384	58	557	Wash oil
6/13	Completed plunger lift installation.										
6/13	87	0.4	87	32.4	48"/64"	80	600	380	50	575	Wash oil
6/14	77	0.6	77	32.0	48"/64"	500	600	405	45	584	Wash oil
6/15	75	0.6	75	30.7	48"/64"	500	600	300	50	667	Wash oil
6/16	77	0.5	77	30.6	48"/64"	400	530	248	68	883	Wash oil
6/17	77	0.5	77*	30.9	48"/64"	440	500	264	56	727	
			* Includes 28 barrels of wash oil								
6/18	73	0.4	73	30.7	48"/64"	400	490	254	56	767	
7/2	70	1.0	69	31.0	48"/64"	350	410	259	53	768	
7/3	69	0.8	68	30.6	48"/64"	355	410	238	74	1088	

LBC

FORM 111

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

No. P156-446

Mr. O A Graybeal
714 West Olympic Boulevard
LOS ANGELES 15
Agent for SUNRAY MID-CONTINENT OIL CO

Inglewood 3 Calif.
June 9, 1958

DEAR SIR:

Your proposal to alter casing Well No. 96-5 "Rancho San Francisco",

Section 36, T. 4 N., R. 17 W., S B B. & M., Newhall-Potrero Field, Los Angeles County,

dated May 29, 1958, received June 2, 1958, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES
"The present condition of the well is as follows:
1. Total depth. 9719'
2. Complete casing record.
13 3/8" 54.5#, 48#, H-40, J-55, ST&C casing cemented at 358' with 240 sacks.
7" 23#, 26#, 29#, 32#, J-55, N-80, LT&C, X-Line, and Integral casing cemented at 9000' with 600 sacks.
4 - 3/8" holes at 8985' - WSO.
5 1/2" 17#, J-55 Hydril F.J. liner hung at 9717', top at 8981'. Shot perforated with 192 - 1/2" round holes per foot, undercut to 3/8", from 9002'-9214'; 9273'-9486'; and 9544'-9717'.

Notes: Suspect bad casing at 3883'; 4983', and interval 5400'-5800'.

3. Last produced. Producing (Date) 50 (Net Oil) 32° (Gravity) 7.0% (Cut)"

PROPOSAL
"The proposed work is as follows:
1. Pull tubing and drift casing.
2. Run 5" 15#, N-80, LT&C, 5" 15#, P-110 T.S., and 5 1/2" 20#, N-80, X-Line casing with combination lead seal and neoprene shoe set on top of linger hanger.
3. Complete well."

DECISION
THE PROPOSAL IS APPROVED.

DER:OH

Records in on This R. Report on 7/23/58

cc Company (2)

E. H. MUSSER, State Oil and Gas Supervisor

By _____, Deputy

Blanket bond.

58444 7-57 60M SPO

FORM 107. 50672 9-51 15M SPO

DIVISION OF OIL AND GAS
RECEIVED
JUN 2 1958
LOS ANGELES, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

This notice must be given before work begins; one copy only

Los Angeles, Calif. May 29, 1958

DIVISION OF OIL AND GAS

Los Angeles, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of ~~deepening, redrilling, plugging~~ or altering casing at Well No. "Rancho San Francisco" 96-5, Sec. 36, T. 4N, R. 17W, S.B. B. & M.

(Cross out unnecessary words)

Newhall-Potrero Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 9719'

2. Complete casing record.
   13 3/8" 54.5#, 48#, H-40, J-55, ST&C casing cemented at 358' with 240 sacks.
   7" 23#, 26#, 29#, 32#, J-55, N-80, LT&C, X-Line, and Integral casing cemented at 9000' with 600 sacks.
   4 - 3/8" holes at 8985' - WSO..
   5 1/2" 17#, J-55 Hydril F.J. liner hung at 9717', top at 8981'. Shop perforated with 192 - 1/2" round holes per foot, undercut to 3/8", from 9002'-9214'; 9273'-9486'; and 9544'-9717'.

   Notes: Suspect bad casing at 3883'; 4983', and interval 5400'-5800'.

3. Last produced. Producing (Date) | 50 (Net Oil) | 32° (Gravity) | 7.0% (Cut)

The proposed work is as follows:
1. Pull tubing and drift casing.
2. Run 5" 15#, N-80, LT&C, 5" 15#, P-110 T.S., and 5 1/2" 20#, N-80, X-Line casing with combination lead seal and neoprene shoe set on top of liner hanger.
3. Complete well.

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
			Not req't		

SUNRAY MID-CONTINENT OIL COMPANY
(Name of Operator)

By O. A. Grayburn, Agent

ADDRESS ONE COPY OF NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

M-100. CALIFORNIA STATE PRINTING OFFICE — FILL IN — SUBMIT LOG IN DUPLICATE — IN WITH TYPEWRITER. WRITE ON ONE SIDE OF PAPER

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL & GAS
RECEIVED
JUL 27 1951
LOS ANGELES

WELL SUMMARY REPORT

Operator SUNDALL OIL COMPANY Field Newhall-Potrero

Well No. (R.S.F.) 96-5 Sec. 36, T. 4N, R. 17W, S.B. B. & M.

Location 6835.71' S & 12,591.62' E from Corner J Elevation of ground or kelly bushing above sea level 1,339.22 feet.

In compliance with the provisions of Chapter 93, Statutes of 1939, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

All depth measurements are taken from top of R.B. which is 13.30 feet above ground.

Date 7/5/51 Signed R. E. Foss

H. M. STANIER (Engineer or Geologist) T. J. PREHODA (Superintendent) Title R. E. FOSS Agent (President, Secretary or Agent)

Commenced drilling 4-6-51 Completed drilling 7-5-51 Drilling tools Rotary

Total depth 9719' Plugged depth - Junk -

GEOLOGICAL MARKERS	DEPTH
Top 5th zone	9,020

Commenced producing 7-6-51 (date) Flowing/gas lift/pumping (cross out unnecessary words)

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production 7/7/51	312	28.0	1.5	101	220	630
Production after 30 days	249	28.9	1.0	135	180	560

Casing Record (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing landed in	Number of Sacks of Cement	Depth of Cementing if through perforations
13-3/8"	358	Surface	48#	New	Smls	H-40	17-1/4"	240	-
7"	9000'	"	23, 26, 29, & 32#	New	Smls	J-55 N-80	11"	6	-
5½"	9717'	8982	17#	New	Smls	J-55	5-7/8"	HUNG	

Perforations

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
5½"	9002 ft.	9214 ft.	192 - ½" Rd. Holes/ft.	16	1"	Shop
"	9273 ft.	9486 ft.	"	"	"	"
"	9544 ft.	9717 ft.	"	"	"	"
	ft.	ft.				
	ft.	ft.				

Electrical Log Depths 9174', 9719' (Attach Copy of Log)

FORM 103. 62984 9-45 47,500
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL & GAS
RECEIVED
JUL 27 1951
LOS ANGELES

History of Oil or Gas Well

OPERATOR SUNRAY OIL CORPORATION FIELD Newhall-Potrero

Well No. R.S.F. 96-5, Sec. 36, T. 4N, R. 17W, S.B. B. & M.

Signed R. E. Foss

Date T-5-51 Title R. E. FOSS Agent
(President, Secretary or Agent)

Use this form in reporting all important operations at the well, together with the dates thereof, in the order of their performance. Such operations include drilling, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, or deepened; size, weight and length of casing landed, cemented, or removed, amount and location of perforations; number of sacks of cement used in cementing or plugging operations, number of feet of cement drilled out of casing, location of top and bottom of cement plugs. If the well was dynamited, give date, dimensions and weight of all shots. If tests were made give interval tested and results of tests, such as, amount and nature of fluids recovered.

Date	
1951	
4-6	Spudded in with 11" bit. Drilled to 437'.
4-7	Opened hole to 358' with 17½" hole opener.
4-8	Ran and cemented 13-3/8" 48# H-40 S.T. & C. Smls. Csg. shoe at 358'. Cemented with 240 sx Colton Construction cement containing 2½ % gel. Plugs did not bump. Had returns to surface.
4-9	Ran in hole with 11" bit. Found plug at 349' and shoe at 358'. Drilled ahead to 9174'.
6-13	T.D. 9174', 1st Run Schlumberger Electric Log.
6-14	T.D. 9174', Ran and cemented 7" 23, 26, 29 & 32# Csg. shoe at 9000'. Cemented with 600 sx Colton slow cement. Displaced ahead 100 c.f. water containing 50# Pyro followed by 100 sx mixed at 105 lbs/ft 3 followed by 500 sx mixed at 116 lbs/ft 3. Plugs bumped.
6-16	Ran in with 6" bit. Found plugs at 8913', float collar at 8917' and drilled out firm cement to 8990'. Shot 4 - 3/8" holes at 8985' with 4½" McCullough gun. Ran M. O. Johnston Tester with packer at 8912'. Tail - 8930'. Open 1 hour through 3/4" bottom bean. Used 1000' mud cushion. Received light blow for 1½ minutes - dead remainder of test. Recovered 20' mud. W.S.O. witnessed and approved by Div. of Oil and Gas. Drilled ahead to 9188' with 6" bit.
6-17	Diamond-cored ahead with 5-7/8" bit to 9719'.
7-4	T.D. 9719'. 2nd Run Schlumberger Electric Log. Ran 736.35' 5½" 17# J-55 F.J. Liner. Top of adapter at 8981.83' - shoe at 9717'. Perforated intervals 9002' - 9214', 9273'-9486', and 9514' - 9717'. Perforated with 192 - ½" Rd. Holes/ft.
7-5	Ran 2½" Upset production tubing and completed well. Tbg. hung @ 9,695.

Production:	Net	Grav.	Cut	Bean	T.P.	C.P.	Gas	Gor
7/6/51	159	28.9	10.0	48	-	-	83	522
7/7/51	312	28.0	1.5	48	220	630	101	319
7/8/51	279	28.2	1.4	48	180	600	185	663
7/9/51	268	28.2	1.1	48	170	560	154	575
7/10/51	253	28.9	1.1	48	180	550	167	660
7/11/51	249	28.9	1.0	48	180	560	135	542
7/12/51	233	28.9	1.0	48	180	520	127	545

NRAY MID-CONTINENT OIL COMPANY
California District

DIVISION OF OIL AND GAS
RECEIVED
JUL 22 1958
LOS ANGELES, CALIFORNIA

WELL SUMMARY REPORT

REPAIR JOB

Field Newhall-Potrero, Los Angeles County

*Well No. "Rancho San Francisco" 96-5, Sec. 36, T. 4N, R. 17W, S.B. B. & M.

Location 6835.71' South and 12,591.62' East from Corner "J"

Elevation of K.B. above sea level 1352.52'. K.B. above ~~Ground~~ Concrete Mat 13.30'.

Date July 18, 1958

Signed O. A. Graybeal
O. A. Graybeal, Agent

Contractor California Production Service
Type Rig Hopper Hoist-Type "MTA" 90' Mast
Commenced Work: June 2, 1958 (Date)

Completed Work: June 7, 1958 (Date)

WELL CONDITIONS PRIOR TO WORK

Total Depth 9719' Plugged Depth _____

13 3/8" 48#, 54.5#, H-40, J-55 csg. C. @ 358' w/240 sx.
7" 23#, 26#, 29#, 32#, J-55, N-80 LT&C, X-Line, and integral csg. C. @ 9000' w/600 sx.
4 - 3/8" bullet holes @ 8985' - WSO
5-1/2" 17# J-55 Hydrill flush joint liner H. @ 9717' w/top @ 8981'. Shop perforated w/192 1/4" round holes/ft. undercut to 3/8" from 9002'-9214'; 9273'-9486'; and 9544'-9717'.

17 1/2" hole to 417'.
11" hole to 9174'.
5 7/8" hole to 9719'.

NOTE: Suspect bad casing @ 3883'; 4983', and interval 5400'-5800'.

WELL CONDITIONS AFTER WORK

Total Depth 9719' Plugged Depth -

13 3/8" 48#, 54.5#, H-40, J-55 csg. C. @ 358' w/240 sx.
7" 23#,26#, 29#, 32#, J-55, N-80, LT&C, X-Line, and integral csg. C. @ 9000' w/600 sx.
4 - 3/8" bullet holes @ 8985' - WSO
5-1/2" 17# J-55 Hydrill flush joint liner H. @ 9717' w/top @ 8981'. Shop perforated w/192 1/4" round holes/ft. undercut to 3/8" from 9002'-9214'; 9273'-9486'; and 9544'-9717'.
5" & 5-1/2" 14.87#, 15#, 20#, N-80 P-110, triple seal, LT&C, X-Line csg. w/lead seal packer set on liner hanger @ 8981'.

17 1/2" hole to 417'.
11" hole to 9174'.
5 7/8" hole to 9719'.

NOTE: Found 7" casing I.D. less than 5 7/8" at 4980'-4984'.

Commenced Producing June 9, 1958 ~~flowing~~/gas lift/~~pumping~~
June 13, 1958 (Date) Plunger Gas Lift

	Clean Oil Bbls. per day	Gravity Clean Oil	Per Cent Water Incl. Emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production 6/18/58	73	30.7°	0.4	56	400	490
Production after 26 days	68	30.6°	0.8	74	355	410

Electrical Log Depths None (Attach copy of Log)

DLW/LBC

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

DIVISION OF OIL AND GAS
RECEIVED
JUL 23 1951
LOS ANGELES, CALIFORNIA

COUNTY Los Angeles FIELD OR DIST. Newhall-Potrero COMPANY SUNRAY OIL CORPORATION WELL R.S.F. #96-5

LOCATION 6,835.71' S & 12,591.62' E from Corner "J" SECT. 36 T. 4N R. 17W ELEV. 1339 KB

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SILT	SAND		DESCRIPTION (COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES)	F/D
1951												
6/19	5-7/8" Diam M. #1		9188	9218	30	100			x	23'	Oil sand, brown, massive, generally medium to coarse grained, occasionally small pebbly and occasionally very fine grained and silty, fair to low permeability, good saturation, contains streaks of shell amounting to 3'.	
										6½'	Oil Conglomerate, heavy, brittle, rarely sandy.	
										1/2'	Oil sand, brown, fine to medium grained, friable, good permeability.	
6/19	" #2	"	9218	9248	30	100				1'	Oil sand, light brown, medium to coarse grained, hard, low permeability.	
										2½'	Sandstone shell, hard, dense, gray, conglomeratic in part, calcareous.	
										8½'	Oil sand, brown, medium to coarse grained, fairly hard, fair to good saturation and permeability.	
										18'	Oil Conglomerate, heavy and brittle to occasionally sandy with several streaks of oil sand amounting to about 2'. Conglomerate is badly broken up in bottom 5'.	
6/20	" #3	"	9248	9278	28	93			8'		Conglomerate, ditto, mainly gray, with some sand in bottom 2½'.	
										3'	Oil Stained Sandstone, light buff gray, massive, coarse and pebbly, very low saturation and permeability.	
									17'		Conglomerate, heavy, brittle, generally gray and tight, only rarely oil stained, but with several streaksof fair to poor oil sand 9263-9265 amounting to 1'.	
6/21	" #4	"	9278	9308	30'	100			3½'		Conglomerate, ditto	
										5½'	Oil sand, brown, coarse grained, fairly hard, good saturation.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-0D

CORE RECORD

COUNTY | FIELD OR DIST. | COMPANY | WELL R.S.F. #96-5

LOCATION | -2- | SECT. T. R. ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1951												
	5-7/8"	Diam M.	9278	9308	cont.				12'		Conglomerate, heavy, brittle and gray with occasional oil stains.	
										9'	Oil Conglomerate, well oil stained, large pebbles with some sand in matrix, broken and rotten, probably fairly productive.	
'22	"	"	9308	9337	29	100				7½'	Oil Conglomerate, ditto.	
	#5									1½	Oil sand, medium grained, pebbly at base, brown, massive, good saturation, low permeability.	
										1½'	Oil Conglomerate, as last above, rotten and broken.	
										1½'	Oil sand, as last above.	
										2½'	Oil Conglomerate, as last above.	
										3½'	Oil sand, dark brown, massive, coarse grained, pebbly in part, good saturation and good permeability.	
										3½'	Oil Conglomerate, heavy, brittle, sandy in lower part, quite dense in top 18".	
										3'	Oil sand, brown, massive, medium grained, difficultly friable, good saturation, low permeability.	
										4½'	Oil Conglomerate as last above, sandy in places, somewhat fractured.	
(Core #6 was 2' of Pickup - no hole was made.)												
'23	"	"	9337	9366	29'	100				2	Oil sand, brown, coarse grained, small pebbly, permeable.	
	#7									1½'	Oil conglomerate, sandy, permeable, broken.	
										17½'	Oil Sand, tan to brown to occasionally gray(in tight places) coarse grained, generally fair permeability with about 2' of streaks of gray shell.	
										8'	Oil Conglomerate as last above, sandy and with a low permeability with 18" of oil sand at 9363'.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc, Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY | FIELD OR DIST. | COMPANY -3- | WELL R.S.F. #96-5

LOCATION | SECT. | T. | R. | ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1951												
6/24	5-7/8" Diam M. #8		9366	9393	27'	100				27'	Oil Conglomerate, ditto, sandy but with a low permeability and with streaks of brown, low permeable oil sand as follows: 18' at 9367' 2' at 9376' 18" at 9385'	
'25	" #9	"	9393	9423	30'	100				25'	Oil Conglomerate, heavy and brittle to occasionally sandy, generally low permeability to tight.	
										2'	Oil sand, light tan-gray, massive, coarse, very low permeability, quite hard.	
										1/2'	Oil Conglomerate, heavy, brittle.	
										2'	Oil sand, as just above.	
										1/2'	Oil Conglomerate, as above.	
6/25	" #10	"	9423	9453	30'	100			x	23'	Oil Conglomerate, heavy, brittle, hard, fair saturation, but low porosity and permeability. Contains 18" of gray, hard sandstone at 9436'.	
										4½'	Oil sand, brown, massive, medium to coarse and pebbly downward, fairly hard, generally low permeability but good saturation.	
										2½'	Oil Conglomerate, as above, but moderately broken up; rare sand.	
/26	" #11	"	9453	9483	30	100				5'	Oil Conglomerate, ditto	
							x			2½'	Silty oil sand, tan to brown, fine grained to occasionally coarse and pebbly in thin streaks, interbedded with streaks of siltstone. 40° dip.	
							x			21'	Oil sand, brown, coarse grained with conglomeratic streaks, and with siltstone streaks in upper half of core. Bottom 4' is medium grained, permeable oil sand whereas rest of core generally has quite a low permeability.	
							1½				Siltstone, sandy, gray, hard, with streaks of permeable	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc, Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY | FIELD OR DIST. | COMPANY | WELL R.S.F.#96-5

LOCATION -4- SECT. T. R. ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
6/26		#11	9453	9483	cont...							
											sand up to 1".	
6/27	5-7/8" Diam M.	#12	9483	9511	28'	100				4'	Oil Conglomerate, rotten, broken, sandy, pebbles to 1".	
							x		x	23'	Oil sand, brown, massive, medium to coarse grained, low permeability generally with 1' of shell at 9502', 18" at 9506¼' and 18" at 9508¼', and with conglomeratic streaks 9490.5' to 9493 and 9501 to 9506.5' (includes shell mentioned above).	
										1'	Oil Conglomerate heavy, brittle with cobbles to 3".	
6/28	"	" #13	9511	9541	30'	100			x	30'	Oil Conglomerate, ditto, heavy and brittle to sandy with streaks of low permeability as at 9523-9524' and 9536-9537' and one streak of sandstone shell 9524-9526'. Conglomerate is hard, dense 9527-9530'.	
6/28	"	" #14	9541	9571	30	100				7'	Oil Conglomerate, ditto, rather rotten with 18" oil sand at 9542½'.	
										9'	Oil sand, brown, massive, medium grained, quite firm, fair permeability.	
										2'	Sandstone shell, gray, massive, medium grained, with permeable oil sand streak at base.	
										6'	Oil Conglomerate, hard, brittle, sandy in part, with streak of sandstone shell at base.	
										6'	Oil sand, rich brown, medium grained, massive, somewhat friable, high permeability, slightly fractures.	
6/30	"	" #15	9571	9600	29'	100				9'	Oil sand, brown, massive, medium and coarse grained, pebbly in part. Gray, shaley and tight 9579-9580'.	
										16'	Oil Conglomerate, quite sandy, fair permeability, good saturation, commonly broken.	
										4'	Oil sand, brown, medium grained, good saturation, fair permeability, broken up.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY | FIELD OR DIST. | COMPANY -5- | WELL R.S.F.#96-5

LOCATION | SECT. | T. | R. | ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1951												
6/30	5-7/8"	Diam M. #16	9600	9630'	30'	100				1'	Oil sand, ditto.	
							29'			x	Siltstone, brown to gray, massive to finely interbedded with streaks of oil sand, up to 4", interbeds grade from very thin, fine grained, silty gray sand to medium-coarse grained oil sand. Streaks generally not over 2" thick. Dip 40°.	
7/1	"	" #17	9630	9660	30'	100	26½'				Siltstone, ditto, generally lacking streaks of medium grained oil sand, noted particularly in upper part of last core. Contains common lamiae of fine grained silty sand. Oil stained in part. Dip 40°.	
									3½'		Sandstone, gray, fine to medium grained, hard, tight but not very calcareous. Few siltstone interbeds at top.	
7/2	"	" #18	9660	9690	30'	100				5'	Oil sand, yellow-brown, biscuit broken, medium grained, good saturation and permeability.	
							25'		x	x	Siltstone, as last above, with occasional streaks of oil sand and common fine grained, gray sand laminae. Contains 2' of gray sandstone at 9682' and 6" at 9687½'.	
7/3	"	" #19	9690	9719	29'	100	10				Siltstone, ditto with about 25% medium grained sand streak.	
							19'				Shale, brown, laminated with gray, ashy(?) streaks, shale parting to massive. Unlike siltstone above, as is very fine grained & lacking sand. Dip about 40°.	
											9719' T.D.	
											R. S. Johnson	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

037-13276

36-4-17

PETROLEUM TECHNOLOGISTS, INC.
868 Truckway
Montebello, California

Shell Oil Co

Mr. Oran Graybeal
Sunray Oil Corporation
(Barnsdall Division)
714 West Olympic
Los Angeles 15, Calif.

August 8, 1951
Field: Newhall-Potrero
Well: RSF 96-5
Oil: 28° API
Mud: Ken Oil

CORE ANALYSIS REPORT (Big Cores)

Depth	% Porosity	md. Air Permeability		Character of Sample
9188	10.65	7.9		Sd-C-Pb
95	12.10	10.6		Sd-C
9201	10.44	3.4		Sd-MC
07	8.32	4.0		Sd-C-Pb
16	3.40	6.7		Co-C
22	9.78	.34		Sd-M-few big Pb
28	13.30	5.6		Sd-M-Pb one end
34	5.6	46.	*	Co-C Boulders
39	5.85	5.2		Co-C
44	13.30	5.9		Sd-MF-Lam
50	3.78	1.14		Co-C
55	6.58	1.96		Co-M + Sd-C-Pb
62	3.57	.79		Co-M
68	3.36	.50		Co-C
80	2.54	.66		Co-C
86	10.20	4.63		Sd-C-Sh inclus
92	3.40	5.44		Sd-Co-M
97	3.71	2.66		Co-C
9302	8.0	32	*	Co-M
13	3.14	2.21		Co-M
16	13.30	4.45		Sd-M-Pb at cor.
26	10.06	11.50		Sd-C-Very Pb
31	13.23	2.96		Sd-M
42	14.74	13.66		Sd-FM-Sh-Lam
46	12.02	6.74		Sd-few big Pb
51	9.11	3.22		Sd-C-Pb
56	1.79	.087		Sd-C
62	6.1	2.4	*	Co-M
69	10.14	3.38		Sd-Co-M
75	4.3	24	*	Co-M
83	3.49	4.07		Co-M
88	12.27	5.76		Sd-M
93	5.5	23	*	Co-C
9405	4.33	.36		Co-C
10	3.54	2.14		Sd-M + big Pb
17	5.67	.29		Co-very C 5" Pb
21	9.95	.91		Sd-MC
25	3.24	2.95		Co-C
35	8.1	7.6	*	Co-C

DIVISION OF OIL AND GAS
RECEIVED
JAN 2 1978
SANTA PAULA, CALIFORNIA

RECEIVED
AUG 20 1951
ERNEST K. PARKS

Mr. Oran Graybeal
Sunray Oil Corporation

August 8, 1951
Well: RSF 96-5

CORE ANALYSIS REPORT - (Continued)

Depth	% Porosity	md. Air Permeability	Character of Sample
9438	7.26	1.68	Sd-FC + big Pb
44	1.95	.51	Co-CF
49	14.94	.75	Sd-MF
56	3.02	3.80	Co-Very C
61	10.06	5.36	Sd-C w Pb
70	14.70	17.50	Sd-FM-Sh inclus
76	3.78	2.83	Co-M
80	12.96	5.50	Sd-MF
87	9.35	4.60	Sd * Co-FM + Sh inclus
92	1.92	.73	Sd + Co-MC
97	12.45	2.83	Sd-MC
9503	5.10	5.14	Co-MF
08	6.09	1.46	Sd-C 40%-Co-M 60%
14	1.74	3.49	Co-M
20	2.08	6.96	Co-C
26	6.52	1.38	Pb bonded by Sd
31	4.44	6.58	Co-F
36	11.57	6.96	Sd-C w. Pb
43	11.04	1.10	Sd-M-C
49	12.05	1.79	Sd-M
55	16.40	9.51	Sd-F
61	4.73	1.93	Co-C
65	13.89	3.25	Sd-M-Pb
71	14.08	8.08	Sd-C
77	14.31	4.95	Sd-M
83	2.23	1.47	Co-M
94	7.35	4.65	Co-C-Sd-F
9600	13.06	4.38	Sd-F
06	9.86	7.01	Sd-C-w Pb
12	4.04	3.76	Sd-F-Lam-Silty
21	19.30	85.8	Sd-F-Lam-Silty

* Average of 2 small plugs

Sd - Sand
Sh - Shale
Co - Conglomerate

F - Fine Grain
M - Medium
C - Coarse

Pb - Pebble
Pkr - Poker Chip
Lam - Laminated

Norris Johnston

PETROLEUM TECHNOLOGISTS, INC.
868 Truckway
Montebello, California
UNion 1-5338

July 5, 1951

Mr. Oran Grayboal
Sunray Oil Corporation
(Barnsdall Division)
714 West Olympic
Los Angeles 15, Calif.

5-7th ZONE

Field: Newhall-Potrero
Well: RSF 96-5
Mud: Ken Oil
Oil: 28° API

CORE ANALYSIS REPORT

Depth	% Porosity	md. Air Permeability	O/W Ratio	Saturation of Pore Space % Oil	% Water	Tot. Liq.	Character of Sample
9188	14.9	7.3	1.00	30.8	30.8	61.6	Sd-MF-Hi o
90	7.3	11	.59	18.4	31.0	49.4	Co-M "
94	10.6	12	.83	25.9	31.2	57.1	Co-MF "
96	11.6	1.9	.76	26.4	34.7	61.1	Sd-MF "
98	14.1	1.8	.75	26.8	35.8	62.6	Sd-F "
9200	10.6	3.9	.62	18.6	30.0	48.6	Sd-MC "
02	11.2	.9	.18	7.9	44.5	52.4	Sd-MC "
04	13.4	13	1.33	35.5	26.6	62.1	Sd-MF "
06	9.4	25	.73	24.0	32.7	56.7	Sd-C-Pb-Hi o
08	8.3	7.2	.10	4.6	45.0	49.6	Co-MF "
17	11.7	2.0	.46	14.4	31.2	45.6	Sd-MF "
19	12.3	1.6	.18	6.3	35.8	42.1	Sd-MF "
22	10.2	6.2	.68	21.0	31.0	52.0	Sd-M "
23	11.2	3.9	.83	24.4	29.4	53.8	Sd-F "
25	11.2	1.7	.35	12.4	35.0	47.4	Sd-F "
27	10.1	1.1	.14	6.0	42.0	48.0	Sd-M-Pb "
29	11.3	4.1	.60	22.3	37.0	59.3	Sd-MF "
36	10.9	2.2	.20	7.9	39.5	47.4	Sd-MF "
42	14.9	22	.40	15.1	37.8	52.9	Sd-F "
56	8.5	3.6	.06	3.2	53.1	56.3	Co-MF "
58	8.8	3.3	0	0	56.0	56.0	Co-M "
63	12.7	15	1.02	31.8	31.1	52.9	Sd-MF "
82	9.8	10	.76	27.9	36.5	64.4	Sd-MF "
84	9.7	8.4	.67	26.9	40.3	67.2	Sd-MF "
86	9.8	6.8	.67	23.2	34.8	58.0	Sd-MC "
9315	13.9	9.5	.57	24.8	43.4	68.2	Sd-F "
18	14.5	9.7	.63	26.5	41.9	68.4	Sd-F "
19	5.4	3.9	.22	14.5	66.2	80.7	Sd-MC "
22	8.5	2.0	.17	9.6	56.6	66.2	Sd-M- "
23	11.1	34	1.59	41.2	25.9	67.1	Sd-C "
32	12.0	5.8	.87	29.4	33.6	63.0	Sd-F "
39	7.5	32	1.00	40.0	40.0	80.0	Sd-MC-Pb "
42	11.0	12	.97	33.3	34.4	67.7	Sd-MC "
44	7.7	8	1.27	53.9	42.3	96.2	Co-MF "
46	4.8	1.7	.29	17.8	60.7	78.5	Sd-MC "
48	4.3	3.6	.08	5.3	69.6	74.9	Sd-MC-Pb "
50	8.6	12	.74	31.8	43.2	75.0	Sd-MC "

RECEIVED
JUL 12 1951
ERNEST K. PARKS

Mr. Oran Graybeal
Sunray Oil Corporation

July 5, 1951
Well: RSF 96-5

CORE ANALYSIS REPORT -(Continued)

Depth	% Porosity	md. Air Permeability	O/W Ratio	Saturation of PoreSpace % Oil	% Water	Totl Liq.	Character of Sample	
9597	13.5	5.9	.29	14.0	48.0	62.0	Sd-F	Hi c
99	16.0	29	.68	26.0	38.3	64.3	Sd-F	"
9602	10.2	5.	.28	13.1	46.1	59.2	Sd-M	"
04	13.6	4.1	.44	18.4	38.7	57.1	Sd-MC-Pkr	"
24	16.4	43	.45	18.7	41.6	60.3	Sd-F	"
61	15.7	87	.22	11.6	53.9	64.5	Sd-F	"
9664	16.1	82	.23	14.1	62.4	76.5	Sd-F-Pkr	"

Sd - Sand
Sh - Shale
Co - Conglomerate
F - Fine Grain
M - Medium Grain
C - Coarse Grain
Pb - Pebble

Pkr - Poker chip
Lam - Laminated
Lo c - Low Cementation
Mi c - Medium Cementation
Hi c - High Cementation
Stks - Streaks

Norris Johnston

Mr. Oran Graybeal
Sunray Oil Corporation

July 5, 1951
Well: RSF 96-5

CORE ANALYSIS REPORT - (Continued)

Depth	% Porosity	md. Air Permeability	O/W Ratio	Saturation of Pore Space % Oil	% Water	Tot. Liq.	Character of Sample	
9352	10.0	23	1.24	39.4	31.9	71.3	Sd-M	Hl e
56	9.8	6.4	.82	33.3	40.4	73.7	Sd-M	"
58	8.5	1.5	.41	21.9	53.4	75.3	Sd-MF	"
64	8.4	2.4	.33	15.7	48.2	63.9	Sd-M	"
68	11.6	12	.95	31.2	32.8	64.0	Sd-F	"
76	10.1	13	1.13	41.0	36.2	77.2	Sd-MF	"
78	10.6	15	1.53	54.7	35.8	90.5	Sd-M-Pb	"
85	11.2	16	1.69	58.1	34.3	92.4	Sd-F	"
9447	13.2	10	.60	21.4	35.7	57.1	Sd-M	"
49	11.4	4.6	.68	26.2	38.5	64.7	Sd-MF	"
59	15.6	12	.27	11.8	43.6	55.4	Sd-F	"
61	7.9	9.2	.51	21.2	41.2	62.4	Sd-MC-Pb	"
63	10.6	25	1.71	42.8	25.0	67.8	Sd-MC	"
65	12.5	1.5	.37	15.7	42.6	58.3	Sd-F-Sh.Stks.-Hl	e
68	11.0	33	1.25	36.7	29.2	65.9	Sd-MC	Hl e
71	8.6	16	1.00	34.8	34.8	69.6	Sd-MC	"
73	7.2	24	.40	16.0	40.0	56.0	Co-M	"
77	9.6	5.4	.34	16.0	47.8	64.1	Sd-F	"
78	14.4	26	.74	24.3	32.6	56.9	Sd-M	"
80	11.6	18	.45	16.7	37.3	54.0	Sd-M	"
81	9.3	12	.26	12.5	47.5	60.0	Sd-MF	"
88	11.8	23	1.11	36.5	32.7	69.2	Sd-MF	"
90	11.1	19	1.13	35.2	31.1	66.3	Sd-F	"
94	14.8	20	.26	12.8	49.6	62.4	Sd-FM	"
96	14.4	25	.61	24.0	39.2	63.2	Sd-MF	"
98	14.0	80	1.68	43.2	25.7	68.9	Sd-MF-Pb	"
9500	14.6	138	1.68	49.2	29.3	78.5	Sd-F	"
05	9.5	125	.31	14.0	45.7	59.7	Co-MF	"
23	11.0	49	.37	16.9	45.8	62.7	Sd-MC-Pb	"
31	9.8	16	.24	13.0	53.2	66.2	Sd-M-Pb	"
44	13.8	4.5	.11	6.2	58.4	64.6	Sd-M	"
48	9.8	9.0	.30	13.9	45.8	59.7	Sd-MF	"
50	15.9	11	.36	13.4	37.3	50.7	Sd-F	"
52	10.6	7.5	.39	18.3	47.1	65.4	Sd-M	"
54	13.6	12	.60	25.6	43.1	68.7	Sd-M	"
56	15.2	21	.81	28.3	35.1	63.4	Sd-M	"
58	10.8	110	.73	27.1	37.4	64.5	Sd-MC-Pb	"
66	13.0	28	.79	25.2	31.8	57.0	Sd-MC	"
68	17.1	70	.81	24.0	29.8	53.8	Sd-MF	"
70	15.4	22	.75	25.7	34.3	60.0	Sd-MF	"
72	13.1	27	1.28	45.1	35.2	80.3	Sd-M	"
74	14.4	71	.52	21.6	41.8	63.4	Sd-M-Pb	"
76	17.0	25	.47	21.8	46.0	67.8	Sd-F	"
78	16.4	14	.42	19.1	45.9	65.0	Sd-F-C-Lam-Hl	e

FORM 109-A (10-48)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(FORMATION TESTER)

No. T 1-53072

Los Angeles 15 Calif. June 25 19 51

Mr. R. E. Foss
Los Angeles 15 Calif.
Agent for SUNRAY OIL CORPORATION

DEAR SIR: "Rancho San Francisco" 121

Your well No. 96-5, Sec. 36, T. 4 N, R. 17 W, S B B & M.
Newhall-Potrero Field, in Los Angeles County, was tested for water shut-off on June 17, 19 51. Mr. W. N. Sampson, Inspector, designated by the supervisor, was present as prescribed in Secs. 3222 and 3223, Ch. 93, Stat. 1939; there were also present J. Beard, Drilling Foreman; C. A. Kimball, Driller.

Shut-off data: 7 in. 23, 26, 29, 32 lb. casing was cemented xxxx at 9000 ft. on June 14, 19 51 in 11 in. hole with 600 sacks of cement xxxxx of which 15 sacks was left in casing.

Casing record of well: 13-3/8" cem. 358'; 7" cem. 9000'; four 3/8" test holes 8985'. W.S.O.

Present depth 9174 ft. Bridged with cement from 9000 ft. to 8990 ft. Cleaned out to 8990 ft. for test. A pressure of 2000 lb. was applied to the inside of casing for 10 min. without loss after cleaning out to 8990 ft. A Johnston tester was run into the hole on 3-1/2 in. drill pipe-~~tubing~~ with 1000 ft. of ~~water~~-mud cushion, and packer set at 8912 ft. with tailpiece to 8930 ft. Tester valve, with 3/8 in. bean, was opened at 11:52 p.m., June 16, 1951 and remained open for 1 hr. and xxx min. During this interval there was a light blow for 1½ min., and no blow thereafter.

THE INSPECTOR ARRIVED AT THE WELL AT 3:50 A. M. AND MR. BEARD REPORTED:

1. An 11" rotary hole was drilled from 358' to 9174'.
2. Electrical core readings showed the top of the 5th zone at 9073'.

THE INSPECTOR NOTED:

1. When the drill pipe was removed, 20' of heavy, drilling fluid was found in the drill pipe above the tester, equivalent to 0.1 bbl.
2. The recording pressure bomb chart showed that the tester valve was open 1 hr.

The test was completed at 5:00 a.m.

THE 7" WATER SHUT-OFF AT 8985' IS APPROVED.

NNS:OH

cc Company P/B

R. D. BUSH, State Oil and Gas Supervisor

By [signature], Deputy

FORM 109-D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-52767

Los Angeles 15, Calif. April 25, 1951

Mr. R. E. Foss
Los Angeles 15, Calif.
Agent for SUNRAY OIL CORPORATION

DEAR SIR: "Rancho San Francisco"

Operations at your well No. 96-5 Sec. 36, T. 4 N., R. 17 W., S.B. B. & M., Newhall-Potrero Field, in Los Angeles County, were witnessed by J. F. Foster, Inspector, representative of the supervisor, on April 13, 1951. There was also present O. A. Alvali, Driller; O. W. Lee, Derrickman.

Casing Record 13-3/8" cem. 358'. T.D. 2550'. | Junk None

The operations were performed for the purpose of inspecting blowout prevention equipment and installation.

The inspector arrived at the well at 2:30 p.m. and Mr. Alvali reported:

1. A 17-1/4" rotary hole was drilled from the surface to 358'.
2. On April 8, 1951, 13-3/8", 48 lb. casing was cemented at 358' with 250 sacks of cement.
3. Cement returned to the surface.
4. An 11" rotary hole was drilled from 358' to 2550'.

THE INSPECTOR NOTED THAT THE WELL WAS EQUIPPED WITH THE FOLLOWING BLOWOUT PREVENTION EQUIPMENT:

1. A Shaffer double cellar control gate for closing in the well with the drill pipe out of the hole, and for closing around the 4-1/2" drill pipe.
2. The controls for the above equipment were located outside the derrick.
3. A 2" mud fill-up line with a 2" high pressure stopcock into the 13-3/8" casing below the above equipment.

The inspection was completed at 2:50 p.m.

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

JFF:OH

cc- Company

R. D. BUSH
State Oil and Gas Supervisor

By C. H. Murray Deputy

16330 10-49 17,500 ② SPO

FORM 111 (1-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

No. P 1-49727

Los Angeles 15, Calif. April 5, 19 51

MR. R. E. Foss

Los Angeles 13, Calif.

12-1

Agent for Sunray Oil Corporation

DEAR SIR:

Your proposal to drill Well No. "Rancho San Francisco" 96-5,

Section 36, T. 4 N., R. 17 W., S.B. B. & M., Newhall-Potrero Field, Los Angeles County,

dated March 27, 1951, received March 30, 1951, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:

"The well is 6,835.71 feet S. and 12,591.62 feet E. from Corner "J"
The elevation of the ground above sea level is 1,339.22 feet. (All depth measurements taken from top of Kelly Bushing, which is 13.0' above ground.)
We estimate that the first productive oil or gas sand should be encountered at a depth of about 9,150 feet."

PROPOSAL:

"We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing	Weight	Grade and Type	Depth	Landed or Cemented
13-3/8"	54.5#	J-55 Smls.	400'	Cemented
7"	23, 26 & 29#	J-55, N-80, Smls.	9,150'	"
5-1/2"	17#	J-55 Smls.	9,800'	Landed

Well is to be drilled with rotary tools.
It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT

1. Blowout prevention equipment, sufficient to provide a complete close-in of the well under pressure at any time, shall be installed and approved by this division.
2. Any hole to be sidetracked in any oil or gas zone shall be filled with cement, if possible.
3. THIS DIVISION SHALL BE NOTIFIED AS FOLLOWS:
   (a) To inspect the installed blowout prevention equipment before drilling below 1500'.
   (b) To witness a test of the effectiveness of the 7" shut-off.

ERMA:OH

cc- Company

5/11

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Musser Deputy

28489 6-50 19M SPO

Blanket bond.

FORM 105
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

037-13276

Notice of Intention to Drill New Well 3

This notice must be given and surety bond filed before drilling begins

DIVISION OF OIL & GAS
RECEIVED
MAR 30 1951
LOS ANGELES

LOS ANGELES Calif. MARCH 27 19 51

DIVISION OF OIL AND GAS

LOS ANGELES Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of drilling well No. "RANCHO SAN FRANCISCO" #96-5, Sec. 36, T. 4N, R. 17W, S.B. B. & M., NEWHALL-POTRERO Field, LOS ANGELES County.

Lease consists of

The well is 6,835.71 feet ~~N. of~~ S., and 12,591.62 feet E. ~~of W.~~ from Corner "J"
(Give location in distance from section corners or other corners of legal subdivision)

The elevation of the ground ~~derrick floor~~ above sea level is 1,339.22 feet. (All depth measurements taken from top of Kelly Bushing, which is 13.0' above ground.)

We estimate that the first productive oil or gas sand should be encountered at a depth of about 9,150 feet.

We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing, Inches	Weight, Lb. Per Foot	Grade and Type	Depth	Landed or Cemented
13-3/8"	54.5#	J-55 Smls.	400'	Cemented
7"	23, 26 & 29#	J-55, N-80, Smls.	9,150'	"
5-1/2"	17#	J-55 Smls.	9,800'	Landed

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing.

Address 714 W. Olympic Boulevard
Los Angeles 15, California

Telephone number RI 5171

SUNRAY OIL CORPORATION
(Name of Operator)

By R. E. Foss
R. E. Foss Agent

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
18A	477	EB	Blanket		

PROPERTY/WELL TRANSFER OR ACQUISTION

Medallion California Properties

to

Vintage Production California LLC (V1370)

Effective December 26, 2006

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

REPORT OF PROPERTY AND WELL TRANSFER

Field or county		District
Newhall-Potrero		2 Ventura
Former owner	**Operator code**	**Date**
DKM Offshore Energy, Inc.	D0230	10-1-94

Name and location of well(s)

All wells previously owned by DKM Energy, Inc.
in Sec. 25, 26, 27, 31, 35, 36, T. 4N, R. 17W SBB&M.

Except:
"Rancho San Francisco" 152 (037-12654)

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Operator code	Type of organization
10-1-94	Medallion California Properties Company	M4805	Corporation
	Address 1400 Easton Dr., #133 Bakersfield, CA. 93309		**Telephone No.** (805) 395-3029

Reported by
Medallion California Properties Company

Confirmed by
DKM Offshore Energy

New operator new status (status abbreviation)	Request designation of agent
PA	
Old operator new status (status abbreviation)	**Remarks**

Deputy Supervisor
Patrick J. Kinnear

Signature
Patrick J. Kinnear

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121	TKC		Map and book 252 + 253	PC	1-3099
Form OGD140			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files	TKC	
Electric logs	TKC		Computer Files		
Production reports	TKC				

OGD156 (5/98)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
Newhall Potrero	2
Former owner	**Date**
Oryx Energy Company	May 15, 1991

Name and location of well(s)

Sec. 26, T. 4N., R. 17W., SBB&M (Continued)

"Rancho San Francisco" 73	(037-13252)	"Rancho San Francisco" 109	(037-13288)
"Rancho San Francisco" 74	(037-13253)	"Rancho San Francisco" 115	(037-132940
"Rancho San Francisco" 80	(037-13259)	"Rancho San Francisco" 118	(037-13296)
"Rancho San Francisco" 83	(037-13262)	"Rancho San Francisco" 119	(037-13297)
"Rancho San Francisco" 87	(037-13266)	"Rancho San Francisco" 120	(037-13298)
"Rancho San Francisco" 92	(037-13272)	"Rancho San Francisco" 122	(037-13299)
"Rancho San Francisco" 97	(037-13277)	"Rancho San Francisco" 123	(037-13300)
"Rancho San Francisco" 99	(037-13279)	"Rancho San Francisco" 125	(037-12879)
"Rancho San Francisco" 100	(037-13280)	"Rancho San Francisco" 126	(037-12880
"Rancho San Francisco" 105	(037-132840	"Rancho San Francisco" 128	(037-12882)

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Type of organization
1-1-91	Tidelands Oil Production Co.	Co.
	Address: 925 Harbor Plaza, Long Beach, CA 90801	Telephone No.: 213-436-9918

Reported by
Oryx Energy Company

Confirmed by
Tidelands Oil Production Co.

New operator new status (status abbreviation)	Request designation of agent
PA	
Old operator new status (status abbreviation)	**Remarks**
PA	

Deputy Supervisor: Patrick J. Kinnear

Signature: Patrick J. Kinnear

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form ODG148			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs					
Production reports					

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
NEWHALL-POTRERO	2
Former owner	**Date**
Sun Oil Company	Mar. 31, 1983

Name and location of well(s)

Sections 21, 22, 25, 26, 27, 28, 35, 36, T4N. R. 17W.

ALL WELLS

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Type of organization
1/1/82	Sun Exploration & Production Co.	Company
	Address: P.O. Box 55060, Valencia, Ca. 91355	Telephone No.: (805) 257-6200

Reported by: Sun Oil Company

Confirmed by: Sun Exploration & Production Co.

New operator new status (status abbreviation)	Request designation of agent
PA	on file
Old operator new status (status abbreviation)	**Remarks**
Ab	NAME CHANGE ONLY

Deputy Supervisor	Signature
Murray W. Dosch	Murray W. Dosch

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form OGD148			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs					
Production reports					

FM 157 (11-48)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

REPORT ON PROPOSED CHANGE OF WELL DESIGNATION

1015 West Olympic Boulevard
Los Angeles 15, California, March 27, 19 52

Mr R R Foss
714 West Olympic Boulevard
Los Angeles 15 California

Agent for Sunray Oil Corporation

Dear Sir

Your request dated March 25, 19 52, relative to change in designation of well(s) in the Newhall-Potrero field, District No. 1, has been received;

and in accordance with Section 3203, Div. 3 of the Public Resources Code.

JFM

"* * * The number or designation by which any well heretofore drilled has been known, and the number or designation specified for any well in a notice filed as required by Section 3203, shall not be changed without first obtaining a written consent of the Supervisor."

the proposed change in designation is hereby authorized as follows:

Sec. 26, T. 4 N., R. 17 W., S. B. B. & M.

Well No. "Rancho San Francisco" 99-9 will hereafter be known as your well No. "Rancho San Francisco" 99-5

Corrections Made as Follows:	By Whom
Form 114	
" 115	
" 121 ✓	EB
" 143	
Cards	
Production Reports ✓	mc
Well Records (Folders) ✓	EB
Field Maps ✓	
Map Book ✓	

Elec logs.

eb
cc- Mr R D Bush (2)
H Cooley
Conservation Committee

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Wiesser
Deputy Supervisor

53071 11-51 3250 SFO

SUNRAY OIL CORPORATION
714 WEST OLYMPIC BOULEVARD
LOS ANGELES 15, CALIFORNIA

DIVISION OF OIL & GAS
RECEIVED
MAR 26 1952
LOS ANGELES

March 25, 1952

State of California
Division of Oil and Gas
1015 W. Olympic Boulevard
Los Angeles 15, California

Gentlemen: Attention Mr. E. H. Musser

Please refer to our well Rancho San Francisco 99-9, Section 26-T4N-R17W, SBB&M, in the Newhall-Potrero Field.

This well was originally drilled as a Ninth zone test well. The well was finally completed as a Fifth zone producer.

For this reason, please change the well number to Rancho San Francisco 99-5.

Yours very truly,

R. E. Foss

R. E. Foss, Agent

REF:mbs

SUBMIT LOG IN DUPLICATE

FILL BLANK IN WITH TYPEWRITER. WRITE ON ONE SIDE OF PAPER ONLY

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL & GAS
RECEIVED
MAR 28 1952
LOS ANGELES

WELL SUMMARY REPORT

Operator SUNRAY OIL CORPORATION Field NEWHALL-POTRERO

Well No. (RSF) 99-5 Sec. 26, T. 4N, R. 17W, S.B. B. & M.

Location 5,348.12' S & 10,207.18' E from Cor. "J" Elevation of ~~ground~~ conc. mat above sea level 1,325.02' feet. (kelly bushing 1,338.32')

In compliance with the provisions of Chapter 93, Statutes of 1939, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date March 24, 1952 Signed R. E. Foss

E. M. Stanley (Engineer or Geologist) T. J. Prehoda (Superintendent) Title R. E. Foss, Agent (President, Secretary or Agent)

Commenced drilling June 15, 1951 Completed drilling Jan. 23, 1952 Drilling tools Rotary

Total depth 12,830' Plugged depth 9,904'

Junk None

GEOLOGICAL MARKERS	DEPTH
Top Miocene	7,381'(?)
Top 5th Zone	9,077'
Base 5th Zone	9,750'

Commenced producing Jan. 24, 1952 (date) ~~flowing~~/gas lift/~~pumping~~ (cross out unnecessary words)

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production	237	29.0°	0.3	19	140	490
Production after 60 days	97	-	0.8	117	120	400

CASING RECORD (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing landed in	Number of Sacks of Cement	Depth of Cementing if through perforations
13 3/8"	405'	Surface	54.5#	New	Smls.	J-55	17 1/2"	275	-
9 5/8"	9,045'	"	40#,43.5#	New	Smls.	J-55,N-80	12 1/4"	600	-
			& 47#			"D"			
7"	9,070'	"	23#, 26#	New	Smls.	J-55,N-80	8 1/2"	200	-
			& 29#						
5 1/2"	9,898'	9,049'	17#	New	Smls.	J-55	8 1/2"	-	None

PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
5 1/2"	9,747.1 ft.	9,607.0 ft.	192 1/4" Rd. holes/ft.	16	1"	Shop
	9,531.7 ft.	9,298.9 ft.	undercut to 3/8"			
	9,221.5 ft.	9,071.7 ft.				
	ft.	ft.				
	ft.	ft.				

Electrical Log Depths 9,055', 11,063', 12,192', 12,830'. (Attach Copy of Log)

FORM 103. 62984 9-46 47,500
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

DIVISION OF OIL & GAS
RECEIVED
MAR 28 1952
LOS ANGELES

OPERATOR SUNRAY OIL CORPORATION FIELD NEWHALL-POTRERO

Ranch San Francisco

Well No. (RSF) 99-5, Sec. 26, T. 4N, R. 17W, S.B. B. & M.

Signed R. E. Foss
AD

Date March 24, 1952 Title R. E. Foss, Agent
(President, Secretary or Agent)

Use this form in reporting all important operations at the well, together with the dates thereof, in the order of their performance. Such operations include drilling, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, or deepened; size, weight and length of casing landed, cemented, or removed, amount and location of perforations; number of sacks of cement used in cementing or plugging operations, number of feet of cement drilled out of casing, location of top and bottom of cement plugs. If the well was dynamited, give date, dimensions and weight of all shots. If tests were made give interval tested and results of tests, such as, amount and nature of fluids recovered.

Date

1951

6-15 Spudded in with 17 1/2" hole opener. Drilled to 50'. Drilled ahead to 510' with 11" bit.

6-16 T.D. 510'. Opened 11" hole to 405' with 17 1/2" hole opener.

6-17 Cemented 13 3/8" 54.5# J-55 Casing at 405' with 275 sx. construction cement containing 2 1/2% gel. Found top of cement at 381'. Found shoe at 405'. Drilled ahead with 11" bit to 3,571'.

6-28 T.D. 3,571'. Opened hole to 12 1/4" from 405' - 3,571'.

6-29 Drilled ahead with 12 1/4" bit to 8,498'.

8-11 Drilled ahead to 9,055' with 11" bit. Opened 11" hole to 12 1/4" 8,498' - 9,055'.

8-18 T.D. 9,055'. 1st Run Schlumberger Electric Log and Photoclinometer.
Reamed hole with 12 1/4" Grant 6 pt. reamer. 405' - 9,055'.

8-23 Ran 9 5/8" 40#, 43.5#, and 47# J-55, N-80, "D", Casing, shoe at 9,045' and float collar at 8,971'. Cemented with 100 sx. Hi-Temp. cement at 105 lb./c.f. and 500 sx. Hi-Temp. at 116 lb./c.f.

8-25 Ran in with 8 1/2" bit. Drilled out float collar at 8,971'. Solid cement to shoe at 9,045'. Found 8' cement below shoe. Changed clay base mud to Ken Oil Base mud. Drilled ahead to 9,119' with 8 1/2" bit.

8-29 T.D. 9,119'. Alternately drilled (8 1/2" bits) and cored (8 3/8" diamond core heads) ahead to 11,901'.

11-1 T.D. 11,901'. 2nd Run Schlumberger Electric Log and Photoclinometer.
Alternately drilled and cored ahead to 12,186'.

12-12 T.D. 12,186'. 3rd Run Schlumberger Electric Log.
Alternately drilled and cored ahead to 12,830'.

1952

1-11 T.D. 12,830'. 4th Run Schlumberger Electric Log, Photoclinometer and McCullough Gamma Ray Log.

FORM 103. 62984 9-46 47,500
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL & GAS
RECEIVED
MAR 28 1952
LOS ANGELES

History of Oil or Gas Well

OPERATOR SUNRAY OIL CORPORATION FIELD NEWHALL-POTRERO

Well No. (RSF) 99-5, Sec. 26, T. 4N, R. 17W, S.B. B. & M.

Signed R. E. Foss

Date March 24, 1952 Title R. E. Foss, Agent
(President, Secretary or Agent)

Use this form in reporting all important operations at the well, together with the dates thereof, in the order of their performance. Such operations include drilling, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, or deepened; size, weight and length of casing landed, cemented, or removed, amount and location of perforations; number of sacks of cement used in cementing or plugging operations, number of feet of cement drilled out of casing, location of top and bottom of cement plugs. If the well was dynamited, give date, dimensions and weight of all shots. If tests were made give interval tested and results of tests, such as, amount and nature of fluids recovered.

Date 1952	
1-12	T.D. 12,830'. Spotted 1,065 c.f. of 100 lb./c.f. clay base mud, 10,250' - 12,830'. 5th Run Schlumberger Electric Log. Sonde stopped at 8,533'.
1-13	T.D. 12,830'. 6th Run Schlumberger Electric Log. Sonde stopped at 11,704'. Log showed Ken Oil Base mud to 11,704'.
1-14	Laid cement plug 9,750' - 10,250' with 100 sx. Hi-Temp. cement premixed with 12 1/2 sx. Strata Crete and 6 sx. gel.
1-15	Ran in with 8 1/2" bit. Found top of cement at 9,878'. Drilled out firm cement to 9,904'. Reduced mud weight from 90 lb./c.f. to 72 lb./c.f.
1-16	Ran 7" 23#, 26#, and 29# N-80 casing, shoe at 9,070' and float collar at 8,985'. Cemented with 200 sx. Hi-Temp. cement, premixed with 12 1/2 sx. Strata Crete and 8 sx. gel. Plugs did not bump.
1-18	Landed casing with 162,000#.
1-19	Ran in with 6" bit. Found top of cement at 8,984', drilled out float collar at 8,985'. Drilled out cement to 9,065'.
1-20	Shot 4 3/8" holes at 9,045'. First Test: Ran M. O. Johnston formation tester on 3 1/2" 13.30# D.P. Set packer at 9,035' with tail to 9,051'. Used 1,020' water cushion. Tester open 1 hour thru 1/2" bottom bean. Had 3 min. light blow and 57 minutes dead. Recovered 2,640' of Ken Oil Base mud. Charts indicated test was of no value. 2nd Test: Ran M. O. Johnston formation tester on 3 1/2" 13.30# D.P. Set packer at 9,034' with tail to 9,050'. Used 1,020' water cushion. Tester open one hour through 1/2" bottom bean. Had light blow 3 1/2 minutes, dead 17 minutes, very light blow 3 minutes, dead 2 minutes, very light blow 54 1/2 minutes. Recovered 1,890' of gassy Ken Oil Base mud and oil. W.S.O. witnessed and approved by Mr. Lloyd White of the Div. of Oil and Gas.
1-21	Drilled out remaining cement and shoe at 9,070' with 6" bit. Cleaned out 8 1/2" hole to plug at 9,904'. Ran 5 1/2" 17.0# J-55 F. J. Blank and Perforated Liner with shoe at 9,898.0' and top of adapter at 9,049.3'. Perforated with 192 - 1/4" undercut to 3/8"

FORM 103. 62984 9-46 47,500
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL & GAS
RECEIVED
MAR 28 1952
LOS ANGELES

History of Oil or Gas Well

OPERATOR SUNRAY OIL CORPORATION FIELD NEWHALL-POTRERO

Well No. RSF 99-5, Sec. 26, T. 4N, R. 17W, S.B. B. & M.

Signed R. E. Foss
MD

Date March 24, 1952 Title R. E. Foss, Agent
(President, Secretary or Agent)

Use this form in reporting all important operations at the well, together with the dates thereof, in the order of their performance. Such operations include drilling, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, or deepened; size, weight and length of casing landed, cemented, or removed, amount and location of perforations; number of sacks of cement used in cementing or plugging operations, number of feet of cement drilled out of casing, location of top and bottom of cement plugs. If the well was dynamited, give date, dimensions and weight of all shots. If tests were made give interval tested and results of tests, such as, amount and nature of fluids recovered.

Date	
1952 1-21 (Cont'd)	Rd. holes/ft. Perforated intervals: 9,747.1' - 9,607.0'; 9,531.7' - 9,298.9'; and 9,221.5' - 9,071.7'.
1-23	Ran 286 Jts. 2 1/2" E. U. 8 Rd. Thrd., J-55 Tubing (to 8,843') with 5 Garrett gas lift valves; 28 Jts. 2 1/2" E. U. Hydril F. J. Tubing (to 8,690') with hold down shoe for National gas lift plunger 314 Jts. down and 1 Jt. 2 1/2" E. U. Hydril F. J. Tubing with 2 1/2" Swage on bottom at 9,721'. Changed over from Ken Oil to Oil.

PRODUCTION DATA

	Gross Oil	Net Oil	Cut	Grav.	Bean	Gross Gas	Circ. Gas	Net Gas	GOR	Tbg. Pr.	Csg. Pr.
1-23	* 564	0	1.2	-		460	450	10	18	-	-
1-24	* 265	228	0.5	29.0°		819	800	19	71		
1-25	160	160	0.3	29.4°	48	844	774	70	438	130	470
1-26	200	199	0.6	28.7°	48	871	838	33	166	140	490
1-27	173	173	0.7	-	48	863	773	90	520	120	460
1-28	162	161	0.6		48	845	770	75	466	120	430

* Includes 600 Bbl. Wash Oil

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY LOS ANGELES FIELD OR DIST. NEWHALL-POTRERO COMPANY SUNRAY OIL CORPORATION WELL R.S.F. #39-9

LOCATION SECT. 26 T. 4N R. 17W ELEV. 1338' KB

1951	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
8-29	Merc. Diam. Core Head in Ken Oil Mud	8-3/8	9119	9154	35	100				35	Oil Conglomerate: Pebbles, cobbles and variable amounts of oil sand, massive, with one slickenside 2' from bottom. Top 16' contains about 30% oil sand and 1' of sandstone shell 6' from top.	
	Core #1											
8-30	Core #2		9154	9189	35	100				7	Oil Conglomerate: ditto with one 14" boulder.	
										9'	Pebbly Oil Sand: $\frac{1}{4}$ to $\frac{1}{2}$" pebbles in coarse sand matrix. Has several fine grained silty sand streaks.	
										19'	Oil Sand: brown, massive, medium to coarse grained fair permeability with several feet of pebble-conglomerate and rare silty phase.	
8-31	Core #3		9189	9224	35	100				$1\frac{1}{2}$	Oil Sand: ditto	
										$27\frac{1}{2}$	Oil Conglomerate: heavy moderately sandy, with one foot of oil sand @9198	
										$4\frac{1}{2}$	Oil Sand: brown, coarse grained, quite firm, pebbly in part good saturation, fair permeability.	
										$1\frac{1}{2}$	Oil Conglomerate: as above.	
9-1	Core #4		9224	9259	35	100				$1\frac{1}{2}$	Oil Conglomerate: ditto	
							$25\frac{1}{2}$				Siltstone: massive, grey, hard, slightly fractured, with scattered irregular sandy interbeds.	
							8'		x	x	Shale: similar to siltstone above but with good partings and with laminae and beds of medium grained oil stained sandstone and oil sand. Good 45° dips.	
9-2	Core #5		9259	9288	29'	100	12			x	Shale: ditto with streaks of oil sand up to 1' (amounting to 3')	
							17			x	Siltstone: as last above with thin streaks of oil sand amounting to 2'.	

DIVISION OF OIL AND GAS
RECEIVED
FEB 4 - 1952
LOS ANGELES

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.
HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.
TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.
SORTING: E Even, G Good, P Poor, F Fair.
MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY LOS ANGELES FIELD OR DIST. NEWHALL-POTRERO COMPANY SUNRAY OIL CORPORATION WELL R.S.F. #99-9

LOCATION SECT. T. R. ELEV. 1338'KB

DATE 1951	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	RECOVERY SHALE	RECOVERY SAND	RECOVERY SHELL	RECOVERY OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
9-2	Core	#6	9288	9323	35'	100				8	Oil Sand: brown, medium grained, massive but with occasional silty streaks, fair permeability.	
							27			x	Siltstone: as above, with some good shale bedding and with about 30% oil sand in streaks up to 8".	
9-3	Core	#7	9323	9358	35	100	x		x	35	Oil Sand: brown fine to medium grained, silty in top 8', with ½ siltstone @ top, 1' @ 9327; and with streaks of oil stained sandstone as follow: 1' @ 9330, 1' @ 9339, 3' @ 9342.	
-3	Core	#8	9358	9393	35	100				35	Oil Sand: brown, fair to good permeability, medium to coarse grained, occasionally small-pebbly, with 1' of conglomerate @ 9368 and 4' of sandstone @ 9386.	
9-4	Core	#9	9393	9428	35	100				6	Oil Conglomerate: massive, sandy, brittle, low permeability, with pebbles to 1".	
										29	Oil Sand: brown, massive, with occasional silty interbeds giving 3-4° dips. Sand is generally coarse grained and about 60% small-pebbly with pebbles ranging from 1/8" to ½". Contains 1' of conglomerate @ 9426'. Generally low permeability.	
9-5	Core	#10	9428	9463	35	100				19'	Oil Sand: ditto but with good permeability. Quite pebbly in basal 8'.	
										16'	Oil Conglomerate: rather sandy, with pebbles and cobbles, low permeability becoming better in basal few feet.	
9-5	Core	#11	9463	9498	35	100				6'	Oil Conglomerate: ditto, low permeability.	
										10'	Oil Sand: brown to grey-brown, massive, coarse grained with several 1' conglomeratic streaks, rather low permeability.	
										19'	Oil Conglomerate: Slightly sandy, heavy, low permeability.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY LOS ANGELES FIELD OR DIST. NEWHALL-POTRERO COMPANY SUNRAY OIL CORPORATION WELL R.S.F. #99-9

LOCATION SECT. T. R. ELEV.

DATE 1951	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
9-6	Core #12		9498	9533	35'	100	x			35	Oil Sand: brown to grey-brown, massive, moderately friable, rarely pebbly, but with abundant silt interbeds from 9507 to 9517 showing good 40-450 dips.	
9-6	Core #13		9533	9535	2	100				2	Oil Sand: massive grey-brown, hard, conglomeratic in part, very low permeability.	
9-7	Core #14		9535	9570	35	100				27'	Oil Conglomerate: massive, variably sandy, generaly low permeability with occasional slickensides; quite sandy from 9550-9555 and with 1'of sandstone shell @ 9555'.	
										8'	Oil Sand: light grey-brown, massive, fairly hard, silty, very low permeability, with occasional pebbly streaks.	
9-8	Core #15		9570	9602	27'	85				27	Oil Conglomerate: as last above, moderately sandy with several streaks of brownish-grey, low permeability oil sand (9583-85, 9588-91).	
9-9	Core #16		9602	9637	35	100				25	Oil Conglomerate: ditto, sandy in part, hard, brittle, occasional slickensides.	
										10	Oil Sand: Medium brown, massive, medium grained, fairly hard, low permeability, becoming more friable and permeable in basal 3'.	
10	Core #17		9637	9672	35	100				27	Oil Conglomerate: massive, heavy, brittle, sandy in part, with 1' of fine grained silty oil sand @ 9651' and with scattered slickensides and fractures.	
										8	Oil Sand: massive, light brown, coarse grained, firm, small-pebbly, low to occasionally fair permeability.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc, Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.
HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.
TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.
SORTING: E Even, G Good, P Poor, F Fair.
MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY LOS ANGELES FIELD OR DIST. NEWHALL-POTRERO COMPANY SUNRAY OIL CORPORATION WELL R.S.F. #99-9

LOCATION SECT. T. R. ELEV. 1338'KB

Date 1951	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	RECOVERY SHALE	RECOVERY SAND	RECOVERY SHELL	RECOVERY OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
9-11	Core #18		9672	9707						12	Oil Conglomerate: as last above, heavy, slightly sandy.	
							2				Siltstone: grey, finely sandy, hard, slickensided	
								x		21	Oil Sand: massive, medium to coarse grained, small-pebbly in upper part, becomes quite weak and spotty to grey in bottom 10' - looks quite silty, fairly hard and probably impermeable.	
9-12	Core #19		9707	9742	35	100				10	Oil Sand: ditto bottom with good saturation in part.	
										11	Oil Conglomerate: heavy, slightly sandy, weak saturation.	
										2	Oil Sand: as last above, fair saturation, rather low permeability.	
										3	Oil Conglomerate: as above, quite hard.	
										6'	Oil Sand: low permeability, weak, pebbly @ base.	
										3	Oil Conglomerate: heavy, brittle, very low permeability.	
9-13	Core #20		9742	9777	35	100			2		Conglomerate Shell: grey to light tan, hard, dense, tight.	
										3	Oil Sand: light brown, massive, medium to coarse grained, difficultly friable, grades at base to:	
										2	Oil Conglomerate: massive, hard, slightly sandy, weak saturation, low permeability.	
							28	x		x	Silty Shale: grey-brown, bedded with very fine grained silty grey sand to occasionaly massive. Sand shows a ½ to 1" mud-invasion ring where grey. About 15% of sand is oil stained. Excellent 38° dips.	
9-14	Core #21		9777	9812	35	100	25	x		x	Silty Shale: ditto, with similar silty sand phases and interbeds. Dip 36° .	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc, Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY LOS ANGELES FIELD OR DIST. NEWHALL-POTRERO COMPANY SUNRAY OIL CORPORATION WELL R.S.F. #99-9

LOCATION SECT. T. R. ELEV. 1338'KB

DATE 1951	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	RECOVERY SHALE	RECOVERY SAND	RECOVERY SHELL	RECOVERY OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
9-14	Core	#21 (Continued)						10		x	Silty Sand: fine to medium grained, quite clayey and silty with dark silt laminae, weakly oil stained in part. Low apparent permeability.	
9-16	Core	#22	9812	9847	35	100	28				Sandy Siltstone: grey to grey-brown, finely interbedded to occasionaly massive, contains quite a bit of silty, fine sand that is rarely oil stained. Common bedding-plane slickensides. 28 to 37° dips.	
							2				Shale: dark brown, massive to bedded, quite hard.	
9-17	Core	#23	9847	9869	22	100	22				Shale: ditto, very hard and brittle, moderately fractured and slickensided. Good 32-34° dips.	
9-19	Core	#24	9869	9903	34	100	34				Shale: ditto, moderately fractured.	
9-20	Core	#25	9903	9938	35	100	35				Shale: ditto, very little fracturing and slickensiding. 31-36° dips.	
9-22	Core	#26	9938	9973	30	86	30				Shale: ditto	
9-23	Core	#27	9973	10008	35	100	35				Shale: ditto, fairly silty in part, badly fractured at top.	
9-25	Core	#28	10008	10043	35	100	35				Shale: ditto, finely laminated in parts, 35° dip.	
25	Core	#29	10043	10048	5	100	5				Shale: ditto.	
9-27	Core	#30	10048	10079	31	100	31				Shale: ditto. commonly massive and dense. 39° dip, fractured at base	
9-29	Core	#31	10079	10114	35	100	30				Shale: ditto, some fractures and slickensides. 30-34° dips.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc, Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.
HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.
TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.
SORTING: E Even, G Good, P Poor, F Fair.
MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY LOS ANGELES FIELD OR DIST. NEWHALL-POTRERO COMPANY SUNRAY OIL CORPORATION WELL R.S.F. #99-9

LOCATION SECT. T. R. ELEV. 1338'KB

DATE 1951	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	RECOVERY SHALE	RECOVERY SAND	RECOVERY SHELL	RECOVERY OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
10-1	Core	#32	10110	10140	10	33	10				Shale: ditto, dip 40°, moderately fractured. (Note hole depth correction)	
10-2	Core	#33	10140	10175	35	100	35				Shale: ditto, laminated dark brown and grey-brown, quite hard with some fractures in top 10'. Dip 30 to 42°.	
10-4	Core	#34	10175	10210	35	100	35				Shale: ditto, badly broken up in top 2/3 of core.	
6	Core	#35	10210	10245	35	100	35				Shale: ditto, moderately fractured in top 4'. 34-40° dips.	
10-7	Core	#36	10245	10273	28	100	28				Shale: ditto, laminated with thin bands of grey siltstone and brown claystone, hard, dense. 32 - 37° dips. Scattered fractures and slickensides.	
10-9	Core	#37	10273	10308	35	100	35				Shale: ditto, generaly brown (lacking grey siltstone streaks) moderately fractured in places. 37-40°.	
10-10	Core	#38	10308	10331	18	78	18				Shale: ditto, moderately fractured at base. 29-40° dips.	
10-11	Core	#39	10331	10353	22	100	22				Shale: ditto, moderately fractured in top half. 36-39° dips. Dark brown with light grey laminae. Very hard.	
10-	Core	#40	10353	10388	35	100	35				Shale: ditto, rare fractures and slickensides.	
10-14	Core	#41	10388	10423	35	100					Shale: ditto, common slickensides. 36° dips.	
10-15	Core	#42	10423	10458	35	100	18				Shale: ditto with occasional thin fine grained grey sand laminae in bottom 9'. Dip 37°.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc, Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY LOS ANGELES FIELD OR DIST. NEWHALL-POTRERO COMPANY SUNRAY OIL CORPORATION WELL R.S.F. #99-9

LOCATION SECT. T. R. ELEV. 1338'KB

DATE 1951	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
10-15	Core	#2 (continued)								2	Oil Sand: brown, massive, medium grained, difficultly friable, becomes hard and grey in middle.	
							6				Shale: as last above, with common sand laminae - often oil-stained.	
								9		x	Oil Sand and Grey Sand: medium to coarse grained, firm and friable to occasional hard and tight. Oil Sand looks rather dead although with a good brown stain. Grey sand is commonly friable and permeable, shows invasion ring from $\frac{1}{4}$" to 1" and slight sour odor.	
10-15	Core	#3	10458	10493	35	100	x	35	x		Sand: grey, medium to coarse grained, massive to occasionally interbedded with shale or carbonaceous siltstone; quite firm yet friable to occasionaly hard and calcite cemented. 90% of core has good permeability and porosity. Sand shows common muscovite flakes and scattered biotite. No positive oil staining noted although invasion ring noted through out..	
10-15	Core	#4	10493	10528	35	100		8			Sand: ditto	
							15				Shale: brown to brownish-grey, clayey to coarse silty. Dip 30-33°.	
								7			Silty Sand: grey, massive to silt-bedded, rather hard, low permeability, wet.	
							5				Siltstone: fine sandy to clayey, grey to brown, hard; Dip 37°.	
10-17	Core	#5	10528	10563	35	100	35	x		x	Interbedded Shale, oil sand and grey sand. Sand is generally laminated with brown shale or siltstone, quite hard, silty, micaceous. Several hard silty streaks are apparently oil stained although to tight to be productive. Siltstone is commonly slickensided. Dip 30-36°.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse. Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY LOS ANGELES FIELD OR DIST. NEWHALL-POTRERO COMPANY SUNRAY OIL CORPORA ION WELL R.S.F. #99-9

LOCATION SECT. T. R. ELEV. 1338' KB

DATE 1951	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	RECOVERY SHALE	RECOVERY SAND	RECOVERY SHELL	RECOVERY OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
10-18	Core	#46	10563	10598	35	100	8			x	Interbedded Shale and Oil Sand (?): Shale is moderately fractured and has about 6" of gouge at 10569 showing down-dip slippage. Sand comprises about 20% and appears to be oil stained.	
										8	Oil Sand: yellow-brown, massive, biscuit-broken, fine grained, clayey and silty, fair to low permeability, even saturation.	
							8				Shale: hard, brown, dense with 35-40° dips.	
										11	Oil Sand: massive, light brown to occasionaly grey(?), fairly hard to slightly friable, medium to coarse grained, silty in places. Sand is generally uniformly stained but near bottom is apparently grey with an invasion ring 1" to 1½" wide.	
10-18	Core	#47	10598	10633	35	100	x	x	x	35	Oil Sand: ditto, massive, medium to coarse grained, grey-brown to brown to occasionaly grey (in basal 10'), still quite micaceous, firm and friable to occasionaly quite hard. Middle third of core is fairly silty. Several shale streaks up to 1'.	
10-19	Core	#48	10633	10668	35	100	35			x	Shale: brown, silty, hard with fine greined sand interbeds, quite platy, containing streaks of oil sand up to 9" amounting to about 4' in upper half of core. 35° average dips.	
10-20	Core	#49	10668	10703	35	100	35			x	Shale: ditto with 2' of spotty brown to grey silty oil sand 4' from bottom of core.	
10-21	Core	#50	10703	10738	35	100	x			16'	Oil Sand (?): speckled grey on light brown, massive to occasionaly silt-bedded, firm, biscuit-broken, quite silty contains 2' of hard siltstone 3' from top.	
							19'				Shale: as last above, silty to clayey with occasional sand interbeds 30-35° dips.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY LOS ANGELES FIELD OR DIST. NEWHALL-POTRERO COMPANY SUNRAY OIL CORPORATION WELL R.S.F. #99-9

LOCATION SECT. T. R. ELEV. 1338'KB

1951	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	RECOVERY SHALE	RECOVERY SAND	RECOVERY SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
10-22	Core	#51	10738	10773	35	100	35				Shale: ditto, platy, only rare sand laminae. Dips 25-33°.	
10-23	Core	#52	10773	10807	34	100	12				Shale: ditto with scattered beds of oil sand up to 4".	
										22	Oil Sand tan with grey speckles in part to medium brown, massive, biscuit-broken, generally quite silty, fine grained, low permeability.	
-24	Core	#53	10807	10842	35	100	35				Shale: dark brown to grey-brown, platy, hard, rarely fractured, with occasional streaks of fine grained silty oil sand up to 8" thick in top 11'. Dips 45 to 25°.	
10-25	Core	#54	10842	10877	35	100	35				Shale: ditto with scattered streaks of fine grained well saturated oil sand up to 8" thick scattered through out core, amounting to about 6'. Dips 25-35°, averaging about 30°.	
10-26	Core	#55	10877	10906	29					29	Interbedded Oil Sand and Shale: Oil sand (about 75% of core) is medium brown, fine to medium grained, silty, massive and biscuit-broken to interbedded with siltstone or shale, quite firm, generally evenly stained yet occasionally shows grey speckles noted in cores above. In places these speckles appear to be associated with minor movements or slickensides within the sand and therefor not indicative of water sand. Shale is silty and fine sandy and shows 30 to 35° dips. 15" of sandstone shell at 10892'. About 70% of core is oil sand.	
	Note: Drilled 10906-10962											
10-30	Core	#56	10962	10997	35	100				35	Oil Sand: light brown, massive to rarely bedded with siltstone, quite firm, fine grained, silty, quite biotitic almost wholly biscuit-broken,	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc, Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY LOS ANGELES FIELD OR DIST. NEWHALL-POTRERO COMPANY SUNRAY OIL CORPORATION WELL R.S.F. #99-9

LOCATION SECT. T. R. ELEV. 1338'KB

DATE 1951	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	RECOVERY SHALE	RECOVERY SAND	RECOVERY SHELL	RECOVERY OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
10-30	Core	#56 (Continued)									with occasional light grey speckles in places. Almost all the sand shows evidence of small amounts of internal slippage yet no real slickensided streaks were noted. Slippage was definetely noted wherever grey speckles appeared. Medium to dark brown cuts, even saturation, low permeability and porosity.	
10-31	Core	#57	10997	11028	31	100				31	Oil Sand: ditto, but generally medium to occasionly coarse grained, same saturation, rare siltstone streaks. Core cut faster than above. Coarse grained streaks have common small pebbles less saturation and lower permeability and porosity.	
			Note: Gas shows from bottom were first noted at 10877' while mud weight was 73#. Subsequently weight was built up to 76 and 78# with shows still noted.									
11-1	Core	#58	11028	11063	35	100				2	Oil Sand: light tan grey, massive, coarse grained, quite firm, low permeability and porosity.	
									33	x	Sandstone: light grey, massive, coarse to occasionaly medium grained, quite hard, negligible negligible permeability and porosity. Contains 4' of very silty, biscuit broken oil sand at 11034'. Shows occasional mud-invasion ring and also occasional oil saturation (apparently where permeability permits).	
-2	Core	#59	11063	11098	35	100			35	x	Sandstone: ditto, but with streaks of weakly saturated biscuit-broken sand as follow: 3' at 11077, 2½' at 11082, 3' at 11090 and 2' at 11095. About 50% of the remainder of the core shows very weak oil stain. Permeability and porosity appear very low.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc, Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse. Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY LOS ANGELES FIELD OR DIST. NEWHALL-POTRERO COMPANY SUNRAY OIL CORPORATION WELL R.S.F. #99-9

LOCATION SECT. T. R. ELEV. 1338'KB

DATE 1951	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	RECOVERY SHALE	RECOVERY SAND	RECOVERY SHELL	RECOVERY OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
11-5	Core	#60	11098	11124	26	100				26	Oil Sand: light brown to light tan, massive, biscuit-broken, fine to medium grained and silty, with 1' of coarse grained small pebbly oil sand at 11116', rather firm, low permeability and porosity.	
			11124	11251	Drilled							
11-10	Core	#61	11251	11274	23	100	23				Shale: brown, bedded, moderately fractured, rather rotton, with rare thin sand laminae. 30-40° dips.	
-11	Core	#62	11274	11307	33'	100	33				Shale: ditto, with a streak of coal at 10300'. Shows slickensiding and folding in top 7'.	
11-12	Core	#63	11307	11336	29'	100	29				Shale: brown, hard, massive in part, common bedding-plane slickensides. 30-35° dips.	
11-14	Core	#64	11336	11369	33	100	33			x	Shale: brown, hard in places, abundantly fractured and slickensided, occasionally crushed with scattered thin sand laminae. Dips variable 35 to 45 to 60° (near middle of core) and back to 45°.	
11-15	Core	#65	11369	11397	28	100	28				Shale: brown, hard, somewhat fractured in places. Dips 37-50° averaging about 45°.	
11-16	Core	#66	11397	11422	25	100	25				Shale: brown to grey brown, very hard, cemented with calcite in places moderately fractured and slickensided in places. Dips variable 68 to 47° averaging about 60°.	
11-17	Core	#67	11422	11448	26	100	7				Shale: ditto with common fine sand streaks in bottom 4'. Dip 66°.	
										8	Oil Stained Sandstone: dull grey to tan grey, massive to bedded with occasional shale streaks, very hard, fine grained, silty, cemented,	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc, Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY LOS ANGELES FIELD OR DIST. NEWHALL-POTRERO COMPANY SUNRAY OIL CORPORATION WELL R.S.F. #99-9

LOCATION SECT. T. R. ELEV. 1338'KB

DATE 1951	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	RECOVERY SHALE	RECOVERY SAND	RECOVERY SHELL	RECOVERY OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
11-17	Core	#67 (Continued)									negligible permeability and porosity.	
							11				Shale: grey brown to brown, hard with fine sandy streaks. 61-72° dips averaging 65°. Whole core is moderately fractured.	
11-18	Core	#68	11448	11467	19	100	x			19	Oil Stained Sandstone: light grey-brown, massive to occasionally bedded with siltstone, silty, fine grained, very hard, low permeability and porosity light saturation.	
11-19	Core	#69	11467	11502	35	100				3	Oil Stained Sandstone: ditto	
							22				Shale: brown, platy, hard, 21-28° dips.	
										10	Oil Stained Sandstone: as last above, with several feet of slightly more friable oil sand.	
11-20	Core	#70	11502	11537	35	100				8'	Oil Stained Sandstone: ditto	
							8				Shale: dark brown, slickensided and fractured along bedding planes. Fair 23-35° dips.	
										17'	Oil Stained Sandstone: as above but commonly coarse grained and small-pebbly in basal 7'.	
11-21	Core	#71	11537	11570	33	100	33				Shale: dark brown, platy, moderately hard, common bedding plane slickensides, rare thin sandstone streaks. Dips variable 25-51° .	
11-22	Core	#72	11570	11604	34	100	34				Shale: grey-brown to dark brown, well bedded, platy very badly fractured and contorted in top 2/3 of core with common high-angle and vertical dips, contains rare thin streaks of loose, medium grained, dark brown oil sand. Basal 1/3 of core shows fairly uniform 40 to 55° dips.	
11-23	Core	#73	11604	11639	35	100	35				Shale: ditto, brown, badly fractured and contorted possible fault zone just below middle of core. Dips 35° to vertical. Badly slickensided thruout	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc, Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY LOS ANGELES FIELD OR DIST. NEWHALL-POTRERO COMPANY SUNRAY OIL CORPORATION WELL R.S.F. #99-9

LOCATION SECT. T. R. ELEV. 1338'KB

DATE 1951	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
11-24	Core	#74	11639	11670	31	100	31				Shale: ditto. Dips gensrally moderate, occasionaly very steep, some contortions, moderately fractured thru out core but badly fractured and slickensided in bottom 6'. Rare little spots of brown, medium grained oil sand.	
11-25	Core	#75	11670	11703	33	100	33				Shale: ditto, moderate to steep dips, fractured and slickensided thruout, minor contortions; shows a trace of brown oil sand in top 3'. No gouge noted yet in cores.	
11-26	Core	#76	11703	11737	34	100	34				Shale: ditto, badly fractured and slickensided thru out, minor contortions.	
11-27	Core	#77	11737	11767	30	100	30				Shale: ditto but much less fracturing. 52-68° dips.	
			11767	11781	Drilled							
11-29	Core	#78	11781	11801	20	100	15				Shale: very badly fractured with common 60° dip-slip slickensides.	
							4				Fault Gouge: crumbly, intermixed shale and some sand.	
									1		Sandstone: very fine grained, silty, grey, tight, very hard.	
11-30	Core	#79	11801	11830	29	100	29				Shale: as above, badly slickensided and fractured, with a little gouge 6' from top and several feet of unbroken shale near bottom giving excellent 65° dips.	
12-1	Core	#80	11830	11847	17	100	17				Shale: ditto, badly fractured in top half, very steep dips in basal half - 65-72° .	
12-2	Core	#81	11847	11876	29'	100	29				Shale: ditto, vertical near middle of core, 55-65° elsewhere moderately fractured and slickensided in	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc, Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY LOS ANGELES FIELD OR DIST. NEWHALL-POTRERO COMPANY SUNRAY OIL CORPORATION WELL R.S.F.#99-9

LOCATION SECT. T. R. ELEV. 1338'KB

DATE 1951	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
12-2	Core	#81	(Continued)								basal 10'.	
12-2	Core	#82	11876	11905	29	100	29				Shale: ditto, 65-75° dips, badly fractured and slickensided in top 10' and moderately so below.	
12-3	Core	#83	11905	11940	35	100	35'				Shale: well bedded, brown clay to grey-brown silt, bedding plane slickensides thru out but with only minor amount of contortions and fracturing in upper 1/3 of core. Comparatively uniform 55-75° dips - average 65°.	
12-4	Core	#84	11940	11967	27	100	27'				Shale: ditto, some contortions in middle of core, bedding plane down-dip slickensides thru out, average 60° dip. Calcite common on fractures slickensides.	
12-5	Core	#85	11967	11991	24	100	24'				Shale: ditto, moderately fractured and slickensided in part with some contortions, but with several places showing more or less uniform dips of 40-50°.	
12-6	Core	#86	11991	12018	27	100	27'		x		Shale: ditto. Top 5' is badly contorted and fractured. Next 2' is brecciated thru out with thoroughly slickensided bentonitic (?) streak at base. Next 11' is fractured at top, otherwise unbroken and shows excellent 38-40° dips. Remainder of core is moderately fractured and slickensided and contains several streaks near top of fine grained, silty, hard, sandstone shell - dips 35 to 45° .Two feet of grey bentonite at 12012'. Core might be out of order.	
12-7	Core	#87	12018	12049	31	100	22				Shale: ditto, partly fractured, partly solid with good 40-45° dips.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc, Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.
HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.
TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.
SORTING: E Even, G Good, P Poor, F Fair.
MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY LOS ANGELES FIELD OR DIST. NEWHALL-POTRERO COMPANY SUNRAY OIL CORPORATION WELL R.S.F. #99-9

LOCATION SECT. T. R. ELEV. 1338' KB

DATE 1951	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
12-7	Core	#87 (Continued)							x	9	Oil Stained Sandstone: fine grained, silty, lightly oil stained to occasionally grey with several feet of yellow-brown oil sand, hard to friable in oil sand streaks, quite low permeability and porosity.	
12-8	Core	#88	12049	12074	25	100				25	Oil Stained Sandstone: ditto, very low permeability, fractured thru out.	
8	Core	#89	12074	12100	26	100			x	22	Oil Stained Sandstone: ditto, lightly fractured, very hard, very low permeability - often grey.	
							4				Fractured Shale: brown, badly broken up, somewhat sandy - no dips.	
12-9	Core	#90	12100	12133	33	100	33				Fractured Shale: badly fractured, slickensided and contorted thru out..	
			12133	12150	Drilled							
12-11	Core	#91	12150	12177	27	100	27				Fractured Shale: ditto, with scattered dips of 50° in upper half of core and vertical in basal half.	
			12177	12197	Drilled							
12-15	Core	#92	12197	12224	27	100	27				Shale: as above, badly fractured in part. Vertical dips, contorted at base.	
			12224	12233	Drilled							
12-16	Core	#93	12233	12268	35	100	35				Shale: ditto, moderately fractured, dips 45° to vertical.	
12-17	Core	#94	12268	12302	34	100	34				Shale: ditto, vertical dips.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY LOS ANGELES FIELD OR DIST. NEWHALL-POTRERO COMPANY SUNRAY OIL CORPORATION WELL R.S.F. #99-9

LOCATION SECT. T. R. ELEV. 1338'KB

DATE 1955	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	RECOVERY SHALE	RECOVERY SAND	RECOVERY SHELL	RECOVERY OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
12-18	Core	#95	12302	12337	35	100	35				Shale: ditto, vertical dips, slight contortions, moderate fracturing with common dip-slip slickensides.	
12-19	Core	#96	12337	12357	20	100	20				Shale: ditto, vertical at top to 55° near base; quite slickensided.	
12-20	Core	#97	12357	12392	35	100	35				Shale: ditto, quite slickensided (down-dip) with some near-vertical dips and minor contortions in middle of core and 45 to 60° dips elsewhere.	
12-21	Core	#98	12392	12418	26	100	21				Shale: ditto with occasional dips of 45-50°.	
									2'		Sandstone Shell: dark grey, massive, fine grained, silty, very hard, tight.	
							3				Shale: as above.	
12-22	Core	#99	12418	12422	4'	100	4				Shale: ditto	
12-23	Core	#100	12422	12446	24	100	24		x		Shale: ditto with excellent 48° dips near middle and several thin streaks of sandstone shell.	
12-23	Core	#101	12446	12473	27'	100	6				Shale: brown, hard, brittle, rare bedding-plane, slickensides, 50° average dip.	
									x	21'	Oil Stained Sandstone: tan to dull grey, massive to occasionally interbedded with siltstone, very hard, generally lightly oil stained and with an excellent sweet oil odor.	
12-24	Core	#102	12473	12502	29'	100				2	Oil Stained Sandstone: ditto	
							8		x		Shale: as above with occasional sandstone interbed 45° average dip, moderately fractured and slickensided.	
										9	Oil Stained Sandstone: as above, grey to light brown, hard, fractured, silty, tight.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc, Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY LOS ANGELES FIELD OR DIST. NEWHALL-POTRERO COMPANY SUNRAY OIL CORPORATION WELL R.S.F. #99-9

LOCATION SECT. T. R. ELEV. 1338'KB

DATE 1951	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	RECOVERY SHALE	RECOVERY SAND	RECOVERY SHELL	RECOVERY OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
12-24	Core	#102	(Continued)				10		x		Shale: with occasional sandstone interbeds, badly fractured and slickensided.	
12-25	Core	#103	12502	12535	33'	100				18'	Sandstone: fine grained, very hard, apparently oil-stained, tight.	
							15		x		Shale: 60-80° dips, common fractures and slickensides and several streaks of sandstone.	
12-26	Core	#104	12535	12565	30	100	30				Shale: brown, fractured, slickensided, hard, with occasional thin silty and tight sandstone streaks. Dip 60° at top to vertical.	
12-27	Core	#105	12565	12596	31	100	31				Shale: ditto, not so fractured and slickensided but with 80 to 85° dips.	
			12596	12626		Drilled						
12-30	Core	#106	12626	12646	20	100	10				Shale: as above, some fracturing, common bedding plane slickensides, dips vertical to 70°.	
									6	x	Sandstone: dark grey, hard, somewhat fractured, with scattered slickensided shale streaks with 60 and 50° dips noted. In places sand seems to be oil-stained, but generally it's too tight.	
							4				Shale: as last above, with sandstone streaks, moderately fractured and slickensided, generally rather sandy.	
			12646	12800		Drilled						
1-11-52	Core	#107	12800	12830	30	100	30				Shale: as above, brown and clayey to occasionally grey-brown and silty with rare fine sand laminae, bedded, hard, moderately fractured. Dips are steep to vertical in middle part of core with 47 to 57° dips elsewhere. Contains 18" of	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse. Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY LOS ANGELES FIELD OR DIST. NEWHALL-POTRERO COMPANY SUNRAY OIL CORPORATION WELL R.S.F. #99-9

LOCATION SECT. T. R. ELEV. 1388'KB

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	RECOVERY SHALE	RECOVERY SAND	RECOVERY SHELL	RECOVERY OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1-11-52	Core #10 (Continued)										bentonite at 12812.	
											TD 12830	
											Described by Rolfe S. Johnson	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

FORM 109-A (10-48)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(FORMATION TESTER)

No. T 152-131

Los Angeles 15, Calif. January 28, 1952

Mr R E Foss
714 West Olympic Blvd
LOS ANGELES 15 Calif.

Agent for SUNRAY OIL CORPORATION

DEAR SIR: "Rancho San Francisco"
Your well No. 99-9, Sec. 26, T. 4 N., R. 17 W., S. B. B & M.
Newhall-Potrero Field, in Los Angeles County, was tested for water shut-off
on January 20, 1952. Mr. J. L. White, Inspector, designated by the supervisor,
was present as prescribed in Secs. 3222 and 3223, Ch. 93, Stat. 1939; there were also present
A. G. Chancey, Assistant Superintendent; H. Stanier, Engineer.

Shut-off data: 7 in. 23,26,29 lb. casing was cemented xxxx at 9075 ft.
on January 17, 1952 in 8-1/2 in. hole with 200 sacks of cement
xxxxx of which 17 sacks was left in casing.
Casing record of well: 13-3/8" cem. 405'; 9-5/8" cem. 9045', N.T.; 7" cem. 9075'; four 3/8"
test holes 9050', W. S. O.
plugged with cement 10250'-9904'

Present depth 12830 ft. Bridged with cement from 9075 ft. to 9065 ft. Cleaned out to 9065 ft. for test.
A pressure of 1000 lb. was applied to the inside of casing for 5 min. without loss after cleaning out to 9065 ft.
A Johnston tester was run into the hole on 3-1/2 in. drill pipe-~~tubing~~
with 1025 ft. of water-~~mud~~ cushion, and packer set at 9034 ft. with tailpiece to 9050 ft.
Tester valve, with 3/8 in. bean, was opened at 6:23 p.m. and remained
open for 1 hr. and xxx min. During this interval there was a medium, strong blow for 3-1/2
min.; no blow for 17 min.; a very light blow for 3 min.; no blow for 2 min.; and a very
light blow thereafter.

INSPECTOR J. L. WHITE VISITED THE WELL FROM 10:45 A.M. TO 12:30 P.M., JANUARY 20, 1952.
AND MR. CHANCEY REPORTED:

1. A 12-1/4" rotary hole was drilled from 405' to 9055'.
2. On August 23, 1951, 9-5/8", 42 lb. casing was cemented at 9045' with 600 sacks of cement.
3. An 8-1/2" rotary hole was drilled from 9055' to 12830'.
4. Electrical log readings showed the top of the 5th zone at 9075'.
5. On January 12, 1952, 200 sacks of cement was pumped into the hole through 4-1/2" drill pipe and 2-7/8" tubing hanging at 10250'. The top of the set cement was found at 9904'.
6. The 7" casing was cemented as noted above.
7. Cement was drilled out of the 7" casing from 8984'-9065' (equivalent to 15 sacks), and the hole was cleaned out to 9065'.
8. The 7" casing was shot-perforated with four 3/8" holes at 9050'.
9. A Johnston tester was run into the hole on 3-1/2" drill pipe and packer set at 9035'.
10. The tester valve was opened at 7:30 a.m. and remained open 1 hr. During this interval, there was a light blow for 3 min., and no blow thereafter.

THE INSPECTOR NOTED:

1. When the drill pipe was removed, 2580' (net) of Kenoil, drilling fluid was found in the drill pipe above the tester, equivalent to 19.3 bbl.
2. The recording pressure bomb charts were not conclusive.

The operator decided to retest.

THE INSPECTOR ARRIVED AT THE WELL AT 10:30 P. M. AND MR. CHANCEY REPORTED THAT the Johnston tester was rerun as noted above.

THE INSPECTOR NOTED:

1. When the drill pipe was removed, 1890' (net) of gassy, fluid was found in the drill pipe above the tester, equivalent to 14.1 bbl. The top 1190' was Kenoil, and the bottom, 700' was light formation oil.

R. D. BUSH, State Oil and Gas Supervisor

By (CONTINUED ON PAGE 2), Deputy

FORM 109-X
16328 10-49 8500 SPQ

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
OR
Special Report on Operations Witnessed

No. T 152-131

Page 2

SUNRAY OIL CORPORATION

Well No. "Rancho San Francisco" 99-9, Sec. 26, T. 4 N., R. 17 W., S B B. & M.,

2. The recording pressure bomb chart showed that the tester valve was open 1 hr.

The test was completed at 12:30 a.m., January 21, 1952.

THE 7" SHUT-OFF AT 9050' IS APPROVED.

JLW:OH

cc Company

R. D. BUSH
State Oil and Gas Supervisor

By E H Musser Deputy

FORM 109-D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-53071

Los Angeles 15 Calif. June 25 19 51

Mr. R. E. Foss
Los Angeles 15 Calif.
Agent for SUNRAY OIL CORPORATION

DEAR SIR:

Operations at your well No. "Rancho San Francisco" 99-9 Sec. 26, T. 4 N., R. 17 W., S.B. B. & M., Newhall-Potrero Field, in Los Angeles County, were witnessed by J. L. White, Inspector, representative of the supervisor, on June 19, 19 51. There was also present L. G. Mason, Drilling Foreman; H. D. Simmons, Driller.

Casing Record	Junk
13-3/8" cem. 405'. T. D. 1210'.	None

The operations were performed for the purpose of inspecting blowout prevention equipment and installation.

The inspector arrived at the well at 9:30 a.m. and Mr. Mason reported:

1. An 11" rotary hole was drilled from the surface to 405' (opened to 17-1/4").
2. On June 17, 1951, 13-3/8", 54.5 lb. casing was cemented at 405' with 275 sacks of cement.
3. Cement returned to the surface.
4. An 11" rotary hole was drilled from 405' to 1210'.

THE INSPECTOR NOTED THAT THE WELL WAS EQUIPPED WITH THE FOLLOWING BLOWOUT PREVENTION EQUIPMENT:

1. A Shaffer double cellar control gate for closing in the well with the drill pipe out of the hole, and for closing around the 4-1/2" drill pipe.
2. The controls for the above equipment were located outside the derrick.
3. A 2" mud fill-up line with a 2" high pressure Nordstrom Stopcock into the 13-3/8" casing below the above equipment.

The inspection was completed at 9:50 a.m.

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

JLW:OH

cc Company P/B

R. D. BUSH
State Oil and Gas Supervisor

By [signature] Deputy

44226 5-51 14,250 ③ SPO

FORM 111 (1-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

No. P 1-50096

Los Angeles 15 Calif. June 19 1951

MR. R. E. Foss

12-1

Los Angeles 15 Calif.

Agent for SUNRAY OIL CORPORATION

DEAR SIR:

Your "Rancho San Francisco" proposal to drill Well No. 99-9,

Section 26, T. 4 N, R. 17 W, S B B. & M., Newhall-Potrero Field, Los Angeles County,

dated June 11 1951, received June 15 1951, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:

"The well is 5,348.12 feet S. and 10,207.18 feet E. from CORNER "J"
kelly bushing is 13.30' above ground (All measurements are taken
The elevation of the ground above sea level is 1,325.02 feet. from Kelly Bushing.)
We estimate that the first productive oil or gas sand should be encountered at a depth of about 11,700 feet."

PROPOSAL:

"We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing	Weight	Grade and Type	Depth	Landed or Cemented
13-3/8"	54.5#	J-55 Smls	400'	Cemented
9-5/8"	43.5#	J-55 Smls	5,000'	"
7"	23, 26, 29 32 & 35#	J-55, N-80, Smls.	11,700'	"

Well is to be drilled with rotary tools.
It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT

1. Blowout prevention equipment, sufficient to provide a complete close-in of the well under pressure at any time, shall be installed and approved by this division.
2. Any hole to be sidetracked in any oil or gas zone shall be filled with cement, if possible.
3. THIS DIVISION SHALL BE NOTIFIED AS FOLLOWS:
   (a) To inspect the installed blowout prevention equipment before drilling below 1500'.
   (b) To witness tests of the effectiveness of the 9-5/8" and 7" shut-offs.

Stanier to Frame
8/23/51
9 5/8" a protective string only, no oil zone involved. Co. does not want to make a test. OK per RGF & AHA.

ERMA:OH

cc Company

R. D. BUSH
State Oil and Gas Supervisor

By [signature] Deputy

43268 4-51 25M SPO

Blanket bond.

ORM 105.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

037-13279

Notice of Intention to Drill New Well

16

This notice must be given and surety bond filed before drilling begins

DIVISION OF OIL & GAS
RECEIVED
JUN 15 1951
LOS ANGELES

LOS ANGELES Calif. JUNE 11 1951

DIVISION OF OIL AND GAS

LOS ANGELES Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of drilling well No. "RANCHO SAN FRANCISCO" #99-9 (Deep Test), Sec. 26, T. 4N R. 17W, S. B. & M., Newhall-Potrero Field, Los Angeles County.

Dont Type-e

JLW

Lease consists of

The well is 5,348.12 feet ~~N. or~~ S., and 10,207.18 feet E. ~~or W.~~ from CORNER "J"
(Give location in distance from section corners or other corners of legal subdivision)

6/15/51
* Ed Foss' secretary to ERM-a

* kelly bushing is 13.30' Above ground (All measurements are taken from Kelly Bushing.)

The elevation of the ~~ground~~ above sea level is 1,325.02 feet.

We estimate that the first productive oil or gas sand should be encountered at a depth of about 11,700' feet.

We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing, Inches	Weight, Lb. Per Foot	Grade and Type	Depth	Landed or Cemented
13-3/8"	54.5#	J-55 Smls	400'	Cemented
9-5/8"	43.5#	J-55 Smls	5,000'	"
7"	23, 26, 29, 32 & 35#	J-55, N-80, Smls.	11,700'	"

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing.

SUNRAY OIL CORPORATION
~~BARNSDALL OIL COMPANY~~
(Name of Operator)

Address 714 W. Olympic Boulevard
Los Angeles 15, California

Telephone number RI 5171

By R. E. Foss - Agent
Agent

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
18A JLW			Blanket		

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF WELL ABANDONMENT

F.E. Armijo, Agent
Oryx Energy Company
25322 W. Rye Canyon Road
P.O. Box 55060
Valencia, CA. 91355

Ventura, California
February 8, 1990

Your report of abandonment of well "Newhall-Corp.Wolfson" 3-5, A.P.I. No. 037-12615, Section 25, T. 4N, R. 17W, SB B.&M., Newhall-Potrero field, Los Angeles County, dated 12-6-89, received 1-8-90, has been examined in conjunction with records filed in this office, and we have determined that all of the requirements of this Division have been fulfilled.

bb

cc: Conservation Committee
Update

253 2/17/90 BH — BB

M.G. MEFFERD, State Oil and Gas Supervisor

By Patrick J. Kinney
Patrick J. Kinney, Deputy Supervisor

0G159

OPERATOR Sun Exploration
WELL NO. "Turnbull Corp - Warfield" 3-5
MAP

INTENTION	Abd	Susp				
NOTICE DATED	6-20-89	6-29-89				
P-REPORT NUMBER	289-188	289-215				
CHECKED BY/DATE		BH 2/8/90				
MAP LETTER DATED		2/17/90				
SYMBOL						

	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED
NOTICE	6-21-89		7-3-89									
HISTORY	1-8-90		→									
SUMMARY												
E-LOG												
MUD LOG												
DIPMETER												
DIRECTIONAL												
CORE/SWS												
CBL												

ENGINEERING CHECK

T-REPORTS		✓				
OPERATOR'S NAME		/				
WELL NO.		/				
LOC & ELEV						
SIGNATURE		/				
SURFACE INSP. DRILL CARD	12/11/89	BH				
RECORD'S COMPLETE		BH 2/1/90				

FINAL LETTER OK
MAILED
RELEASED BOND
EDP Abd 9-25-89

INJECTION BOOK
IDLE WELL LIST
SURFACE INSP. CARD
OK TO RELEASE FROM CONFIDENTIAL

REMARKS:

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator ORYX ENERGY COMPANY Field or County Newhall-Potrero
Well Newhall Corporation-Wolfskill 3-#5 Sec 25, T 4N, R 17W, SB B. & M.
A.P.I. No. 037-12615 Name F. E. ARMIJO (Person submitting report) Title Agent (President, Secretary or Agent)
Date 12-6, 1989

Signature F. E. Armijo

Box 55060, Valencia, California 91355-0560 (Address) (805) 257-6200 (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date

1989

P&A, OTHER
7" CSG TO 10,311'/PBTD 11,041/PERFS 10,311-10,960/NEWHALL-POTRERO/LOS ANGELES CO., CA/P #865628/
07/13/89
*** FIRST REPORT ***
7-12/MIRU POOL SPOT TBG & TANKS/SDFN/
07/14/89
7-13/REMOVE WELLHEAD/INSTALL BOP/POH W 1 JT 2-7/8" & 25 JT 2-3/8" TBG/RIH W 7" BP & SET @ 15'/FILL HOLE W WTR & TST BOP - 2000#, OK/POH W TBG & BP/RIH W SAWTOOTH COLLAR 25 JTS 2-3/8" 220 JTS 2-7/8" MEASURING & PICKING UP OFF TRAILER/SDFN/
07/15/89
7-14/PU & FINISH MEASURING IN HOLE W 2-7/8" TBG/TAG BTM @ 10,977'/RU PMP/CIRC 320 BBL 9.6# & MUD/UNABLE TO PMP GELLED MUD/POH LAYING DOWN 17 JTS TBG TAIL @ 10,245'/SDFW/
07/16/89
7-15/SDFW/
07/17/89
7-16/SDFW/
07/18/89
7-17-89/FINISH CHANGING OVER HOLE W/MUD/MUD WT @ 10.2#/GA/RU BJ & PUMP 15 BBL F.W. AND 50 CU FT CLASS "G" CMT W/2 1/2 GAL RETARDER/DISPLACE W/329 CU FT 10.2#/GA MUD/ATTEMPT TO POH TBG STUCK/SDFN/
07/19/89
7-18-89/RU DIA-LOG/RIH W/1-3/4" JET SHOT/UNABLE TO PENETRATE HEAVY MUD @ 8647'/POH/RIH W/2-1/4" JET SHOT/TAG MUD @ 8638'/PRESS UP TBG & CSG TO 1000# HELD GOOD/PU JET SHOT TOOL TO 8628'/CUT TBG AS PER DOG/POH W/CUTTING TOOL/RD DIA-LOG/PU TBG TO 8614/CIRC HOLE/RU BJ/BJ PUMPED 15 BBL FW FOLLOWED BY 21 CU FT CLASS 'G' CMT W/1-1/2 GAL RETARDER/DISPLACED W/274 CU FT 10.2# GAL MUD/POH TO 8180'/REV CIRC 60 BBL MUD POH TO 7622'/EST TOP CMT 8514'/

07/20/89
7-19-89/CIRC MUD RIH TO 8638'/NO CMT PLUG/PICK UP TO 8614'/CIRC WELL 2 HRS/RU BJ/BJ PUMPED 85 CU FT FW FOLLOWED BY 50 CU FT CLASS 'G' CMT W/3 GAL RETARDER, FOLLOWED BY 16 CU FT FW AND DISPLACED W/256 CU FT 10.2#/GAL MUD/PU TO 7374'/REV CIRC W/50 BBL MUD EST TOC @ 8374'/SDFN/
07/21/89
7-20/RIH TO 8490' & TAG CMT/POH & LAY DN 224' OF 2-7/8" TBG FILL HOLE W MUD/RU DIA-LOG/RIH & PERF 4 HOLES @ 1700' (CLR @ 1695')/HOLE TAKING FLUID/ POH/RD DIA-LOG/RIH W TBG TO 1693'/FILLHOLE & CIRC/RU B.J. PMP 15 BBL FW FOLOWD BY 73 CU FT CLASS 'G' CMT/DISPLACE W 3 BBL FW & 5 BBL 10.2#/GAL MUD/ POH TO 1693'/WELL ON VACUUM/ATTEMPT TO LOAD HOLE W 20 CU FT MUD/SIFN/
07/22/89
7-21/RIH W 2-7/8" TBG TAG CMT 1558'/POH LAYING DN TBG/FILL HOLE W MUD/RU DIA-LOG/RIH TO 31'/DIA-LOG SHOOT 4 HOLES/FILL HOLE & CIRC DN 7" & UP 13-3/8" CSG/RU B.J. PMP 60 CU FT CLASS 'G' CMT DN 13-3/8" & UP 7" CSG/RD B.J. REMOVE BOP/RDMO/ DROP FRM REPORT PENDING D.O.G. APPROVAL OF SURFACE ABANDONMENT/
07/23/89
DROP FRM REPORT 7-21-89, PENDING D.O.G. APPROVAL OF SURFACE ABANDONMENT/
07/24/89
DROP FRM REPORT 7-21-89, PENDING D.O.G. APPROVAL OF SURFACE ABANDONMENT/
07/25/89
DROP FRM REPORT 7-21-89, PENDING D.O.G. APPROVAL OF SURFACE ABANDONMENT/

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. T 289-290

REPORT ON OPERATIONS

F.E. Armijo, Agent
Oryx Energy Company
25322 W. Rye Canyon Road
P.O. Box 55060
Valencia, CA. 91355

Ventura, California
September 22, 1989

Your operations at well "Newhall-Corp.Wolfson" 3-5, API No. 037-12615, Sec. 25, T. 4N, R. 17W, S.B.B.&M. Newhall Potrero Field, in Los Angeles County, were witnessed on 9/19/89. Pam Ceccarelli, representative of the supervisor, was present from 0730 to 0800. There were also present Ken Kennedy.

Present condition of well: 13 3/8" cem 523'; 7" cem 10311', cp 31' & 1700', perf 10290' (WSO); 5 1/2" ld 10290'-11041', perf @ int 10311'-10960'. Junk below 8638'. TD 11044'. Plugged w/cem 8614'-8490', 1693'-1558', 31'-5'.

The operations were performed for the purpose of abandonment.

DECISION:

The plugging operations as witnessed and reported are approved.

ljg

SURF INSP OK 12/11/89 BH

M.G. MEFFERD, State Oil and Gas Supervisor

By Patrick J. Kinnear
Deputy Supervisor

0G109

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No.P 289-215
Field Code 500
Area Code 00
New Pool Code --
Old Pool Code 30

PERMIT TO CONDUCT WELL OPERATIONS

F.E. Armijo, Agent
Sun Exploration & Prod. Co.
25322 W. Rye Canyon Road
P.O. Box 55060
Valencia, CA. 91355

Ventura, California
July 11, 1989

Your supplementary proposal to abandon well "Newhall Corp.-Wolfson" 3-5 A.P.I. No. 037-12615, Section 25, T. 4 N, R. 17W, S.B. B.&M., Newhall-Potrero field, any area, 5th pool, Los Angeles County, dated 6/29/89, received 7/3/89, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:
1. Requirements specified in permit No. P289-188 dated 6/26/89 shall apply.

Fields/KEW
stuck tbg
ok to shoot
off, place
100' over

Blanket Bond
SF:ljg

Engineer Steve Fields

Phone (805) 654-4761

M.G. MEFFERD, State Oil and Gas Supervisor

By Patrick J. Linnear
Patrick J. Linnear
Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
OG111

EXPRESS MAIL

Form OG123 (11/80/DWRR/5M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

SUN OIL CO.
RECEIVED
JUL 5 1989
VENTURA, CALIFORNIA

SUPPLEMENTARY NOTICE

FOR DIVISION USE ONLY			
BOND	FORMS		EDP WELL FILE
	OGD114	OGD121	
73		✓	

DIVISION OF OIL AND GAS

VENTURA, Calif.

A notice to you dated JUNE 20, 19 89, stating the intention to

ABANDON, (Drill, rework, abandon) NCW # 3-5 (Well name and number), API No. 037-12615,

Sec. 25, T. 4N, R. 17W, SB B. & M., NEWHALL-POTRERO Field,

LOS ANGELES County, should be amended because of changed conditions.

The present condition of the well is as follows:

Total depth

Complete casing record including plugs and perforations

We now propose TO CHANGE STEP 2 TO READ:
2. POH STANDING W/2-7/8" TBG X-OVER + 2-3/8" TBG.
PU & RIH W/SAWTOOTH COLLAR ON 25 JTS 2-3/8" 4.7# TBG
+ 2-7/8" WS TO BOTTOM. CLEAN OUT HOLE TO ± 10430
IF NECESSARY.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address 25322 W. RYE CANYON ROAD (Street)

VALENCIA, CALIFORNIA 91355-0560 (City) (State) (Zip)

Telephone Number (805) 257-6200

SUN EXPLORATION AND PRODUCTION COMPANY (Name of Operator)

Type of Organization CORPORATION (Corporation, Partnership, Individual, etc.)

By F. E. ARMIJO (Name)

Signature F. E. Armijo (Date) 6/29/89

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No.P 289-188
Field Code 500
Area Code 00
New Pool Code --
Old Pool Code 30

PERMIT TO CONDUCT WELL OPERATIONS

F.E. Armijo, Agent
Sun Exploration & Prod. Co.
25322 W. Rye Canyon Road
P.O. Box 55060
Valencia, CA. 91355

Ventura, California
June 26, 1989

Your proposal to abandon well "Newhall Corp.-Wolfson" 3-5, A.P.I. No. 037-12615, Section 25, T. 4 N, R. 17W, S.B. B.&M., Newhall-Potrero field, any area, 5th pool, Los Angeles County, dated 6/20/89, received 6/21/89, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Blowout prevention equipment conforming to DOG Class II 2M requirements shall be installed and maintained in operating condition at all times during abandonment operations.
2. Any sump used during these operations shall be thoroughly cleaned and filled with earth as soon as operations are completed.
3. A diligent effort shall be made to clean out the well to at least 11,041'.
4. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of 72 lbs./cu. ft. and a minimum gel-shear strength (10 min.) of 20 lbs./100 sq. ft.
5. This office shall be consulted before deviating from the proposed abandonment program.
6. THIS DIVISION SHALL BE NOTIFIED:
   a. To witness the location and hardness of the cement plug at 10,190' and 1600'.
   b. To witness the mudding of the well.
   c. To witness the squeeze-cementing of the 7" casing through the perforations at 1700'.
   d. To witness the placing of the surface plug or to verify its location.
   e. To inspect and approve the cleanup of the well site before approval of abandonment will be issued.

Engineer Pam Ceccarelli

Phone (805) 654-4761

M.G. MEFFERD, State Oil and Gas Supervisor

By Patrick J. Kinnear
Patrick J. Kinnear
Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after completion or after operations have been suspended.
OGIIi

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
JUN 21 1989
VENTURA, CALIFORNIA

Notice of Intention to Abandon Well

This notice must be given at least five days before work is to begin.

FOR DIVISION USE ONLY			
CARDS	BOND	FORMS	
		OGD114	OGD121
✓	BB	✓	✓

DIVISION OF OIL AND GAS

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon well NEWHALL CORPORATION-WOLFSON #3-5, API No. 037-12615, Sec. 25, T. 4N, R. 17W, SB B. & M., NEWHALL-POTRERO Field, LOS ANGELES County, commencing work on JULY 5, 19 89.

The present condition of the well is: SHUT-IN

1. Total depth: 11041'

2. Complete casing record, including plugs and perforations:
SEE ATTACHED

3. Last produced 1/17/83 (Date) 4 (Oil, B/D) 9 (Gas, Mcf/D) 20 (Water, B/D)

or

4. Last injected ____ (Date) (Water, B/D) (Gas, Mcf/D) (Surface pressure)

Additional data for dry hole (show depths)

5. Oil or gas shows

6. Stratigraphic markers:

7. Formation and age at total depth:

8. Base of fresh water sands: ±1600'

The proposed work is as follows:

SEE ATTACHED

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address 25322 West Rye Canyon Road (Street)
Valencia (City) CA (State) 91355-0560 (Zip)
Telephone Number (805) 257-6200 (Area Code) (Number)

SUN EXPLORATION & PRODUCTION CO (Name of Operator)
By F. E. ARMIJO (Print Name)
F. E. Armijo (Signature) 6/20/89 (Date)

OG108 (11-78-GSRI-5M)

RECOMMENDED WORK PROCEDURE Sun—5036-3-C

WELL NAME	FIELD NAME	COUNTY	STATE
NCW #3-5	NEWHALL POTRERO	LOS ANGELES	CA

PERMANENT ZERO POINT	UPPERMOST PLUG	RETAINER
KB 13' AGL, GL 1473.6' ASL	11,041'	NONE

	SIZE & WEIGHT PROD	DEPTH SET				
CASING	7",23,26,29 & 32#,J-55,N-80	10,311	PACKER DEPTH (TOP) & TYPE	(1) NONE	(2)	(3)
	SIZE, WEIGHT, GRADE, ETC.	DEPTH SET				
TUBING	2-7/8" 6.5# & 2-3/8" 4.7#,J-55	807	TOP OF CEMENT BEHIND PROD CSG.	CALCULATED 8,432' EST	LOG	
		DEPTH SET	PERFS	10,960'-10,883'; 10,802'-10,685'		
	LNR: 5½" 17# J-55	10,290'-11,041'		10,606'-10,450'; 10,371'-10,311'		

PROCEDURE	RIG TIME

CAPACITIES

13-3/8" 61# CSG = 0.8542 cu.ft./lin.ft.
7" 32# CSG = 0.2025 cu.ft./lin.ft.
7" 29# CSG = 0.2085 cu.ft./lin.ft.
7" 26# CSG = 0.2148 cu.ft./lin.ft.
7" 23# CSG = 0.2210 cu.ft./lin.ft.
5-1/2" 17# CSG = 0.1305 cu.ft./lin.ft.
2-7/8" 6.5# CSG = 0.03250 cu.ft./lin.ft.
2-3/8" 4.7# CSG = 0.02171 cu.ft./lin.ft.

1. MIRU WO rig. Install Class II 2M BOPE and test to 2000 psi for 15 minutes. Fill hole w/LW (Well capacity = ±2308 cu.ft.=411 bbls).

2. POH standing w/2-7/8" tbg, X-over & 2-3/8" tbg. PU & RIH w/sawtooth collar on 25 jts 2-3/8" 4.7# tbg & 2-7/8" WS to ±11,041'. If fill is encountered, attempt to circulate clean to ±11,041'. ~~Contact DOG to witness clean~~ out (654-4761).

3. Fill hole with 15 bbls of 72#/cu.ft. mud. POOH with 20 JTS 2 7/8" TBG to ±10,420.

4. MIRU cementers. Spot a balanced plug from ±10,420' to ±10,190' with 45 cu. ft. of class 'G' cement with appropriate additives. PU WS ±700' and reverse circulate with 54 BLW. WOC 4-6 hours. Tag TOC.

5. Fill hole with 340 bbls of 72#/cu. ft. mud. POOH with 8590' of 2 7/8" TBG to ±1600'.

6. MIRU EWL service. PERF 4 HPF @ 1700' with 1 1/2" hollow carrier through tubing gun or similiar. POOH and RD EWL.

7. RU cementers. Bradenhead squeeze w/40 cu ft of Class 'G' cmt w 3% $CaCl_2$ (100' of surf csg-prod csg annulus). Spot a 23 cu ft cmt plug in 7" csg from ±1700' to 1600'. PU WS ±500' & rev circ w/7 BLW. WOC 4-6 hrs. Tag TOC.

8. Fill hole w/64 Bbls of 72#/cu ft mud. POOH w/2-3/8" WS. Remove BOP's.

9. RIH w/1 jt of 2-7/8" tbg. Spot 6 cu ft of Class 'G' cmt w/3% $CaCl_2$ from 31' to 6' below GL. POOH w/2-7/8" tbg.

10. RIH w/1 jt of 1-1/2" tbg between 13-3/8" surf csg & 7" prod csg. Spot 15 cu ft of Class 'G' cmt w/3% $CaCl_2$ from 31' to 6' below GL. POOH w/1-1/2" tbg WOC 4 hrs. Tag TOC. RDMO cementers & rig.

11. Cut surface CSG 5' below ground level. Remove cellar and flowlines, clean location. Weld plate marker over CSG. Contact DOG for surface abandonment approval.

WELL COMPLETION SKETCHES SUN–5036-4-A

WELL	FIELD	DATE
NCW #3-5	NEWHALL - POTRERO	MARCH 10, 1988

☒ PRESENT COMPLETION ☐ SUGGESTED COMPLETION

PERMANENT WELL BORE DATA

SPUD: 5/21/50
COMPLETED: 8/28/50

13 3/8", 61# SMLS CSG,
CMT'D @ 523' W/ 375 SX
(17" HOLE)

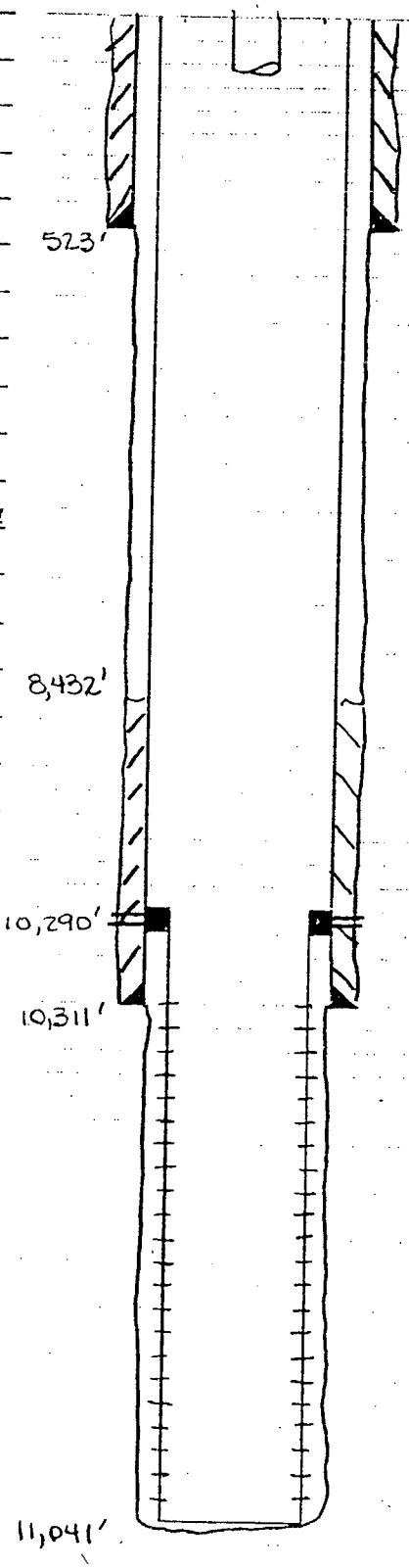
7", 23#, 26#, 29# & 32#,
J-55 & N-80 SMLS CSG,
CMT'D @ 10,311' W/ 600 SX
(11" HOLE)

4- 3/8" HOLES @ 10290' (WSO)
EST TOC @ 8432'

5 1/2", 17# J-55 SMLS
LNR, HUNG @ 11,041'
W/TOP @ 10,290'
(5-7/8" HOLE)

SHOP PERF'D W/
192 - 1/4" ROUND HOLES/FT.
W/ 16 R x 1"C FROM:
10,960' - 10,883',
10,802' - 10,685',
10,606' - 10,450',
10,371' - 10311'.

TD: 11044'



DATA ON THIS COMPLETION

KB: 1486.60 ASL
KB: 13' AGL

1 JT 2 7/8" TBG
2 7/8" x 2 3/8" X-OVER
762' 2 3/8" TBG

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
NEWHALL-POTRERO	2
Former owner	**Date**
Sun Oil Company	Mar. 31, 1983

Name and location of well(s)

Sections 21, 22, 25, 26, 27, 28, 35, 36, T4N. R. 17W.

ALL WELLS

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner / Address	Type of organization / Telephone No.
1/1/82	Sun Exploration & Production Co. P.O. Box 55060 Valencia, Ca. 91355	Company (805) 257-6200

Reported by: Sun Oil Company

Confirmed by: Sun Exploration & Production Co.

New operator new status (status abbreviation)	Request designation of agent
PA	on file
Old operator new status (status abbreviation)	**Remarks**
Ab	NAME CHANGE ONLY

Deputy Supervisor	Signature
Murray W. Dosch	Murray W. Dosch

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form ODG148			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs					
Production reports					

STENOGRAPHER

Date Received _____ Form 100 ____ 101 ____ 103 ____

Elec. Log. ____ Radio Log _____

Direct.Surv. _____ Other Data _____

Location _____

Elevation _____ Steno. _____

ENGINEER

BOND _____ Release ___ Date Elig. _____ 150b _____

End Prem.Yr. ___ Release Requested ___ Superseded ___ Aban. _____

HOLD BOND _____ Reason _____

_____

Data Needed _____

_____ Final Letter ___ Eng. ____

RECEIPT FOR

Well Summary ___

Drillers Log ___

Core Record ✓

History _____

Elec.Log. _____

Radio Log _____

Direct.Surv. ___

Redrill _____

Deepen _____

Plug _____

Alter Csg. ____

Abandon _____

STENOGRAPHER

Date Received _____ Form 100 ____ 101 ____ 103 ____

Elec. Log _____ Radio Log _____

Direct. Surv. _____ Other Data _____

Location _____

Elevation _____ Steno. _____

ENGINEER

BOND _____ Release ____ Date Elig. _____ 150b _____

End Prem.Yr. ____ Release Requested ____ Superseded ____ Aban. _____

HOLD BOND _____ Reason _____

_____

Data Needed _____

_____ Final Letter ____ Eng. _____

RECEIPT FOR

Well Summary ____

Drillers Log ____

Core Record ____

History _____

Elec.Log _____

Radio Log _____

Direct.Surv. ____

Redrill _____

Deepen _____

Plug _____

Alter Csg. _____

Abandon _____

All of SUNRAY DX OIL COMPANY wells in field transferred 10-25-68 to SUN OIL COMPANY - DX DIVISION. Form 156, 11-20-68. See ownership file.

FORM 100.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT LOG IN DUPLICATE

FILL THI ...NK IN WITH TYPEWRITER. WRITE ON ONE SIDE OF PAPE... LY

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

WELL SUMMARY REPORT

Operator SUNRAY OIL CORPORATION ~~DARGSDALE OIL COMPANY~~ Field NEWHALL-POTRERO

Well No. NEWHALL CORP.-WOLFSON #3-5 Sec. 25, T. 4N, R. 17W, S.B. B. & M.

Location 4912.42'S & 1463.8' E from Corner 'J' Elevation of ground or ~~derrick floor~~ kelly bushing above sea level 1473.60 / 1486.60 feet.

In compliance with the provisions of Chapter 93, Statutes of 1939, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date 11-28-50

Signed R. E. Foss
R. E. Foss

H. M. Stanley (Engineer or Geologist)

T. J. Prohoda (Superintendent)

Title Agent (President, Secretary or Agent)

Commenced drilling 5-21-50 Completed drilling 8-28-50 Drilling tools Rotary

Total depth 11,044 Plugged depth --

Junk None

GEOLOGICAL MARKERS | DEPTH

Commenced producing 8-28-50 (date) Flowing/gas lift/pumping (cross out unnecessary words)

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production	385		14	40	140	710
Production after 30 days	318		25	172		

Casing Record (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing landed in	Number of Sacks of Cement	Depth of Cementing if through perforations
13-3/8	523	Surface	61	S.H.	Smls.	--	17"	375	
7	10311	Surface	~~23,26,29~~ & 32	New	Smls.	J55, N80	11"	600	
5½	11041	10290	17	New	Smls.	J55	5-7/8	--	

Perforations

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
5½	10960 ft.	10883 ft.	192 - ½ Rd. holes/ft.	16	1"	Shop
	10802 ft.	10685 ft.				
	10606 ft.	10450 ft.				
	10371 ft.	10311 ft.				
	ft.	ft.				

Electrical Log Depths 11,044 (Attach Copy of Log)

FORM 103. 62984 9-45 47,500
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR SUNRAY OIL CORPORATION FIELD NEWHALL-POTRERO FIELD

Well No. NEWHALL CORPORATION-WOLFSON #3-5, Sec. 25, T. 4N, R. 17W, S.B. B. & M.

Signed R. E. Foss
R. E. Foss

Date 11-28-50 Title Agent
(President, Secretary or Agent)

Use this form in reporting all important operations at the well, together with the dates thereof, in the order of their performance. Such operations include drilling, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, or deepened; size, weight and length of casing landed, cemented, or removed, amount and location of perforations; number of sacks of cement used in cementing or plugging operations, number of feet of cement drilled out of casing, location of top and bottom of cement plugs. If the well was dynamited, give date, dimensions and weight of all shots. If tests were made give interval tested and results of tests, such as, amount and nature of fluids recovered.

Date	
5-21-50	Spudded in with 11" bit.
5-22	T.D. 588'. Opened hole to 523' with 17" hole opener.
	Cemented 13-3/8" - 61# Csg. at 523' with 375 sx. construction cement.
5-24	Found top of cmt. at 488'. Cleaned out to bottom & drilled ahead with 11" bit.
7-27	T.D. 10232'. 1st Run Schlumberger Electric Log.
7-28	T.D. 10321'. 2nd Run Schlumberger Electric Log.
7-29	Cemented 7" 23,26,29 & 32# J55, N80 Csg. at 10311' with 600 sx Victor Modified Cement.
8-1	Found top of cmt. at 10228'. Drilled out to 10300'.
	Shot 4 - 3/8" holes at 10290' with McCullough gun.
	Ran M.O. Johnston tester on 3½" 15.5# D.P. w/1000' mud cushion & ½" btm. bean.
	Set packer at 10272' with tailpc. to 10290'. Open 1 hour. Light blow ½ minute & dead 59½ minutes. Recovered 390' drilling fluid. Tester opened twice coming out.
	Test witnessed & W.S.O. approved by Lloyd White of Div. of Oil & Gas.
8-2	Cleaned out to bottom and made 3' of hole with 5-7/8" bit.
	Changed to Ken-Oil Base mud.
8-3	Cored ahead with 5-7/8" Mercury Diamond Core head.
8-19	T.D. 11044. 3rd Run Schlumberger Electric Log.
8-21	Ran M. O. J. Tester on 2-7/8" 6.5# tbg. Set packer at 10275' with tailpc. to 10280'. No Cushion. Open 71 hours 10 min. Recovered 1014 Bbls. oil (swabbed 56 Bbls.- flowed 958 Bbls.) Started flowing after 12 hours, 55 min.
8-24	Killed well with Ken-Oil. Pulled tbg.
8-27	Hung 751.03' of 5½" 17# J55 liner at 11041'. Perforated with 192 - ½" Rd. holes/foot.
	10959.86' to 10882.90'
	10801.77' to 10685.38'
	10606.21' to 10449.86'
	10370.53' to 10311.25'
8-28	Hung 2-7/8" 6.5# production tubing at 10940.11'.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY Los Angeles FIELD OR DIST. Newhall-Potrero COMPANY SUNRAY OIL CORPORATION WELL N.C.W.#3-5

LOCATION 4912.42' S & 11,463.87' E from Corner "J" SECT. 25 T. 4N R. 17W ELEV. KB 1486.60

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1950												
8/3	Diamond #1	6"	10,324 - 10,354		30'	100%				2'	Pebbly oil sand, brown, massive, hard to difficultly friable, low permeability. Pebbles to 1/2" throughout.	
										4'	Conglomerate, similar to above, more common & larger pebbles.	
							2'				Siltstone, light dull gray, massive, tough, est 40° dip.	
										1'	Oil sand, buff, massive, hard, tight,	
										21'	Conglomerate, as above, with 6" fine-grained, light gray to brown sandstone at 10,340'. Several streaks of hard, gray to faintly oil stained conglomeratic shell in lower 1/2 interval.	
8/4	" #2	"	10,354 - 10,384		28'	93%				10'	Conglomerate as above with one good 50° dip.	
							18'				Siltstone, brown-gray, massive, micromicaceous, tough, weakly fractured. Rarely slightly sandy.	
8/5	" #3	"	10,384 - 10,414		30'	100%	30'				Siltstone(ditto just above) good 45° to 50° dips. Occasional streaks of medium grained silty oil sand up to 3/4". Sand streaks are occasionally difficultly friable. Occasional worm borings near base.	
8/5	" #4	"	10,414 - 10,444		30'	100%	10'				Siltstone (ditto)	
										1'	Oil sand, brown, massive, biscuit-broken, slightly friable, medium grained, silty and clayey. Well saturated.	
							2'				Sandy siltstone, light to dark gray, well bedded, hard, 45° dips, grades to:	
										2'	Oil sand, as above, becoming coarse grained at base.	
							15'				Siltstone as at top of core. Shaley in middle showing 42° to 45° dips.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY | FIELD OR DIST. | COMPANY | WELL N.C.W.#3-5

LOCATION | -2- | SECT. | T. | R. | ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1950												
8/6	Diamond	6"	10,444 -		30'	100%	6½'				Siltstone, as above, with increasing lenses and	
	#5		10,474								streaks of fine grained, weakly oil stained sand.	
											Dips average 45°.	
										5'	Oil sand, dark brown to tan gray. Well stained.	
											Medium grained with common coarse gra ns. Contains	
											6" siltstone 1' from base.	
							1½'				Siltstone as last above.	
										1'	Oil sand, dark brown.	
							1½'				Siltstone as last above.	
										4'	Oil sand, dark brown, silty at top.	
							2½'				Siltstone with occasional streaks of oil sand.	
										2'	Oil sand, dark brown, fine grained, friable.	
							6'				Siltstone with common streaks and patches of fine	
											grained oil sand.	
8/7	"	"	10,474 -		30'	100%	1/2'				Siltstone as above.	
	#6		10,504							4'	Oil sand, dark brown, occasional siltstone inter-	
											beds.	
							1'				Siltstone 40° dips.	
										4'	Oil sand	
							1½'				Siltstone	
										4½'	Oil sand, dark brown, fine to medium grained.	
							3½'				Siltstone.	
										1½'	Oil sand	
							1'				Siltstone	
										1½'	Oil sand, silty at base.	
							3'				Siltstone.	
										2'	Oil sand.	
							2'				Siltstone with streak of oil sand at base.	
8/7	"	"	10,504 -		30'	100%				5'	Oil sand, dark brown, somewhat friable.	
	#7		10,534						4'		Sandstone shell, coarse grained, weakly oil stained.	
											Calcareous.	
										1/2'	Oil sand.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY | FIELD OR DIST. | COMPANY | WELL N.C.W.#3-5

LOCATION 3- | SECT. 2 | T. | R. | ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1950										1/2'	Oil Sand.	
							1/2'				Siltstone.	
										2'	Oil Sand, medium brown, difficultly friable.	
							15½'			x	Interbedded siltstone and oil sand, siltstone as above with sandy streaks and lenses. Oil sand is dark brown, medium to occasionally coarse grained, moderately friable in streaks of 3" to 12". Dips average 40° to 45°.	
										2'	Oil Sand, coarse grained, friable, permeable.	
							1/2				Siltstone.	
8/8	Diamond #8	6"	10,534 - 10,564		30'	100%				8'	Oil sand, dark brown, massive, medium to coarse grained, friable to difficultly friable. Quite permeable in thin streaks. Good saturation.	
							6'				Siltstone, grades from dull gray platey shale showing good 40° to 45° dips to very fine grained very silty sand with light oil stain.	
										2½'	Oil sand, Medium dark brown, somewhat friable, coarse grained in part to small pebbly.	
							1/2				Shale, dull light gray, somewhat fractured with 45° dip.	
										1'	Oil sand, light brown, fine grained, silty, low permeability.	
							1/4'				Shale, 45° dip.	
									2½'		Sandstone shell, coarse grained, pebbly with one calcified fractured plane showing dip slip.	
										9¼'	Oil sand, medium brown, massive, generally medium grained, with common pebbles and shale inclusions to 1" in bottom 3'. Rather low apparent permeability.	
8/8	" #9	"	10,564 - 10,594		30'	100%				5'	Oil sand(ditto) with scattered irregular shale inclusions.	
										7½'	Oil sand, medium to dark brown, massive, medium grained, occasionally pebbly. Biscuit broken, fair permeability.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc, Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY | FIELD OR DIST. | COMPANY | WELL N.C.W.#3-5

LOCATION | SECT. | T. | R. | ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1950												
							X			8½'	Interbedded oil sand and shale. Good 45° average dips.	
										9'	Oil sand, medium to dark brown, medium grained, fair permeability.	
8/9	Diamond #10	6"	10,594 - 10,624		30'	100%				8'	Oil sand(ditto) fair to good permeability.	
										11½'	Conglomerate with streaks of oil sand. Good saturation, somewhat friable with one shale streak showing 40° dip.	
										1½'	Oil sand as at top of core.	
									1½'		Oil Stained Sands' one, light gray-brown, medium grained, quite hard.	
										7½'	Conglomerate as above, with pebbles and occasional cobbles to 5". Heavy, brittle, very low porosity.	
8/9	" #11	"	10,624 - 10,654		30'	100%				30'	Conglomerate as last above, heavy, massive, very little sand with one 15" streak of medium grained brown oil sand at 10,645'. Low porosity and permeability.	
8/10	" #12	"	10,654 - 10,684		30'	100%				2'	Conglomerate	
										7'	Oil sand, gray brown, coarse grained to fine pebbly with occasional pebbles to 1". Slightly friable. Low apparent permeability.	
										9'	Conglomerate, heavy, brittle, cobbles to 3". Very little sand.	
										3'	Oil sand, gray brown, fine grading to medium grained.	
										5'	Conglomerate as above but sandier.	
										4'	Oil sand, brown, medium grained, friable, well saturated.	
8/11	" #13	"	10,684 - 10,714		30'	100%				2'	Oil sand, ditto, dark brown, medium grained, somewhat friable.	
										4'	Conglomerate pebbles and cobbles.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc, Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY | FIELD OR DIST. | COMPANY -5- | WELL N.C.W.#3-5

LOCATION | SECT. | T. | R. | ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1950										1/2'	Oil sand, gray brown, fine grained, pebbles, streaks.	
							1/2'				Shale - dip 45°.	
										8'	Oil sand, fine to medium grained with common pebbles bottom 6'; grading in base to:	
										4"	Conglomerate, pebbles to 1/2".	
										11'	Oil sand, tan to occasionally gray, medium grained, moderately to difficultly friable, with common to abundant 1/4" to 1/2" pebbles in bottom 2'. Saturation is generally much lighter than heretofore noted. Several gray spots and streaks may be due to lack of permeability. Interval looks edgy.	
8/12	Diamond #14	6"	10,714 - 10,744		30'	100%				18'	Conglomerate, hard, brittle.	
									1 1/3'		Sandstone, gray with very faint oil stain(?). Hard, fine grained, tight.	
								2 1/2'		x	Silty sand, light to dark gray to light brown, fine grained, quite silty, weak-looking. One gray sample shows a 1/2" ring which shows oil invasion from drilling fluid. It therefore appears permeable and wet.	
							1/2'				Shale, 50° dip. Shows common fine sand interbeds.	
										7 1/2'	PebblyOil Sand, brown to gray-brown, massive, friable to hard, generally low porosity and permeability. Do not appear wet.	
8/12	" #15	"	10,744 - 10,774		30'	100%				15'	Oil Sand, medium brown, massive, fine to medium grained with occasional dark silty streaks showing 40 to 50° dips, fairly uniform and good saturation, several small pebble streaks.	
										5'	Conglomerate, massive, hard, brittle, pebbles to 2".	
								x		5'	Oil sand, similar to above but with weaker saturation. One piece of core is gray and shows mud-invasion ring.	
										5'	Conglomerate, as above with cobbles, somewhat broken.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.
HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.
TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.
SORTING: E Even, G Good, P Poor, F Fair.
MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY | FIELD OR DIST. | COMPANY -6- | WELL N.C.W. #5-5

LOCATION | SECT. | T. | R. | ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1950												
8/13	Diamond #16	5"	10,774 - 10,804		30'	100%				10'	Conglomerate, ditto with cobbles to 5". One vertical slickensided fracture.	
										6'	Oil Sand, medium grained, fair to weak saturation, pebbly in part, fairly hard, very low permeability.	
										5'	Conglomerate, fairly sandy, pebbly, hard, varies from medium grained oil sand to " conglomerate.	
							1½'				Siltstone, massive, hard, estimated 60° dips.	
										½'	Conglomerate sandy with common pebbles and cobbles.	
								x		3½'	Oil sand, medium to very faint saturation, fairly hard, quite low permeability, medium grained, shows 1/2" mud-invasion ring in gray sample.	
8/14	" #17	"	10,804 - 10,834		30'	100%		x		8'	Pebbly oil sand, gray to tan, coarse grained sand with abundant pebbles averaging 1/6", very low permeability, very weak stain.	
										6½'	Oil sand, tan to brown, hard, medium grained, fair to light stains, variably silty, very low permeability, pebbly in bottom foot.	
										6½'	Conglomerate, heavy, brittle, common cobbles.	
										9'	Oil sand, fine to medium grained to occasionally coarse and pebbly, hard, very low permeability, light stain.	
	" #18	"	10,834 - 10,864		30'	100%				2'	Oil sand, light gray-brown, massive, coarse, small pebbly, hard, low permeability.	
										21½'	Conglomerate, generally hard and brittle, massive, scattered cobbles, becomes sandy and pebbly in bottom 1½', grading to:	
										3½'	Oil sand, massive, coarse grading to medium grained, 1/8" pebbles at top, fairly hard, low permeability.	
8/15	" #19	"	10,864 - 10,894		30'	100%				2'	Oil sand ditto medium grained, very hard in top 1" and with gray streaks in bottom foot.	
										21'	Conglomerate, hard, brittle, pebbles and cobbles.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. **Record dips of beds, fractures, joints, slickensides, etc.** Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: **Bf** Buff, **Blk** Black, **Blu** Blue, **Br** Brown, **Gy** Gray, **Gn** Green, **Choc** Chocolate, **Dk** Dark, **Lt** Light, **Ol** Olive, **Pur** Purple, **R** Red, **T** Tan, **Wh** White.

HARDNESS: **Frm** Firm, **Fri** Friable, **H** or **Hd** Hard, **M** or **Med** Medium, **S** Soft, **V** Very.

TEXTURE: **C** or **Cse** Coarse, **Fn** Fine, **M** or **Med** Medium, **Peb** Pebbly, **Shly** Shaley, **V** Very.

SORTING: **E** Even, **G** Good, **P** Poor, **F** Fair.

MISCELLANEOUS: **Bent** Bentonite/Bentonitic, **Carb** Carbonaceous, **Cong** Conglomerate, **Fos** Fossils/Fossiliferous, **Mic** Micaceous, **S S** Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY | FIELD OR DIST. | COMPANY | WELL N.C.W.#3-5

LOCATION | SECT. | T. | R. | ELEV.

-7-

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1950												
											rare pebbly sand streaks.	
										7'	Pebbly oil sand: pebbles to 3/16" in matrix of coarse sand, uniform weak stain, fairly hard, low permeability.	
8/16	Diamond #20	6"	10,894 - 10,920		25'	100%				4'	Pebbly oil sand, ditto but becoming conglomeratic with scattered 1/2 - 3/4" pebbles in lower portion. Coarse grained, hard, tight.	
										8'	Oil sand, fine to very fine grained, occasionally streaked with silt, generally fairly hard, light brown, massive, with 1' of sandstone shell 2' from base, becomes medium grained with scattered pebbles in basal foot.	
										1½'	Conglomerate, brittle, hard, as last above, with scattered cobbles.	
8/17	" #21	"	10,920 - 10,949		29'	100%			5'	22½'	Conglomerate, ditto, occasionally cobbles to 7". Sandstone shell, medium grained, massive, hard, calcareous, becoming only slightly permeable and faintly stained in bottom foot.	
										1½'	Oil sand, tan coarse grained, slightly friable, massive, gasoline odor.	
8/17	Diamond #22	6"	10,949 - 10,976		27'	100%				1/2'	Oil sand, ditto, coarse grained, slightly friable.	
										5½'	Oil sand, fine grained at top grading to coarse grained at base, biscuit-broken, gray and hard in top 4", grades at base to:	
										8½'	Conglomerate hard, brittle, with common cobbles.	
							4½'				Shale, with common very fine grained oil sand interbeds, excellent 45° dips.	
										8'	Oil sand, very fine grained at top to medium grained, fair to light stain, has a faint and very small gray spotty coloring - looks a little dead.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.
HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.
TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.
SORTING: E Even, G Good, P Poor, F Fair.
MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OB

CORE RECORD

COUNTY | FIELD OR DIST. | COMPANY -8- | WELL (N.C.W.#3-5

LOCATION | SECT. | T. | R. | ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
~~1950~~												
8/18	Diamond #23	6"	10,976 - 10,998		22'	100%				4'	Oil sand, brown to gray-brown, massive, biscuit-broken, very fine to medium grained, generally low permeability.	
							18'			x	Interbedded siltstone and oil sand, siltstone is hard, brittle, commonly slickensided and fractured with calcite on fractures(down-dip slickensides). Oil sand is fine to very fine grained, medium brown, generally difficultly friable, finely interbedded throughout with very fine dark silty laminae. One medium grained fragment at base of core showed some gray spots and appeared permeable.	
8/19	" #24	"	10,998 - 11,028		30'	100%		x		10'	Oil sand, fine grained, light brown to gray, massive to occasionally laminated and interbedded with siltstone, hard to difficultly friable, large gray spots near center of portion of core show mud invasion ring.	
							17'		x	x	Siltstone, dark gray-brown, massive to platy, exce excellent 40-51° dips. Contains 1' of oil sand at 11,016'. Basal 7' is finely laminated with very fine grained and thin gray sand laminae.	
										3'	Oil sand with common siltstone interbeds, fine to very fine, quite silty, hard to difficultly friable.	
8/19	" #25	"	11,028 - 11,044		16'	100%	2½'				Siltstone, brown, massive to bedded with laminae of fine gray sand, hard, brittle, contains streaks of coarse gritty sand.	
							10'				Shale, gray brown to brown, well bedded, platy, with common thin laminae of fine grained, silty gray sand. Excellent 50° dips. Contains 1' of fine grained silty, friable oil(?) sand at 11,033'.	
							3½'				Interbedded siltstone & fine grained sand. Sand is partly stained w/oil-possibly infiltration for the mud.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL DIVISION

SUNRAY OIL CORPORATION

714 WEST OLYMPIC BLVD.
LOS ANGELES 15, CALIFORNIA

September 14, 1950

Mr. C. L. Barton
Division of Oil & Gas
1015 West Olympic Blvd.
Los Angeles 15, California

Dear Mr. Barton:

Enclosed please find two copies of electric log and core record on our well:

N.C.W. 3-5 - Newhall-Potrero

Very truly yours,

Telulah Vassar

Telulah Vassar - Secretary
Geological Department

tv
encl.: 4

FORM 109-A (10-48)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(FORMATION TESTER)

No. T 1-21550

Los Angeles 15, Calif. August 7, 1950

Mr. R. E. Ross
Los Angeles 15, Calif.
~~Agent~~ for SUNRAY OIL CORPORATION

DEAR SIR: "Newhall Corp.-Wolfson"

Your well No. 1-0, Sec. 25, T. 4 N., R. 17 W., S.B. B & M.
Newhall-Potrero Field, in Los Angeles County, was tested for water shut-off on August 2, 1950. Mr. J. L. White, Inspector, designated by the supervisor, was present as prescribed in Secs. 3222 and 3223, Ch. 93, Stat. 1939; there were also present Hal Stanier, Engineer; A. C. Chaney, Drilling Foreman.

Shut-off data: 7 in. 23, 26, 29, & 32 lb. casing was cemented xxxx at 10311 ft. on July 29, 1950 in 11 in. hole with 600 xxxx sacks of cement of which 15 sacks was left in casing.

Casing record of well: 13-3/8" cem. 523'; 7" cem. 10311'; four 3/8" test holes 10290', W.S.O.

Present depth 10321 ft. Bridged with cement from 10311 ft. to 10290 ft. Cleaned out to 10300 ft. for test. A pressure of xxx lb. was applied to the inside of casing for xxx min. without loss after cleaning out to xxx ft. A Johnston tester was run into the hole on 3-1/2 in. drill pipe ~~casing~~ with 1221 ft. of ~~water~~-mud cushion, and packer set at 10278 ft. with tailpiece to 10290 ft. Tester valve, with 1/2 in. bean, was opened at 11:30 a.m., August 1, 1950 and remained open for 1 hr. and xxx min. During this interval there was a puff blow at no blow thereafter.

THE INSPECTOR APPROVED AT 3:30 P.M. AND 3:45 P.M. STARTED REPORTED:

1. An 11" rotary hole was drilled from 523' to 10321'.
2. Electrical core readings showed the "WL" point at 10300'.
3. Cement was drilled out of the 7" casing from 10278' to 10300'(equivalent to 13 sacks), and the casing was cleaned out to 10300'.
4. The 7" casing was shot-perforated with four 3/8" holes at 10290' for this test.
5. A Johnston tester was run as noted above.

THE INSPECTOR NOTED:

1. When the drill pipe was removed, 390' net of heavy drilling fluid was found in the drill pipe above the tester, equivalent to 3.0 bbl.
2. The recording pressure bomb chart showed that the tester valve was open 1 hr.

The test was completed at 4:30 p.m.

THE WATER SHUT-OFF ABOVE THE PERFORATIONS AT 10290' IS APPROVED.

JLW:DH

cc- Company

R. D. BUSH, State Oil and Gas Supervisor

By E. H. Meurer, Deputy

FORM 109-D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-51295

Los Angeles 15, Calif. June 13, 1950

Mr. R. E. Ross
Los Angeles 15, Calif.
Agent for RANDSAIL OIL COMPANY

DEAR SIR: "Newhall Corp.-Wolfson"

Operations at your well No. 3-5 Sec. 25, T. 4 N., R. 17 W., S. B. B. & M., Newhall-Potrero Field, in Los Angeles County, were witnessed by Paul Bates, Inspector, representative of the supervisor, on June 1, 1950. There was also present A. G. Chancey, Drilling Foreman, Hal Stanier, Engineer

Casing Record	Junk
13-3/8" cem. 523'; T.D. 3170'.	xxx

The operations were performed for the purpose of inspecting blowout prevention equipment and installation.

The inspector arrived at the well at 2:30 p.m. and Mr. Chancey reported:

1. A 17-1/2" rotary hole was drilled from surface to 523'.
2. On May 22, 1950, 13-3/8" 61 lb. casing was cemented at 523' with 375 sacks of cement.
3. An 11" rotary hole was drilled from 523' to 3170'.

THE INSPECTOR FOUND that the well was equipped with the following blowout prevention equipment:

1. A Shaffer double caller control gate for closing in the well with the drill pipe out of the hole and for closing around the 5-9/16" drill pipe.
2. The controls for the above equipment were located outside the derrick.
3. A 2" mud fill-up line, with a 2" high pressure Noristrom, into the 13-3/8" casing, below the above equipment.

The inspection was completed at 3:45 p.m.

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

cc - Company

Pb:ES

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Musser Deputy
BJG

16330 10-49 17,500 ② SPO

FORM 111
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-48289

Los Angeles 15, Calif. May 25, 19 50

MR. R. E. Foss

Los Angeles 15, Calif.

Agent for BARNSDALL OIL COMPANY

DEAR SIR:

Your proposal to drill "Newhall Corp.-Wolfson" Well No. 3-5, Section 25, T. 4 N., R. 17 W., S. B. B. & M., Newhall-Potrero Field, Los Angeles County, dated May 19, 19 50, received May 23, 19 50, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:

"The well is 4912.42 feet S. and 11463.87 feet E. from Corner "J"
The elevation of the kelly bushing conc. mat above sea level is 1,486.60 feet.
We estimate that the first productive oil or gas sand should be encountered at a depth of about 10,225 feet."

PROPOSAL:

"We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing	Weight	Grade and Type	Depth	Landed or Cemented
13 3/8"	54.5#	J-55	500'	Cemented
7"	32,29,26 & 23#	N-80 & J-55	10,225'	Cemented
5-1/2"	17#	J-55	10,750'	Hung

Well is to be drilled with rotary tools.
It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT

1. Blowout prevention equipment, sufficient to provide a complete close-in of the well under pressure at any time, shall be installed.
2. Any hole to be sidetracked in any oil or gas zone shall be filled with cement, if possible.
3. THIS DIVISION SHALL BE NOTIFIED AS FOLLOWS:
   (a) To **inspect the installed blowout** prevention equipment before drilling below 1000'.
   (b) To witness a test of the effectiveness of the 7" shut-off.

CLB:OH

cc- Company

R. D. BUSH
State Oil and Gas Supervisor

By E H Musser Deputy

Blanket bond.

FORM 105
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

031-12615

DIVISION OF OIL AND GAS

12

RECEIVED
MAY 29 19

Notice of Intention to Drill New Well

This notice must be given and surety bond filed before drilling begins

Newhall, Calif. May 29, 1950

DIVISION OF OIL AND GAS

Los Angeles, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of drilling well No. Newhall Consr. Railroad #3-5, Sec. 25, T. 4 N., R. 17 W., S.B. B. & M., Newhall-Potrero Field, Los Angeles County.

Lease consists of

The well is 4932.42 feet N. or S., and 1463.87 feet E. or W. from Corner "J"
(Give location in distance from section corners or other corners of legal subdivision)

The elevation of the kelly bushing 1,486.60 above sea level is feet.
conc.mat 1,473.60

We estimate that the first productive oil or gas sand should be encountered at a depth of about 10,225 feet.

We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing, Inches	Weight, Lb. Per Foot	Grade and Type	Depth	Landed or Cemented
13 3/8"	54.5#	J-55	500'	Cemented
7"	32,29,26 & 23#	N-80 & J-55	10,225'	Cemented
5-1/2"	17#	J-55	10,750'	Hung

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
181 JLW	JLW				

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing.

Address 714 W. Olympic Boulevard
Los Angeles 15, California

Telephone number RI 5171

BARNSDALL OIL COMPANY
(Name of Operator)

By R. E. Foss
R. E. FOSS Agent

FR-JSH

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF WELL ABANDONMENT

F.E. Armijo, Agent
Oryx Energy Company
25322 W. Rye Canyon Road
P.O. Box 55060
Valencia, CA. 91355

Ventura, California
February 8, 1990

Your report of abandonment of well "Newhall-Corp.Wolfson" 4-5, A.P.I. No. 037-12616, Section 25, T. 4N, R. 17W, SB B.&M., Newhall-Potrero field, Los Angeles County, dated 11-28-89, received 11-29-89, has been examined in conjunction with records filed in this office, and we have determined that all of the requirements of this Division have been fulfilled.

bb

cc: Conservation Committee
Update

253	2/17/90	—	BB	✓	—	✓

M.G. MEFFERD, State Oil and Gas Supervisor

By Patrick J. Kinnear
Patrick J. Kinnear, Deputy Supervisor

OG159

OPERATOR Sun Explor
WELL NO. "Turkall Corp - Watson "45"
MAP

INTENTION	Conf	Susp				
NOTICE DATED	6-30-89	6-29-89				
P-REPORT NUMBER	289-187	289-216				
CHECKED BY/DATE		DH 2/9/90				
MAP LETTER DATED		2/17/90				
SYMBOL						

	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED
NOTICE	6-21-89		7-3-89									
HISTORY			11-29-89									
SUMMARY												
E-LOG												
MUD LOG												
DIPMETER												
DIRECTIONAL												
CORE/SWS												
CBL												

ENGINEERING CHECK

T-REPORTS		✓				
OPERATOR'S NAME		✓				
WELL NO.		✓				
LOC & ELEV						
SIGNATURE		✓				
SURFACE INSP.		12/11/89				
DRILL CARD						

RECORD'S COMPLETE DH 2/1/90

Removed from ADP 9/89

FINAL LETTER OK

MAILED

INJECTION BOOK

IDLE WELL LIST

SURFACE INSP. CARD

REMARKS:

RELEASED BOND

OK TO RELEASE FROM CONFIDENTIAL

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

RECEIVED
NOV 29 1989

History of Oil or Gas Well

Operator ORYX ENERGY COMPANY Field or County Newhall-Potrero
Well Newhall Corp. Wolfson 4-5 Sec. 25, T 4N, R 17, SB B. & M.
A.P.I. No. 04-037-12616 Name F. E. ARMIJO (Person submitting report) Title Agent (President, Secretary or Agent)
Date 11/28, 1989

Signature F. E. Armijo

Box 55060, Valencia, California 91355-0560 (Address) (805) 257-6200 (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date

1989

7" CSG TO 9970/PBTD 10,656/PERFS 9967-10,159, 10,218-10,394, 10,465-10,655'/
NEWHALL-POTRERO/LOS ANGELES CO.,

07/06/89
*** FIRST REPORT ***
7-3/MIRU PRESSURE TBG TO 300#, OK/POH & LAY DOWN RODS/FOUND PART @ PMP
PULL ROD/
7-4/SHUT DOWN FOR HOLIDAY/
07/07/89
7-5/OPEN THE DRAIN/MEAS OUT OF HOLE W 340 JT TBG/LAY DN JT W PMP/LAY DN GAS
ANCHOR/P.D. & RIH W GUIB 7" 32# PKR SEP @ 248'/TST BOP 2000# - 15 MIN, OK/POH
& LAY DN PKR/RIH W 600' KILL STG/

07/08/89
7-6/POH W KILL STRING/RIH W SAWTOOTH COLLAR ON 2-3/8" & 2-7/8" TBG/TAG @
10,609'/SPOT 15 BBL 81#/CU FT MUD DISPLACED W 58 BBL H2O/POH & LAY DN 17 JTS
2-7/8" TBG TAIL @ 10,081'/RU B.J. TITAN/PMP 50 CU FT OF CLASS 'G' CMT W 2
GAL RETARDER/DISP W 10 BBL H2O/WAIT FOR CMT TO FALL/POH TO 8841'/EST TOC @
9780'/

07/09/89
7-7/RIH W TBG TO 10,081'/DID NOT TAG CMT PMP 27 BBL WTR DN TBG PRESS TBG
300#/POH W TBG/LAY DN 53 JTS 2-7/8" TBG W CMT/PMP 30 BBL WTR DN TBG REMAINING
IN HOLE/PU 53 JTS & RUN TBG BK IN HOLE/

07/10/89
7-8/RIH W TBG TO 10,060'/CHANGED OVR HOLE W 400 BBL 72#/CF & 86#/CF MUD/
RECOVERED APPROX 200 BBL OIL & 70 BBL WTR/CIRC MUD 1 HOUR TO OBTAIN 72#/CF
ALL AROUND/RU B.J. & SPOT BALANCED PLUG 10,060' - 9760', WITH 50 CU FT 'G'
CMT W 2-1/2 GAL RETARDER/FOLLOWED CMT W 2 BBL FRSH WTR & 53 BBL 72#/CF MUD
FOR DISPLACEMENT/POH W 600' 2-7/8" TBG/REVERSE CIRC W 60 BBL MUD/POH 600'
TBG/SD FOR WEEKEND/

07/11/89
7-10/RIH TAG CMT @ 9790', OK'D BY D.O.G./POH STANDING BACK 28 STANDS,
LAYING DOWN 2-7/8 ON TRAILER (249 JTS 2-7/8", 20 JTS 2-3/8")/RIH W 5 STANDS
2-7/8 TBG/SDFN/

07/12/89
7-11/POOH W KILL STRING/RIGGED UP DIA-LOG/RIH W 3" CSG GUN FOR 4 SPF @ 1'/ LOCATED COLLAR @ 1757, SHOT @ 1750' POOH/PMPD DN CSG @ 2 BBL PER MIN @ 500#/ RIH W TBG/RIGGED UP B.J. PMPD 5 BBL H2O MIX & PMPD 63 CU FT OF CLASS 'G' CMT W 2% CA CL2/DISPLACED W 8.43 BBL MUD/POH TO 1066'/REVERSED OUT 15 BBL/SQZD W 40 CU FT OF MUD @ 1000# BROKE DN TO 400# W 20 CU FT PUMPED/13-3/8 FLOWING WHILE PUMPING/TOC @ 1650'/SHUT IN/

07/13/89
7-12/TAG CMT @ 1760'/PRESS 13-3/8" TO 500#, OK/RU B.J. - PMP 40 CU FT CLASS 'G' CMT DISPLACE W 9 BBL MUD W TBG TAIL @ 1757'/EST TOC @ 1573'/POH W 2-7/8" FILL HOLE W MUD/DIA-LOG SHOT 4 HOLES @ 31'/RU B.J. RIH W 1 JT 2-7/8"/CIRC 13-3/8/PMP 27 CU FT CLASS 'G' FILLING INTO 13-3/8" & 7" FRM 33' TO SURFACE/RD B.J. REMOVE BOP/RDMO/
PREP TO DIG OUT CLR, CUT OFF CSG 7-14-89/

07/14/89
7-13/DROP FRM REPORT PENDING D.O.G. APPROVAL OF SURFACE ABANDONMENT/

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
Newhall-Potrero	2
Former owner	**Date**
Sun Exploration and Production Co.	Aug. 7, 1989

Name and location of well(s)

Sec. 31, T. 4N., R. 16W., (ALL WELLS)

Secs. 21, 22, 25, 26, 27, 28, 35, 36, T. 4N., R. 17W. (ALL WELLS)

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Type of organization
5-3-89	Oryx Energy Co.	Co.
	Address P.O. Box 55060 Valencia, CA 91355	**Telephone No.** 805-257-6200

Reported by
Sun Exploration & Production Co.

Confirmed by
Oryx Energy Co.

New operator new status (status abbreviation)	Request designation of agent
PA	
Old operator new status (status abbreviation)	**Remarks**
PA	(NAME CHANGE ONLY)

Deputy Supervisor
Patrick J. Kinnear

Signature
Patrick J. Kinnear

OPERATOR STATUS ABBREVIATIONS
PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form ODG148			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs					
Production reports					

OGD156 (12-77-GSR1-2M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No.T 289-217

REPORT ON OPERATIONS

F.E. Armijo, Agent
Sun Exploration & Prod. Co.
25322 W. Rye Canyon Road
P.O. Box 55060
Valencia, CA. 91355

Ventura, California
July 24, 1989

Your operations at well "Newhall Corp-Wolfson" 4-5, API No. 037-12616, Sec. 25, T. 4N, R. 17W, S.B.B.&M. Newhall-Potrero Field, in Los Angeles County, were witnessed on 7/12/89. Steve Mulqueen, representative of the supervisor, was present from 1130 to 1230. There were also present Ken Kennedy.

Present condition of well: 13 3/8" cem 500'; 7" cem 9970', perf 9949' WSO, cp 31' & 1750', bad @ 9528'; 5 1/2" ld 9946'-10656', perfs @ int 9967'-10655'. TD 10658'. Plugged w/50 cf of cem below 10081', plugged w/cem 10658'-9790', 1750'-1573' & 33'-5'.

The operations were performed for the purpose of abandonment.

DECISION:

The plugging operations as witnessed and reported are approved.

SURF INSP OK 12/11/89 BH

ljg

M.G. MEFFERD, State Oil and Gas Supervisor

By
Patrick J. Kinnear
Deputy Supervisor

OG109

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P 289-216
Field Code 500
Area Code 00
New Pool Code --
Old Pool Code 30

PERMIT TO CONDUCT WELL OPERATIONS

F.E. Armijo, Agent
Sun Exploration & Prod. Co.
25322 W. Rye Canyon Road
P.O. Box 55060
Valencia, CA. 91355

Ventura, California
July 11, 1989

Your supplementary proposal to abandon well "Newhall Corp.-Wolfson" 4-5 A.P.I. No. 037-12616, Section 25, T. 4 N, R. 17W, S.B. B.&M., Newhall-Potrero field, any area, 5th pool, Los Angeles County, dated 6/29/89, received 7/3/89, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Requirements specified in permit No. P289-187 dated 6/26/89 shall apply.

Blanket Bond
SF:ljg

Engineer Steve Fields

Phone (805) 654-4761

M.G. MEFFERD, State Oil and Gas Supervisor

By Patrick J. Kinnear
Patrick J. Kinnear
Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
OG111

EXPRESS MAIL

Form OG123 (11/80/DWRR/5M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

SUPPLEMENTARY NOTICE

FOR DIVISION USE ONLY			
BOND	FORMS		EDP WELL FILE
	OGD114	OGD121	
✓	—	✓	

DIVISION OF OIL AND GAS

VENTURA, Calif.

A notice to you dated JUNE 20, 19 89, stating the intention to

ABANDON, (Drill, rework, abandon) NCW # 4-5 (Well name and number), API No. 037-12616,

Sec. 25, T. 4N, R. 17W, SB B. & M., NEWHALL-POTRERO Field,

LOS ANGELES County, should be amended because of changed conditions.

The present condition of the well is as follows:

Total depth

Complete casing record including plugs and perforations

We now propose TO CHANGE STEP 3 TO READ:
3. RIH W/SAWTOOTH COLLAR ON 2-3/8" WS ON 2-7/8" WS TO BOTTOM. CLEAN OUT HOLE TO 10080' IF NECESSARY.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address 25322 W. RYE CANYON ROAD (Street)
VALENCIA, CALIFORNIA 91355-0560 (City) (State) (Zip)
Telephone Number (805) 257-6200

SUN EXPLORATION AND PRODUCTION COMPANY (Name of Operator)
Type of Organization CORPORATION (Corporation, Partnership, Individual, etc.)
By F. E. ARMIJO (Name)
Signature F. E. Armijo (Date) 6/29/89

MEMORANDUM OF TELEPHONE OR PERSONAL CONVERSATION

VENTURA, Calif.

JULY 11 19 89

Operator SUN EXP & PROD. CO. Well No. Newhall Comp - Nellson 4-C

Field NEWHALL - POTRERO Sec. 35 T. 4N R. 17W SB B&M

personal

A telephone conversation was held, concerning above well, with Mr. KEN KENNEDY

for above operator on JULY 11 19 89 at 1030 M.

Details of the conversation were as follows: 257-0868

PERFERATED HOLES @ 1750'. UNABLE TO ESTABLISH BREAK-DOWN. WILL GO WITH SLIGHTLY HIGHER PRESSURE (ABOVE 1000 PSI). IF STILL UNABLE TO ESTABLISH GOOD BREAK DOWN THEY MUST SHOOT CHUITY @ 1750' & PLUG ACROSS IT.

(Signed) Steve Mulqueen

Title

OG136 (11-74-GSR1-5M)

(see reverse side for proposed well operations)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No.P 289-187
Field Code 500
Area Code 00
New Pool Code 00
Old Pool Code 30

PERMIT TO CONDUCT WELL OPERATIONS

F.E. Armijo, Agent
Sun Exploration & Prod. Co.
25322 W. Rye Canyon Road
P.O. Box 55060
Valencia, CA. 91355

Ventura, California
June 26, 1989

Your proposal to abandon well "Newhall Corp-Wolfson" 4-5 A.P.I. No. 037-12616, Section 25, T. 4 N, R. 17W, S.B. B.&M., Newhall-Potrero field, any area, 5th pool, Los Angeles County, dated 6/20/89, received 6/21/89, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Blowout prevention equipment conforming to DOG Class II 2M requirements shall be installed and maintained in operating condition at all times during abandonment operations.
2. Any sump used during these operations shall be thoroughly cleaned and filled with earth as soon as operations are completed.
3. A diligent effort shall be made to clean out the well to at least 10,080'.
4. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of 72 lbs./cu. ft. and a minimum gel-shear strength (10 min.) of 20 lbs./100 sq. ft.
5. This office shall be consulted before deviating from the proposed abandonment program.
6. THIS DIVISION SHALL BE NOTIFIED:
   a. To witness the location and hardness of the cement plug at 9846' and 1650'.
   b. To witness the mudding of the well.
   c. To witness the squeeze-cementing of the 7" casing through the perforations at 1750'.
   d. To witness the placing of the surface plug or to verify its location.
   e. To inspect and approve the cleanup of the well site before approval of abandonment will be issued.

PC:ljg

Engineer Pam Ceccarelli

Phone (805) 654-4761

M.G. MEFFERD, State Oil and Gas Supervisor

By Patrick J. Kinnear
Patrick J. Kinnear
Deputy Supervisor

A copy of this permit and the [illegible] prior to commencing operations. Records for work done under this permit are due [illegible] whether the operations have been suspended.

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
JUN 21 1989
VENTURA, CALIFORNIA

Notice of Intention to Abandon Well

This notice must be given at least five days before work is to begin.

FOR DIVISION USE ONLY			
CARDS	BOND	FORMS	
		OGD114	OGD121
	BB	✓	✓

DIVISION OF OIL AND GAS

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon well NEWHALL CORPORATION-WOLFSON #4-5, API No. 037-12616, Sec. 25, T. 4N, R. 17W, SB B. & M., NEWHALL-POTRERO Field, LOS ANGELES County, commencing work on JULY 5, 19 89.

The present condition of the well is: SHUT-IN

1. Total depth: 10656'

2. Complete casing record, including plugs and perforations:
SEE ATTACHED

3. Last produced 10/30/86 (Date) 5 (Oil, B/D) 5 (Gas, Mcf/D) 18 (Water, B/D)

or

4. Last injected _____ (Date) _____ (Water, B/D) _____ (Gas, Mcf/D) _____ (Surface pressure)

Additional data for dry hole (show depths)

5. Oil or gas shows

6. Stratigraphic markers:

7. Formation and age at total depth:

8. Base of fresh water sands: ±1600'

The proposed work is as follows:

SEE ATTACHED

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address 25322 West Rye Canyon Road (Street)
Valencia (City) CA (State) 91355-0560 (Zip)
Telephone Number (805) 257-6200 (Area Code) (Number)

SUN EXPLORATION & PRODUCTION CO (Name of Operator)
By F. E. ARMIJO (Print Name)
F. E. Armijo (Signature) 6/20/89 (Date)

OG108 (11-78-GSRI-5M)

RECOMMENDED WORK PROCEDURE Sun-5036-3-C

WELL NAME	FIELD NAME	COUNTY	STATE
NCW #4-5	NEWHALL POTRERO	LOS ANGELES	CA

PERMANENT ZERO POINT	UPPERMOST PLUG	RETAINER
KB 13.3' AGL, GL 1458.14' ASL	10,656'	NONE

	SIZE & WEIGHT PROD	DEPTH SET	PACKER DEPTH (TOP) & TYPE	(1)	(2)	(3)
CASING	7" 23,26,& 32# N-80	9,970'		NONE		
	SIZE, WEIGHT, GRADE, ETC.	DEPTH SET	TOP OF CEMENT BEHIND PROD CSG.	CALCULATED	LOG	
TUBING	2-7/8", 6.5# & 2-3/8" J-55	10,556'		7,862' EST		
		DEPTH SET	PERFS			
	LNR: 5½" 17# J-55	9,946'-10,656'	10,655'-10,465'; 10,391'-10,218'; 10,159'-9,967'			

PROCEDURE RIG TIME:

CAPACITIES

13-3/8" 54.5# CSG = 0.8679 cu.ft./lin.ft.	7" 23# CSG = 0.2210 cu.ft./lin.ft.
13-3/8" 48# CSG = 0.8817 cu.ft./lin.ft.	5-1/2" 17# CSG = 0.1305 cu.ft./lin.ft.
7" 32# CSG = 0.2025 cu.ft./lin.ft.	2-7/8" 6.5# CSG = 0.03250 cu.ft./lin.ft.
7" 26# CSG = 0.2148 cu.ft./lin.ft.	2-3/8" 4.7# CSG = 0.02171 cu.ft./lin.ft.

1. MIRU WO rig. Install Class II 2M BOPE and test to 2000 psi for 15 minutes. Fill hole w/LW (Well capacity = ±2229 cu.ft.= 397 BBLS).

2. POH standing with 2-7/8" TBG, 2-3/8" tbg, LD gas anchor. PU 4 JTS of 2-3/8", 4.7# J-55 TBG.

3. RIH w/sawtooth collar on 2-3/8" WS on 2-7/8" WS to ±10,656'. If fill is encountered, attempt to circulate clean to ±10,656'. Contact DOG to witness cleanout (654-4761).

4. Fill hole w/ 15 bbls of 72#/cu.ft. mud. POOH w/ 19 jts 2-7/8" tbg to ±10,070'.

5. MIRU cementers. Spot a balanced plug from ±10,070' to ±9,846' with 40 cu. ft. of class 'G' cement with appropriate additives. PU WS ±700' and reverse circulate with 55 BLW. WOC 4-6 hours. Tag TOC.

6. Fill hole with 320 bbls of 72#/cu. ft. mud. POOH with ±8150' of 2 7/8" TBG to ±1700'.

7. MIRU EWL service. PERF 4 HPF @ 1750' with 1 1/2" hollow carrier through tubing gun or similiar. POOH and RD EWL.

8. RU cementers. Bradenhead squeeze w/40 cu ft of Class 'G' cmt w 3% $CaCl_2$ (100' of surf csg-prod csg annulus). Spot a 23 cu ft cmt plug in 7" csg from ±1750' to 1650'. PU WS ±500' & rev circ w/7 BLW. WOC 46 hrs. Tag TOC.

9. Fill hole w/65 Bbls of 72#/cu ft mud. POOH w/2-3/8" and 2-7/8" WS. Remove BOP's.

10. RIH w/1 jt of 2-7/8" tbg. Spot 6 cu ft of Class 'G' cmt w/3% $CaCl_2$ from 31' to 6' below GL. POOH w/2-7/8" tbg.

11. RIH w/1 jt of 1-1/2" tbg between 13-3/8" surf csg & 7" prod csg. Spot 15 cu ft of Class 'G' cmt w/3% $CaCl_2$ from 31' to 6' below GL. POOH w/1-1/2" tbg WOC 4 hrs. Tag TOC. RDMO cementers & rig.

12. Cut surface CSG 5' below ground level. Remove cellar and flowlines, clean location. Weld plate marker over CSG. Contact DOG for surface abandonment approval.

OE3/300C

WELL COMPLETION SKETCHES SUN-5036-4-A

WELL	FIELD	DATE
NCW #4-5	NEWHALL - FOTRERO	MARCH 10, 1988

☒ PRESENT COMPLETION ☐ SUGGESTED COMPLETION

PERMANENT WELL BORE DATA

SPUD: 10/12/50
COMPLETED: 1/19/51

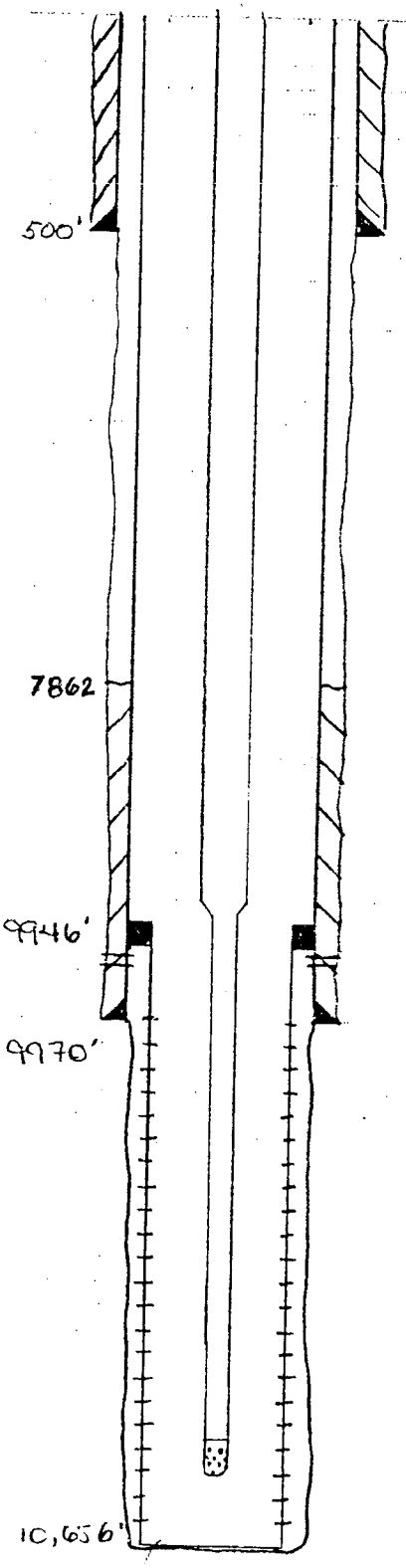
13 3/8" 48# & 54.5#, J-55 & H-40 SMLS, CSG, CMT'D @ 500' W/325 SX'S TO SURFACE
(17 1/2" HOLE)

7", 23#, 26# & 32# N-80 SMLS CSG; CMT'D @ 9970' W/600 SX
(11" HOLE)
4 - 3/8" HOLES @ 9919' (WSO)

5 1/2", 17# J-55 SMLS LNR HUNG @ 10,656' W/ TOP @ 9946'
(5 7/8" HOLE)

SHOP PERF'D W/ 192 - 1/4" ROUND HOLES/FT W/16 R x 1"C FROM: 10,655' - 10,465', 10,391' - 10,218', 10,159' - 9967'

TD: 10,658'



DATA ON THIS COMPLETION

KB: 1471.44' ASL
KB: 13.3' AGL

2 7/8" 6.5# TBG @ 9871
2 7/8" x 2 3/8" X-OVER
2 7/8" 4.7# TBG @ 10523
B/L SHOE 2" @ 10524
2 7/8" GAS ANCHOR @ 10556'

ESTIMATED TOC @ 7862

Suspected cut spot in 7" CSG between 9529' - 9558'

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
NEWHALL-POTRERO	2
Former owner	**Date**
Sun Oil Company	Mar. 31, 1983

Name and location of well(s)

Sections 21, 22, 25, 26, 27, 28, 35, 36, T4N. R. 17W.

ALL WELLS

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Type of organization
1/1/82	Sun Exploration & Production Co.	Company
	Address: P.O. Box 55060, Valencia, Ca. 91355	Telephone No.: (805) 257-6200

Reported by: Sun Oil Company

Confirmed by: Sun Exploration & Production Co.

New operator new status (status abbreviation)	Request designation of agent
PA	on file
Old operator new status (status abbreviation)	**Remarks**
Ab	NAME CHANGE ONLY

Deputy Supervisor	Signature
Murray W. Dosch	Murray W. Dosch

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form ODG148			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs					
Production reports					

FORM 100.
(CALIFORNIA STATE PRINTING OFFICE)

SUBMIT LOG IN DUPLICATE

FILL THIS BLANK IN WITH TYPEWRITER. WRITE ON ONE SIDE OF PAPER ONLY

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL & GAS
RECEIVED
MAR 27 1951
LOS ANGELES

WELL SUMMARY REPORT

Operator SUNRAY OIL CORPORATION Field NEWHALL-POTRERO

Well No. NEWHALL CORP.-WOLFSON #4-5 Sec. 25, T. 4N, R. 17W, S.B. B. & M.

Location 5494.51'S & 12,089.32'E f/Corner 'J' Elevation of kelly bushing 1,471.44' ground ~~1,458.14'~~ above sea level feet.

In compliance with the provisions of Chapter 93, Statutes of 1939, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date 3-7-51 Signed R. E. Foss

H. M. STANIER (Engineer or Geologist) T. J. PREHODA (Superintendent) Title R. E. Foss Agent (President, Secretary or Agent)

Commenced drilling 10-12-50 Completed drilling 1-19-51 Drilling tools Rotary

Total depth 10,658 Plugged depth --

Junk NONE

GEOLOGICAL MARKERS	DEPTH

Commenced producing 1-19-51 (date) ~~Flowing~~/gas lift/~~pumping~~ (cross out unnecessary words)

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production	355	30.0	0.2	809	200	850
Production after 30 days	185	31.0	0.1	185	210	940

Casing Record (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing landed in	Number of Sacks of Cement	Depth of Cementing if through perforations
13-3/8"	500'	Surface	54.5#48#	New	Smls	J55,H40	17½"	325	
7"	9970'	Surface	23,26,32#	New	Smls	N80	11"	600	
5-1/2"	10,656'	9,946'	17#	New	Smls	J55	5-7/8"		

Perforations

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
5½"	10655 ft.	10465 ft.	192 - ½" Rd.holes/ft.	16	1"	Shop
"	10391 ft.	10218 ft.	" " " " "	"	"	"
"	10159 ft.	9967 ft.	" " " " "	"	"	"
	ft.	ft.				
	ft.	ft.				

Electrical Log Depths 10,658' (Attach Copy of Log)

FORM 103. 62964 9-46 47,500
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

DIVISION OF OIL & GAS
RECEIVED
MAR 27 1951
LOS ANGELES

OPERATOR SUNRAY OIL CORPORATION FIELD NEWHALL-POTRERO

Well No. NEWHALL CORP.-WOLFSON #4-5, Sec. 25, T. 4N, R. 17W, S.B. B. & M.

Signed R. E. Foss

Date March 7, 1951 Title R. E. Foss Agent
(President, Secretary or Agent)

Use this form in reporting all important operations at the well, together with the dates thereof, in the order of their performance. Such operations include drilling, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, or deepened; size, weight and length of casing landed, cemented, or removed, amount and location of perforations; number of sacks of cement used in cementing or plugging operations, number of feet of cement drilled out of casing, location of top and bottom of cement plugs. If the well was dynamited, give date, dimensions and weight of all shots. If tests were made give interval tested and results of tests, such as, amount and nature of fluids recovered.

Date	
1950	
10-12	Spudded in with 11" x 17½" Hole Opener.
10-14	T.D. 598'. 17½" hole to 447'. 11" hole to 598'. Cemented 13-3/8" 54.5# J55 & 48# H40 T&C Csg. at 500' w/325 sx. Colton construction Cement containing 2½% gel.
10-15	Found top of cement at 463'. Cleaned out to bottom, and drilled ahead w/11" bit.
12-18	T.D. 10,029'. 1st Run Schlumberger Electric Log to 10,027'.
12-19	T.D. 10,029'. Cemented 7" 23,26 & 32# N80 LT&C Csg. at 9970' with 600 sx. Colton slow cement.
12-22	Found top of cement at 9652'. Channeled cement to float collar at 9,881'. Drilled out solid cement to 9955'. Shot 4 - 3/8" holes at 9949' with bullet gun. Ran M.O.J. Tester on 3½" D.P. with 1000' mud cushion. Set Packer at 9869' with Tailpc. to 9884'. Open through ½" btm. bean for 1 hr. Lt. decreasing blow for 5 min. Dead 55 Min. Recovered 90' of heavy drilling fluid. Test witnessed & W.S.O. approved by D.O. & G.
12-23	Found btm. of cmt. (shoe) at 9970'. Drilled and cored ahead with 5-7/8" bit. Changed to Ken-Oil mud.
1951	
1-16	T.D. 10,658'. 2nd Run Schlumberger Electric Log (Induction) to 10,658'.
1-17	Hung 5½" 17# J55 Liner at 10,656' with top of hanger at 9946'. Perforated with 192 - ½" Rd. holes/ft. 10,655' - 10,465'; 10,391'-10,218'; 10,159'-9967'.
1-18	Ran 2-7/8" 6.5# E.U. Production tubing to 10,623'.
1-19	Displaced mud with oil.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY Los Angeles FIELD OR DIST. Newhall-Potrero COMPANY SUNRAY OIL CORPORATION WELL N.C.W. #4-5

LOCATION 549.51' S & 12,089.32' E from Corner "J" SECT. 25 T. 4N R. 17W ELEV. 1471.44KB

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1950												
12/27	Merc. 6" #1	Dia	10,078 - 10,091		13'	100				10'	Oil sand, brown, coarse, massive, with several hard gray streaks, slightly pebbly in top 2', low permeability generally.	
										3'	Oil Conglomerate, hard, brittle, very low porosity and permeability.	
12/27	" #2	"	10,091 - 10,111		20'	100				5'	Oil sand, as in core above.	
										11'	Oil conglomerate, hard to sandy and friable, 30% sand.	
										4'	Oil sand, brown, medium grained, fair apparent permeability.	
12/28	" #3	"	10,111 - 10,140		29'	100				9'	Oil sand, brown, massive, coarse to occasionally pebbly, low permeability.	
										2'	Conglomerate, hard, brittle.	
								3'			Sand, gray, hard, tight.	
										3'	Oil sand, brown, fine to medium grained, silty, low permeability.	
										12'	Conglomerate, hard and brittle to rarely sandy (10% sand)	
12/29	" #4	"	10,140 - 10,168		28'	100				28	Conglomerate, ditto.	
12/30	" #5	"	10,168 - 10,198		30'	100				4'	Conglomerate, ditto	
										8'	Oil sand, brown, massive, medium to coarse grained hard and tight to fairly friable with conglomerate in middle of interval.	
										18'	Conglomerate as above, 15% sand, with a 2' sand streak 10' above bottom of core.	
12/31	" #6	"	10,198 - 10,228		30'	100				11'	Conglomerate, ditto	
										5'	Oil sand, brown, medium to coarse, massive, low porosity and permeability.	
										14'	Conglomerate, as above, 10% sand.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY | FIELD OR DIST. | COMPANY | WELL N.C.W. #4-5

LOCATION | -2- | SECT. | T. | R. | ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1951												
1/1	Merc. 6" Dia #7		10,228 - 10,251		23'	100	6'			7' 10'	Conglomerate, ditto Interbedded siltstone and oil sand, oil sand is dark brown, fine to very fine grained, good saturation but low permeability. Good 38-40° dips.	
1/2	" #8	"	10,251 - 10,281		30'	100	3'		4'	23'	Oil sand, dark brown, massive to occasionally bedded with siltstone, generally quite hard, with about 4' of gray sandstone in streaks near middle, low porosity and permeability.	
1/3	" #9	"	10,281 - 10,311		30'	100				3' 13½' 7½' 6'	Pebbly oil sand, brown, coarse, massive, fairly hard, with numerous small pebbles from 1/8-1/4". Oil sand, dark brown, massive, fairly hard but more friable and permeable than in cores above, medium to coarse and scattered pebbles occasionally, good saturation. Conglomerate pebbles to 2" in medium to coarse grained oil sand matrix - about 30% sand. Oil sand, as last above, fairly hard to friable, fair to good porosity and permeability.	
1/4	" #10	"	10,311 - 10,341		30'	100				24' 6'	Oil sand, ditto but firmer, lower porosity and permeability, contains several thin streaks of conglomerate (3'+) Conglomerate, pebbles to 1" in sand matrix, about 20% sand.	
1/5	" #11	"	10,341 - ,371		30'	100				1' 23' 6'	Conglomerate, ditto Oil sand, as last above, medium to coarse grained, with occasional streaks of conglomerate (3'+). Saturation is fair becoming weak to negligible at about 10,360' (1st gray streak), and then good again in basal 2'. Conglomerate, coarse pebbly sand to 2" conglomerate	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY | FIELD OR DIST. | COMPANY -3- | WELL N.C.W. #4-5

LOCATION | SECT. | T. | R. | ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1951											with sand matrix (about 40% sand).	
1/6	Merc. 6" #12	Dia	10,371 - 10,401		30'	100				21½'	Conglomerate, mainly heavy and brittle, very little sand. A pudding-stone in part.	
										6½'	Oil sand, dark brown, massive, well saturated in top few feet to light brown and weakly saturated in basal 4'. Looks tight rather than wet. Contains a little pebbly conglomerate.	
7	" #13	"	10,401 - 10,431		30'	100				9'	Oil sand, brown, massive, medium to coarse grained, fairly hard, good saturation.	
										16½'	Conglomerate, hard brittle with a little light, hard gray sand.	
									1½'		Sandstone shell, gray, fine grained, hard, massive.	
										3'	Oil sand, fine grained, fair to light saturation, fairly hard.	
1/8	" #14	"	10,431 - 10,461		30'	100			x	30'	Conglomerate, heavy and brittle with a few streaks of very hard, tight gray sandstone(2'+); very low permeability and porosity.	
1/9	" #15	"	10,461 - 10,491		30'	100			2'	28'	Oil sand, fine to coarse grained, occasionally small pebbly with 2" of conglomerate at top, gray-brown to brown with 2' of fine grained hard gray sandstone in middle of core(with 1/2" mud invasion ring), generally fairly hard with comparatively low permeability. One 42° dip on siltstone inter-bed.	
1/10	" #16	"	10,491 - 10,521		30'	100				9'	Oil sand, brown, medium to coarse grained, pebbly at base, more friable and permeable than sands above, saturation appears slightly weak(light in color as against friability).	
										21'	Conglomerate, heavy, brittle, with occasional streaks with sandy matrix - about 3-4" sand equivalent.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

CORE RECORD

COUNTY | FIELD OR DIST. | COMPANY | WELL N.C.W. #4-5

LOCATION -4- SECT. T. R. ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1951												
1/11	Merc. 6" #17	Dia	10,521	10,551	30'	100				30'	Conglomerate, ditto with about 1-2' of permeable sand in core.	
1/12	" #18	"	10,551	10,581	30'	100				30'	Conglomerate, ditto with about 15% sand which is quite calcified generally and with negligible permeability.	
1/13	" #19	"	10,581	10,611	30'	100				8'	Conglomerate as last above, fairly sandy.	
										22'	Oil sand, brown to gray, massive, medium to coarse grained to pebbly, occasional fair permeability. Core shows several hard gray streaks with apparent very low permeability.	
1/14	" #20	"	10,611	10,630	19'	100	X	X		19'	Oil sand, as last above, medium grained with coarse pebbly streaks (15% of core) and several siltstone streaks and fragments (5%).	
1/15	" #21	"	10,630	10,658	28'	100				2'	Oil sand, fine grained, medium saturation, difficultly friable.	
										10'	Intermixed oil sand and siltstone fragments and interbeds. Oil sand is coarse to pebbly and fairly hard.	
										13'	Siltstone, brown, massive to occasionally bedded, fairly hard.	
										3'	Shale, brown, clayey and silty, weathers and spawls rapidly. Dip 48°.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse. Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

FORM 109-A (10-48)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(FORMATION TESTER)

No. T 1-52245

Los Angeles 15, Calif. January 5, 1951

Mr. R. E. Foss
Los Angeles 15, Calif.
Agent for SUNRAY OIL CORPORATION

DEAR SIR:

Your well No. "Newhall Corp.-Wolfson" 4-5, Sec. 25, T. 4 N., R. 17 W., S.B. B & M.
Newhall-Potrero Field, in Los Angeles County, was tested for water shut-off on December 23, 1950. Mr. Paul Betts, Inspector, designated by the supervisor, was present as prescribed in Secs. 3222 and 3223, Ch. 93, Stat. 1939; there were also present John Beard, Drilling Foreman; M. J. Simmons, Driller.

Shut-off data: 7 in. 23, 26, 32 lb. casing was cemented xxxxx at 9970 ft. on December 19, 1950 in 11 in. hole with 600 sacks of cement xxxxx of which 58 sacks was left in casing.

Casing record of well: 13-3/8" cem. 500'; 7" cem. 9970'; four 1/2" test holes at 9949', W.S.O.

Present depth 10029 ft. Bridged with cement from 9970 ft. to 9955 ft. Cleaned out to 9955 ft. for test. A pressure of xxx lb. was applied to the inside of casing for xxx min. without loss after cleaning out to xxx ft. A Johnston tester was run into the hole on 3-1/2 in. drill pipe-~~xxxxx~~ with 1000 ft. of ~~xxxx~~ mud cushion, and packer set at 9869 ft. with tailpiece to 9884 ft. Tester valve, with 1/2 in. bean, was opened at 6:50 p.m. and remained open for 1 hr. and 7 min. During this interval there was a light blow for 5 min., and no blow thereafter.

THE INSPECTOR ARRIVED AT THE WELL AT 12:15 A. M. AND MR. BEARD REPORTED:

1. An 11" rotary hole was drilled from 500' to 10029'.
2. Electrical core readings showed the top of the 5th zone at 9970'.
3. The 7" casing was shot-perforated with four 3/8" holes at 9949'.

THE INSPECTOR NOTED:

1. When the drill pipe was removed, 90' of medium, drilling fluid was found in the drill pipe above the tester, equivalent to 0.7 bbl.
2. The recording pressure bomb chart showed that the tester valve was open 1 hr.

The test was completed at 1:15 a.m.

THE WATER SHUT-OFF ABOVE THE PERFORATIONS AT 9949' IS APPROVED.

PWB:OH

cc- Company

R. D. BUSH, State Oil and Gas Supervisor

By _____ Deputy

FORM 109-D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-51964

Los Angeles 15, Calif. November 1, 1950

Mr. R. E. Foss
Los Angeles 15, Calif.
Agent for SUNRAY OIL CORPORATION

DEAR SIR:

Operations at your well No. "Newhall Corp.- Wolfson" 4-5 Sec. 25, T. 4 N., R. 17 W., S. B. B. & M., Newhall-Potrero Field, in Los Angeles County, were witnessed by Paul Betts, Inspector, representative of the supervisor, on October 19, 1950. There was also present R. D. Snow and Hal Stenier, Engineers.

Casing Record	Junk
18-3/8" cem. 22'; 13-3/8" cem. 500'. T. D. 2052'.	xxxx

The operations were performed for the purpose of inspecting blowout prevention equipment and installation.

The inspector arrived at the well at 4:00 p.m. and Mr. Snow reported:

1. A 17-1/2" rotary hole was drilled from 22' to 500'.
2. On October 14, 1950, 13-3/8", 54 lb. casing was cemented at 500' with 325 sacks of cem.
3. Cement returned to the surface.
4. An 11" rotary hole was drilled from 500' to 2052'.

THE INSPECTOR NOTED THAT THE WELL WAS EQUIPPED WITH THE FOLLOWING BLOWOUT PREVENTION EQUIPMENT:

1. A Shaffer double cellar control gate for closing in the well with the drill pipe out of the hole, and for closing around the 5-9/16" drill pipe.
2. The controls for the above equipment were located outside the derrick.
3. A 2" mud fill-up line with a 2" high pressure stopcock into the 13-3/8" casing below the above equipment.

The inspection was completed at 4:15 p.m.

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

PWB:OH

cc- Company

R. D. BUSH
State Oil and Gas Supervisor
By E. H. Meesen Deputy

16930 10-49 17,500 ② SPO

FORM 111.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-48995

Los Angeles 15, Calif. October 20, 1950

MR. R. E. Foss

Los Angeles 15, Calif.

Agent for SUNRAY OIL CORPORATION

DEAR SIR:

Your "Newhall Corp.-Wolfson" proposal to drill Well No. 4-5,

Section 25, T. 4 N., R. 17 W., S.B.B. & M., Newhall-Potrero Field, Los Angeles County,

dated Oct. 11, 1950, received Oct. 16, 1950, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:

"The well is 5494.51 feet S. and 12089.32 feet E. from Corner 'J'
The elevation of the Kelly bushing conc. mat above sea level is 1471.44 1458.14 feet
We estimate that the first productive oil or gas sand should be encountered at a depth of about 10100 feet."

PROPOSAL:

"We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing	Weight	Grade and Type	Depth	Landed or Cemented
13-3/8"	61	B-Elect. Weld	500	Cemented
7"	23,26,29,32	J55 & N80 Smls	10100	"
5-1/2"	17	J55 Smls	10670	Landed

Well is to be drilled with rotary tools.
It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT

1. Blowout prevention equipment, sufficient to provide a complete close-in of the well under pressure at any time, shall be installed.
2. Any hole to be sidetracked in any oil or gas zone shall be filled with cement, if possible.
3. THIS DIVISION SHALL BE NOTIFIED AS FOLLOWS:
   (a) To inspect the installed blowout prevention equipment before drilling below 1000'.
   (b) To witness a test of the effectiveness of the 7" shut-off.

ERMA:OH

cc- Company

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Musser Deputy

Blanket bond.

FORM 105
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

037-12616

Notice of Intention to Drill New Well 14

This notice must be given and surety bond filed before drilling begins

Los Angeles

Kenhall Calif. October 11 1950

DIVISION OF OIL AND GAS

Los Angeles Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of drilling well No. "Kenhall Corp.-Wilson" #4-5, Sec. 25, T. 2S, R. 17W, S.B. B. & M., Kenhall-Potrero Field, Los Angeles County.

Lease consists of

The well is 5494.51 feet N. or S., and 12029.32 feet E. or W. from Corner 'J'
(Give location in distance from section corners or other corners of legal subdivision)

The elevation of the kelly bushing 1471.44 above sea level is feet.
ground conc. mat 1458.14

We estimate that the first productive oil or gas sand should be encountered at a depth of about 10100 feet.

We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing, Inches	Weight, Lb. Per Foot	Grade and Type	Depth	Landed or Cemented
13-3/8"	61	B-Elect. Weld	500	Cemented
7"	23,26,29,32	J55 & N80 Smls	10100	"
5-1/2"	17	J55 Smls	10670	Landed

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
18A JLW	JLW				

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing.

Address 714 W. Olympic Boulevard
Los Angeles 15, California

Telephone number RI 5171

SUNRAY OIL CORPORATION
(Name of Operator)

By R. E. Foss
R. E. Foss Agent

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

STENOGRAPHER

Date Received _____ Form 100 ✓ 101 _____ 103 ✓

Elec. Log ✓ Radio Log _____

Direct. Surv. _____ Other Data _____

Location _____

Elevation _____ Steno. _____

ENGINEER

BOND _____ Release ___ Date Elig. _____ 150b _____

End Prem.Yr. ___ Release Requested ___ Superseded ___ Aban. _____

HOLD BOND _____ Reason _____

_____

Data Needed _____

_____ Final Letter ___ Eng. _____

RECEIPT FOR

Well Summary ✓

Drillers Log ___

Core Record ___

History ✓

Elec.Log ___

Radio Log ___

Direct.Surv. ___

Redrill ___

Deepen ___

Plug ___

Alter Csg. ___

Abandon ___

STENOGRAPHER

Date Received _____ Form 100 ____ 101 ____ 103 ____

Elec. Log. 2 ____ Radio Log _____

Direct.Surv. _____ Other Data _____

Location _____

Elevation _____ Steno. _____

ENGINEER

BOND _____ Release ____ Date Elig. _____ 150b _____

End Prem.Yr. ____ Release Requested ____ Superseded ____ Aban. _____

HOLD BOND _____ Reason _____

Data Needed _____

Final Letter ____ Eng. _____

RECEIPT FOR

Well Summary ____

Drillers Log ____

Core Record ✓ ____

History _____

Elec.Log 2 ✓ ____

Radio Log _____

Direct.Surv. ____

Redrill _____

Deepen _____

Plug _____

Alter Csg. ____

Abandon _____

10

All of SUNRAY DX OIL COMPANY wells in field transferred 10-25-68 to SUN OIL COMPANY - DX DIVISION. Form 156, 11-20-68. See ownership file.

SCHLUMBERGER

WELL SURVEYING CORPORATION

037-12616

COMPANY: ONYX ENERGY COMPANY ATION

FIELD: HENNALL - POTRERO

WELL: N. C. N. NO. 4 - 5

SEC. 25 T. 4N R. 13W ANGELES CALIFOR

COUNTY: LOS ANGELES STATE: CALIF. 14

ELEV.:

RUN	1	2	3	4
Date	12-16-80	1-16-81		
Cog. shoe	9001	9878		
Total depth	10087	10068		
Depth rchd.	10088	10065		
Ft. Meas.	9988	688		
Mud Nat.	Gel	Non Dis		
Dens	80	72		
Visc.	48	140		
Rm	2.8 @ 68.7°			
Max. Temp.	188° F.	176° F.		
Meas. from	Kelly Bushg.	Kelly Bushg.		
Tangible	4000	5000		
Rig Time	2 D/A hrs.	4 hrs.		
Mileage	380	380		
Observer	Williamson	Stephens		

Witnessed by: Robinson

SCANNED

DIAMETER OF HOLE

13" @ 10082' 11" @ 10081'

9 7/8" @ 9880 7" @ 9878

REMARKS

Standard Resistivity - AM @ 17'

Standard Lateral - Ok. @ 30'

Long Lateral - Ok' 139'

Tooled:

8 3/4" shoe 9878 - 9880

9 5/8" shoe 9880 - 10088

Formation Log 10082 - 10088

RESISTIVITY

NORMAL CURVE — INDUCTION CURVE

ohms m/m

0 — 5

SELF-POTENTIAL

millivolts

0 — 100

9900

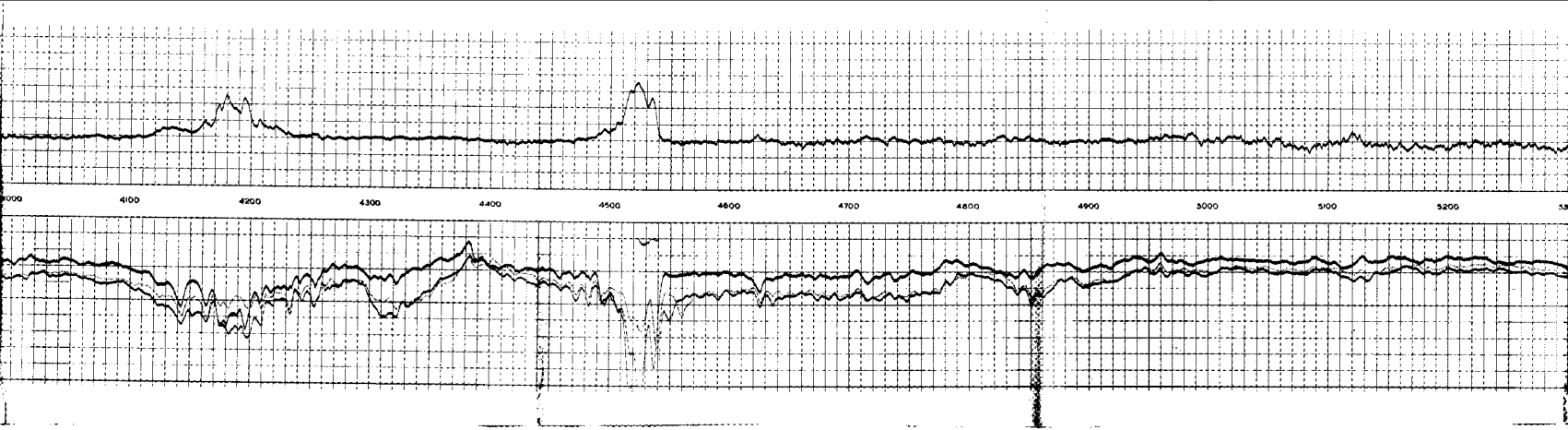
1000

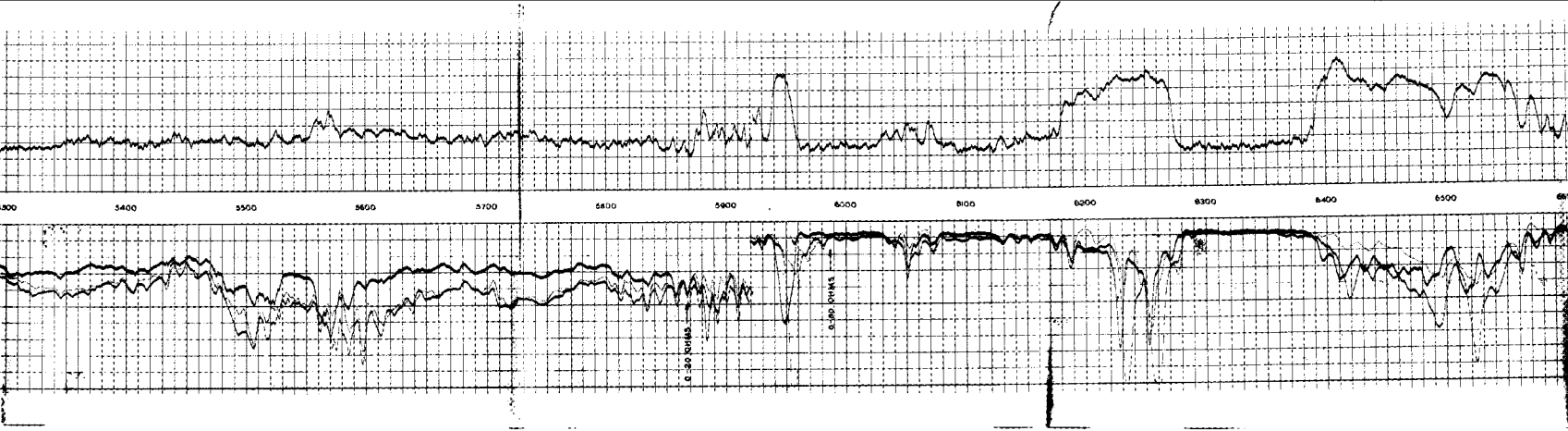
50

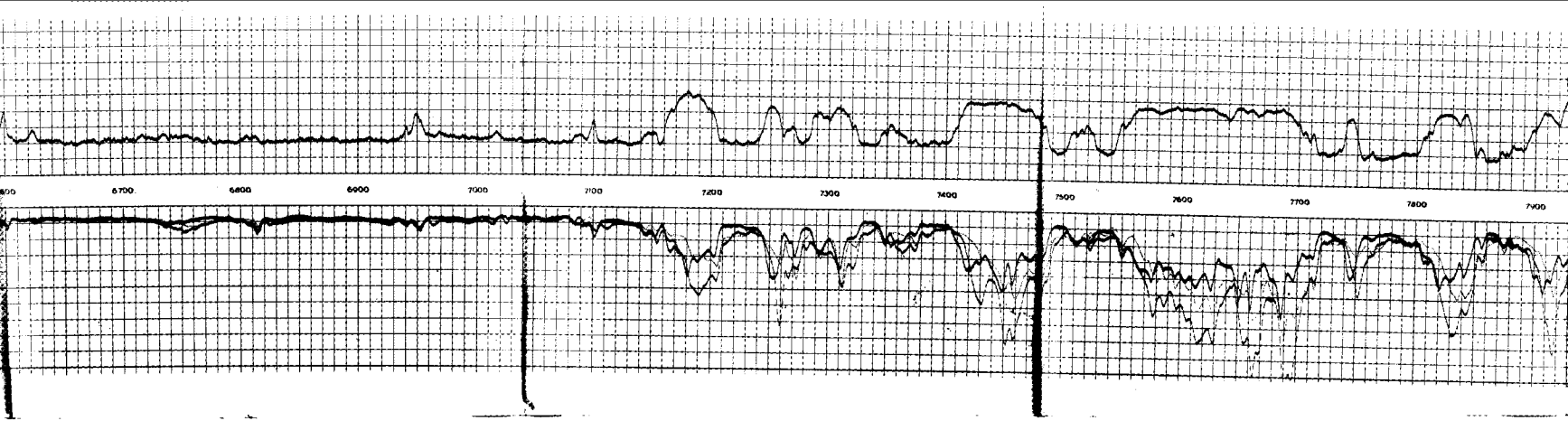
00

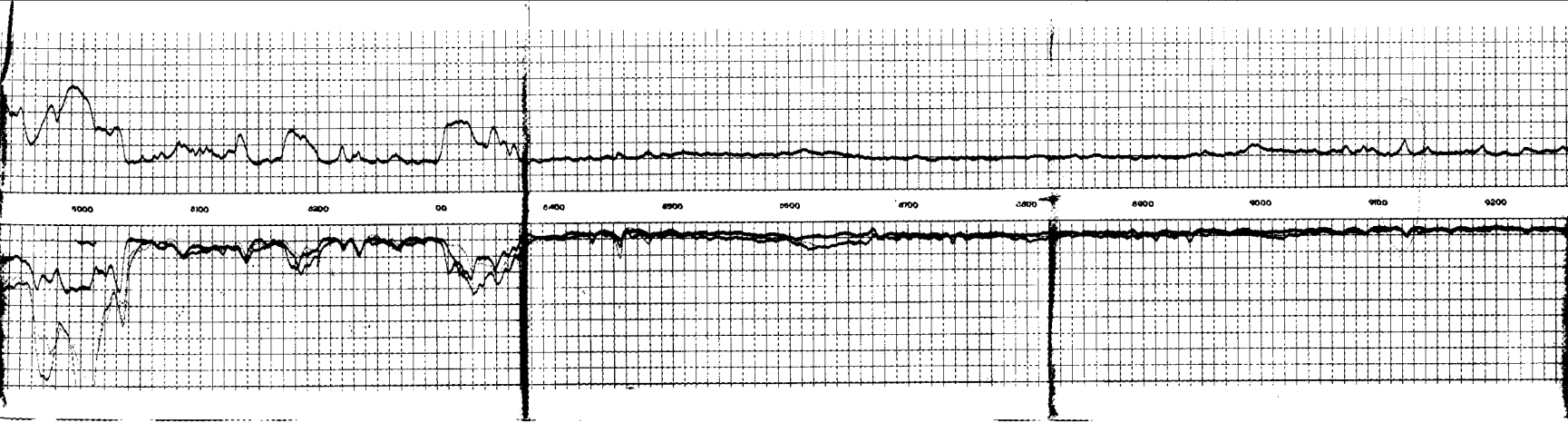
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600

3900
3700
3500
3300
3100
2900
2700
2500
2300
2100
1900
1700
1500
1300
1100
900
700


4100
4200
4300
4400
4500
4600
4700
4800
4900
5000
5100
5200


5300
5400
5500
5600
5700
5800
5900
6000
6100
6200
6300
6400
6500
0.30 OHMS
0.30 OHMS


6700
6800
6900
7000
7100
7200
7300
7400
7500
7600
7700
7800
7900

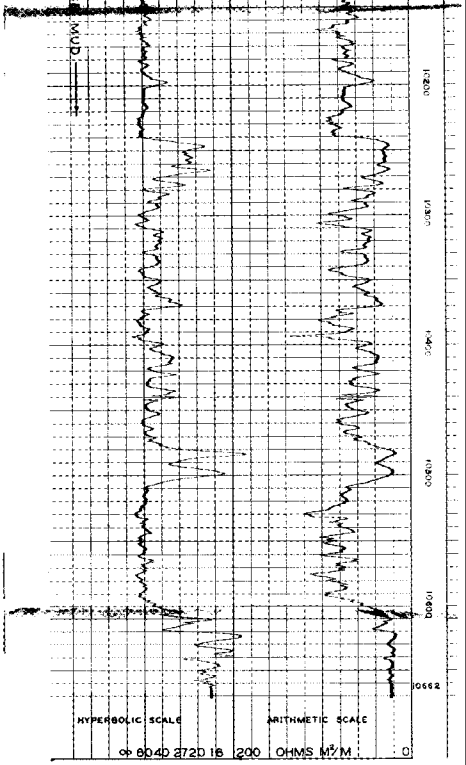

5000
5100
5200
00
6400
6500
6600
6700
6800
6900
9000
9100
9200

WATER BASE MUD

0 800 OHMS

100 MV

OIL BASE



SUNRAY OIL CORP.
N. C. W. 4-5
NEWHALL POTRERO

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF WELL ABANDONMENT

F.E. Armijo, Agent
Oryx Energy Company
25322 W. Rye Canyon Road
P.O. Box 55060
Valencia, CA. 91355

Ventura, California
February 8, 1990

Your report of abandonment of well "Newhall-Corp.Wolfson" 5-5, A.P.I. No. 037-12617, Section 25, T. 4N, R. 17W, SB B.&M., Newhall-Potrero field, Los Angeles County, dated 12-6-89, received 1-8-90, has been examined in conjunction with records filed in this office, and we have determined that all of the requirements of this Division have been fulfilled.

bb

cc: Conservation Committee
Update

MAP	MAP BOOK	CARDS	BOND	EDP	FORMS 114	FORMS 121
253	2/17/90 DH	—	63	✓	—	✓

M.G. MEFFERD, State Oil and Gas Supervisor

By Patrick J. Kinnear
Patrick J. Kinnear, Deputy Supervisor

OG159

OPERATOR Aud
WELL NO. Newark Corp-Wilcox #525-
MAP

INTENTION	Abd	Supp				
NOTICE DATED	6-20-89	6-28-89				
P-REPORT NUMBER	289-186	289-213				
CHECKED BY/DATE		BH 2/8/90				
MAP LETTER DATED		2/17/90				
253 SYMBOL						

	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED
NOTICE	6-21-89		7-3-89									
HISTORY	1-8-90		→									
SUMMARY												
E-LOG												
MUD LOG												
DIPMETER												
DIRECTIONAL												
CORE/SWS												
CBL												

ENGINEERING CHECK

T-REPORTS		✓				
OPERATOR'S NAME		✓				
WELL NO.		✓				
LOC & ELEV		✓				
SIGNATURE						
SURFACE INSP.		12/11/89				
DRILL CARD						
RECORD'S COMPLETE		DH 2/1/90				

FINAL LETTER MAILED
OK
RELEASED BOND
EWP Abd 9-25-89

INJECTION BOOK
IDLE WELL LIST
SURFACE INSP. CARD
OK TO RELEASE FROM CONFIDENTIAL

REMARKS:

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

JAN 8 1990

Operator ORYX ENERGY COMPANY Field or County Newhall-Potrero
Well Newhall Corporation-Wolfskill 5-5 #5 Sec 25 26, T 4N, R 17W, SB B. & M.
A.P.I. No. 037 ~~036~~-12617 Name F. E. ARMIJO Title Agent
(Person submitting report) (President, Secretary or Agent)
Date 12-6, 1989

Signature F. E. Armijo

Box 55060, Valencia, California 91355-0560 (805) 257-6200
(Address) (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date

1989

P&A, OTHER
7" CSG TO 9800'/5-1/2" LNR 9760-10,473'/PBTD 10,473'/PERFS 9781-10,472'/5TH ZONE/L.A. COUNTY/P #865628/
09/08/89
9-5/MIRU/
9-6/REMOVE WELLHEAD/INSTL BOP/TST TO 3000#, OK/POH W 19 JTS 2-7/8" TBG/HAUL IN 26 JTS 2-7/8" TBG/PU & RIH W 2-7/8" TBG TO 7700'/SDFN/
09/09/89
9-7/FIN PU & RIH W 2-7/8" TBG/TAG BTM @ 10,405'/RU PUMP & TANK & CIRC MUD IN BKR TANK/PMP 220 BBL 11# MUD DOWN TBG/NO RETURNS/POH W TBG TO 9800'/SDFN/
09/10/89
9-8/MIX & COND MUD/RIH W 2-7/8" TBG TO 9887'/CIRC 130 BBL MUD (10.2#/GAL)/ RU B.J./PUMP 20 BBL FW AHEAD OF 51.60 CU FT CMT W 2% RETARD, FOLOWD BY 4 BBL FW & 50.5 BBL 10.2#/GAL MUD DISPLACEMENT/POH W 20 STANDS TO 8647'/REVERSE OUT 60 BBL MUD/CLOSE WELL IN/SDFN/WAIT ON CMT/
09/11/89
9-9/RIH @ TAG CMT 9825'/CIRC TO COND MUD/RU B.J. TST LINES 2000#, OK/PMP 20 BBL FW AHEAD OF 47 CU FT CLASS 'G' CMT W 2% RETARDER (45 SX) FOLOWD BY 3 BBL FW DISPLACED W 50.5 BBL 10.2#/GAL MUD/POH TO 1240'/REVERSE CIRC 60 BBL MUD/ SD FOR WEEKEND/
09/12/89
9-10-89 SDFWE/
09/13/89
9-11-89/RIH/TAG CMT @ 9609'/POH W/2 7/8" TBG LAYING DOWN 260 JTS/FILL HOLE W/MUD/RU DIA-LOG/RIH AND SHOOT 4 HOLES @ 1600'-1601'/POH W/TOOLS/ RD DIA-LOG/RIH W/2 3/8" TBG & 2 7/8" TBG TO 1581'/CIRC MUD/RU B.J./TEST LINES TO 2000#/B.J. PUMP 20 BBL WATER, 80 CU FT CLASS "G" CMT FOLLOWED BY 3 BBL WATER, DISPLACED W/3.5 BBL 10.2# MUD/POH W/TBG TO 781'/FILL HOLE W/MUD/PUMP IN 31 CU FT MUD @ 100 PSI/ETOC-1420'/

OG103 (1-77-25B1-10M)

09/14/89
9-12-89/RIH TAG CMT @ 1380'/CIRC MUD/POH & LAY DOWN 51 JTS TBG/FILL 7" CSG W/MUD/RIH W/DIA-LOG & SHOOT 4 HOLES @ 31'/CIRC MUD DOWN 7" & UP 13 3/8"/RU BJ & CIRC 30 CU FT CLASS "G" CMT W/2% CACL DOWN 7" & UP 13 3/8"/CLOSE 13 3/8" OFF/SQUEEZE AWAY 69 SX CMT @ 75 PSI/HELD PRESS 15 MIN/RD BJ/REMOVE BOP/RDMO POOL/DROP FROM REPORT PENDING SURFACE ABANDONMENT/
09/15/89
DROPED FRM REPORT 9-12 PENDING SURFACE ABANDONMENT/

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. T 289-291

REPORT ON OPERATIONS

F.E. Armijo, Agent
Oryx Energy Company
25322 W. Rye Canyon Road
P.O. Box 55060
Valencia, CA. 91355

Ventura, California
September 22, 1989

Your operations at well "Newhall-Corp.Wolfson" 5-5, API No. 037-12617, Sec. 25, T. 4N, R. 17W, S.B.B.&M. Newhall Potrero Field, in Los Angeles County, were witnessed on 9/19/89. Pam Ceccarelli, representative of the supervisor, was present from 0730 to 0800. There were also present Ken Kennedy,.

Present condition of well: 13 3/8" cem 448'; 7" cem 9800', cp 31' & 1600' & 9775'., perf 9777' (WSO); 5 1/2" ld 9760'-10473', perf @ int 9781'-10472', TD 10526'. Plugged w/cem 10526'-10475', 9825'-9609', 1581'-1380', 31'-5'.

The operations were performed for the purpose of abandonment.

DECISION:

The plugging operations as witnessed and reported are approved.

ljg

SURF INSP OK 12/11/89 BH

M.G. MEFFERD, State Oil and Gas Supervisor

By Patrick J. Kinnear

Patrick J. Kinnear
Deputy Supervisor

0G109

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No.P 289-213
Field Code 500
Area Code 00
New Pool Code --
Old Pool Code 30

PERMIT TO CONDUCT WELL OPERATIONS

F.E. Armijo, Agent
Sun Exploration & Prod. Co.
25322 W. Rye Canyon Road
P.O. Box 55060
Valencia, CA. 91355

Ventura, California
July 11, 1989

Your supplementary proposal to abandon well "Newhall Corp.-Wolfson" 5-5 A.P.I. No. 037-12617, Section 25, T. 4 N, R. 17W, S.B. B.&M., Newhall-Potrero field, any area, 5th pool, Los Angeles County, dated 6/29/89, received 7/3/89, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Requirements specified in permit No. P289-186 dated 6/26/89 shall apply.

Blanket Bond
SF:ljg

Engineer Steve Fields

Phone (805) 654-4761

M.G. MEFFERD, State Oil and Gas Supervisor

By Patrick J. Linnear
Patrick J. Linnear
Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

OG111

EXPRESS MAIL

Form OG123 (11/80/DWRR/5M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

SUPPLEMENTARY NOTICE

DIVISION OF OIL AND GAS
RECEIVED
JUL 5 1989
VENTURA, CALIFORNIA

FOR DIVISION USE ONLY			
BOND	FORMS		EDP WELL FILE
	OGD114	OGD121	
BB	—	✓	

DIVISION OF OIL AND GAS
VENTURA, Calif.

A notice to you dated JUNE 20, 19 89, stating the intention to ABANDON, (Drill, rework, abandon) NCW #5-5 (Well name and number), API No. 037-12617,

Sec. 25, T. 4N, R. 17W, SB B. & M., NEWHALL-POTRERO Field,

LOS ANGELES County, should be amended because of changed conditions.

The present condition of the well is as follows:

Total depth

Complete casing record including plugs and perforations

We now propose TO CHANGE STEP 2 TO READ:
2. POOH STANDING W/19 JTS 2-7/8" TBG. PU & RIH W/SAWTOOTH COLLAR ON 26 JTS 2-3/8" 4.7# J-55 TBG, 19 JTS 2-7/8" 6.5# J-55 TBG + ±290 JTS 2-7/8" 6.5# J-55 WS TO BOTTOM. CLEAN OUT HOLE TO 9891' IF NECESSARY.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address 25322 W. RYE CANYON ROAD (Street)
VALENCIA, CALIFORNIA 91355-0560 (City) (State) (Zip)
Telephone Number (805) 257-6200

SUN EXPLORATION AND PRODUCTION COMPANY (Name of Operator)
Type of Organization CORPORATION (Corporation, Partnership, Individual, etc.)
By F. E. ARMIJO (Name)
Signature F. E. Armijo (Date) 6/29/89

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No.P 289-186
Field Code 500
Area Code 00
New Pool Code --
Old Pool Code 30

PERMIT TO CONDUCT WELL OPERATIONS

F.E. Armijo, Agent
Sun Exploration & Prod. Co.
25322 W. Rye Canyon Road
P.O. Box 55060
Valencia, CA. 91355

Ventura, California
June 26, 1989

Your proposal to abandon well "Newhall Corp.-Wolfson" 5-5, A.P.I. No. 037-12617, Section 25, T. 4 N, R. 17W, S.B. B.&M., Newhall-Potrero field, any area, 5th pool, Los Angeles County, dated 6/20/89, received 6/21/89, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Blowout prevention equipment conforming to DOG Class II 2M requirements shall be installed and maintained in operating condition at all times during abandonment operations.
2. Any sump used during these operations shall be thoroughly cleaned and filled with earth as soon as operations are completed.
3. A diligent effort shall be made to clean out the well to at least 10,000'.
4. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of 72 lbs./cu. ft. and a minimum gel-shear strength (10 min.) of 20 lbs./100 sq. ft.
5. This office shall be consulted before deviating from the proposed abandonment program.
6. THIS DIVISION SHALL BE NOTIFIED:
   a. To witness the location and hardness of the cement plug at 9660' and 1500'.
   b. To witness the mudding of the well.
   c. To witness the squeeze-cementing of the 7" casing through the perforations at 1600'.
   d. To witness the placing of the surface plug inside the 7" casing and the plug in the 13 3/8" x 7" casing annulus.
   e. To inspect and approve the cleanup of the well site before approval of abandonment will be issued.

PC:ljg

Engineer Pam Ceccarelli

Phone (805) 654-4761

M.G. MEFFERD, State Oil and Gas Supervisor

By Patrick J. Kinnear
Patrick J. Kinnear
Deputy Supervisor

A copy of this permit must be posted at the well site prior to commencing operations. Records for work done under this permit must be kept until the well has been completed or the operations have been suspended.

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

VISION OF OIL AND
RECEIVED
JUN 21 1989
VENTURA, CALIFORNIA

Notice of Intention to Abandon Well

This notice must be given at least five days before work is to begin.

FOR DIVISION USE ONLY			
CARDS	BOND	FORMS	
		OGD114	OGD121
✓	✓	✓	✓

DIVISION OF OIL AND GAS

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon well NEWHALL CORPORATION-WOLFSON #5-5, API No. 037-12617, Sec. 25, T. 4N, R. 17W, SB B. & M., NEWHALL-POTRERO Field, LOS ANGELES County, commencing work on JULY 5, 19 89.

The present condition of the well is: SHUT-IN

1. Total depth: 10,475'

2. Complete casing record, including plugs and perforations:
SEE ATTACHED

3. Last produced 1/20/87 (Date) 5 (Oil, B/D) 5 (Gas, Mcf/D) 7 (Water, B/D)

or

4. Last injected _____ (Date) _____ (Water, B/D) _____ (Gas, Mcf/D) _____ (Surface pressure)

Additional data for dry hole (show depths)

5. Oil or gas shows

6. Stratigraphic markers:

7. Formation and age at total depth:

8. Base of fresh water sands: ±1500'

The proposed work is as follows:

SEE ATTACHED

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address 25322 West Rye Canyon Road (Street)
Valencia (City) CA (State) 91355-0560 (Zip)
Telephone Number (805) 257-6200 (Area Code) (Number)

SUN EXPLORATION & PRODUCTION CO (Name of Operator)
By F. E. ARMIJO (Print Name)
F. E. Armijo (Signature) 6/20/89 (Date)

OG108 (11-78-GSRI-5M)

RECOMMENDED WORK PROCEDURE Sun—5036-3-C

WELL NAME	FIELD NAME	COUNTY	STATE
NCW #5-5	NEWHALL POTRERO	LOS ANGELES	CA

PERMANENT ZERO POINT	UPPERMOST PLUG	RETAINER
KB 13.3' AGL, GL 1437.86' ASL	10,475'	NONE

	SIZE & WEIGHT PROD	DEPTH SET	PACKER DEPTH (TOP) & TYPE	(1)	(2)	(3)
CASING 7"	23,26,29, & 32# J-55 N-80	9,800'		NONE		

	SIZE, WEIGHT, GRADE, ETC.	DEPTH SET	TOP OF CEMENT BEHIND PROD CSG.	CALCULATED	LOG
TUBING	2-7/8", 6.5# J-55	602'		7,633' EST	

	DEPTH SET	PERFS
LNR: 5½" 17# J-55	9,760'-10,473'	10,472'-10,298'; 10,241'-10,045'; 9,988'-9,781'

PROCEDURE RIG TI

CAPACITIES

13-3/8" 48# CSG = 0.8817 cu.ft./lin.ft.
7" 32# CSG = 0.2025 cu.ft./lin.ft.
7" 29# CSG = 0.2085 cu.ft./lin.ft.
7" 26# CSG = 0.2148 cu.ft./lin.ft.
7" 23# CSG = 0.2210 cu.ft./lin.ft.
5-1/2" 17# CSG = 0.1305 cu.ft./lin.ft.
2-7/8" 6.5# CSG = 0.03250 cu.ft./lin.ft.
2-3/8" 4.7# CSG = 0.02171 cu.ft./lin.ft.

1. MIRU WO rig. Install Class II 2M BOPE and test to 2000 psi for 15 minutes. Fill hole w/LW (Well capacity = ±2182 cu.ft.= 389 BBLS).

2. POOH standing w/19 jts 2-7/8" tbg. PU & RIH w/sawtooth collar on 26 jts of 2-3/8" 4.7# J-55 tbg, 19 jts 2-7/8" 6.5# J-55 tbg & 293 jts 2-7/8" 6.5# J-55 WS to ±10,475'. If fill is encountered, attempt to circulate clean to ±10,475'. Contact DOG to witness cleanout (654-4761).

3. Fill hole with 15 bbls of 72#/cu.ft. mud. POOH with 19 JTS 2 7/8" TBG to ±9,881.

4. MIRU cementers. Spot a balanced plug from ±9,881' to ±9,660' with 40 cu. ft. of class 'G' cement with appropriate additives. PU WS ±700' and reverse circulate with 55 BLW. WOC 4-6 hours. Tag TOC.

5. Fill hole with 318 bbls of 72#/cu. ft. mud. POOH with 8100' of 2 7/8" TBG to ±1560'.

6. MIRU EWL service. PERF 4 HPF @ 1600' with 1 1/2" hollow carrier through tubing gun or similiar. POOH and RD EWL.

7. RU cementers. Bradenhead squeeze w/40 cu ft of Class 'G' cmt w 3% $CaCl_2$ (100' of surf csg-prod csg annulus). Spot a 23 cu ft cmt plug in 7" csg from ±1600' to 1500'. PU WS ±500' & rev circ w/7 BLW. WOC 4-6 hrs. Tag TOC.

8. Fill hole w/60 Bbls of 72#/cu ft mud. POOH w/2-7/8 and 2-3/8" WS. Remove BOP's.

9. RIH w/1 jt of 2-7/8" tbg. Spot 6 cu ft of Class 'G' cmt w/3% $CaCl_2$ from 31' to 6' below GL. POOH w/2-7/8" tbg.

10. RIH w/1 jt of 1-1/2" tbg between 13-3/8" surf csg & 7" prod csg. Spot 15 cu ft of Class 'G' cmt w/3% $CaCl_2$ from 31' to 6' below GL. POOH w/1-1/2" tbg WOC 4 hrs. Tag TOC. RDMO cementers & rig.

11. Cut surface CSG 5' below ground level. Remove cellar and flowlines, clean location. Weld plate marker over CSG. Contact DOG for surface abandonment approval.

OE3/300D

WELL COMPLETION SKETCHES SUN—5036-4-A

WELL	FIELD	DATE
NCW #5-5	NEWHALL - POTRERO	MARCH 10, 1988

☒ PRESENT COMPLETION ☐ SUGGESTED COMPLETION

PERMANENT WELL BORE DATA

SPUD: 3/4/51
COMPLETED: 6/12/51

13 3/8", 48#, H-40 SMLS CSG, CMT'D @ 448' W/300 SX'S. (17 1/4" HOLE)

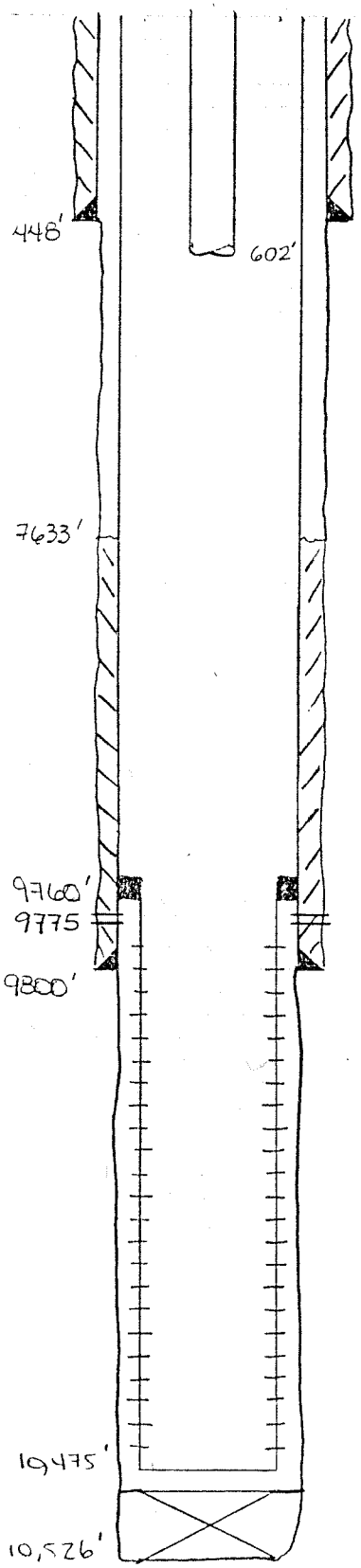
7", 32#, 29#, 26# & 23#, N-80, J-55 SMLS. CSG, CMT'D @ 9800' W/692 SX'S (11" HOLE)

SQUEEZED @ 9775' thru 4-3/8" HOLES W/175 SX'S, 4-3/8" HOLES @ 9777 (WSO)

5 1/2", 17# J-55 SMLS LNR. HUNG @ 10,473' TOP @ 9760' (5-7/8" HOLE)

SHOP PERFD w/ 16R x 1"C 192 - 1/4" RHPF FRM: 9781'-9988', 10045'-10241', 10298'-10472'.

PBTD: 10,475'
TD: 10,526'



DATA ON THIS COMPLETION

KB: 1437.86' ASL
KB: 13.30' AGL

2 7/8" 6.5# J-55 TBG

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
NEWHALL-POTRERO	2
Former owner	**Date**
Sun Oil Company	Mar. 31, 1983

Name and location of well(s)

Sections 21, 22, 25, 26, 27, 28, 35, 36, T4N. R. 17W.

ALL WELLS

Description of the land upon which the well(s) is (are) located

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Type of organization
1/1/82	Sun Exploration & Production Co.	Company
	Address: P.O. Box 55060, Valencia, Ca. 91355	Telephone No.: (805) 257-6200

Reported by: Sun Oil Company

Confirmed by: Sun Exploration & Production Co.

New operator new status (status abbreviation)	Request designation of agent
PA	on file
Old operator new status (status abbreviation)	**Remarks**
Ab	NAME CHANGE ONLY

Deputy Supervisor	Signature
Murray W. Dosch	Murray W. Dosch

OPERATOR STATUS ABBREVIATIONS

PA – Producing Active
NPA – No Potential, Active
PI – Potential Inactive
NPI – No Potential, Inactive
Ab – Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form ODG148			Notice to be cancelled		
New well cards			Bond status		
Well records			EDP files		
Electric logs					
Production reports					

SUBMIT LOG IN DUPLICATE

FILL ANK IN WITH TYPEWRITER. WRITE ON ONE SIDE OF P. ILY

...NIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL & GAS
RECEIVED
JUL 19 1951
LOS ANGELES

WELL SUMMARY REPORT

Operator SUNRAY OIL CORPORATION Field NEWHALL-POTRERO

Well No. Newhall Corporation - Wolfson 5-5 Sec. 25, T. 4N, R. 17W, S. B. B. & M.

Location 6167.03'S & 1293.4'E from Corner "J" Elevation of kelly bushing 1,437.86' above sea level feet.
conc. mat 1,424.56'

In compliance with the provisions of Chapter 93, Statutes of 1939, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date JUNE 28, 1951 Signed R. E. Foss

H. M. STANIER (Engineer or Geologist) T. J. PREHODA (Superintendent) Title R. E. FOSS Agent (President, Secretary or Agent)

Commenced drilling 3-4-51 Completed drilling 6-12-51 Drilling tools Rotary

Total depth 10,526' Plugged depth 10,475'

Junk NONE

GEOLOGICAL MARKERS	DEPTH

Commenced producing 6-12-51 (date) flowing/gas lift/pumping (cross out unnecessary words)

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production	270	27.0°	2.5%	96	160#	770#
Production after 30 days						

CASING RECORD (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing landed in	Number of Sacks of Cement	Depth of Cementing if through perforations
13-3/8"	448'	Surface	48#	New	Smls.	H-40	17-1/4"	300	--
7"	9800'	"	32,29,26 23#	"	"	N--80 J-55	11"	692	9775'
5-1/2"	10,473'	9760	17#	New	Smls.	J-55	5-7/8"	Landed	--

PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
5-1/2"	10,473 ft.	10,261 ft.	192 - 1/4" Rd.holes/ft.	16	1"	Shop
"	10,204 ft.	10,008 ft.	"	"	"	"
"	9,951 ft.	9,744 ft.	"	"	"	"
	ft.	ft.				
	ft.	ft.				

Electrical Log Depths 9,718' and 10,526' (Attach Copy of Log)

ORM 103. 62964 9-46 47,500
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

DIVISION OF OIL & GAS
RECEIVED
JUL 3 1951
LOS ANGELES

OPERATOR SUNRAY OIL CORPORATION FIELD NEWHALL-POTRERO

Well No. Newhall Corp.-Wolfson #5-5, Sec. 25, T. 4N, R. 17W, S.B. B. & M.

Signed R. E. Foss

Date June 21, 1951 Title R. E. FOSS, AGENT Agent
(President, Secretary or Agent)

Use this form in reporting all important operations at the well, together with the dates thereof, in the order of their performance. Such operations include drilling, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, or deepened; size, weight and length of casing landed, cemented, or removed, amount and location of perforations; number of sacks of cement used in cementing or plugging operations, number of feet of cement drilled out of casing, location of top and bottom of cement plugs. If the well was dynamited, give date, dimensions and weight of all shots. If tests were made give interval tested and results of tests, such as, amount and nature of fluids recovered.

Date	
1951	
3-4	Spudded in with 11" bit. Drilled to 535'.
3-6	Opened hole with 17 1/4" hole opener to 448'. Cemented 13 3/8" - 48# H-40 Smls. casing at 448' with 300 sx Victor Construction cement containing 2 1/2% gel. 112# slurry. Had returns to surface.
3-7	Found top of cement at 411' and shoe at 448'. Drilled ahead with 11" bit.
5-16	T.D. 9964' 1st Run Schlumberger Electric Log.
5-18	T.D. 9964' Cemented 7" 23, 26, 29 and 32# N-80 and J-55 casing at 9800' w/600 sx Colton Slow Cement. Displaced 100 c.f. of water contained 50# pyro ahead of cement. Mixed first 100 sx at 105# slurry and 500 sx. at 116# slurry.
5-20	Found top of plug at 9704'. Drilled out to 9785'. Ran Sperry-Sun Directional Survey. Shot 4- 3/8" holes at 9775' with bullet gun.
5-21	Ran M.O.J. Tester. Set packer at 9733' w/tailpiece to 9747'. Used 3/8" btm. bean & 1000' mud cushion. Open 1 hour. Light blow for 2 minutes, very light blow for 8 minutes. Dead for 15 minutes, and faint heading for 35 minutes. Recovered 1100' gassy mud. Less than 30 gpg NaCl. W.S.O. witnessed by Div. of Oil and Gas and was not approved.
5-22	Squeeze Job #1 (Through 4-3/8" holes @ 9775') Squeezed with 50 sx permanente Hi-Temp cement, 114# slurry. Baker Model "K" Retainer at 9760'. Bread down at 4700# with 5 c.f./minute.
	Squeeze Job #2 (Through 4-3/8" holes @ 9775') Squeezed with 75 sx Permanente Hi-Temp cement. Baker Model "K" Retainer at 9760'. Break down Job #1 w/4500# and 13 c.f. Estimated 42 sx squeezed. Final pressure 7000 psi.
5-23	Found top of cement at 9754'. Drilled out to 9785'. Shot 4-3/8" holes at 9777' with bullet gun.
5-24	Ran M.O.J. tester on 3 1/2" D.P. with 1185' of water cushion. Set packer at 9731' with tailpiece at 9748'. Open through 3/8" btm. bean for 1 hr. 1 1/2 minutes strong vacuum, light blow for 6 minutes, vacuum for 2 minutes. Dead for balance of test. Pulled packer loose and re-set for second 1 hr. test. No blow. Test witnessed and W.S.O. approved by

ORM 103. 62984 9-46 47,500
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

DIVISION OF OIL & GAS
RECEIVED
JUL 3 1951
LOS ANGELES

OPERATOR SUNRAY OIL CORPORATION FIELD NEWHALL-POTRERO

"Newhall Cyn. - Wolfskill"

Well No. (NCW) 5-5, Sec. 25, T. 4N, R. 17W, S.B. B. & M.

Signed R. E. Foss

Date _____ Title R.E. FOSS, AGENT Agent
(President, Secretary or Agent)

Use this form in reporting all important operations at the well, together with the dates thereof, in the order of their performance. Such operations include drilling, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, or deepened; size, weight and length of casing landed, cemented, or removed, amount and location of perforations; number of sacks of cement used in cementing or plugging operations, number of feet of cement drilled out of casing, location of top and bottom of cement plugs. If the well was dynamited, give date, dimensions and weight of all shots. If tests were made give interval tested and results of tests, such as, amount and nature of fluids recovered.

Date	
1951	
5-24	(Continued) D. O. & G. Found btm. of cement at 9863'. Cleaned out to 9964'. Drilled and cored ahead with 5 7/8" bit. Changed to Ken-Oil oil-base mud.
6-8	T.D. 10,526' 2nd Run Schlumberger Electric Log (Induction) to 10,526'.
6-9	Plugged 10,526' to 10,399' with 20 sx Victor High Temp. cmt.
6-10	Found plug at 10,409' drilled out with 5-7/8" bit to 10,475'. Hung 5 1/2" 17# J-55 liner at 10,473' with top of hanger at 9,760'. Perforated with 192 - 1/4" RD. holes/ft. 10,473'-10,261'; 10,204'-10,008'; 9,950'-9,744'.
6-11	Ran 2- 7/8" 6.5# E.U. Production tubing to 10,445'.
6-12	Displaced oil-base mud with oil.-completed well.

BARNSDALL OIL COMPANY

Form 5-OD

DIVISION OF OIL & GAS
RECEIVED
JUN 27 1951

"Newhall Corp.-Outpost"

CORE RECORD

COUNTY LOS ANGELES FIELD OR DIST. NEWHALL-POTRERO COMPANY SUNRAY OIL CORPORATION WELL (N.C.W.) #5-5

LOCATION 6167.03' S & 12,934.19' E from Corner "J" LOS ANGELES SECT. 25 T. 4N R. 17W ELEV. 1438KB

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
'51												
/26	Merc. Diam	6"	9970	10,000	30'	100				1½'	Oil Conglomerate, heavy, brittle, brown.	
	Core	#1								2½'	Oil sand, brown, medium, with scattered coarse grains, difficultly friable, fair porosity and permeability.	
									16'		Conglomerate, heavy, brittle, coarse, generally gray (tight) but with occasional permeable sandy streaks.	
										10'	Oil Conglomerate, heavy and brittle, but with some oil sand and permeability (10% sand).	
/27	"	"	10,000	-	30'	100			x	30'	Oil Conglomerate, ditto, but only very rarely sandy and with about 30% gray and unproductive.	
	Core	#2	10,030									
/28	"	"	10,030	-	30'	100				8'	Oil Conglomerate, hard, brittle, very little sand.	
	Core	#3	10,060							7'	Oil sand, medium to coarse grained, brown, small-pebbly in part, with 1' of sandstone shell near top.	
										15'	Oil Conglomerate, as above, hard, brittle, negligible sand.	
/28	"	"	10,060	-	29'	100				29'	Oil Conglomerate, ditto, with several streaks of oil sand (10,062' and 10,082') amounting to about 6' and with one 18" streak of very fine grained, silty, tight gray sand at 10,080'.	
	Core	#4	10,089									
/29	"	"	10,089	-	30'	100				4'	Oil Conglomerate, ditto, sandy in part.	
	Core	#5	10,119							4'	Oil sand, light brown, massive, medium to coarse grained, fairly hard, fair saturation.	
										22'	Oil Conglomerate as above with sandy phases and streaks making a total of about 5' of sand that varies from light brown to gray and very hard.	
/30	"	"	10,119	-	30'	100				30'	Oil Conglomerate, ditto with sandy phases and streaks making about 3' of oil sand, generally heavy and britt	
	Core	#6	10,149									

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.
HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.
TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.
SORTING: E Even, G Good, P Poor, F Fair.
MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

DIVISION OF OIL & GAS

RECEIVED

JUN 27 1951

"Newhall Cyp - Wolfskill"

CORE RECORD

COMPANY -2- WELL (N.C.W.) #5-5

COUNTY FIELD OR DIST.

LOCATION SECT. 25 T. 4N R. 17W ELEV.

LOS ANGELES

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1951												
5/30	Merc. Diam	6"	10,149 -		18'	100				3'	Oil Conglomerate, moderately sandy.	
	Core	#7	10,167							15'	Oil sand, medium brown, medium grained to coarse grained in bottom 4', fairly hard to occasionally friable, good saturation, no gray spots. Contains several thin shaley streaks and interbeds, particularly from 10,158 to 10,163', showing good 40° to 45° dips.	
31	"	"	10,167 -		30'	100				22'	Oil sand, medium to dark brown, medium to occasionally coarse grained, firm to friable, generally excellent looking oil sand. Contains several 3" siltstone streaks and 2 - 18" streaks of sandstone shell at 10,177' and 10,188'.	
	Core	#8	10,197							8'	Pebbly oil sand, brown to light brown, massive, firm to somewhat crumbly with pebbles averaging 1/4" and reaching 1/2" in oil sand matrix (about 40% oil sand). Good 40° dips as in core above.	
6/1	"	"	10,197 -		30'	100				5'	Pebbly oil sand, ditto, becoming more conglomeratic (about 30% sand).	
	Core	#9	10,227							5'	Oil sand, brown, massive, fine to coarse grained, quite firm, rather low porosity and permeability, pebbly at base, with occasional silty interbeds.	
										18'	Sandy oil conglomerate, large pebbles in coarse grained sand matrix to occasionally coarse grained oil sand. Shows vertical fracture in bottom 7'. About equivalent to 5' of oil sand.	
								2'			Silty sand, light gray to buff, very fine grained quite silty, shows weak oil stain where permeability permits - not wet. Moderately fractured.	
6/1	"	"	10,227 -		30'	100				10'	Oil sand, brown to light tan (in tight streaks) massive, firm to occasionally quite hard, fine to coarse and pebbly and occasionally conglomeratic,	
	Core	#10	10,257									

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc, Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

DIVISION OF OIL & GAS

RECEIVED

JUN 27 1951

CORE RECORD

"Newhall Corp - Wolfskill"

COUNTY | FIELD OR DIST. | COMPANY -3- LOS ANGELES | WELL (N.C.W. #5-5)

LOCATION | SECT. 25 T. 4N R. 16W ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1951												
6/1	Merc. Diam	6"	10,227 -		cont...						permeability quite variable. About 8' of prod. sand.	
	Core #10		10,257							9"	Oil Conglomerate pebbles and cobbles, sandy in top 3" to heavy and brittle.	
										3½'	Oil sand, brown, coarse grained, occasional small pebbles, good saturation.	
										3½'	Oil Conglomerate, heavy, brittle.	
										4'	Oil sand, coarse grained, silty, fractured, medium saturation.	
6/2	"	"	10,257 -		30'	100						
	Core #11		10,287							2½'	Oil sand, brown, massive to interbedded with silt (36° dip), with 1/2' of conglomerate at top.	
										10"	Sandy oil conglomerate, buff to brown, massive, pebbles up to 2" quite sandy with 18" of medium gr sand at 10,264½' followed by 18" of very coarse grained, low-permeability, pebbly, oil sand.	
										12½'	Oil conglomerate, heavy and brittle, slightly sandy in lower half.	
										3'	Oil sand, buff, massive, rather silty, fairly low porosity and permeability.	
										1½'	Oil conglomerate, as last above.	
										1/2'	Oil sand, dark brown, medium grained, rich.	
6/3	"	"	10,287 -		30'	100						
	Core #12		10,317							3'	Oil sand, dark brown to buff, variably silty, medium grained with occasional pebbly streak.	
										27'	Oil Conglomerate, heavy, brittle, slightly sandy in top 7'.	
6/3	"	"	10,317 -		30'	100						
	Core #13		10,347							3'	Oil Conglomerate, ditto, broken up.	
										27'	Oil sand, brown, massive, no silt beds, firm, generally medium grained with occasional pebbly streaks, good saturation except for 2 - 18" gray conglomeratic shells at 10,336 and 10,338'. Core had sweet oil odor.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

DIVISION OF OIL & GAS

RECEIVED

JUN 27 1951

LOS ANGELES

"Newhall Area - Wayson"

CORE RECORD

COUNTY | FIELD OR DIST. | COMPANY | WELL (N.C.W. #5-5)

LOCATION | SECT. 25 | T. 4N | R. 17W | ELEV.

-4-

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1951												
6/4	Merc. Diam	6"	10,347 -		30'	100				6'	Oil sand, ditto, dark brown in top 3' to medium brown, massive, medium grained, fairly firm.	
	Core	#14	10,377							24'	Oil Conglomerate, mainly heavy and brittle, slightly sandy in top half; contains 1' of tan, silty, micaceous oil sand at 10,361' and 6" of silty weak sand at bottom of core.	
6/5	"	"	10,377 -		29'	100				8'	Oil sand, brown, massive, firm, good saturation, medium to coarse grained.	
	Core	#15	10,406							7'	Oil conglomerate, heavy and brittle but with about 20% sand.	
								2'			Gray sand, blue-gray, medium grained, with mud invasion ring, fairly hard, probably tight.	
										12'	Oil sand, as above, pebbly in part in top 6', medium to coarse grained, generally good saturation, and fair permeability.	
6/5	"	"	10,406 -		30'	100				7'	Oil sand, brown, medium grained, massive, firm to friable, good saturation and permeability, with 6" siltstone streak at 10,412'.	
	Core	#16	10,436						2½'		Sandstone shell, gray, massive, hard, coarse grained, tight.	
									x	18½	Oil sand, as last above, generally small-pebbly, light brown to brown, massive, with several 3" streaks of siltstone and 1' of sandstone shell at 10,422'.	
									2'		Sandstone, gray, massive, coarse and small-pebbly quite hard and probably tight, somewhat crushed.	
6/6	"	"	10,436 -		30'	100				18'	Oil Conglomerate, heavy, brittle, somewhat crushed with 1/2' of pebbly oil sand at base.	
	Core	#17	10,466				9'				Siltstone, brown, somewhat laminated, hard, with occasional thin streaks of siltstone adding up to 6". Dip 43°.	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.

HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.

TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.

SORTING: E Even, G Good, P Poor, F Fair.

MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

BARNSDALL OIL COMPANY

Form 5-OD

DIVISION OF OIL & GAS
RECEIVED
JUN 27 1951

CORE RECORD

"Marked Copy - Confidential"

COUNTY | FIELD OR DIST. | COMPANY -5- | WELL N.C.W. #5-5

LOCATION LOS ANGELES ST. T. 2S T. 47 R. 10W ELEV.

DATE	CORE BARREL MAKE	CORE BARREL SIZE	FROM	TO	RECOVERY FEET	RECOVERY %	SHALE	SAND	SHELL	OIL SAND	DESCRIPTION NOTE: COLOR, HARDNESS, TEXTURE, SORTING, FOSSILS, DIPS OF BEDS AND FRACTURES	F/D
1951												
6/6	Merc. Diam	6"	10,436 -		cont...					3'	Oil sand, fine to medium grained, brown, slightly silty, firm to hard.	
	Core #17		10,466									
6/7	"	"	10,466 -		30'	100				25'	Oil sand, brown, medium grained to occasionally fine and silty, with common siltstone streaks amounting to about 3'. Dip about 45°. Fair saturation and fair apparent permeability.	
	Core #18		10,496									
								2'			Gray Sand, massive, medium grained, firm to friable with a 1/2 to 3/4" mud-invasion ring(indicating fair permeability), is separated from oil sand above by a 2" siltstone bed. Wet (10,491' or -9053' subsea).	
									2'		Sandstone Shell, dark gray, medium to coarse grained, massive, quite hard, calcareous.	
								1'			Silty gray sand, medium to fine grained, with a few silty intercalations and with 2" of siltstone at base, otherwise appears permeable and wet.	
6/	"	"	10,496 -		30'	100	x	30			Gray sand, light gray, massive to thinly interbedded with siltstreaks and beds of siltstone up to 1' (amounting to 5' of siltstone). Sand is medium to fine grained, firm to friable, with 1/4" to 1" mud invasion ring. Sand is permeable and wet.	
	Core #19		10,526									
			T.D. 10,526									
			Plugged to 10,475'								R. S. JOHNSON	

INSTRUCTIONS. Show amounts in ft. and tenths of ft. to nearest 0.5 ft.; use lesser divisions only for formations of particular significance, such as "0.2 ft. oil sand" or "0.3 ft. Bentonite." Show silt and siltstone under shale. Siltstone means definitely impervious shale-like material but silty and/or sdy. in texture. "s" in oil sand column means streaks or spots of oil. Make note of any apparent reason for poor condition or recovery. Tests cores for gas and record results. Record dips of beds, fractures, joints, slickensides, etc. Indicate by "F" or "D" in column at right if core was fresh or dry when described. Indicate author by initials, followed by date described if other than date of core.

ABBREVIATIONS. COLOR: Bf Buff, Blk Black, Blu Blue, Br Brown, Gy Gray, Gn Green, Choc Chocolate, Dk Dark, Lt Light, Ol Olive, Pur Purple, R Red, T Tan, Wh White.
HARDNESS: Frm Firm, Fri Friable, H or Hd Hard, M or Med Medium, S Soft, V Very.
TEXTURE: C or Cse Coarse, Fn Fine, M or Med Medium, Peb Pebbly, Shly Shaley, V Very.
SORTING: E Even, G Good, P Poor, F Fair.
MISCELLANEOUS: Bent Bentonite/Bentonitic, Carb Carbonaceous, Cong Conglomerate, Fos Fossils/Fossiliferous, Mic Micaceous, S S Sandstone.

Mr. Oren Graybeal
Sunray Oil Corporation

June 11, 1951
Well: NCW 5-5

CORE ANALYSIS REPORT - (Continued)

Depth	% Porosity	md. Air Permeability	O/W Ratio	Saturation of Pore Space % Oil	% Water	Tot. Liq.	Character of Sample
10193	10.2	33	.70	22.8	32.5	55.3	Sd-C-Fb-(Hl-c)
10202	14.6	6.3	.18	9.6	52.2	61.8	Sd-F-(Hl-c)
04	9.4	12	.17	9.5	57.0	66.5	Sd-M,C-(Hl-c)
06	3.7	3.8	.90	45.1	49.9	95.0	Sd-M,C-Fb-(Hl-c)
22	8.7	4.5	.34	15.5	45.5	61.0	Sd-M,C-(Hl-c)
29	7.9	6.3	.18	9.5	52.6	62.1	Sd-M,C-(Hl-c)
33	8.8	8.0	.39	18.3	47.0	65.3	Sd-C-Fb-(Hl-c)
35	9.2	15	.50	20.8	41.7	62.5	Sd-M,C-Fb-(Hl-c)
36	8.4	11	.42	19.4	46.6	66.0	Sd-M-Fb-(Hl-c)
46	9.2	29	.42	18.3	44.0	62.3	Sd-M,C-(Hl-c)
48	10.4	13	.54	21.6	40.0	61.6	Sd-M,C-Fb-(Hl-c)
54	10.4	5.1	.37	15.5	40.6	56.1	"
56	9.4	13	.15	6.9	45.4	52.3	"
65	7.9	6.1	.22	11.9	53.6	65.5	"
67	5.0	24	.24	13.3	54.6	67.9	"
80	13.3	33	1.10	28.5	26.0	54.5	Sd-M-(Hl-c)
87	13.3	24	1.03	30.0	29.2	59.2	Sd-M,F(Hl-c)
89	8.9	1.2	.25	12.5	51.0	63.5	Sd-M,F-(Hl-c)
10321	8.4	10	.40	19.5	49.1	68.6	Sd-M,C-Fb-(Hl-c)
23	8.2	93	.55	25.0	45.7	70.7	Sd-M,C-Fb-(Hl-c)
25	10.7	3.1	.34	16.1	47.5	63.6	Sd-M-(Hl-c)
27	7.0	31	.24	13.6	56.9	70.5	Sd-M,C-Fb-(Hl-c)
29	8.1	43	.45	22.1	48.6	70.7	Sd-M,C-Fb-(Hl-c)
31	10.8	3.6	.37	14.5	39.5	54.0	Sd-M,C-(Hl-c)
33	12.8	17	.61	25.9	42.1	68.0	Sd-M-(Hl-c)
35	12.4	22	.53	22.2	41.6	63.8	Sd-M,F-(Hl-c)
38	13.5	103	.86	29.4	34.2	63.6	Sd-M,C-(Hl-c)
41	10.5	1.8	.24	10.5	43.9	54.4	Sd-M,F-(Hl-c)
43	13.9	4.7	.29	9.3	32.4	41.7	Sd-M,C-(Hl-c)
45	13.4	5.8	.48	17.2	36.1	53.3	Sd-M,F-(Hl-c)
47	11.9	1.7	.16	6.6	41.0	47.6	Sd-M-(Hl-c)
48	14.9	12	.82	27.6	33.7	61.3	Sd-F-(Hl-c)
50	11.1	1.7	.36	13.5	37.5	51.0	Sd-F-(Hl-c)
52	9.2	5.0	.41	17.4	41.9	59.3	Sd-M-Fb-(Hl-c)
61	12.4	1.5	.25	12.7	51.8	64.5	Sd-F-(Hl-c)
77	9.4	3.5	.79	36.7	46.6	83.3	Sd-M,C-(Hl-c)
79	8.6	18	.19	8.6	45.1	53.7	Sd-C-(Hl-c)
81	9.4	2.9	.30	15.5	51.5	67.0	Sd-C-(Hl-c)
83	10.3	3.4	.42	18.0	42.9	60.9	Sd-C-Fb-(Hl-c)
85	13.7	2.3	.34	15.7	45.9	61.6	Sd-F-(Hl-c)
920	10.4	.5	.14	8.5	62.0	70.5	Sd-M,C-(Hl-c)
930	9.8	1.9	.21	12.1	56.5	68.6	Sd-M,C-(Hl-c)
95	11.1	2.6	.19	10.0	52.5	63.5	Sd-M,C-(Hl-c)

Mr. Oran Graybeal
Sunray Oil Corporation

June 11, 1951
Well: NCW 5-5

CORE ANALYSIS REPORT - (Continued)

Depth	% Porosity	md. Air Permeability	O/W Ratio	Saturation of Pore Space % Oil	% Water	Tot. Liq.	Character of Sample
10398	7.9	16	.54	29.0	53.6	82.6	Sd-M,C-(Hi-c)
10402	11.1	5.0	.27	13.5	49.6	63.1	Sd-M,F-(Hi-c)
04	9.9	3.4	.26	12.6	53.1	65.7	Sd-M,F-(Hi-c)
06	13.8	4.7	.33	14.3	42.9	57.2	Sd-M-(Hi-c)
06A	13.5	17	.36	14.9	41.1	56.0	Sd-M-(Hi-c)
08	11.5	16	.25	11.6	45.5	57.1	Sd-M,F-(Hi-c)
10	10.8	9.3	.32	15.7	49.0	64.7	Sd-M,C-(Hi-c)
12	7.9	11	.22	12.2	55.6	67.8	Sd-M,C-Pb-(Hi-c)
14@	4.3	.9	.24	13.9	58.0	71.9	Sd-M,C-(Hi-c)
16	10.2	6.9	.26	11.4	43.1	54.5	Sd-M-Pb-(Hi-c)
18	12.0	24	.55	19.4	35.4	54.8	Sd-M,C-(Mi-c)
20	13.3	121	.75	24.4	32.5	56.9	Sd-M,C-(Hi-c)
22	5.4	1.4	.61	19.4	31.9	51.3	Sd-M,C-Pb-(Hi-c)
30	12.1	6.5	.23	8.7	37.6	46.3	Sd-M,C-(Hi-c)
32	8.9	22	.27	12.1	45.5	57.6	Sd-M,C-(Hi-c)
54	17.0	23	.18	7.7	43.3	51.0	Sd-F-(Hi-c)
64	16.8	81	.25	11.2	44.0	55.2	"
66	16.6	95	.22	10.1	45.2	55.3	"
67	16.2	45	.18	10.6	57.6	58.2	"
69	13.0	46	.15	8.9	59.3	68.2	Sd-F,M-(Hi-c)
71	18.6	237	.32	13.6	42.5	56.2	Sd-M-(Hi-c)
73	12.0	30	.17	10.7	64.4	75.1	Sd-M,F-(Hi-c)
81	16.4	9.4	.26	13.6	52.0	75.6	"
83	11.9	9.5	.06	4.2	70.0	74.2	Sd-M,C-(Hi-c)
85	9.3	50	.17	10.1	58.6	68.7	Sd-C-Pb-(Hi-c)
87	8.0	7.4	.73	14.5	61.9	78.4	Sd-C-St.Sh.-(Hi-c)
89	8.8	9.8	.15	8.9	59.6	68.5	Sd-C-Pb-(Hi-c)
91@	21.6	14	.03	1.7	53.1	54.8	Sd-F,M-(Hi-c)
97@	12.1	5.7	.07	5.0	71.3	76.3	Sd-F,M-(Hi-c)
10506	9.6	4.5	.10	7.1	71.5	78.6	Sd-F-(Hi-c)
08@	9.2	24	.12	8.2	68.5	76.7	Sd-M-(Hi-c)
10@	12.1	15	.03	2.0	62.6	64.6	Sd-F-(Hi-c)
14@	15.4	21	.01	.7	63.6	64.3	Sd-F-(Hi-c)
20@	10.3	6.7	0	0	76.9	76.9	Sd-F-(Hi-c)
22@	14.1	312	0	0	47.3	47.3	Sd-F,M-(Hi-c)
24@	14.2	33	0	0	47.6	47.6	Sd-F-(Hi-c)

Sd - Sand
Sh - Shale
Co - Conglomerate
F - Fine Grain
M - Medium Grain
C - Coarse Grain

Pb - Pebble
Pkr - Poker Chip
Lam - Laminated
(Lo-c) - Low cementation
(Mi-c) - Medium cementation
(Hi-c) - High cementation

St - Streaks

037-12617

DIVISION OF OIL AND GAS
RECEIVED
JAN 2 1978
SANTA PAULA, CALIFORNIA

93-4-17

PETROLEUM TECHNOLOGISTS, INC.
868 Truckway
Montebello, California
UNion 1-5338

June 11, 1951

Mr. Oran Graybeal
Sunray Oil Corporation
(Barnsdall Division)
714 West Olympic
Los Angeles 15, California

Field: Newhall-Potrero
Well: NCW 5-5
Oil: 26° API
Name: Ken Oil Co.

CORE ANALYSIS REPORT

Depth	% Porosity	md. Air Permeability	O/W Ratio	Saturation of Pore Space % Oil	% Water	Tot. Liq.	Character of Sample
9972	12.3	4.2	.52	17.5	33.6	51.1	Sd-M-(Hl-c)
73	8.3	3.3	.29	12.3	43.1	55.4	Sd-C-Pb-(Hl-c)
88	7.0	9.6	.47	19.3	40.9	60.2	Sd-C-Pb-(Hl-c)
10039	15.0	27	1.00	32.3	32.3	64.6	Sd-F-(Hl-c)
41	15.5	71	.92	29.3	31.8	61.1	Sd-F-(Hl-c)
42	8.6	3.9	.62	24.8	40.1	64.9	Sd-C-Pb-(Hl-c)
44	12.7	41	1.15	31.2	27.0	58.2	Sd-M-Pb-(Hl-c)
62	9.7	85	.50	18.3	36.6	54.9	Sd-C-Pb-(Hl-c)
64	9.7	.7	.37	16.4	44.2	60.6	Sd-F-(Hl-c)
82	9.4	3.6	.30	14.5	49.0	63.5	Sd-F,M,C,Pb-(Hl-c)
84	13.8	10	.90	29.5	32.7	62.2	Sd-F-(Hl-c)
92	11.5	2.0	.31	13.3	43.4	56.7	Sd-M-(Hl-c)
93	10.0	8.1	.31	13.5	43.7	57.2	Sd-M,C-(Hl-c)
95	13.0	2.6	.28	12.4	44.7	57.1	Sd-M-(Hl-c)
10109	10.3	1.1	.24	11.0	45.9	56.9	Sd-M,C-(Hl-c)
10	10.5	9.4	.10	6.0	58.0	64.0	Sd-M-(Hl-c)
21	10.3	16	.16	10.8	69.6	70.4	Sd-C-Pb-Hl-c)
35	14.1	.4	.05	3.1	60.5	63.6	Sd-F-(Hl-c)
46	10.0	.4	.22	11.9	54.7	66.6	Sd-F-(Hl-c)
52	13.0	5.0	.23	10.7	46.0	56.7	Sd-M,C-(Hl-c)
54	11.5	2.3	.11	6.0	56.0	62.0	Sd-M,C-(Hl-c)
56	18.0	189	.33	7.9	23.7	31.6	Sd-F-(Hl-c)
* 58	13.5	31	.58	23.7	41.0	64.7	Sd-F-Sh.St.-(Hl-c)
64	10.9	31	1.36	39.6	29.1	68.7	Sd-C-(Hl-c)
66	10.8	28	.90	28.0	31.2	59.2	Sd-C-(Hl-c)
68	15.0	62	1.33	30.6	23.0	53.6	Sd-M-(Hl-c)
70	5.5	5.3	.39	18.3	46.4	64.7	Sd-C-Pb(Hl-c)
72	12.2	11	.81	26.6	32.8	59.4	Sd-M-(Hl-c)
74	10.5	13	.56	25.2	45.0	70.2	Sd-M-St.Sh.-(Hl-c)
76	10.9	13	.53	20.2	38.0	58.2	Sd-M,C-(Hl-c)
79	13.8	27	.89	29.0	32.5	61.5	Sd-M-(Hl-c)
81	10.8	26	.70	28.2	40.0	68.2	Sd-M,C-(Hl-c)
83	7.5	57	.24	11.4	46.6	58.0	Sd-C-Pb-(Hl-c)
85	14.6	88	1.29	39.0	30.2	69.2	Sd-M-(Hl-c)
87	13.8	21	.70	24.8	35.4	60.2	Sd-F-(Hl-c)
91	9.4	50	.59	24.1	40.7	64.8	Sd-C-Pb-(Hl-c)
* 62	11.5	38	1.18	34.6	29.2	63.8	Sd-F,M,C-(Hl-c)

PETROLEUM TECHNOLOGISTS, INC.

Mr. Oran Graybeal
Sunray Oil Corporation

June 11, 1951
Well: NCM 5-5

CORE ANALYSIS REPORT - (Continued)

Depth	Salinity - NaCl	
	ppm	grs
10503	5600	326
05[illegible]	4400	256
[illegible]	4500	262
[illegible]	6000	348
[illegible]	6200	360
[illegible]	5520	320
[illegible]	7010	408

Norris Johnston

CENTRAL FILE

PETROLEUM TECHNOLOGISTS, INC.
663 Truckway
Montebello, California
Union 1-5538

Mr. Oren Graybeal
Sunray Oil Corporation
(Barnsdall Division)
714 West Olympic
Los Angeles 15, Calif.

Field: Newhall-Potrero
Well: ECW 5-5
Oil: 28° API
Mud: Ken Oil

CORE ANALYSIS REPORT

Depth	Salinity, NaCl ECW	KMC
20156	16,600	970
165	8,600	500
323	14,700	860
338	13,700	800
420	12,000	700
472	10,900	640

Norris Johnston

Norris Johnston

CENTRAL
FILE

N. C. W. #5-5

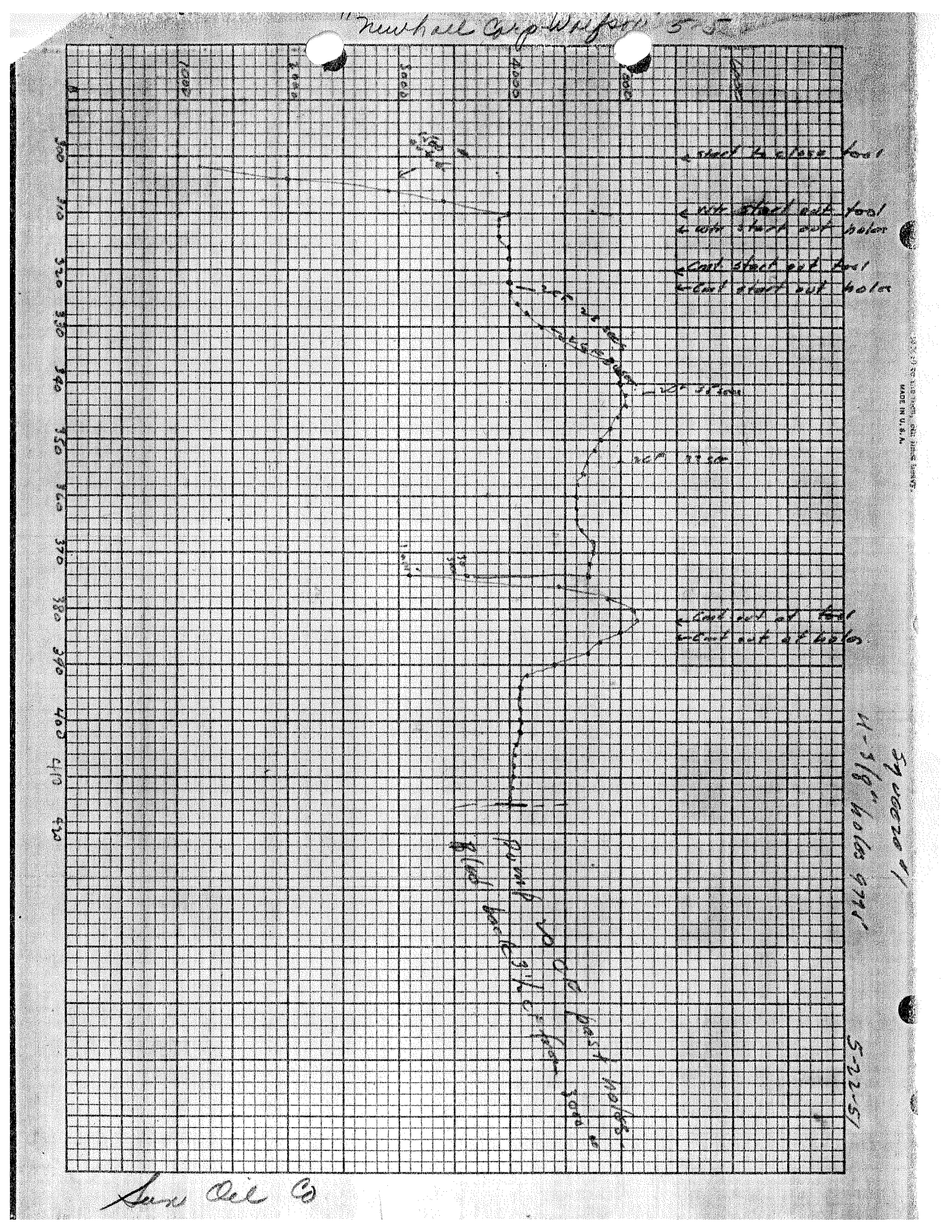
DRILLING BREAKS

-0-	- 2050'	Sandstone
2050'	- 6350'	Shale
6350'	- 6550'	Sand
6550'	- 7100'	Shale
7100'	- 8300'	Sand with streaks of shale
8300'	- 9900'	Shale
9900'	- 10600'	5th Zone

N. C. W. #5-5

Mar. 7, 1951

RSJ:rds


Newhall Corp-Wright 5-T
Start to case leak
Well start gas leak
& water & then oil & water
Coil start oil leak
& Coil start oil & water
Coil start oil leak
& Coil start oil & water
Leak Detail
Leak Detail
Leak Detail

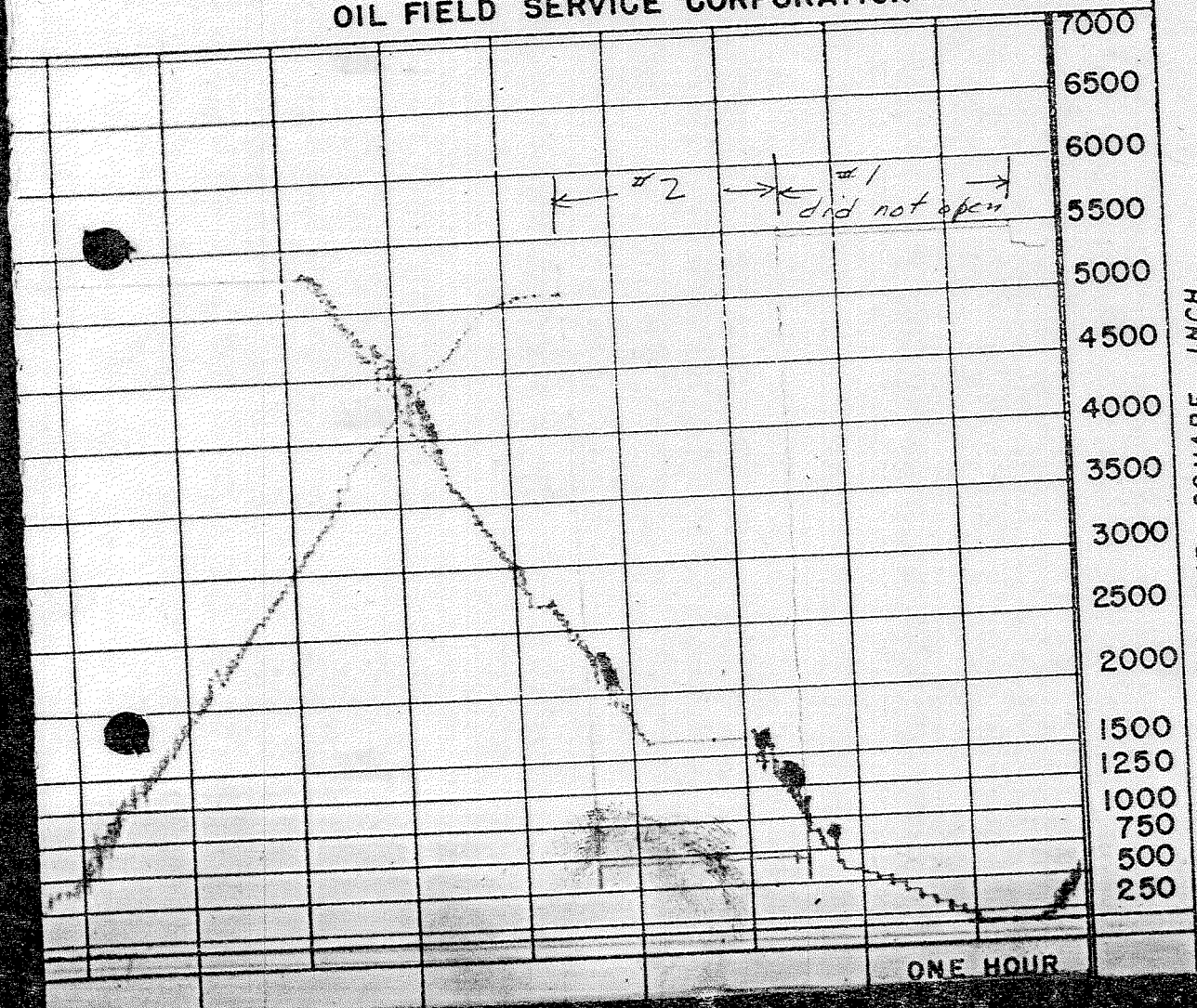
10 x 10 to the inch, 5th inch heavy
MADE IN U.S.A.

Squeeze Job #2
4-3/8" holes 4775'

5/22/51

Lane Oil Co
Turnbull Corp - Wildcat

M.O. JOHNSTON
OIL FIELD SERVICE CORPORATION



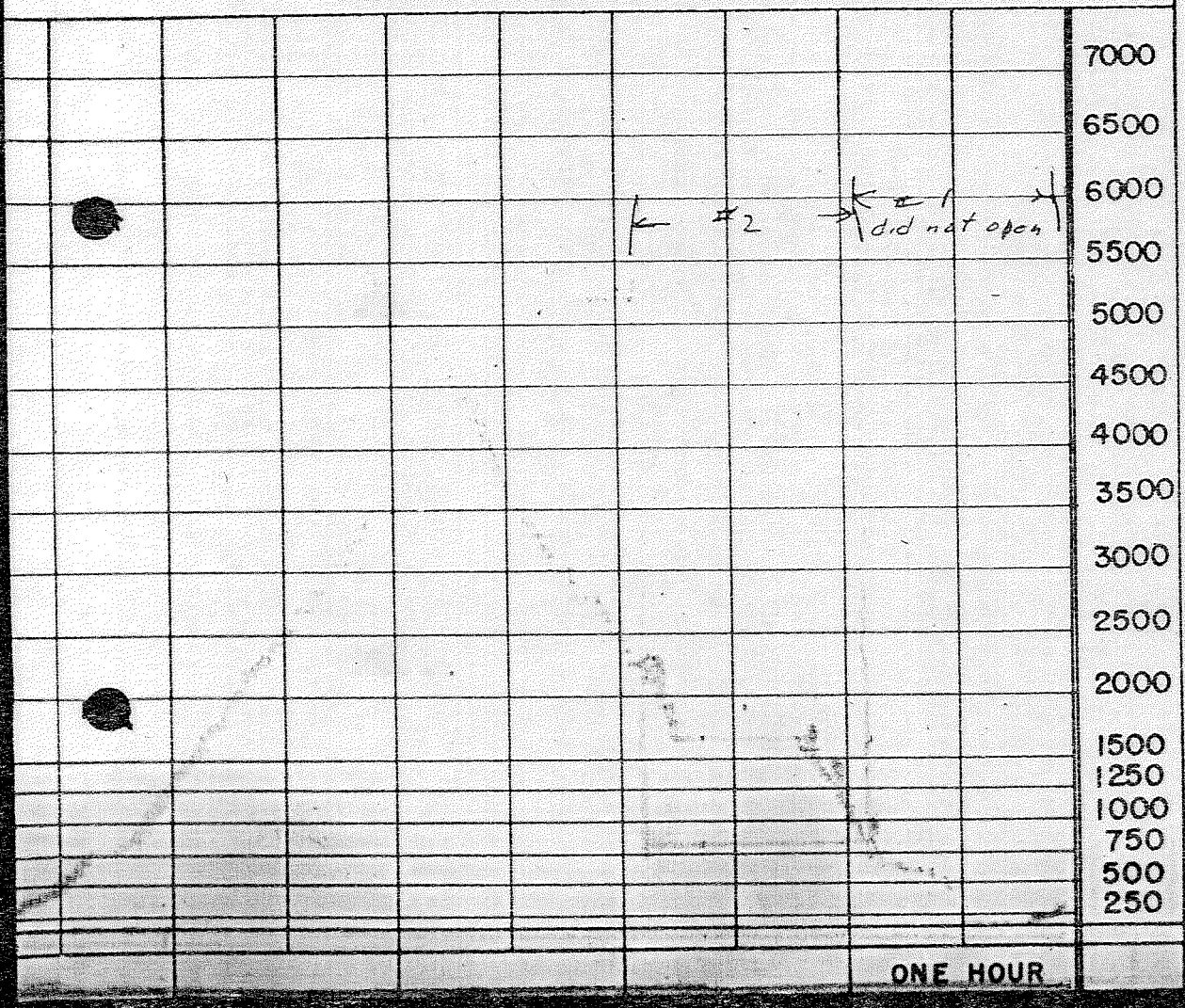
7000
6500
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500
1250
1000
750
500
250
0

POUNDS PER SQUARE INCH

DATE 5-2
COMPANY Sun Oil Co.
LEASE NCW WE. 5-5
LOCATION
HOLE OPEN TO 9785
PACKER SET AT 9731
Tail 9748
FLUID RISE 250' in DP
FLOW PERIOD 1 hour *
SHUT-IN PERIOD —
FLUID CUSHION 1200 Water
BEAN SIZE 1/2"
TEMPERATURE 210°
RECORDER NO. 389
TICKET NO.

* Tester did not open during 1st hour. — Re-set

M.O. JOHNSTON
OIL FIELD SERVICE CORPORATION



DATE 5-24-51
COMPANY ~~Ohio Oil Co.~~ Texaco
LEASE NCW WELL 5-5
LOCATION
HOLE OPEN TO 9785
Tail 9748
PACKER SET AT 9731
FLUID RISE 750' ± (mud)
FLOW PERIOD 1 hour *
SHUT-IN PERIOD —
FLUID CUSHION 1200' water
BEAN SIZE 1/2"
TEMPERATURE 210°
RECORDER NO. 390
TICKET NO.

* Tester did not open during 1st hour. Re-set

VOLT[illegible] PROFILE SERVICE DATA [illegible]ET

Lane-Wells Company Page 1

District L.A. Operating Base Ventura Date 5-28-56 S.O.# 24809
Truck N° 286 Operator Damkier Helper Keith - Adams
Customer Sunray Mid - Cont. Oil Co. Authorised Agent Mr. Elliott
Name of Well N.C.W. N° 5 - 5 Field Newhall - Potrero
County Los Angeles State California
Job Scheduled 7:30AM 5-28-56 Arrived at Location 7:30AM 5-28-56
On Job 7:30AM 5-28-56 Off Job 4:30PM 5-28-56
Total Depth 9600 Feet Total Stations 190 Total Hours 9

Reading N°	Depth in Feet	Potential Between Knives MICROVOLTS	Potential to ground MILLIVOLTS	Contact Resistance (in Ohms)	Native State Run Remarks
1	1000	- 94		335	7:30AM Rigging up and testing out tool
2	2000	- 70		335	
3	30000	- 88		335	
4	4000	+ 120		335	8:30AM Start in hol taking 1000' reading Using 7" 29#-38# knives
5	5000	+ 136		340	
6	6000	+ 93		340	
7	7000	+ 70		340	
8	8000	+ 62		340	
9	9000	+ 22.5		345	
10	9600	+ 25		360	10:20AM At deepest reading. Let knives cool for 10 minutes
11	9600	+ 25		360	
12	9500	+ 26		360	10:30AM Start out taking 100' readings
13	9400	+ 27		360	
14	9300	+ 27		360	Water button read- ing at 9600' was 850,000 Ohms
15	9200	+ 29		350	
16	9100	+ 30		350	
17	9000	+ 31		360	
18	8900	+ 35		360	
19	8800	+ 44		360	
20	8700	+ 50		360	
21	8600	+ 54		360	
22	8500	+ 64		360	
23	8400	+ 74		360	
24	8300	+ 96		360	

Date 5-28-56 S.O.# 24909 Page 2

Customer Sunray Mid-Cont. Oil Co. Name of Well [redacted] C.W. No 5-5

Truck No 286 Operator Damkier Field Newhall-Potrero

Reading No	Depth in Feet	Potential Between Knives MICROVOLTS	Potential to ground MILLIVOLTS	(In Ohms) Contact Resistance	Native State Run Remarks
25	8200	+ 104		360	
26	8100	+ 84		360	
27	8000	+ 82		360	
28	7900	+ 82		360	
29	7800	+ 78		360	
30	7700	+ 78		360	
31	7600	+ 78		360	
32	7500	+ 74		360	
33	7400	+ 78		360	
34	7300	+ 74		350	
35	7200	+ 80		350	
36	7100	+ 84		350	
37	7000	+ 78		350	
38	6900	+ 78		350	
39	6800	+ 104		350	
40	6750	+ 84		350	
41	6700	+ 86		350	
42	6800	+ 94		350	Did not plot
43	6600	+ 80		350	
44	6500	+ 104		350	Start 50' readings
45	6550	+ 82		350	
46	6500	+ 112		350	Did not plot.
47	6450	+ 128		350	
48	6400	+ 88		350	
49	6350	+ 104		350	
50	6300	+ 108		350	
51	6250	+ 104		350	
52	6200	+ 108		350	
53	6150	+ 104		350	
54	6100	+ 112		350	
55	6050	+ 112		350	
56	6000	+ 116		350	
57	5950	+ 112		350	
58	5900	+ 92		350	
59	5850	+ 104		350	
60	5800	+ 90		350	

Date 5-28-56 S.O.# 24909 Page 3

Customer Sunray Mid-Cont. Oil Co. Name of Well C.W. Nº 5-5

Truck Nº 286 Operator Damkier Field Newhall - Potrero

Reading Nº	Depth in Feet	Potential Between Knives MICROVOLTS	Potential to ground MILLIVOLTS	(In Ohms) Contact Resistance	Native State Run Remarks
61	5750	+ 96		350	
62	5700	+ 90		350	
63	5650	+ 96		350	
64	5600	+ 100		350	
65	5550	+ 96		350	
66	5500	+ 100		350	
67	5450	+ 98		350	
68	5400	+ 104		350	
69	5350	+ 108		345	
70	5325	+ 152		345	Start 25' readings
71	5300	+ 172		345	
72	5275	+ 128		345	
73	5250	+ 134		345	
74	5225	+ 134		345	
75	5200	+ 140		345	
76	5175	+ 152		345	
77	5150	+ 160		345	
78	5125	+ 164		345	
79	5100	+ 160		345	
80	5075	+ 164		345	
81	5050	+ 164		345	
82	5025	+ 164		345	
83	5000	+ 164		345	
84	4975	+ 164		345	
85	4950	+ 168		345	
86	4925	+ 168		345	
87	4900	+ 172		350	
88	4875	+ 172		345	
89	4850	+ 168		345	
90	4825	+ 168		345	
91	4800	+ 168		345	
92	4775	+ 176		345	No. #96
93	4750	+ 176		345	
94	4725	+ 176		345	
95	4700	+ 176		345	

Date 5-28-56 S.O.# 24909 Page 4

Customer Sunray Mid-Cont. Oil Co. Name of Well N.C.N. Nº 5-5

Truck Nº 286 Operator Damkier Field Newhall-Potrero

Reading Nº	Depth in Feet	Potential Between Knives MICROVOLTS	Potential to ground MILLIVOLTS	(In Ohms) Contact Resistance	Native State Run Remarks
97	4600	+ 176		345	
98	4550	+ 144		345	
99	4500	+ 140		345	
100	4450	+ 132		345	
101	4400	+ 152		345	
102	4350	+ 152		345	
103	4300	+ 148		345	
104	4250	+ 148		345	
105	4200	+ 140		345	
106	4150	+ 132		345	
107	4100	+ 120		345	
108	4050	+ 128		345	
109	4000	+ 148		345	
110	3950	+ 140		345	
111	3900	+ 140		345	
112	3850	+ 136		345	
113	3800	+ 148		345	
114	3750	+ 108		345	
115	3700	+ 108		345	
116	3650	+ 92		345	
117	3600	+ 80		345	
118	3550	+ 46		345	
119	3575	+ 84		345	Start 25' readings
120	3550	+ 60		345	
121	3525	+ 32		345	
122	3500	+ 29		345	
123	3475	+ 39		345	
124	3450	+ 16		340	
125	3425	+ 5		340	
126	3400	- 11		340	
127	3375	- 10		340	
128	3350	- 26		340	
129	3325	- 27		340	
130	3300	- 25		340	
131	3275	- 20		340	
132	3250	- 25		340	

Date 5-28-56 S.O.# 24909 Page 5

Customer Sunray Mid-Cont. Oil Co. Name of Well [redacted] G.U. No. 6-F

Truck No 286 Operator Dunkier Field Kewanee-Fontana

Reading No	Depth in Feet	Potential Between Knives MICROVOLTS	Potential to ground MILLIVOLTS	(In Ohms) Contact Resistance	Native State Run Remarks
133	3235	- 17		340	
134	3200	- 46		340	
135	3175	- 60		340	
136	3150	- 60		340	
137	3125	- 36		340	
138	3100	- 60		340	
139	3075	- 42		340	
140	3050	- 36		340	
141	3025	- 58		340	
142	3000	- 68		340	
143	2950	- 78		340	Start Sub-Sea Run
144	2900	- 56		340	
145	2850	- 70		340	
146	2800	- 52		340	
147	2750	-94		340	
148	2700	- 74		340	
149	2650	- 86		340	
150	2600	- 96		340	
151	2550	- 78		340	
152	2500	- 72		340	
153	2450	- 72		340	
154	2400	- 72		340	
155	2350	- 58		340	
156	2300	- 88		340	
157	2250	- 70		340	
158	2200	- 84		340	
159	2150	- 64		340	
160	2100	- 96		340	
161	2050	- 70		340	
162	2000	- 92		340	
163	1950	- 94		340	
164	1900	- 58		340	
165	1850	- 104		340	
166	1800	- 96		340	
167	1750	- 104		340	
168	1700	- 92		340	

Date 5-28-56 S.O.# 24909 Page 6

Customer Sunray Mid-Cont. Oil Co. Name of Well C.W. No 5-5

Truck No 286 Operator Damkier Field Newhall - Potrero

Reading No	Depth in Feet	Potential Between Knives MICROVOLTS	Potential to ground MILLIVOLTS	(In Ohms) Contact Resistance	Native State Run Remarks
169	1650	- 100		340	
170	1600	- 80		340	
171	1550	- 78		340	
172	1500	- 86		340	
173	1450	- 100		340	
174	1400	- 80		340	
175	1300	- 90		340	Start 100'readings
176	1200	- 88		340	
177	1100	- 72		340	
178	1000	- 84		340	
179	900	- 94		340	
180	800	- 82		340	
181	700	-68		340	
182	600	- 48		340	
183	550	- 39		340	Start 50'readings
184	500	- 38		340	
185	450	- 7		340	
186	400	- 17		340	
187	350	- 18		340	
188	300	- 12		340	Start 100'readings
189	200	- 2		340	
190	100	+ 6		340	4:05PM Out of hole rigging down.

FORM 109-A (10-48)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(FORMATION TESTER)

No. T 1-52990

Los Angeles 15 Calif. June 8 19 51

Mr. R E Foss
Los Angeles 15 Calif.
Agent for SUNRAY OIL CORPORATION

DEAR SIR:

Your well No. "Newhall Corp.-Wolfson" 5-5, Sec. 25, T. 4 N, R. 17 W, S B B & M. Newhall-Potrero Field, in Los Angeles County, was tested for water shut-off on May 24, 19 51. Mr. J L White, Inspector, designated by the supervisor, was present as prescribed in Secs. 3222 and 3223, Ch. 93, Stat. 1939; there were also present F H Preboda, Superintendent, and H Stanier, Engineer

Shut-off data: 7 in. 23, 25, 29 and 32-lb. casing was re-cemented through perforations at 9775 ft. on May 22, 19 51 in 11 in. hole with 92 sacks of cement of which xx sacks was left in casing.

Casing record of well: 13-3/8" cem. 448'; 7" cem. 9800', c.p. 9775'; 4 3/8" test holes 9777', W.S.O.

Present depth 9963 ft. Bridged with cement from 9800 ft. to 9785 ft. Cleaned out to 9785 ft. for test. A pressure of xx lb. was applied to the inside of casing for xx min. without loss after cleaning out to xx ft. A Johnston tester was run into the hole on 3½ in. drill pipe-tubing, with 1200 ft. of water-~~mud~~ cushion, and packer set at 9731 ft. with tailpiece to 9748 ft. Tester valve, with ½ in. bean, was opened at 7:08 a. m. and remained open for 1 hr. and xx min. During this interval there were two light puffs, a light steady blow for ½ minute, and no blow thereafter.

INSPECTOR N. N. SAMPSON VISITED THE WELL FROM 6:00 TO 7:30 P. M., MAY 21, 1951, AND MR. STANIER REPORTED

1. An 11" rotary hole was drilled from 448' to 9963'.
2. On May 18, 1951, 7", 23, 26, 29, and 32, lb. casing was cemented at 9800' with 600 sacks of cement.
3. Cement was drilled out of the 7" casing from 9704' to 9785 ' (equivalent to 15 sacks), and the hole was cleaned out to 9785'.
4. The 7" casing was shot-perforated with 4, ½" holes at 9775'.
5. A Johnston tester was run into the hole on 3½" drill pipe and packer set at 9733'.
6. The tester valve was opened at 3:35 p. m. and remained open for 1 hr. During this interval, there was a light blow for 5 min., a weak blow for 2 min., no blow for 15 min., and a faint, heading blow for the remainder of the test.

THE INSPECTOR NOTED

1. When the drill pipe was removed, 1100'(net) of very gassy, thin drilling fluid was found in the drill pipe above the tester, equivalent to 8.2 bbl.
2. The recording pressure bomb chart showed that the tester valve was open 1 hr.

THE OPERATOR DECIDED TO RECEMENT.

INSPECTOR J. L. WHITE ARRIVED AT THE WELL AT 10:45 A. M., MAY 24, 1951, AND MR. STANIER REPORTED

1. On May 22, 1951, the 7" casing was recemented through perforations at 9775' with 125 sacks of cement of which 92 sacks was squeezed away under a final pressure of 4100 lb.
2. The 7" casing was shot-perforated with 4, 3/8" holes at 9777'.
3. A Johnston tester was run as noted above.

THE INSPECTOR NOTED

1. When the drill pipe was removed, 250' (net) of medium drilling fluid was found in the drill pipe above the tester.

R. D. BUSH, State Oil and Gas Supervisor

By (CONTINUED ON PAGE 2), Deputy

FORM 109-X
16328 10-49 8500 SPO

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
OR
Special Report on Operations Witnessed

No. T 1-52990

Page 2

SUNRAY OIL CORPORATION

Well No. "Newhall Corp.-Wolfson" 5-5, Sec. 25, T. 4 N, R. 17 W, S B B. & M.,

2. The recording pressure bomb chart showed that the tester valve was open 1 hr.

The test was completed at 11:45 a. m.

THE WATER SHUT-OFF ABOVE THE PERFORATIONS AT 9777' IS APPROVED.

JEW:my
cc - Company

R. D. BUSH
State Oil and Gas Supervisor

By _____ Deputy

FORM 109-D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-52593

Los Angeles 15, Calif. March 22, 1951

Mr. R. K. Foss
Los Angeles 15, Calif.
Agent for SUNRAY OIL CORPORATION

DEAR SIR: "Newhall Corp.-Wolfson"

Operations at your well No. 5-5 Sec. 25, T. 4 N., R. 17 W., S.B. B. & M.,
Newhall-Potrero Field, in Los Angeles County, were witnessed by
M. N. Sampson, Inspector, representative of the supervisor,
on March 13, 1951. There was also present C. Fylling, Driller;
J. Schnider, Helper.

Casing Record 13-3/8" cem. 44ug'. T.D. 3125'. | Junk None

The operations were performed for the purpose of inspecting blowout prevention equipment and installation.

The inspector arrived at the well at 12:10 p.m. and Mr. Fylling reported:

1. A 17" rotary hole was drilled from the surface to 44ug'.
2. On March 6, 1951, 13-3/8", 48 lb. casing was cemented at 44ug' with 300 sacks of cemen
3. Cement returned to the surface.
4. An 11" rotary hole was drilled from 44ug' to 3125'.

THE INSPECTOR NOTED THAT THE WELL WAS EQUIPPED WITH THE FOLLOWING BLOWOUT PREVENTION EQUIPMENT:

1. A Shaffer double cellar control gate for closing in the well with the drill pipe out of the hole, and for closing around the 4-1/2" drill pipe.
2. The controls for the above equipment were located outside the derrick.
3. A 2" mud fill-up line with a 2" high pressure stopcock into the 13-3/8" casing below the above equipment.

The inspection was completed at 12:45 p.m.

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

NNS:OH

cc- Company

R. D. BUSH
State Oil and Gas Supervisor

By [signature] Deputy

16930 10-49 17,500 ② SPO

FORM 109-A (10-48)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(FORMATION TESTER)

No. T 1-52990

Los Angeles 15 Calif. June 8 19 51

Mr. R E Foss
Los Angeles 15 Calif.
Agent for SUNRAY OIL CORPORATION

DEAR SIR:

Your well No. "Newhall Corp.-Wolfson" 5-5, Sec. 25, T. 4 N, R. 17 W, S B B & M. Newhall-Potrero Field, in Los Angeles County, was tested for water shut-off on May 24, 19 51. Mr. J L White, Inspector, designated by the supervisor, was present as prescribed in Secs. 3222 and 3223, Ch. 93, Stat. 1939; there were also present T H Prehoda, Superintendent, and H Stanier, Engineer

Shut-off data: 7 in. 23, 26, 29 and 32-lb. re- casing was cemented through perforations at 9775 ft. on May 22, 19 51 in 11 in. hole with 92 sacks of cement of which xx sacks was left in casing.

Casing record of well: 13-3/8" cem. 448'; 7" cem. 9800', c.p. 9775'; 4.3/8" test holes 9777', W.S.O.

Present depth 9963 ft. Bridged with cement from 9800 ft. to 9785 ft. Cleaned out to 9785 ft. for test. A pressure of xx lb. was applied to the inside of casing for xx min. without loss after cleaning out to xx ft. A Johnston tester was run into the hole on 3½ in. drill pipe-tubing, with 1200 ft. of water ~~mud~~ cushion, and packer set at 9731 ft. with tailpiece to 9748 ft. Tester valve, with ¾ in. bean, was opened at 7:08 a. m. and remained open for 1 hr. and xx min. During this interval there were two light puffs, a light steady blow for ½ minute, and no blow thereafter.

INSPECTOR E. N. SAMPSON VISITED THE WELL FROM 6:00 TO 7:30 P. M., MAY 21, 1951, AND MR. STANIER REPORTED

1. An 11" rotary hole was drilled from 448' to 9963'.
2. On May 18, 1951, 7", 23, 26, 29, and 32, lb. casing was cemented at 9800' with 600 sacks of cement.
3. Cement was drilled out of the 7" casing from 9704' to 9785 ' (equivalent to 15 sacks), and the hole was cleaned out to 9785'.
4. The 7" casing was shot-perforated with 4, ½" holes at 9775'.
5. A Johnston tester was run into the hole on 3½" drill pipe and packer set at 9733'.
6. The tester valve was opened at 3:35 p. m. and remained open for 1 hr. During this interval, there was a light blow for 5 min., a weak blow for 2 min., no blow for 15 min., and a faint, heading blow for the remainder of the test.

THE INSPECTOR NOTED

1. When the drill pipe was removed, 1100'(net) of very gassy, thin drilling fluid was found in the drill pipe above the tester, equivalent to 8.2 bbl.
2. The recording pressure bomb chart showed that the tester valve was open 1 hr.

THE OPERATOR DECIDED TO RECEMENT.

INSPECTOR J. L. WHITE ARRIVED AT THE WELL AT 10:45 A. M., MAY 24, 1951, AND MR. STANIER REPORTED

1. On May 22, 1951, the 7" casing was recemented through perforations at 9775' with 125 sacks of cement of which 92 sacks was squeezed away under a final pressure of 4100 lb.
2. The 7" casing was shot-perforated with 4, 3/8" holes at 9777'.
3. A Johnston tester was run as noted above.

THE INSPECTOR NOTED

1. When the drill pipe was removed, 250' (net) of medium drilling fluid was found in the drill pipe above the tester.

9777
11 3/8"
@ 448

R. D. BUSH, State Oil and Gas Supervisor

By (CONTINUED ON PAGE 2), Deputy

ORM 111 (1-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

No. P 1-49618

Los Angeles 15, Calif. March 14, 19 51

Mr. R. E. Foss

Los Angeles 15, Calif.

Agent for SUNRAY OIL CORPORATION

Dear Sir:

Your proposal to drill Well No. "Newhall Corp.-Wolfson" 5-5,

Section 25, T. 4 N., R. 17 W., S.B. B. & M., Newhall-Potrero Field, Los Angeles County,

dated March 1, 1951, received March 6, 19 51, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:

"The well is 6167.03 feet S. and 1293.19 feet E. from Corner "J"
The elevation of the conc. mat above sea level is 1,424.56 feet.
We estimate that the first productive oil or gas sand should be encountered at a depth of about 10,000 feet.
(All depth measurements taken from top of Kelly Bushing which is 13.30 ' above ground)"

PROPOSAL:

"We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing	Weight	Grade and Type	Depth	Landed or Cemented
13-3/8"	54.5#	J-55, Smls.	450	Cemented
7"	23, 26, 29, 32#	J-55, N-80, Smls.	10,000	"
5-1/2"	17#	J-55, Smls.	10,650	Landed

Well is to be drilled with rotary tools.
It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT

1. Blowout prevention equipment, sufficient to provide a complete close-in of the well under pressure at any time, shall be installed and approved by this division.
2. Any hole to be sidetracked in any oil or gas zone shall be filled with cement, if possible.
3. THIS DIVISION SHALL BE NOTIFIED AS FOLLOWS:
   (a) To inspect the installed blowout prevention equipment before drilling below 1500'.
   (b) To witness a test of the effectiveness of the 7" shut-off.

ERMA:OH

cc- Company

B/Fv

R. D. BUSH
State Oil and Gas Supervisor

By E. A. Mussen Deputy

28489 6-50 19M SPO

Blanket bond.

RM 105
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

031-12617

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
MAR 6 1951
LOS ANGELES, CALIFORNIA

14

Notice of Intention to Drill New Well

This notice must be given and surety bond filed before drilling begins

NEWHALL Calif. MARCH 1 19 51

DIVISION OF OIL AND GAS

LOS ANGELES Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of drilling well No. NEWHALL CORP.-WOLFSON #5-5, Sec. 25, T. 4N, R. 17W, S.B. B. & M., NEWHALL-POTRERO Field, LOS ANGELES County.

Lease consists of

The well is 6167.03' feet N~~or~~ S., and 12934.19' feet E. ~~or W.~~ from Corner "J"
(Give location in distance from section corners or other corners of legal subdivision)

The elevation of the ~~ground~~ conc.mat above sea level is 1,424.56 feet.

We estimate that the first productive oil or gas sand should be encountered at a depth of about 10,000 feet.
(All depth measurements taken from top of Kelly Bushing which is 13.30' above ground)

We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing, Inches	Weight, Lb. Per Foot	Grade and Type	Depth	Landed or Cemented
13-3/8"	54.5#	J-55, Smls.	450	Cemented
7"	23, 26, 29, 32#	J-55, N-80, Smls.	10,000	"
5-1/2"	17#	J-55, Smls.	10,650	Landed

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing.

Address 714 W. Olympic Boulevard
Los Angeles 15, California

Telephone number RI 5171

SUNRAY OIL CORPORATION
(Name of Operator)

By R. E. Foss
R. E. Foss Agent

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
18a	nms	y	Blanket	y	8B

APPENDIX G:

DOGGR Oil Well Abandonment Procedures

DEPARTMENT OF CONSERVATION'S

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

District 2-Ventura

CONSTRUCTION PROJECT SITE REVIEW

AND

WELL ABANDONMENT PROCEDURE

OIL AND GAS WELL REVIEW PROCEDURE

Applicant _____ Permitting Office _____

Address _____ _____

City _____ Zip _____ Mailing Address _____

Date _____ City _____ Zip _____

Plan Check No. _____

Plan Checker _____
Print or Type Name Signature Phone Number

The proposed construction site is located at _____

_____

_____

There is/are _____ (number) active, idle, or abandoned well(s) located on or adjacent to the site; therefore, before a building/grading permit should be issued, The Division of Oil and Gas (Division) recommends that a site-plan review be obtained. The Division will determine if affected wells have been abandoned to current standards. Wells that are not abandoned to current standards may require abandonment/reabandonment. Cost of the required abandonment/reabandonment shall be the responsibility of the landowner or developer. (PRC Section 3208.1)

THE DIVISION OF OIL AND GAS RECOMMENDS THAT A DILIGENT EFFORT BE MADE TO AVOID BUILDING NEAR ANY WELL.

SITE REVIEW PROCEDURE TO BE FOLLOWED BY PROJECT APPLICANT

1. Contact and make an appointment with the Division at:

   California Department of Conservation
   Division of Oil, Gas, and Geothermal Resources
   1000 S. Hill Road Suite 116
   Ventura, CA. 93003-4458

2. Provide the following information: (EXAMPLE)

   a. Area, location.....Section, Township, and Range
   b. Oil field/County.....Placerita Oil Field, L.A. County
   c. Company/Operator.....XYZ Oil Company
   d. Well Designation....."Gusher" 1
   e. Section-Township-Range: 35-T5N-R17W
   f. Major Cross streets..Main Street and X street
   (or other identifier)

3. The Division will provide you with the location or record for each well. Using this information, uncover the well(s) and have the well locations(s) surveyed by a licensed surveyor. If any well cannot be located using the original description on file, a diligent effort, including excavation, must be made to locate it.

4. The following procedures are to be used to locate wells on site plans and to verify that an adequate search was completed.

Step 1. The developer/landowner shall survey the well locations using the "location of record". If the well cannot be found then excavate at least 15 feet long, 15 feet wide, and 12 feet dig. If any indications of an oil well (i.e. cellar, oilfield debris, oil- saturated soil) are observed, or if any information available that original conditions have changed since "location of record" was determined, a larger hole may be required.

Step 2. If the well is not located using the procedures listed in step #1, a metal detector should be used to survey the area (inside and outside the excavation).

Step 3. The developer/landowner shall excavate all indicated metal detector locations by digging a hole that is at least 10 feet long, 10 feet wide, and 12 feet deep, if necessary. If any indications of an oil well are observed upon completion of the excavation, or if there is any information available that original conditions have changed since the well was drilled, a larger hole may be required.

Step 4. The developer/landowner shall notify the Division to witness all completed excavations before they are refilled. Pictures shall be taken of all excavations. The survey of the well shall be available to the Division engineer for review.

Step 5. If the well search efforts prove unsuccessful, the Division engineer and the developer shall prepare written report describing the search procedures and attach the excavation pictures.

5. **All accessible previously plugged and abandoned wells located on the project site shall be tested for gas leakage and inspected for fluid leakage.** The testing/inspection shall be done by Division personnel or the developer. If the developer performs the test, the Division shall be notified to witness the test.

   If there is any indication of fluid or gas leakage, the well condition shall be remedied, even if the well will not be located nearby a structure. The cost of the reabandonment shall be the responsibility of the landowner or developer. (PRC Section 3208.1)

6. The location of each well must be plotted on the site plan. The well survey description must reference a point on the site plan which in turn must reference a point on existing Division maps. (Section corner, Rancho corner, latitude/longitude, etc.) Identify each well with the name of the company/operator and well designation. Submit **THREE** copies of the site plan and three copies of each well-location survey to the Division.

   If a developer/landowner locates a well within a 4-foot radius of the wells "location of record", there is no need to survey the actual well location. However, the developer/landowner must verify that the well was found within 4 feet of the "location of record".

   The site plans should indicate the property boundaries, an area of at least 25 feet outward from the perimeter of the property, any proposed or existing structures, and any existing or proposed roads or streets that pass through or are immediately adjacent to the property. The site plan should also include a plot (to scale) of all existing and proposed oilfield facilities (tanks, processing equipment, pipelines, etc.) that will be operating on the site after completion of the proposed development and include a description of the existing type and height of all oilfield enclosures and list any facility modifications that are part of the development plans.

   If a structure is proposed within 10 feet of an abandoned/reabandoned well, the site plans should include an approved well-vent system designed to vent natural gases to the atmosphere. If a structure is within 25 feet of a structure and the permitting agency is Los Angeles County then an approval letter from Los Angeles County Environmental Programs Division must be submitted.

7. A Division engineer will review the submitted plans. The Division will prepare a "Plan Review" (Form OG190), which will indicate the wells on the project site and our recommendations with respect to the wells.

After the review is complete, the reviewing engineer will affix the Division certification stamp to the three copies of the site plans and three copies of the FORM OG190. One copy will be returned to the applicant and one copy will be forwarded to the permitting agency. The remaining copy will be retained by the Division.

PLUGGING AND ABANDONMENT PERMIT PROCESS

1. Before any well operations are commenced, an application to plug and abandon or reabandon or extend casing for each well must be filed with the Division. (FORM OG108 or FORM OG123) This application must be outline the work proposed to upgrade the well to current requirements.

2. The Division will respond with a "Permit to Conduct Well Operations" that sets forth the conditions and requirements to be met.

3. When the well work is completed and all records received the Report of Well Plugging and Abandonment or Reabanonment will be issued.

IF, DURING THE CONSTRUCTION/GRADING PROCESS, ANY PREVIOUSLY UNKNOWN WELL IS DISCOVERED, THE DIVISION MUST BE NOTIFIED IMMEDIATELY, SO PLUGGING AND ABANDONMENT REQUIREMENTS CAN BE DETERMINED.

ONSHORE ABANDONMENT/REABANDONMENT REQUIREMENTS
DISTRICT 2

General

Plugging is required to protect life, health, property, deposits of oil, gas, or fresh water from loss or damage. A written notice (OG108) stating in detail the proposed method of abandonment, must be filed. For reabandonments, a written notice (OG1123) stating in detail, the proposed method of reabandonment, must be filed. All required downhole cement plugs shall use cement that has a minimum compressive strength of 1000 psi and a maximum liquid permeability of .1 md. No more than a 4% gel mixture shall be allowed. The sand/cement ratio for downhole muds is limited to 2:1.

Mudding

All portions of the hole not occupied by cement shall be filled with good quality, water-base mud fluid having proper weight and consistency to prevent movement of other fluids into the wellbore. Under "normal" conditions, proper weight and consistency is 72 lbs./cf with a minimum gel-shear strength (10 min.) 25 lbs./100 sq. ft.

Surface Pour

No aggregate concrete (NO ROCKS) may be used for surface plugs. The maximum sand/cement ration that is acceptable is 4:1. When there is more than one string of casing at the surface, cement shall be placed between. The preferred alliterative is to cut and pull all inside strings before the surface plug is placed. A surface cement-pour is permitted only in an empty hole with a diameter of not less than 5 inches. Depth limitations shall be determined on an individual well basis.

Bailers

Bailer placed cement plugs are limited to 3000' or less.

Junk in Hole

Diligent effort shall be made to recover junk when such junk may prevent proper abandonment. In the event that the junk cannot be removed and fresh-water or oil and gas zones penetrated below cannot therefore be properly abandoned, cement shall be down-squeezed through or past the junk and a 100-foot cement plug shall be placed on top of the junk. In the event that a retainer is used, then 100 foot plug shall be placed on top of the retainer.

Recovery of Casing

Approval to recover all casing possible will be given in the abandonment of wells where subsurface plugging can be done to the satisfaction of the Division.

Extending Casing

The final grade of the well shall be no greater than 5 feet below ground. In the event that the casing is to be extended, it shall be extended with adequate casing of the same size of the casing that is found at the surface. In addition, the casing shall be filled with cement.

Open Hole

Oil and Gas Zones- Cement plug shall be place from total depth or at least 100 feet below the bottom of each oil and gas zone, whichever is less, to at least 100 feet above the top of each zone.

Freshwater Zones- A minimum 200 foot cement plug shall be placed across all fresh-saltwater interfaces. An interface plug may be placed wholly within a thick shale if such a shale separates the freshwater sands from the brackish or saltwater sands.

Cased Hole

Oil and Gas zones- All perforations shall be plugged with cement and the plug shall extend at least 100 feet above the top of a landed liner, the uppermost perforations, the casing cementing point or the water shut-off holes, whichever is highest. (See CCR for special requirements)

Bridge plugs- A bridge plug above the lowermost zone in a multiple-zone completion my be allowed in lieu of cement through the lowermost zone if such lowermost zone is isolated from the upper zone by cement behind casing.

Fresh water zones- a 100 feet cement plug across the fresh water interface opposite cemented casing; in un-cemented casing, squeeze cementing sufficient cement to fill 200 feet behind casing and plug 100 feet above the perforations; or cavity shot immediately below the fresh water and cemented to 100 feet above the shot.

Surface Plugging

The well and all annuli shall be plugged from 30 feet to 5 feet. All casing shall be cut off 5 feet below the surface or the ground. In urban areas, a steel plate shall be welded on top of all casings.

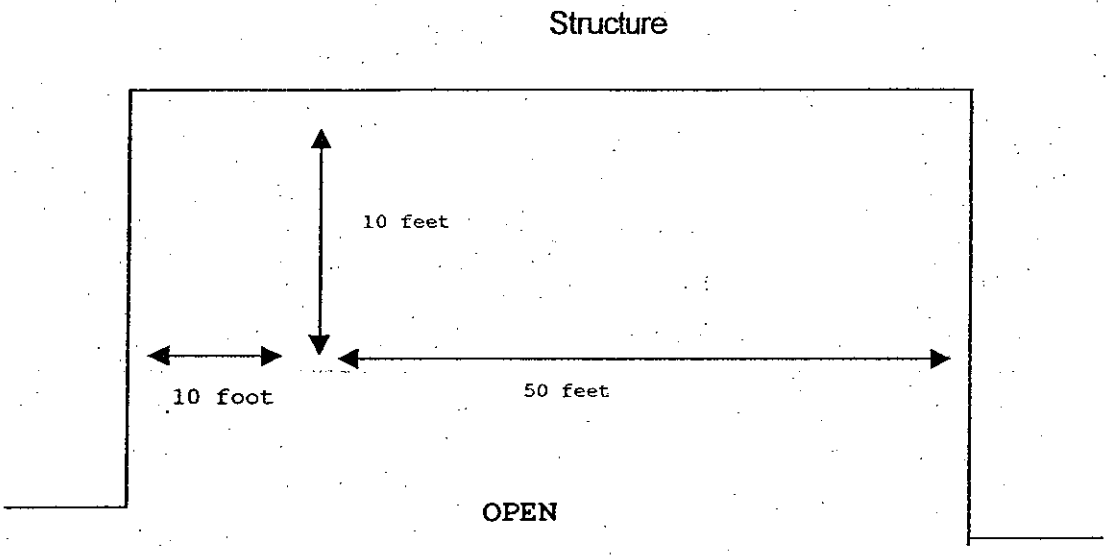
In the event that fill is proposed over the well, then the casing may have to be extended to have the top of the casing 5 feet below ground level.

Cleanup

Return surface to original condition as practical. Property owner with good reason may apply for exceptions. Contact Regional Water Quality Control Board for ground contamination problems. The cleanup must be performed within 60 days after the completion of the work.

NEARBY

Nearby is defined as being within 10 feet from the structure and/or property line, limited to any two adjacent sides of the well, and within 50 feet from the property line and/or structure on the third side of the well. The fourth side of the well shall always have open access.



Well Abandonment Contractors--District 2

Company Name	*Contact*	*Address*	*City*	*State*	*Phone #*	*License Number*
AATR Entertprises	Willie Smith	3249 South La Cienega Blvd	Los Angeles	CA	(213) 752-0055	629460
ACCES	Hamid Assadi	2034 Cotner Avenue 2nd Floor	Los Angeles	CA		557581
Access Drilling	E. Abill	2893 E La Palma Avenue	Anaheim	CA	(714)237-1187	763494
Accurate Excavating Inc	Kevin Hodges	27241 Burbank	Foothill Ranch	CA	(949) 598-7311	654063
Allan Walker Inc	Ed Levin	P O Box 82531	Bakersfield	CA	(661) 391-9152	493118
Allwaste Transportation & Remediation Inc	Jeff Bertoni	P O Box 431	San Ardo	CA	(831) 627-2595	534002
Arbor Services	Jim Staley	9155 Brown Deer Road Suite 1	San Diego	CA	(619) 687-5475	688532
Bud's Equipment Inc	Joe Lowry	P O Box 558	Coalinga	CA	(559) 935-2672	422391
CEDA Mechnical Services	Chris Davis	2756 St Louis Avenue	Signal Hill	CA	(562) 989-3650	722902
Clark Engineering Construction	Don Clark	2235 N Ventura Avenue	Ventura	CA	(805) 643-8119	627891
CMH Environmental Group Inc	Property Valuation	2501 E Chapman Avenue Suite 100	Fullerton	CA	(714) 447-4345	678295
DPH Contracting Services	Daniel Hencey	28101 Langside Avenue	Canyon Country	CA	(805) 298-4540	730421
Ecology Control Industries	Larry Hartzell	19500 Normandie Avenue	Torrance	CA	(310) 320-2555	741611
El Capitan Environmental Services Inc		722 W Wilson Avenue	Glendale	CA	(818) 265-1222	640045
Engineering Remediation Resource Group Inc	Randy Randall	4070 Nelson Avenue Suite B	Concord	CA	(925) 969-0750	743750
Env America Incorporated	Jim Larwood	16 Technology Drive Suite 154	Irvine	CA	(949) 453-9191	648559
EPS Engineering Services	Patrick Mbaba	P O Box 64365	Los Angeles	CA	(310) 826-9733	597765
First Energy Services	Mark Sterbenk	3143 Petrol Road	Bakersfield	CA	(661) 387-9300	756192
Fleet Cementers Inc	Ken Moon	1355 West Kern Street	Taft	CA	(661) 763-1859	727918
Foss Environmental Services	Robert Russell	909 East Harbor Drive	San Diego	CA	(619) 234-3677	716581
Frost Equipment Rentals L.P.	Owen Clark	250 South Hallock Drive	Santa Paula	CA	(805) 933-3334	763960
Gary Drilling Company	Troy Azlin	7001 Charity Avenue	Bakersfield	CA	(800) 443-5925	222619

Company Name	Contact	Address	City	State	Phone #	License Number
GCE Technologies	Sharon Bison	17244 Darwin Suite J	Hesperia	CA	(714) 632-9969	724889
Gradient Engineers Inc	Nick Berzins	17781 Cowan Suite 140	Irvine	CA	(949) 477-0555	734297
Grayson Service Inc	Bob Grayson	4004 South Enos Lane	Bakersfield	CA	(661) 399-6300	287659
Halliburton Energy Services Inc	Kyle Holden	5500 Ming Avenue Suite 365	Bakersfield	CA	(661) 837-2971	256183
Jensen Drilling Co	Nancy Butler	1775 Henderson Avenue	Eugene	OR	(541) 726-7435	340115
KM Scrivner Inc	Jerry Deverick	P O Box 1075	Coalinga	CA	(559) 935-0815	485655
Minco Construction	Refaat Mina	P O Box 1273	Redondo Beach	CA	(310) 376-2929	612429
MMI Services Inc	David Knoeb	6400 Price Way	Bakersfield	CA	(661) 589-9366	684884
Oil Well Service Company	Paul Braden	1241 E Burnett Street	Long Beach	CA	(562) 595-4501	178480
PC Exploration Inc	Parris Baker	1780 Vernon Street Suite 3	Roseville	CA	(916) 783-9733	265556
Pool California Energy Services Inc	Tim Barman	1025 Earthmover Court	Bakersfield	CA	(661) 588-6140	115753
Protec Engineering Services Inc	Kay Akinrele	11288 Ventura Blvd Suite 284	Studio City	CA	(818) 704-6331	716350
QST Environmental	Tom Gibbons	235 East Clark Ave	Orcutt	CA	(805) 938-7952	658022
Randoph Construction	Don Randolph	P O Box 430	Santa Maria	CA	(805) 349-1275	693014
Redi Rental and Leasing	Thurman Rock	841 E. Washington Avenue	Santa Ana	CA	(714) 547-9012	630433
RMR Inc	Mario Perea	P O Box 1715	Santa Maria	CA	(805) 928-4013	535800
SI Nor Inc	Silas Ugorji	1345 Fitzgerald Avenue Suite F	Rialto	CA	(909) 820-4010	717123
Suma Pacific Corp	Rich Steward	P O Box 1251	Grants Pass	OR	(541) 479-1461	461280
Tetra Tech Inc	Dennis Zafuto	3201 Airpark Drive Suite 108	Santa Maria	CA	(805) 739-2600	551555
The Reynolds Group		250 El Camino Real Suite 204	Tustin	CA	(714) 730-5397	659765
Tidelands Oil Production Company	Mark Kapelke	P O Box 1330	Long Beach	CA	(562) 436-9918	681859
Trak Environmental Group Inc	Bradford Newman	4125 Market Street Suite 19	Ventura	CA	(805) 650-5333	709623
Wayne Perry Inc	Richard Kreis	11230 Gold Express Drive, Suite 31	Gold Rive	CA	(916) 635-6719	300345
Western Colima Corporation	David Nowel	1780 E McFadden Avenue Suite 11	Santa Ana	CA	(714) 542-2644	638004
WZI Inc.	Tom Gibbons	235 E. Clark Avenue, Suite C	Orcutt	CA	(805) 937-2040	629898

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CARDS ☐
BOND ☐
OGD114 ☐
OGD121 ☐

Notice of Intention to Abandon Well

File in Duplicate

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon

Well _____ **API No.** _____ **Sec.** _____ **T.** _____ **R.** _____ _____ **B.&M.**

_____ **Field** _____ **County, starting work on** _____

The present condition of the well is

1. Total depth:

2. Complete casing record, with plugs and perforations (present hole):

3. Date last produced or injected:

Additional data for dry hole (show depths)

1. Oil or gas shows:

2. Stratigraphic markers:

3. Formation and age at total depth:

4. Base of freshwater sands:

Is this a critical well according to the definition on the reverse side of this form (or on page 2 if you are using the Internet)?

☐ Yes ☐ No

The proposed work is as follows:

It is understood that if changes in this plan become necessary, we are to notify you immediately.

Address _____ (Street)

_____ (City) (State) (Zip)

Telephone Number _____ (Area Code) (Number)

_____ (Name of Operator)

By _____ (Print Name)

_____ (Signature) (Date)

OG108 (9/00)

CRITICAL WELL

As defined in the California Administrative Code, Title 14, Section 1720 (a), "Critical well" means a well within:

(1) 300 feet of the following:
   (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
   (B) Any airport runway.

(2) 100 feet of the following:
   (A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
   (B) Any navigable body of water or watercourse perennially covered by water;
   (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
   (D) Any officially recognized wildlife preserve.

Exceptions or additions to this definition may be established by the supervisor upon his own judgment or upon written request of an operator. This written request shall contain justification for such an exception.

2004 DOGGR Dist 2 Well Abandonment Contractors List

ID	Company Name	Contact	Address	City State Zip	Phone Number
1	Alaska Petroleum Environmental Eng.,Inc.	Mr. R. Glenn Stillman	P O Box 5365	Garden Grove CA 92846	(714) 897-2733
2	Allied Engineering & Construction	Ms. Tiffiny Lyons	4700 Stockdale Hwy, Suite 140	Bakersfield CA 93309	(661) 325-5700
3	APT General Contractors	Mr. Russ Elrod	P.O. Box 2124	Bakersfield CA 93303	(661) 323-0343
4	BIGOL Services, Inc.	Israel Ola	8707-D Lindley Ave., Suite 173	Northridge CA 91325	(818) 576-9940
5	Brittan Industries, Inc.	Connie Smithson	260 Fairfax Road	Bakersfield CA 93307	(661) 366-5435
6	CMH Environmental Group, Inc.	Property Valuation Div.	2501 E Chapman Ave., Suite 10	Fullerton CA 92831	(714) 333-2220
7	Deltech Engineering, Inc.	Ebbiteanga Abili	1411 N. Batavia St., Suite 216	Orange CA 92867	(714) 289-1866
8	Earth Tech, Inc.	Mr. Anthony Lizzi	100 W. Broadway, Suite 240	Long Beach CA 90802-4443	(562) 951-2324
9	Ecology Control Industries	Mr. Rudy Merritt	2055 N Ventura Ave.	Ventura CA 93001-1308	(805) 648-5123
10	Environmental Assessment & Remediation	Ravi Pendurthi	12201 Magnolia Ave., Suite 100	Riverside CA 92503	(909) 735-5575
11	Key Energy Services - California	Mr. Monte Bertsch	18835 Highway 65	Bakersfield CA 93308	(661) 399-0621
12	KOMEX	Sean Rakhshani	5455 Garden Grove Bl., 2nd Fl.	Westminster CA 92683-8201	(714) 379-1157
13	Lindmark Engineering	Mr. Mark Pacino	5900 Cherry Ave.	Long Beach CA 90805-4408	(562) 423-0600
14	Macoy Resource Corporation	Mr. Gary Camack	P O Box 3980	Paso Robles CA 93447	(805) 227-1090
15	Manuel Brothers, Inc.	Mr. Sean Kilgrow	908 Taylorville Road, Suite 104	Grass Valley CA 95949	(530) 272-4213
16	Minco Construction	Refaat Mina	P O Box 1273	Redondo Beach CA 90278	(310) 534-2504
17	MMI Services, Inc.	Mr. Richie McGowan	6400 Price Way	Bakersfield CA 93308	(661) 589-9366
18	Oil Well Service Company	Mr. Joe Campen	1241 E Burnett Street	Long Beach CA 90806	(562) 595-4501
19	Pacific States Environmental Contractors	Mr. Pete Timmerman	11555 Dublin Blvd.	Dublin CA 94568	(925) 803-4333
20	Pool Well Services Company	Mr. Richard Windes	2567 Ventura Ave.	Ventura CA 93001-5400	(805) 648-2731
21	RMR, Inc	Mr. Mario Perea	P O Box 1715	Santa Maria CA 93456	(805) 928-4013
22	Shaw Group of California	Mr. Gary Locke	4005 Port Chicago Highway	Concord CA 94520	(925) 288-2150
23	SI Nor, Inc	Mr. Silas Ugorji	1345 Fitzgerald Ave., Suite F	Rialto CA 92376	(909) 820-4010
24	The Pressure Grout Company	Husam Baki	1975 National Ave.	Hayward CA 94545-1709	(510) 887-2244
25	Tidelands Oil Production Co.	Mr. Mark Kapelke	P O Box 1330	Long Beach CA 90801	(562) 436-9918
26	Torch Rig Services, Inc.	Mr. Bob Grayson, Jr.	20301 Stockdale Highway	Bakersfield CA 93312	(661) 589-5338
27	Trak Environmental Group, Inc.	Mr. Bradford Newman	3637 B Arundel Circle	Ventura CA 93003-4977	(805) 650-5333
28	West Star Environmental, Inc	Mr. Phillip Mendrin	4688 W. Jennifer, Suite 101	Fresno CA 93722	(559) 277-9378

APPENDIX H:

Preparer’s Qualifications

BA ENVIRONMENTAL
A Division of Building Analytics
www.BAEnvironmental.com

CORPORATE OFFICE
502 S. VERDUGO DRIVE, SUITE 200
BURBANK, CALIFORNIA 91502
TOLL FREE 1-888-440-7225
818-841-2575
818-841-2576 FAX

RUSSELL M. COTE, M. Sc., P.G.
Manager, Environmental Services

Russell M. Cote has over seventeen years of professional experience in environmental consulting. He has performed Phase I Environmental Site Assessments (ESA's), Phase II Subsurface Investigations and Site Characterizations, as well as soil and groundwater remediation projects. Mr. Cote is very knowledgeable of federal, state and local regulations governing the environmental industry as they impact environmental assessment.

Professional Experience:

- Performed numerous Phase I ESA's on office, industrial, retail and multi-family residential properties.
- Managed numerous Phase II Subsurface Investigations, Soil and Groundwater Investigations, and Site Characterization & Remediation Projects for private clients and public agencies.
- Performed hydrogeologic characterizations of subsurface geologic formations in order to develop Remedial Action Plans.
- Designed and installed remediation systems using pump and treat, soil vapor extraction and air sparging technologies.
- Designed and implemented bioremedial alternatives for in-situ remediation of petroleum hydrocarbon-impacted soils and groundwater.
- Performed remediation of sites with petroleum hydrocarbons, volatile organic compounds and heavy metals resulting in site closures from State Regulatory Agencies.
- Designed, installed, monitored and sampled groundwater monitoring wells for long-term projects.
- Constructed and interpreted geologic cross-sections, groundwater contour maps and contaminant plume maps, generated site and groundwater contour maps, and geologic cross-sections.
- Prepared soil boring and well logs.
- Conducted numerous underground storage tank (UST) removals and associated sampling.
- Conducted groundwater pump tests and soil vapor extraction pilot tests.
- Monitored and maintained vapor extraction systems.
- Prepared manifests and supervised the disposal of petroleum hydrocarbon, volatile organic compounds and heavy metal contaminated soils and groundwater.
- Conducted Risk Based Assessments to obtain site closure from regulatory agencies.

Education: B.S., Geology, California State University, Bakersfield, 1985
M.Sc., Geology, California State University, Northridge, 1991

Registrations: Registered Professional Geologist - State of California No. 7139
OSHA Hazwoper Training
OSHA Hazwoper Manager/Supervisor Training

APPENDIX I:

Government Records Report

Pico Canyon Road
Pico Canyon Road
Valencia, CA 91355

Inquiry Number: 2763885.2s
May 06, 2010

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	16
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-11
Physical Setting Source Map Findings	A-12
Physical Setting Source Records Searched	A-46

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2010 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

PICO CANYON ROAD
VALENCIA, CA 91355

COORDINATES

Latitude (North):	34.394900 - 34° 23' 41.6''
Longitude (West):	118.621200 - 118° 37' 16.3''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	350971.4
UTM Y (Meters):	3806938.8
Elevation:	1315 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	34118-D6 VAL VERDE, CA
Most Recent Revision:	1991
East Map:	34118-D5 NEWHALL, CA
Most Recent Revision:	1988

AERIAL PHOTOGRAPHY IN THIS REPORT

Photo Year:	2005
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL---------- National Priority List

EXECUTIVE SUMMARY

Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

CERCLIS ---------- Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY ---------- Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP ---------- CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ---------- State Response Sites

State- and tribal - equivalent CERCLIS

AOCONCERN ---------- San Gabriel Valley Areas of Concern
ENVIROSTOR ---------- EnviroStor Database

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Information System

State and tribal leaking storage tank lists

LUST ---------- Geotracker's Leaking Underground Fuel Tank Report

SLIC ---------- Statewide SLIC Cases
INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

UST ---------- Active UST Facilities
AST ---------- Aboveground Petroleum Storage Tank Facilities
INDIAN UST ---------- Underground Storage Tanks on Indian Land
FEMA UST ---------- Underground Storage Tank Listing

State and tribal voluntary cleanup sites

VCP ---------- Voluntary Cleanup Program Properties
INDIAN VCP ---------- Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations
ODI ---------- Open Dump Inventory
WMUDS/SWAT ---------- Waste Management Unit Database
SWRCY ---------- Recycler Database
HAULERS ---------- Registered Waste Tire Haulers Listing
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL ---------- Clandestine Drug Labs
HIST Cal-Sites ---------- Historical Calsites Database
SCH ---------- School Property Evaluation Program
AOCONCERN ---------- San Gabriel Valley Areas of Concern
CDL ---------- Clandestine Drug Labs
US HIST CDL ---------- National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

CA FID UST ---------- Facility Inventory Database
HIST UST ---------- Hazardous Substance Storage Container Database
SWEEPS UST ---------- SWEEPS UST Listing

Local Land Records

LIENS 2 ---------- CERCLA Lien Information
LUCIS ---------- Land Use Control Information System
LIENS ---------- Environmental Liens Listing
DEED ---------- Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ---------- Hazardous Materials Information Reporting System

LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing

Other Ascertainable Records

RCRA-NonGen	RCRA - Non Generators
DOT OPS	Incident and Accident Data
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
FINDS	Facility Index System/Facility Registry System
RAATS	RCRA Administrative Action Tracking System
CA BOND EXP. PLAN	Bond Expenditure Plan
NPDES	NPDES Permits Listing
CA WDS	Waste Discharge System
Cortese	"Cortese" Hazardous Waste & Substances Sites List
HIST CORTESE	Hazardous Waste & Substance Site List
Notify 65	Proposition 65 Records
LA Co. Site Mitigation	Site Mitigation List
DRYCLEANERS	Cleaner Facilities
LOS ANGELES CO. HMS	HMS: Street Number List
WIP	Well Investigation Program Case List
HAZNET	Facility and Manifest Data
EMI	Emissions Inventory Data
INDIAN RESERV	Indian Reservations
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
HWP	EnviroStor Permitted Facilities Listing
HWT	Registered Hazardous Waste Transporter Database
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
COAL ASH DOE	Sleam-Electric Plan Operation Data
PROC	Certified Processors Database
PCB TRANSFORMER	PCB Transformer Registration Database
FINANCIAL ASSURANCE	Financial Assurance Information Listing
MWMP	Medical Waste Management Program Listing

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants	EDR Proprietary Manufactured Gas Plants
EDR Historical Auto Stations	EDR Proprietary Historic Gas Stations

EXECUTIVE SUMMARY

EDR Historical Cleaners ----- EDR Proprietary Historic Dry Cleaners

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

Toxic Pits: The Toxic Pits Cleanup Act Sites database identifies sites suspected of containing hazardous substances where cleanup has not yet been completed. The data come from the State Water Resources Control Board.

A review of the Toxic Pits list, as provided by EDR, and dated 07/01/1995 has revealed that there is 1 Toxic Pits site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ORYX, WESTERN DIST.GAS PLANT Closure Date: 12/07/90	26835 W. PICO CANYON RO	SE 1/2 - 1 (0.808 mi.)	1	8

Records of Emergency Release Reports

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e., accidental releases or spills. The source is the California Office of Emergency Services.

A review of the CHMIRS list, as provided by EDR, and dated 12/31/2007 has revealed that there are 3 CHMIRS sites within approximately 1 mile of the target property.

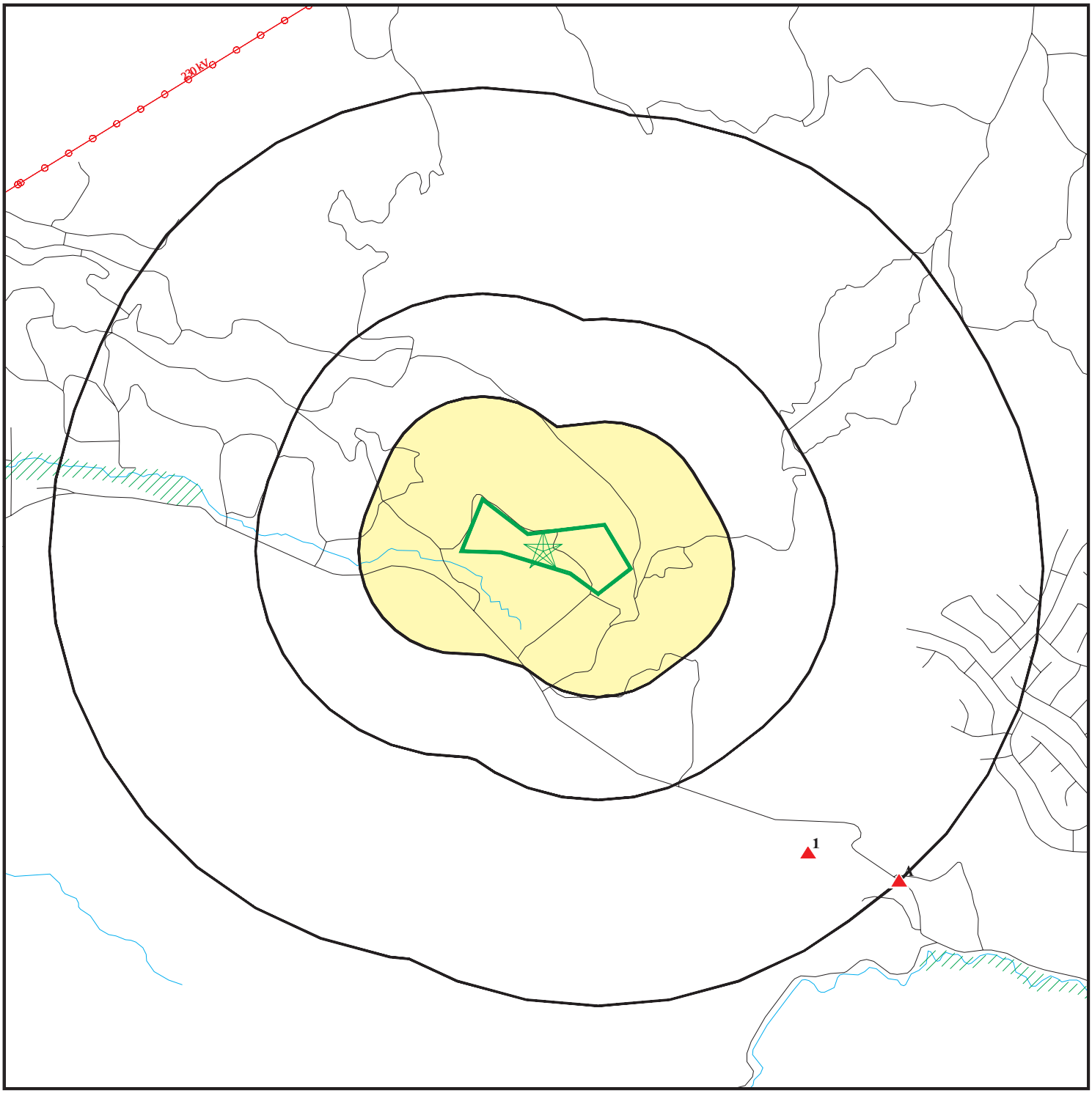
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	26835 PICO CANYON ROAD	SE 1/2 - 1 (0.998 mi.)	A2	8
GAS PLANT	***26835 PICO CANYON RD***	***SE 1/2 - 1 (0.998 mi.)***	***A3***	***9***
Not reported	26835 WEST PICO CANYON	SE 1/2 - 1 (0.998 mi.)	A4	13

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
ARCO PRODUCTS CO	HIST CORTESE
BOUQUET CANYON RD BRIDGE WIDENING	NPDES
RYE CANYON COMMERCE CTR LLC	NPDES
RYE CANYON SELF STORAGE	NPDES
SEGMENT A, SAN FRANCISQUITO CANYON	NPDES
SEGMENT B, SAN FRANCISQUITO CANYON	NPDES
CANYON COUNTRY EDUCATION CENTER	NPDES
SECO CANYON VILLAGE	NPDES
DEAD HORSE CANYON MITIGATION A	NPDES
BELLA PICO CANYON	NPDES
26835 PICO CANYON RD	AST
25100 STATE HIGHWAY 126	AST
WSHUHSD/RANCHO PICO JUNIOR HIGH SC	HAZNET
CANYON ENGINEERING PRODUCTS	HAZNET
RANCHO PICO JUNIOR HIGH	FINDS
CANYON ENGINEERING PROD	LOS ANGELES CO. HMS
BOUQUET CANYON STONE CO INC	MINES

OVERVIEW MAP - 2763885.2s



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

Power transmission lines

Oil & Gas pipelines

100-year flood zone

500-year flood zone

Areas of Concern

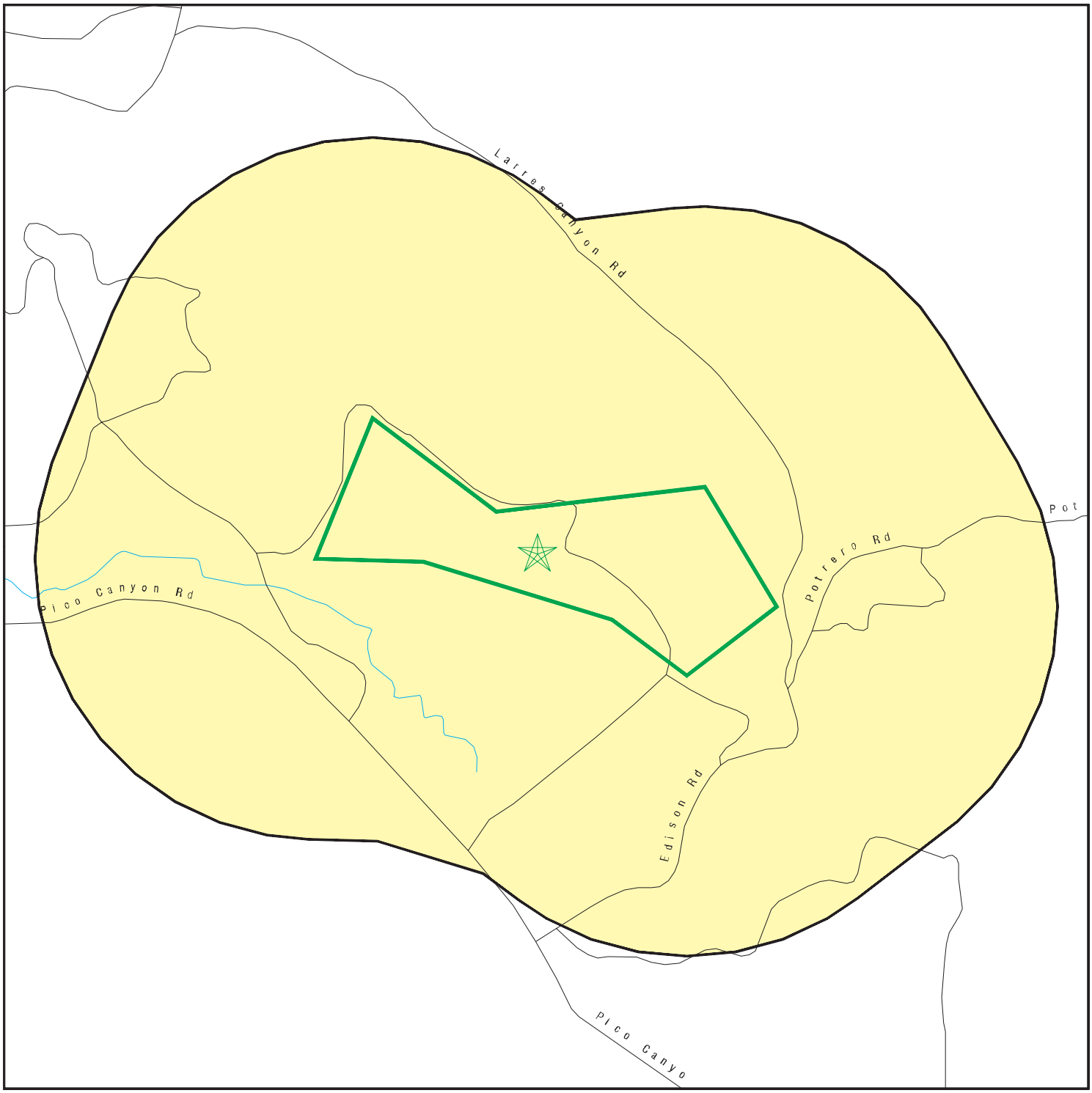
N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Pico Canyon Road ADDRESS: Pico Canyon Road Valencia CA 91355 LAT/LONG: 34.3949 / 118.6212	CLIENT: Building Analytics CONTACT: Russ Cote INQUIRY #: 2763885.2s DATE: May 06, 2010 7:18 pm

Copyright © 2010 EDR, Inc. © 2010 Tele Atlas Rel. 07/2007.

DETAIL MAP - 2763885.2s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites

0 1/16 1/8 1/4 Miles

- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Pico Canyon Road ADDRESS: Pico Canyon Road Valencia CA 91355 LAT/LONG: 34.3949 / 118.6212	CLIENT: Building Analytics CONTACT: Russ Cote INQUIRY #: 2763885.2s DATE: May 06, 2010 7:19 pm

Copyright © 2010 EDR, Inc. © 2010 Tele Atlas Rel. 07/2007.

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		TP	NR	NR	NR	NR	NR	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL		1.000	0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS		0.500	0	0	0	NR	NR	0
FEDERAL FACILITY		1.000	0	0	0	0	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP		0.500	0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS		1.000	0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF		0.500	0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG		0.250	0	0	NR	NR	NR	0
RCRA-SQG		0.250	0	0	NR	NR	NR	0
RCRA-CESQG		0.250	0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
Federal ERNS list								
ERNS		TP	NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE		1.000	0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
AOCONCERN		TP	NR	NR	NR	NR	NR	0
ENVIROSTOR		1.000	0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF		0.500	0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST		0.500	0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SLIC		0.500	0	0	0	NR	NR	0
INDIAN LUST		0.500	0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST		0.250	0	0	NR	NR	NR	0
AST		0.250	0	0	NR	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
FEMA UST		0.250	0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP		0.500	0	0	0	NR	NR	0
INDIAN VCP		0.500	0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS		TP	NR	NR	NR	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
DEBRIS REGION 9		0.500	0	0	0	NR	NR	0
ODI		TP	NR	NR	NR	NR	NR	0
WMUDS/SWAT		0.500	0	0	0	NR	NR	0
SWRCY		0.500	0	0	0	NR	NR	0
HAULERS		TP	NR	NR	NR	NR	NR	0
INDIAN ODI		0.500	0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL		TP	NR	NR	NR	NR	NR	0
HIST Cal-Sites		1.000	0	0	0	0	NR	0
SCH		TP	NR	NR	NR	NR	NR	0
Toxic Pits		1.000	0	0	0	1	NR	1
AOCONCERN		TP	NR	NR	NR	NR	NR	0
CDL		TP	NR	NR	NR	NR	NR	0
US HIST CDL		TP	NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST		TP	NR	NR	NR	NR	NR	0
HIST UST		TP	NR	NR	NR	NR	NR	0
SWEEPS UST		0.250	0	0	NR	NR	NR	0
Local Land Records								
LIENS 2		TP	NR	NR	NR	NR	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
LIENS		TP	NR	NR	NR	NR	NR	0
DEED		TP	NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS		TP	NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CHMIRS		1.000	0	0	0	3	NR	3
LDS		TP	NR	NR	NR	NR	NR	0
MCS		TP	NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA-NonGen		TP	NR	NR	NR	NR	NR	0
DOT OPS		TP	NR	NR	NR	NR	NR	0
DOD		TP	NR	NR	NR	NR	NR	0
FUDS		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN		1.000	0	0	0	0	NR	0
NPDES		TP	NR	NR	NR	NR	NR	0
CA WDS		TP	NR	NR	NR	NR	NR	0
Cortese		1.000	0	0	0	0	NR	0
HIST CORTESE		0.500	0	0	0	NR	NR	0
Notify 65		1.000	0	0	0	0	NR	0
LA Co. Site Mitigation		TP	NR	NR	NR	NR	NR	0
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
LOS ANGELES CO. HMS		TP	NR	NR	NR	NR	NR	0
WIP		0.250	0	0	NR	NR	NR	0
HAZNET		TP	NR	NR	NR	NR	NR	0
EMI		TP	NR	NR	NR	NR	NR	0
INDIAN RESERV		1.000	0	0	0	0	NR	0
SCRD DRYCLEANERS		0.500	0	0	0	NR	NR	0
HWP		1.000	0	0	0	0	NR	0
HWT		0.250	0	0	NR	NR	NR	0
COAL ASH EPA		0.500	0	0	0	NR	NR	0
COAL ASH DOE		TP	NR	NR	NR	NR	NR	0
PROC		0.500	0	0	0	NR	NR	0
PCB TRANSFORMER		TP	NR	NR	NR	NR	NR	0
FINANCIAL ASSURANCE		TP	NR	NR	NR	NR	NR	0
MWMP		0.250	0	0	NR	NR	NR	0
EDR PROPRIETARY RECORDS								
EDR Proprietary Records								
Manufactured Gas Plants		1.000	0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
EDR Historical Auto Stations		0.250	0	0	NR	NR	NR	0
EDR Historical Cleaners		0.250	0	0	NR	NR	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
SE
1/2-1
0.808 mi.
4266 ft.

ORYX, WESTERN DIST.GAS PLANT — **Toxic Pits** — **S100676242**
26835 W. PICO CANYON ROAD — **N/A**
NEWHALL, CA 91321

Relative: Higher

Actual: 1538 ft.

Toxic Pits:

Region:	04
Task #:	84017
Owner:	ORYX ENERGY COMPANY
1/2 Mi Limit:	Y
Num. of Pits:	1
Cease Discharge Due:	/ /
Cease Discharge Complete:	/ /
Closure Due:	/ /
Closure Completed:	**12/07/90**
Status:	CLOSED

Hydro Geological Assessment Report Due: / /
Final Hydro Geological Assessment Review Completed: / /

A2
SE
1/2-1
0.998 mi.
5267 ft.

CHMIRS — **S109037923**
26835 PICO CANYON ROAD — **N/A**
NEWHALL, CA 93060

Site 1 of 3 in cluster A

Relative: Higher

Actual: 1650 ft.

CHMIRS:

OES Incident Number:	07-4811
OES notification:	8/11/2007 08:09:10 AM
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported
Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported

(Continued) **S109037923**

Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2007
Agency:	Vintage Production CA
Incident Date:	8/11/2007 12:00:00 AM
Admin Agency:	L. A. County Fire Prevention
Amount:	Not reported
Contained:	Yes
Site Type:	Oil Field
E Date:	Not reported
Substance:	Crude Oil and produced water
Quantity Released:	Not reported
BBLS:	2
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Description:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	Collection pipeline rupture.

A3 **GAS PLANT** **HIST UST** **U001567298**
SE **26835 PICO CANYON RD** **CHMIRS** **N/A**
1/2-1 **NEWHALL, CA 91321** **HAZNET**
0.998 mi. **EMI**
5267 ft. **Site 2 of 3 in cluster A**

Relative: Higher

Actual: 1650 ft.

HIST UST:

Region:	STATE
Facility ID:	00000003100
Facility Type:	Other
Other Type:	Not reported
Total Tanks:	0001
Contact Name:	JOEL DENNIS
Telephone:	8052590868
Owner Name:	SUN EXPLORATION & PRODUCTION C

GAS PLANT (Continued) **U001567298**

Owner Address: OMPANY
Owner City,St,Zip: BOX 55060 25322 W. R, YE 913550560

Tank Num: 001
Container Num: 1
Year Installed: 1984
Tank Capacity: 00014000
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: 9" inches
Leak Detection: Visual

CHMIRS:
OES Incident Number: 98-2902
OES notification: 6/24/199809:54:51 AM
OES Date: Not reported
OES Time: Not reported
Incident Date: Not reported
Date Completed: Not reported
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported
Time Completed: Not reported
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
Special Studies 1: Not reported
Special Studies 2: Not reported
Special Studies 3: Not reported
Special Studies 4: Not reported
Special Studies 5: Not reported
Special Studies 6: Not reported
More Than Two Substances Involved?: Not reported
Resp Agncy Personel # Of Decontaminated: Not reported
Responding Agency Personel # Of Injuries: Not reported
Responding Agency Personel # Of Fatalities: Not reported
Others Number Of Decontaminated: Not reported
Others Number Of Injuries: Not reported
Others Number Of Fatalities: Not reported
Vehicle Make/year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA/DOT/PUC/ICC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: Not reported
Report Date: Not reported
Comments: Not reported
Facility Telephone: Not reported
Waterway Involved: No
Waterway: Not reported
Spill Site: Not reported
Cleanup By: Reporting Party
Containment: Not reported
What Happened: Not reported
Type: Not reported

GAS PLANT (Continued) **U001567298**

Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1998
Agency:	Medallion CA Properties
Incident Date:	6/22/199812:00:00 AM
Admin Agency:	L. A. County Fire Prevention
Amount:	Not reported
Contained:	Yes
Site Type:	Oil Field
E Date:	Not reported
Substance:	Crude oil
Quantity Released:	Not reported
BBLS:	8
Cups:	0
CUFT:	0
Gallons:	0.000000
Grams:	0
Pounds:	0
Liters:	0
Ounces:	0
Pints:	0
Quarts:	0
Sheen:	0
Tons:	0
Unknown:	0
Description:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
Description:	While cleaning a previous spill, a backhoe lifted and broke an existing 2" line.

HAZNET:

Gepaid:	CAL000088047
Contact:	ALEX B. IWASIW/CALIFORNIA
Telephone:	6612542856
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	26835 W PICO CANYON RD
Mailing City,St,Zip:	NEWHALL, CA 913210000
Gen County:	Los Angeles
TSD EPA ID:	CAD982444481
TSD County:	Los Angeles
Waste Category:	Other organic solids
Disposal Method:	Transfer Station
Tons:	0.84
Facility County:	Los Angeles

Gepaid:	CAL000088047
Contact:	ALEX B. IWASIW/CALIFORNIA
Telephone:	6612542856
Facility Addr2:	Not reported
Mailing Name:	Not reported
Mailing Address:	26835 W PICO CANYON RD
Mailing City,St,Zip:	NEWHALL, CA 913210000
Gen County:	Los Angeles

GAS PLANT (Continued) **U001567298**

TSD EPA ID: CAD097030993
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: Disposal, Other
Tons: 0.84
Facility County: Not reported

Gepaid: CAL000088047
Contact: ALEX B. IWASIW/CALIFORNIA
Telephone: 6612542856
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 26835 W PICO CANYON RD
Mailing City,St,Zip: NEWHALL, CA 913210000
Gen County: Los Angeles
TSD EPA ID: CAD097030993
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: Disposal, Other
Tons: 0.84
Facility County: Not reported

Gepaid: CAL000088047
Contact: ALEX B. IWASIW/CALIFORNIA
Telephone: 6612542856
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 26835 W PICO CANYON RD
Mailing City,St,Zip: NEWHALL, CA 913210000
Gen County: Los Angeles
TSD EPA ID: CAD097030993
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: Disposal, Other
Tons: 0.84
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
-1 additional CA_HAZNET: record(s) in the EDR Site Report.

EMI:

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	24091
Air District Name:	SC
SIC Code:	1311
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	161
Reactive Organic Gases Tons/Yr:	84
Carbon Monoxide Emissions Tons/Yr:	32
NOX - Oxides of Nitrogen Tons/Yr:	8
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

GAS PLANT (Continued) **U001567298**

Year:	2006
County Code:	19
Air Basin:	SC
Facility ID:	151899
Air District Name:	SC
SIC Code:	1311
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	17.80860175617872248
Reactive Organic Gases Tons/Yr:	10.427
Carbon Monoxide Emissions Tons/Yr:	1.177
NOX - Oxides of Nitrogen Tons/Yr:	1.735
SOX - Oxides of Sulphur Tons/Yr:	.012
Particulate Matter Tons/Yr:	.174
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.173382

Year:	2007
County Code:	19
Air Basin:	SC
Facility ID:	151899
Air District Name:	SC
SIC Code:	1311
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	17.80860175617872248
Reactive Organic Gases Tons/Yr:	10.427
Carbon Monoxide Emissions Tons/Yr:	1.177
NOX - Oxides of Nitrogen Tons/Yr:	1.735
SOX - Oxides of Sulphur Tons/Yr:	.012
Particulate Matter Tons/Yr:	.174
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.173382

A4 **CHMIRS** **S105637087**
SE **26835 WEST PICO CANYON ROAD** **N/A**
1/2-1 **NEWHALL, CA**
0.998 mi.
5267 ft. **Site 3 of 3 in cluster A**

Relative:
Higher

Actual:
1650 ft.

CHMIRS:

OES Incident Number:	806
OES notification:	Not reported
OES Date:	2/15/1994
OES Time:	08:11:04 AM
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
Special Studies 1:	Not reported
Special Studies 2:	Not reported
Special Studies 3:	Not reported

(Continued) **S105637087**

Special Studies 4:	Not reported
Special Studies 5:	Not reported
Special Studies 6:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA/DOT/PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Comments:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	YES
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	co. oersonnel
Containment:	Not reported
What Happened:	Not reported
Type:	PETROLEUM
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	1994
Agency:	medallion california properties co.
Incident Date:	02/15/94 0700
Admin Agency:	Not reported
Amount:	30 bbl
Contained:	NO
Site Type:	Not reported
E Date:	Not reported
Substance:	crude oil
Quantity Released:	Not reported
BBLS:	Not reported
Cups:	Not reported
CUFT:	Not reported
Gallons:	Not reported
Grams:	Not reported
Pounds:	Not reported
Liters:	Not reported
Ounces:	Not reported
Pints:	Not reported
Quarts:	Not reported
Sheen:	Not reported
Tons:	Not reported
Unknown:	Not reported
Description:	a spilt between a top stave and roof of a tank occurred.
Evacuations:	NO
Number of Injuries:	NO
Number of Fatalities:	NO

(Continued) **S105637087**

Description: Not reported

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
LOS ANGELES COUNTY	M300001888	BOUQUET CANYON STONE CO INC	DEL SUR RIDGE QUARRY		MINES
NEWHALL	S105025216	ARCO PRODUCTS CO	26835 PICO CANYON RD	91381	HIST CORTESE
NEWHALL	A100344879		26835 PICO CANYON RD	91381	AST
SANTA CLARITA	S106854001	CANYON ENGINEERING PROD	24773 AVENUE ROCKEFELLER	91355	LOS ANGELES CO. HMS
SANTA CLARITA	S109437863	BOUQUET CANYON RD BRIDGE WIDENING	BOUQUET CANYON RD	91355	NPDES
SANTA CLARITA	S109456746	RYE CANYON COMMERCE CTR LLC	KELLY JOHNSON PKWY LOTS 10TH &	91355	NPDES
SANTA CLARITA	S109456747	RYE CANYON SELF STORAGE	WC KELLY JOHNSON PKY & AURORA	91355	NPDES
SANTA CLARITA	S109693740	SEGMENT A, SAN FRANCISQUITO CANYON	SAN FRANCISQUITO CANYON CREEK	91355	NPDES
SANTA CLARITA	S109693741	SEGMENT B, SAN FRANCISQUITO CANYON	SAN FRANCISQUITO CANYON CREEK	91355	NPDES
SANTA CLARITA	S109438806	CANYON COUNTRY EDUCATION CENTER	18701 SIERRA HWY	91355	NPDES
SANTA CLARITA	S109457760	SECO CANYON VILLAGE	SWC SECO CANYON RD & COOPERHIL	91355	NPDES
STEVENSON RANCH	S109441376	DEAD HORSE CANYON MITIGATION A	1 MILE W OF STEVENSON RANCH PI	91381	NPDES
STEVENSON RANCH	S109437268	BELLA PICO CANYON	S	91381	NPDES
STEVENSON RANCH	S108758174	WSHUHSD/RANCHO PICO JUNIOR HIGH SC	26250 W VALENCIA BLVD	91381	HAZNET
VALENCIA	S107148573	CANYON ENGINEERING PRODUCTS	28909 AVE WILLIAM	91355	HAZNET
VALENCIA	A100344836		25100 STATE HIGHWAY 126	91355	AST
VALENCIA	1011471849	RANCHO PICO JUNIOR HIGH	26250 W VALENCIA BLVD	91381	FINDS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/31/2010
Date Data Arrived at EDR: 04/02/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 04/02/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/31/2010
Date Data Arrived at EDR: 04/02/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 04/02/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 03/01/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/31/2010
Date Data Arrived at EDR: 04/02/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 04/02/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 01/29/2010
Date Data Arrived at EDR: 02/09/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 62

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 03/30/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of NPL and Base Realighnment & Closure sites found in the CERCLIS database where FERRO is involved in cleanup projects.

Date of Government Version: 06/23/2009
Date Data Arrived at EDR: 01/15/2010
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 26

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/30/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 06/23/2009
Date Data Arrived at EDR: 09/02/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 19

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 03/11/2010
Next Scheduled EDR Contact: 06/14/2010
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/11/2009
Date Data Arrived at EDR: 12/29/2009
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 43

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/15/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 01/13/2010
Date Data Arrived at EDR: 01/15/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/29/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 01/13/2010
Date Data Arrived at EDR: 01/15/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/29/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 01/13/2010
Date Data Arrived at EDR: 01/15/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/29/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 01/13/2010
Date Data Arrived at EDR: 01/15/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/29/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 12/20/2009
Date Data Arrived at EDR: 01/20/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 12/20/2009
Date Data Arrived at EDR: 01/20/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 01/22/2010
Date Made Active in Reports: 02/11/2010
Number of Days to Update: 20

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 04/07/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 02/08/2010
Date Data Arrived at EDR: 02/09/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/09/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 02/08/2010
Date Data Arrived at EDR: 02/09/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/09/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System
Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/22/2010
Date Data Arrived at EDR: 02/24/2010
Date Made Active in Reports: 03/04/2010
Number of Days to Update: 8

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/24/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 03/29/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 02/12/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 04/05/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 06/21/2010
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 04/19/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 03/22/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 03/22/2010
Date Data Arrived at EDR: 03/23/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 17

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 05/05/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Quarterly

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 04/19/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 03/22/2010
Date Data Arrived at EDR: 03/23/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 17

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/05/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 03/22/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 04/19/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 04/05/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 12/10/2009
Next Scheduled EDR Contact: 03/29/2010
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 02/15/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 02/08/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 02/02/2010
Date Data Arrived at EDR: 02/03/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 15
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/19/2009
Date Data Arrived at EDR: 02/19/2009
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 25
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 02/25/2010
Date Data Arrived at EDR: 02/25/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 46
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 03/05/2010
Date Data Arrived at EDR: 03/05/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 38
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 03/10/2010
Date Data Arrived at EDR: 03/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 27
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Semi-Annually

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/01/2010
Date Data Arrived at EDR: 03/03/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/24/2009
Date Data Arrived at EDR: 05/20/2009
Date Made Active in Reports: 06/17/2009
Number of Days to Update: 28
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 05/04/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

State and tribal registered storage tank lists

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/22/2010
Date Data Arrived at EDR: 03/23/2010
Date Made Active in Reports: 04/14/2010
Number of Days to Update: 22

Source: SWRCB
Telephone: 916-480-1028
Last EDR Contact: 05/05/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 916-341-5712
Last EDR Contact: 04/12/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 02/02/2010
Date Data Arrived at EDR: 02/03/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 15

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/01/2010
Date Data Arrived at EDR: 03/03/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 40

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 02/25/2010
Date Data Arrived at EDR: 02/25/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 46

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/01/2008
Date Data Arrived at EDR: 12/30/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 76

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 02/08/2010
Date Data Arrived at EDR: 02/09/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 9

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 02/11/2010
Date Data Arrived at EDR: 02/11/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 60

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 03/10/2010
Date Data Arrived at EDR: 03/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 27

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/19/2009
Date Data Arrived at EDR: 02/19/2009
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 25

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/19/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 02/08/2010
Date Data Arrived at EDR: 02/09/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/09/2010
Next Scheduled EDR Contact: 02/22/2010
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 04/02/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 04/05/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 10/01/2009
Date Data Arrived at EDR: 11/04/2009
Date Made Active in Reports: 12/16/2009
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/23/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-972-3336
Last EDR Contact: 03/22/2010
Next Scheduled EDR Contact: 06/21/2010
Data Release Frequency: Varies

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: Quarterly

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 01/06/2010
Date Data Arrived at EDR: 03/24/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 16

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/24/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 03/09/2010
Date Data Arrived at EDR: 03/10/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 30

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 02/08/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 08/19/2009
Date Data Arrived at EDR: 12/29/2009
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 43

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 12/14/2009
Next Scheduled EDR Contact: 03/22/2010
Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 02/08/2010
Date Data Arrived at EDR: 02/09/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/09/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 02/25/2010
Date Made Active in Reports: 03/04/2010
Number of Days to Update: 7

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 04/05/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8
Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 06/21/2010
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18
Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing
Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35
Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/05/2010
Date Data Arrived at EDR: 02/11/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 60
Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

LUCIS: Land Use Control Information System
LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31
Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 03/17/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Varies

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 01/28/2010
Date Data Arrived at EDR: 01/29/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 20
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/15/2010
Date Data Arrived at EDR: 03/16/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 24

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/16/2010
Next Scheduled EDR Contact: 12/28/2009
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 01/06/2010
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 35

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 04/07/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 05/09/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 42

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 03/22/2010
Date Data Arrived at EDR: 03/23/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 17

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/05/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 03/22/2010
Date Data Arrived at EDR: 03/23/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 17

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 05/05/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 01/13/2010
Date Data Arrived at EDR: 01/15/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/29/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/12/2010
Date Data Arrived at EDR: 02/09/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 62

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 02/09/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 703-692-8801
Last EDR Contact: 04/21/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 09/30/2009
Date Made Active in Reports: 12/01/2009
Number of Days to Update: 62

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 03/18/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 08/03/2009
Date Data Arrived at EDR: 10/27/2009
Date Made Active in Reports: 11/09/2009
Number of Days to Update: 13

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/05/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/01/2009
Date Data Arrived at EDR: 12/15/2009
Date Made Active in Reports: 01/19/2010
Number of Days to Update: 35

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 04/02/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 01/05/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 05/08/2009
Number of Days to Update: 1

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 01/21/2010
Next Scheduled EDR Contact: 06/14/2010
Data Release Frequency: Varies

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/17/2009
Date Data Arrived at EDR: 12/08/2009
Date Made Active in Reports: 01/19/2010
Number of Days to Update: 42

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 03/10/2010
Next Scheduled EDR Contact: 06/21/2010
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 01/13/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 36

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 03/02/2010
Next Scheduled EDR Contact: 06/14/2010
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002
Date Data Arrived at EDR: 04/14/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 46

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 04/21/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 03/01/2010
Next Scheduled EDR Contact: 06/14/2010
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 03/01/2010
Next Scheduled EDR Contact: 06/14/2010
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 01/06/2010
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/10/2009
Date Data Arrived at EDR: 11/18/2009
Date Made Active in Reports: 01/19/2010
Number of Days to Update: 62

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 03/29/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 09/01/2009
Date Data Arrived at EDR: 10/21/2009
Date Made Active in Reports: 12/01/2009
Number of Days to Update: 41

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/22/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 12/24/2009
Date Data Arrived at EDR: 12/31/2009
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 41

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/12/2010
Date Data Arrived at EDR: 01/13/2010
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 28

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/14/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 10/19/2009
Date Data Arrived at EDR: 10/22/2009
Date Made Active in Reports: 12/01/2009
Number of Days to Update: 40

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 02/19/2009
Date Made Active in Reports: 05/22/2009
Number of Days to Update: 92

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/25/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Biennially

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CA WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 03/01/2010
Next Scheduled EDR Contact: 06/14/2010
Data Release Frequency: Quarterly

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 02/22/2010
Date Data Arrived at EDR: 02/24/2010
Date Made Active in Reports: 03/04/2010
Number of Days to Update: 8

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/24/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

Date of Government Version: 01/06/2010
Date Data Arrived at EDR: 01/06/2010
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 12

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 04/07/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES].

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records

Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/29/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: No Update Planned

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 12/22/2009
Date Data Arrived at EDR: 01/25/2010
Date Made Active in Reports: 01/29/2010
Number of Days to Update: 4

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 04/14/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 10/21/2009
Date Made Active in Reports: 10/28/2009
Number of Days to Update: 7

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/26/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 07/14/2009
Date Made Active in Reports: 07/23/2009
Number of Days to Update: 9

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 04/09/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/21/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 02/10/2010
Date Data Arrived at EDR: 02/11/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 60

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 04/23/2010
Next Scheduled EDR Contact: 08/09/2010
Data Release Frequency: Varies

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 01/06/2010
Date Data Arrived at EDR: 03/24/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 16

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/24/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 02/24/2010
Date Data Arrived at EDR: 03/17/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 23

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 04/21/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 11/09/2009
Date Data Arrived at EDR: 12/18/2009
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/16/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Varies

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/18/2010
Date Data Arrived at EDR: 01/19/2010
Date Made Active in Reports: 01/29/2010
Number of Days to Update: 10

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 04/21/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action (a??cleanupsa??) tracked in EnviroStor.

Date of Government Version: 02/08/2010
Date Data Arrived at EDR: 02/09/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/09/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Quarterly

FINANCIAL ASSURANCE 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 03/09/2010
Date Data Arrived at EDR: 03/10/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 30

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Varies

FINANCIAL ASSURANCE: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 03/01/2007
Date Data Arrived at EDR: 06/01/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 28

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 05/05/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/21/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: N/A

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 01/01/2008
Date Data Arrived at EDR: 02/18/2009
Date Made Active in Reports: 05/29/2009
Number of Days to Update: 100

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 02/24/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Historical Auto Stations: EDR Proprietary Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Historical Cleaners: EDR Proprietary Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/19/2010
Date Data Arrived at EDR: 01/21/2010
Date Made Active in Reports: 01/29/2010
Number of Days to Update: 8

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/05/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/19/2010
Date Data Arrived at EDR: 01/21/2010
Date Made Active in Reports: 02/02/2010
Number of Days to Update: 12

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/05/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 02/10/2010
Date Data Arrived at EDR: 02/11/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 7

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 02/08/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Semi-Annually

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 01/20/2010
Date Made Active in Reports: 01/29/2010
Number of Days to Update: 9

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 04/16/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Semi-Annually

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing

Kern County Sites and Tanks Listing.

Date of Government Version: 03/16/2010
Date Data Arrived at EDR: 03/17/2010
Date Made Active in Reports: 04/14/2010
Number of Days to Update: 28

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: Quarterly

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 03/29/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 09/30/2009
Date Data Arrived at EDR: 12/28/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 21

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/19/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/25/2010
Date Data Arrived at EDR: 01/27/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 22

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/23/2010
Next Scheduled EDR Contact: 08/09/2010
Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 03/02/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 02/09/2010
Date Data Arrived at EDR: 02/12/2010
Date Made Active in Reports: 03/04/2010
Number of Days to Update: 20

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/22/2010
Next Scheduled EDR Contact: 08/09/2010
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/25/2010
Date Data Arrived at EDR: 01/25/2010
Date Made Active in Reports: 02/02/2010
Number of Days to Update: 8

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 04/23/2010
Next Scheduled EDR Contact: 08/09/2010
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 01/21/2010
Date Data Arrived at EDR: 01/25/2010
Date Made Active in Reports: 02/02/2010
Number of Days to Update: 8

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/19/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Semi-Annually

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 01/20/2010
Date Data Arrived at EDR: 02/03/2010
Date Made Active in Reports: 02/23/2010
Number of Days to Update: 20

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 04/12/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Semi-Annually

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 07/09/2008
Date Data Arrived at EDR: 07/09/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 22

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 06/21/2010
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 06/21/2010
Data Release Frequency: No Update Planned

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 12/02/2009
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 03/04/2010
Number of Days to Update: 16

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/12/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 02/03/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 03/04/2010
Number of Days to Update: 16

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/12/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 02/03/2010
Date Data Arrived at EDR: 02/12/2010
Date Made Active in Reports: 02/23/2010
Number of Days to Update: 11

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/12/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 03/16/2010
Date Data Arrived at EDR: 03/17/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 23

Source: Placer County Health and Human Services
Telephone: 530-889-7312
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/21/2010
Date Data Arrived at EDR: 01/27/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 22

Source: Department of Public Health
Telephone: 951-358-5055
Last EDR Contact: 03/29/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 01/21/2010
Date Data Arrived at EDR: 01/27/2010
Date Made Active in Reports: 02/02/2010
Number of Days to Update: 6
Source: Health Services Agency
Telephone: 951-358-5055
Last EDR Contact: 03/29/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 01/05/2010
Date Data Arrived at EDR: 01/15/2010
Date Made Active in Reports: 01/29/2010
Number of Days to Update: 14
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/12/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 01/21/2010
Date Data Arrived at EDR: 02/02/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 16
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/12/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 03/16/2010
Date Data Arrived at EDR: 03/17/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 23
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/15/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database
The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 07/16/2008
Date Data Arrived at EDR: 10/29/2008
Date Made Active in Reports: 11/26/2008
Number of Days to Update: 28
Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/31/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2009
Date Data Arrived at EDR: 12/04/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 45
Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Varies

Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 12/15/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 34
Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 03/16/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Varies

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 03/16/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 10/01/2008
Number of Days to Update: 12
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 03/16/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 10/14/2009
Date Data Arrived at EDR: 10/15/2009
Date Made Active in Reports: 11/02/2009
Number of Days to Update: 18
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/29/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Semi-Annually

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 01/05/2010
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 13
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/22/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/22/2010
Date Data Arrived at EDR: 03/23/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 17
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/22/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Semi-Annually

SANTA CLARA COUNTY:

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22
Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 05/29/2009
Date Data Arrived at EDR: 06/01/2009
Date Made Active in Reports: 06/15/2009
Number of Days to Update: 14
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 06/21/2010
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 08/31/2009
Date Data Arrived at EDR: 08/31/2009
Date Made Active in Reports: 09/18/2009
Number of Days to Update: 18
Source: City of San Jose Fire Department
Telephone: 408-277-4659
Last EDR Contact: 02/15/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: Annually

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 03/11/2010
Date Data Arrived at EDR: 03/16/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 24
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 06/21/2010
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/11/2010
Date Data Arrived at EDR: 03/16/2010
Date Made Active in Reports: 04/14/2010
Number of Days to Update: 29
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 06/21/2010
Data Release Frequency: Quarterly

SONOMA COUNTY:

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/05/2010
Date Data Arrived at EDR: 01/06/2010
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 12

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 04/05/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 04/01/2009
Date Data Arrived at EDR: 04/02/2009
Date Made Active in Reports: 04/09/2009
Number of Days to Update: 7

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 04/13/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Semi-Annually

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 01/26/2010
Date Data Arrived at EDR: 02/25/2010
Date Made Active in Reports: 03/04/2010
Number of Days to Update: 7

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/23/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 10/05/2009
Date Made Active in Reports: 10/13/2009
Number of Days to Update: 8

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/03/2010
Next Scheduled EDR Contact: 08/16/2010
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/23/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 03/05/2010
Date Data Arrived at EDR: 03/24/2010
Date Made Active in Reports: 04/14/2010
Number of Days to Update: 21

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/24/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 12/28/2009
Date Data Arrived at EDR: 12/31/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 18

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/29/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 09/11/2009
Number of Days to Update: 16

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 03/02/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 01/20/2010
Date Made Active in Reports: 02/05/2010
Number of Days to Update: 16

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/23/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/04/2010
Date Data Arrived at EDR: 02/11/2010
Date Made Active in Reports: 03/17/2010
Number of Days to Update: 34

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 02/11/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 12/01/2009
Date Made Active in Reports: 12/14/2009
Number of Days to Update: 13

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 02/23/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 11/03/2009
Date Data Arrived at EDR: 02/12/2010
Date Made Active in Reports: 02/22/2010
Number of Days to Update: 10

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 03/01/2010
Next Scheduled EDR Contact: 06/14/2010
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 07/17/2009
Date Made Active in Reports: 08/10/2009
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/22/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: PennWell Corporation
Telephone: (800) 823-6277
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2009 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

© 2010 Tele Atlas North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

PICO CANYON ROAD
PICO CANYON ROAD
VALENCIA, CA 91355

TARGET PROPERTY COORDINATES

Latitude (North):	34.39490 - 34° 23' 41.6''
Longitude (West):	118.6212 - 118° 37' 16.3''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	350971.4
UTM Y (Meters):	3806938.8
Elevation:	1315 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	34118-D6 VAL VERDE, CA
Most Recent Revision:	1991
East Map:	34118-D5 NEWHALL, CA
Most Recent Revision:	1988

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

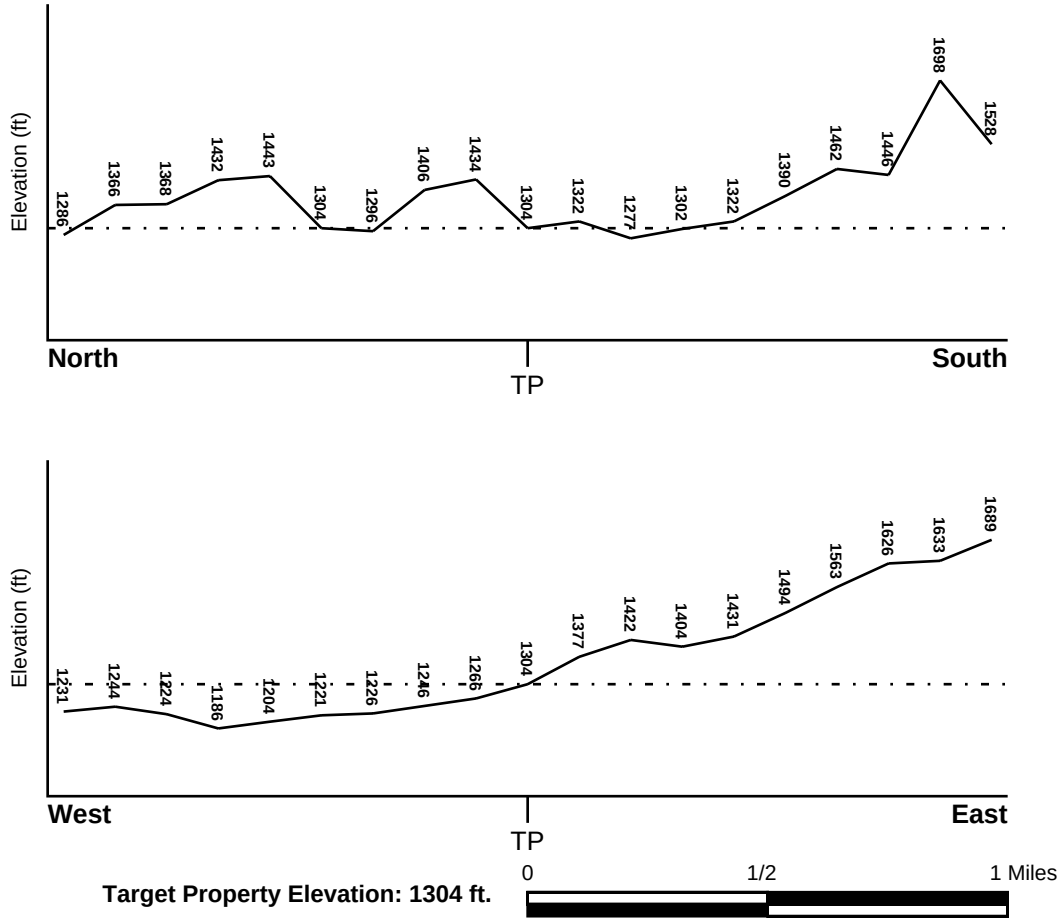
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General WSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 1304 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
LOS ANGELES, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06037C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
NEWHALL	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

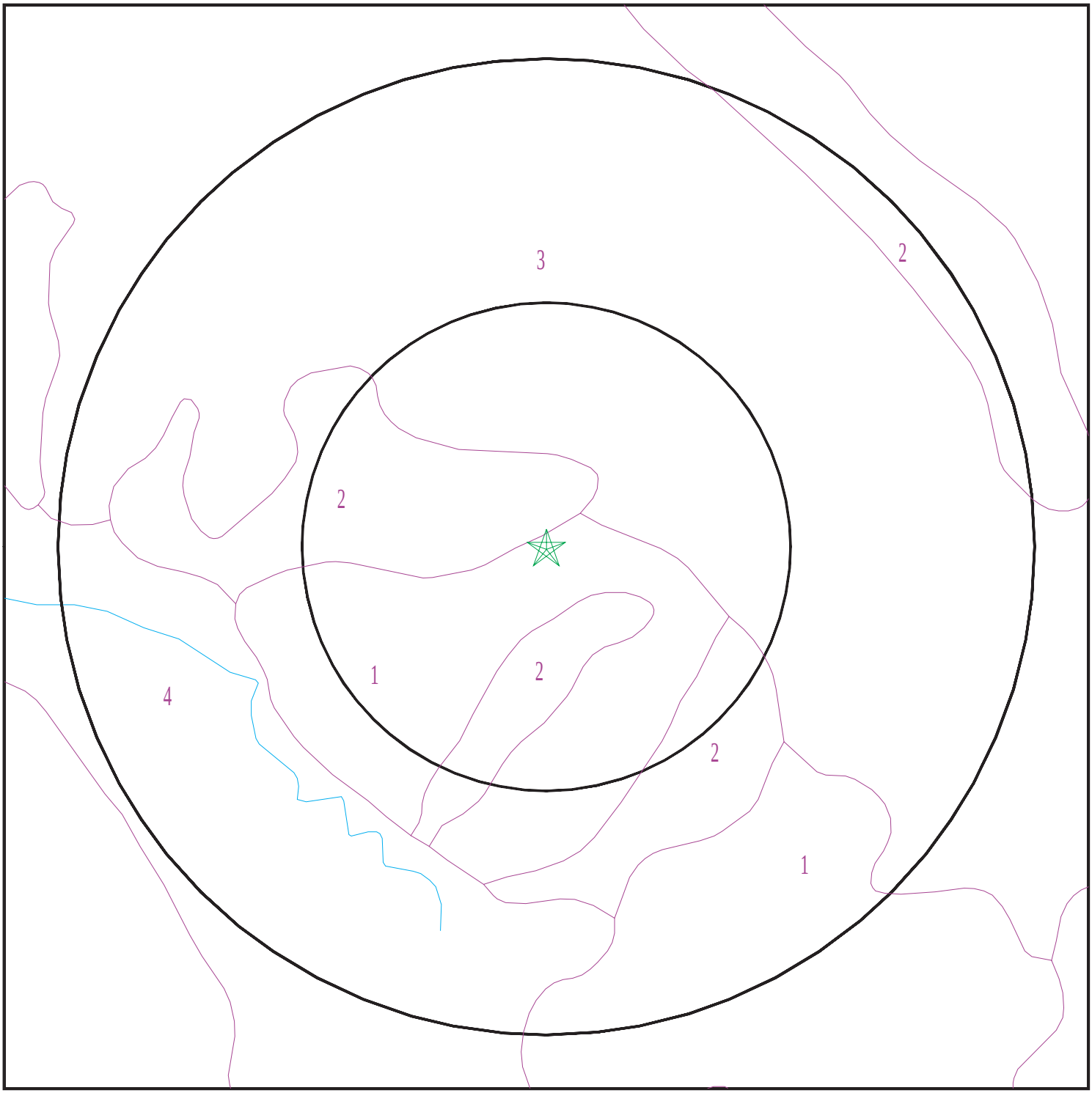
Era:	Cenozoic
System:	Tertiary
Series:	Pliocene
Code:	Tpc *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Continental Deposits

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 2763885.2s



SITE NAME:	Pico Canyon Road	CLIENT:	Building Analytics
ADDRESS:	Pico Canyon Road Valencia CA 91355	CONTACT:	Russ Cote
		INQUIRY #:	2763885.2s
LAT/LONG:	34.3949 / 118.6212	DATE:	May 06, 2010 7:19 pm

Copyright © 2010 EDR, Inc. © 2010 Tele Atlas Rel. 07/2007.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Castaic

Soil Surface Texture: silty clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0.42	Max: Min:
2	11 inches	27 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0.42	Max: Min:
3	27 inches	31 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0.42	Max: Min:

Soil Map ID: 2

Soil Component Name: Yolo

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	18 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.3 Min: 5.6
2	18 inches	72 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.3 Min: 5.6

Soil Map ID: 3

Soil Component Name: Castaic

Soil Surface Texture: silty clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0.42	Max: Min:
2	9 inches	25 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0.42	Max: Min:
3	25 inches	29 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	Not reported	Max: 1.4 Min: 0.42	Max: Min:

Soil Map ID: 4

Soil Component Name: Yolo

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	18 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.3 Min: 5.6
2	18 inches	72 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.3 Min: 5.6

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

OTHER STATE DATABASE INFORMATION

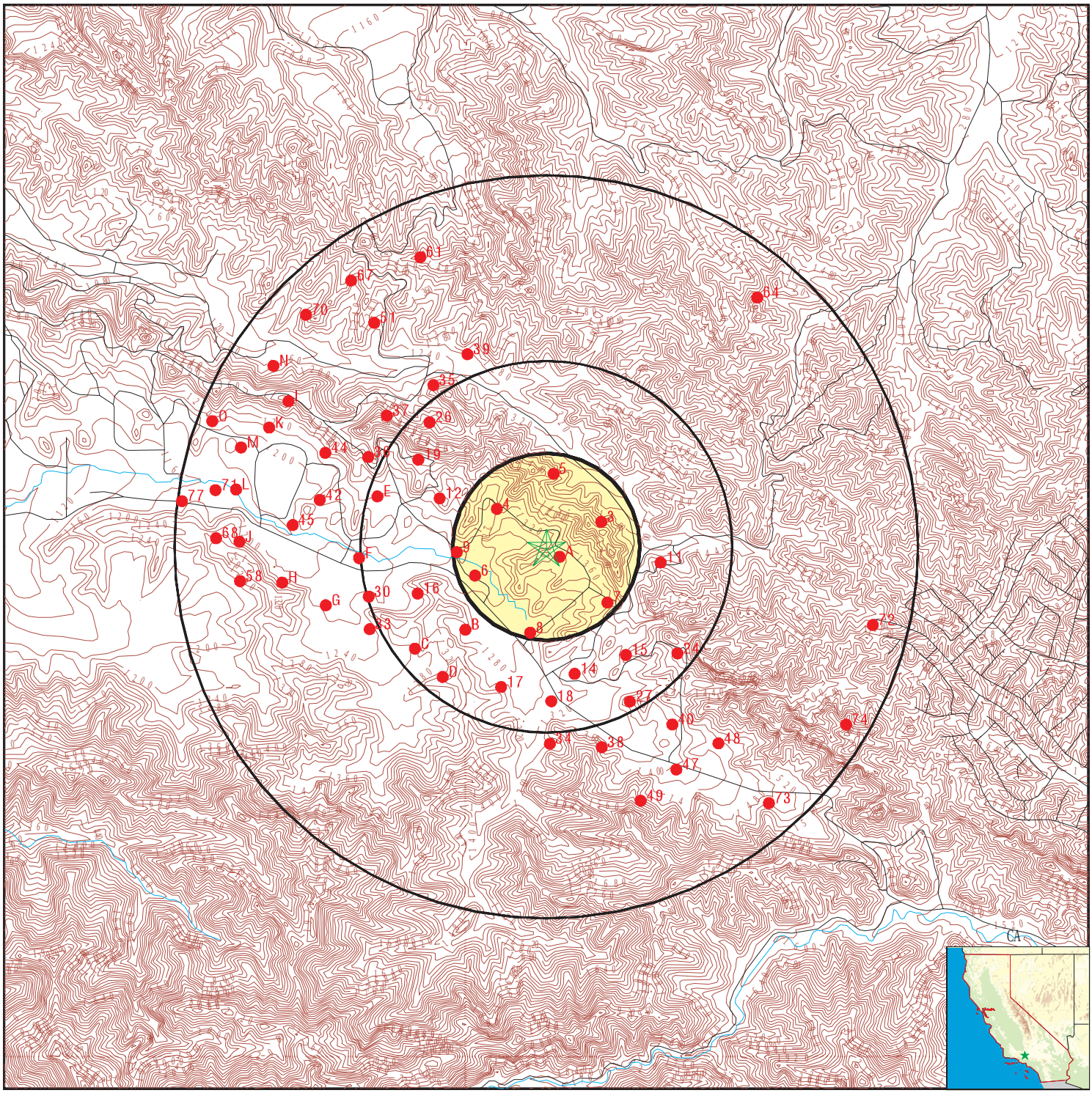
STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	CAOG60000043225	0 - 1/8 Mile SSE
A2	CAOG60000043204	0 - 1/8 Mile ESE
3	CAOG60000043295	1/8 - 1/4 Mile ENE
4	CAOG60000043307	1/8 - 1/4 Mile NW
5	CAOG60000043360	1/8 - 1/4 Mile North
6	CAOG60000043160	1/8 - 1/4 Mile WSW
7	CAOG60000043086	1/8 - 1/4 Mile SE
8	CAOG60000042990	1/8 - 1/4 Mile South
9	CAOG60000043226	1/8 - 1/4 Mile West
B10	CAOG60000043009	1/4 - 1/2 Mile SW
11	CAOG60000043199	1/4 - 1/2 Mile East
12	CAOG60000043325	1/4 - 1/2 Mile WNW
B13	CAOG60000042993	1/4 - 1/2 Mile SW
14	CAOG60000042879	1/4 - 1/2 Mile SSE
15	CAOG60000042934	1/4 - 1/2 Mile SE
16	CAOG60000043114	1/4 - 1/2 Mile WSW
17	CAOG60000042843	1/4 - 1/2 Mile SSW
18	CAOG60000042796	1/4 - 1/2 Mile South
19	CAOG60000043382	1/4 - 1/2 Mile NW
C20	CAOG60000042975	1/4 - 1/2 Mile SW
C21	CAOG60000042923	1/4 - 1/2 Mile SW
D22	CAOG60000042855	1/4 - 1/2 Mile SW
E23	CAOG60000043331	1/4 - 1/2 Mile WNW
24	CAOG60000042939	1/4 - 1/2 Mile SE
D25	CAOG60000042880	1/4 - 1/2 Mile SW
26	CAOG60000043468	1/4 - 1/2 Mile NW
27	CAOG60000042794	1/4 - 1/2 Mile SSE
C28	CAOG60000042949	1/4 - 1/2 Mile SW
F29	CAOG60000043222	1/4 - 1/2 Mile West
30	CAOG60000043106	1/4 - 1/2 Mile WSW
E31	CAOG60000043323	1/4 - 1/2 Mile WNW
F32	CAOG60000043201	1/2 - 1 Mile West
33	CAOG60000043003	1/2 - 1 Mile WSW
34	CAOG60000042652	1/2 - 1 Mile South
35	CAOG60000043542	1/2 - 1 Mile NW
36	CAOG60000043387	1/2 - 1 Mile WNW
37	CAOG60000043478	1/2 - 1 Mile NW
38	CAOG60000042644	1/2 - 1 Mile SSE
39	CAOG60000043611	1/2 - 1 Mile NNW
40	CAOG60000042707	1/2 - 1 Mile SE
G41	CAOG60000043115	1/2 - 1 Mile WSW
42	CAOG60000043321	1/2 - 1 Mile WNW
G43	CAOG60000043045	1/2 - 1 Mile WSW
44	CAOG60000043398	1/2 - 1 Mile WNW
45	CAOG60000043289	1/2 - 1 Mile West
H46	CAOG60000043167	1/2 - 1 Mile West

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
47	CAOG60000042588	1/2 - 1 Mile SSE
48	CAOG60000042654	1/2 - 1 Mile SE
49	CAOG60000042487	1/2 - 1 Mile SSE
H50	CAOG60000043118	1/2 - 1 Mile West
51	CAOG60000043656	1/2 - 1 Mile NW
I52	CAOG60000043511	1/2 - 1 Mile WNW
J53	CAOG60000043269	1/2 - 1 Mile West
K54	CAOG60000043471	1/2 - 1 Mile WNW
K55	CAOG60000043474	1/2 - 1 Mile WNW
L56	CAOG60000043334	1/2 - 1 Mile West
K57	CAOG60000043423	1/2 - 1 Mile WNW
58	CAOG60000043144	1/2 - 1 Mile West
I59	CAOG60000043516	1/2 - 1 Mile WNW
M60	CAOG60000043420	1/2 - 1 Mile WNW
61	CAOG60000043750	1/2 - 1 Mile NNW
J62	CAOG60000043241	1/2 - 1 Mile West
N63	CAOG60000043591	1/2 - 1 Mile NW
64	CAOG60000043691	1/2 - 1 Mile NE
M65	CAOG60000043400	1/2 - 1 Mile WNW
L66	CAOG60000043335	1/2 - 1 Mile West
67	CAOG60000043714	1/2 - 1 Mile NW
68	CAOG60000043262	1/2 - 1 Mile West
N69	CAOG60000043579	1/2 - 1 Mile WNW
70	CAOG60000043667	1/2 - 1 Mile NW
71	CAOG60000043333	1/2 - 1 Mile West
72	CAOG60000043016	1/2 - 1 Mile ESE
73	CAOG60000042475	1/2 - 1 Mile SE
74	CAOG60000042706	1/2 - 1 Mile ESE
O75	CAOG60000043490	1/2 - 1 Mile WNW
O76	CAOG60000043450	1/2 - 1 Mile WNW
77	CAOG60000043318	1/2 - 1 Mile West

PHYSICAL SETTING SOURCE MAP - 2763885.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Pico Canyon Road	CLIENT:	Building Analytics
ADDRESS:	Pico Canyon Road Valencia CA 91355	CONTACT:	Russ Cote
		INQUIRY #:	2763885.2s
LAT/LONG:	34.3949 / 118.6212	DATE:	May 06, 2010 7:19 pm

Copyright © 2010 EDR, Inc. © 2010 Tele Atlas Rel. 07/2007.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

A1
SSE **OIL_GAS** **CAOG60000043225**
0 - 1/8 Mile

Apinumber:	03713270	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	91
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	006
Source:	gps		
Latitude27:	34.394683738		
Longitude2:	-118.620143394		
Latitude83:	34.394681042		
Longitude8:	-118.621064835		
Td:	0		
Sec:	25		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043225

A2
ESE **OIL_GAS** **CAOG60000043204**
0 - 1/8 Mile

Apinumber:	03713271	Operator:	Oryx Energy Co.
Lease:	Ranch San Francisco	Well no:	91-A
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.394339		
Longitude2:	-118.619154		
Latitude83:	34.394336316		
Longitude8:	-118.620075408		
Td:	0		
Sec:	25		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/08/1951
Abanddate:	03/14/1952	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043204

3
ENE **OIL_GAS** **CAOG60000043295**
1/8 - 1/4 Mile

Apinumber:	03712616	Operator:	Oryx Energy Co.
Lease:	Newhall Corp.-Wolfson	Well no:	4-5
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.395879		
Longitude2:	-118.617688		
Latitude83:	34.39587625		
Longitude8:	-118.618609363		
Td:	0		
Sec:	25		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	08/07/1941
Abanddate:	02/20/1942	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043295

4
NW **OIL_GAS** **CAOG60000043307**
1/8 - 1/4 Mile

Apinumber:	03713267	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	88
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	036
Source:	opr		
Latitude27:	34.396381964		
Longitude2:	-118.622601335		
Latitude83:	34.396379193		
Longitude8:	-118.623522798		
Td:	0		
Sec:	25		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043307

5
North **OIL_GAS** **CAOG60000043360**
1/8 - 1/4 Mile

Apinumber:	03712615	Operator:	Oryx Energy Co.
Lease:	Newhall Corp.-Wolfson	Well no:	3-5
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.397752		
Longitude2:	-118.619935		
Latitude83:	34.397749173		
Longitude8:	-118.620856419		
Td:	0		

Sec:	25		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	08/07/1941
Abanddate:	02/20/1942	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043360

6
WSW **OIL_GAS** **CAOG60000043160**
1/8 - 1/4 Mile

Apinumber:	03713256	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	77
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.393776613		
Longitude2:	-118.623633522		
Latitude83:	34.393773954		
Longitude8:	-118.624555035		
Td:	0		
Sec:	36		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043160

7
SE **OIL_GAS** **CAOG60000043086**
1/8 - 1/4 Mile

Apinumber:	03713276	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	96
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.3927239		
Longitude2:	-118.617398606		
Latitude83:	34.392721282		
Longitude8:	-118.618319965		
Td:	0		
Sec:	36		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043086

Map ID
Direction
Distance

Database EDR ID Number

8
South **OIL_GAS** **CAOG60000042990**
1/8 - 1/4 Mile

Apinumber:	03713255	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	76
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.3915472		
Longitude2:	-118.62103328		
Latitude83:	34.391544636		
Longitude8:	-118.621954769		
Td:	0		
Sec:	36		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042990

9
West **OIL_GAS** **CAOG60000043226**
1/8 - 1/4 Mile

Apinumber:	03713257	Operator:	Oryx Energy Co.
Lease:	Rancho San Francisco	Well no:	78
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.394692		
Longitude2:	-118.624488		
Latitude83:	34.394689306		
Longitude8:	-118.625409556		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/08/1951
Abanddate:	03/14/1952	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043226

B10
SW **OIL_GAS** **CAOG60000043009**
1/4 - 1/2 Mile

Apinumber:	03712892	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	139
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.391739307		
Longitude2:	-118.623834379		
Latitude83:	34.39173674		
Longitude8:	-118.624755947		
Td:	0		
Sec:	36		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043009

11
East **OIL_GAS** **CAOG60000043199**
1/4 - 1/2 Mile

Apinumber:	03712617	Operator:	Oryx Energy Co.
Lease:	Newhall Corp.-Wolfson	Well no:	5-5
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.394288		
Longitude2:	-118.614897		
Latitude83:	34.394285314		
Longitude8:	-118.61581829		
Td:	0		
Sec:	25		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	08/07/1941
Abanddate:	02/20/1942	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043199

12
WNW **OIL_GAS** **CAOG60000043325**
1/4 - 1/2 Mile

Apinumber:	03713279	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	99
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.396790642		
Longitude2:	-118.625296877		
Latitude83:	34.396787858		
Longitude8:	-118.626218472		
Td:	0		

Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043325

B13
SW
1/4 - 1/2 Mile

OIL_GAS **CAOG60000042993**

Apinumber:	03712853	Operator:	Oryx Energy Co.
Lease:	Rancho San Francisco	Well no:	39
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	136
Source:	hud		
Latitude27:	34.391584		
Longitude2:	-118.624342		
Latitude83:	34.391581437		
Longitude8:	-118.625263561		
Td:	0		
Sec:	35		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/08/1951
Abanddate:	03/14/1952	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042993

14
SSE
1/4 - 1/2 Mile

OIL_GAS **CAOG60000042879**

Apinumber:	03713249	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	70
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.389942362		
Longitude2:	-118.618943267		
Latitude83:	34.389939861		
Longitude8:	-118.619864716		
Td:	0		
Sec:	36		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042879

Map ID
Direction
Distance

Database EDR ID Number

15
SE
1/4 - 1/2 Mile

OIL_GAS **CAOG60000042934**

Apinumber:	03713285	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	106
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.390675268		
Longitude2:	-118.616530226		
Latitude83:	34.390672738		
Longitude8:	-118.617451547		
Td:	0		
Sec:	36		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042934

16
WSW
1/4 - 1/2 Mile

OIL_GAS **CAOG60000043114**

Apinumber:	03712851	Operator:	Oryx Energy Co.
Lease:	Rancho San Francisco	Well no:	37
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	136
Source:	hud		
Latitude27:	34.393077		
Longitude2:	-118.626334		
Latitude83:	34.393074376		
Longitude8:	-118.627255612		
Td:	0		
Sec:	35		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/08/1951
Abanddate:	03/14/1952	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043114

17
SSW
1/4 - 1/2 Mile

OIL_GAS **CAOG60000042843**

Apinumber:	03712854	Operator:	Oryx Energy Co.
Lease:	Rancho San Francisco	Well no:	40
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.389424		
Longitude2:	-118.622402		
Latitude83:	34.389421527		
Longitude8:	-118.623323514		
Td:	0		
Sec:	36		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/08/1951
Abanddate:	03/14/1952	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042843

18
South **OIL_GAS** **CAOG60000042796**
1/4 - 1/2 Mile

Apinumber:	03712849	Operator:	Oryx Energy Co.
Lease:	Rancho San Francisco	Well no:	35
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.388871		
Longitude2:	-118.620041		
Latitude83:	34.388868548		
Longitude8:	-118.62096245		
Td:	0		
Sec:	36		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/08/1951
Abanddate:	03/14/1952	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042796

19
NW **OIL_GAS** **CAOG60000043382**
1/4 - 1/2 Mile

Apinumber:	03713262	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	83
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	opr		
Latitude27:	34.398302971		
Longitude2:	-118.626303971		
Latitude83:	34.398300125		
Longitude8:	-118.627225595		
Td:	0		

Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043382

C20
SW
1/4 - 1/2 Mile

OIL_GAS **CAOG60000042975**

Apinumber:	03712852	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	38
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.391367		
Longitude2:	-118.626333		
Latitude83:	34.391364449		
Longitude8:	-118.627254617		
Td:	0		
Sec:	35		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042975

C21
SW
1/4 - 1/2 Mile

OIL_GAS **CAOG60000042923**

Apinumber:	03712655	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	153
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.390584		
Longitude2:	-118.625977		
Latitude83:	34.390581481		
Longitude8:	-118.62689861		
Td:	0		
Sec:	35		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042923

Map ID
Direction
Distance

Database EDR ID Number

D22
SW
1/4 - 1/2 Mile

OIL_GAS **CAOG60000042855**

Apinumber:	03713274	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	94
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.389676674		
Longitude2:	-118.624756929		
Latitude83:	34.389674189		
Longitude8:	-118.625678479		
Td:	0		
Sec:	35		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042855

E23
WNW
1/4 - 1/2 Mile

OIL_GAS **CAOG60000043331**

Apinumber:	03713252	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	73
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.396995653		
Longitude2:	-118.627762697		
Latitude83:	34.396992862		
Longitude8:	-118.62868434		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043331

24
SE
1/4 - 1/2 Mile

OIL_GAS **CAOG60000042939**

Apinumber:	03712612	Operator:	Medallion Calif Prpts Co
Lease:	Ferguson	Well no:	10
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.390740418		
Longitude2:	-118.614101305		
Latitude83:	34.390737883		
Longitude8:	-118.615022579		
Td:	0		
Sec:	36		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042939

D25
SW
1/4 - 1/2 Mile

OIL_GAS **CAOG60000042880**

Apinumber:	03712847	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	33
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	gps		
Latitude27:	34.389961661		
Longitude2:	-118.625556716		
Latitude83:	34.389959167		
Longitude8:	-118.6264783		
Td:	0		
Sec:	35		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042880

26
NW
1/4 - 1/2 Mile

OIL_GAS **CAOG60000043468**

Apinumber:	03712614	Operator:	Oryx Energy Co.
Lease:	Newhall Corp.-Wolfson	Well no:	2-7
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.399762		
Longitude2:	-118.625771		
Latitude83:	34.399759093		
Longitude8:	-118.626692576		
Td:	0		

Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	08/07/1941
Abanddate:	02/20/1942	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043468

27
SSE
1/4 - 1/2 Mile

OIL_GAS **CAOG60000042794**

Apinumber:	03713247	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	68
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.388858847		
Longitude2:	-118.616343835		
Latitude83:	34.388856394		
Longitude8:	-118.617265148		
Td:	0		
Sec:	36		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042794

C28
SW
1/4 - 1/2 Mile

OIL_GAS **CAOG60000042949**

Apinumber:	03712654	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	152
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	opr		
Latitude27:	34.390824743		
Longitude2:	-118.62707566		
Latitude83:	34.390822212		
Longitude8:	-118.62799734		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042949

Map ID
Direction
Distance

Database EDR ID Number

F29
West
1/4 - 1/2 Mile

OIL_GAS **CAOG60000043222**

Apinumber:	03712857	Operator:	Oryx Energy Co.
Lease:	Rancho San Francisco	Well no:	43
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	136
Source:	hud		
Latitude27:	34.39459		
Longitude2:	-118.628831		
Latitude83:	34.394587315		
Longitude8:	-118.629752677		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/08/1951
Abanddate:	03/14/1952	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043222

30
WSW
1/4 - 1/2 Mile

OIL_GAS **CAOG60000043106**

Apinumber:	03712649	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	31
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.392956		
Longitude2:	-118.628634		
Latitude83:	34.392953384		
Longitude8:	-118.629555677		
Td:	0		
Sec:	35		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043106

E31
WNW
1/4 - 1/2 Mile

OIL_GAS **CAOG60000043323**

Apinumber:	03712872	Operator:	DKM Offshore Energy Inc.
Lease:	Rancho San Francisco	Well no:	60
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	136
Source:	hud		
Latitude27:	34.396745		
Longitude2:	-118.628691		
Latitude83:	34.396742223		
Longitude8:	-118.629612667		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043323

F32
West
1/2 - 1 Mile

OIL_GAS **CAOG60000043201**

Apinumber:	03713273	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	93
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.394332219		
Longitude2:	-118.629359397		
Latitude83:	34.394329546		
Longitude8:	-118.630281093		
Td:	0		
Sec:	35		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043201

33
WSW
1/2 - 1 Mile

OIL_GAS **CAOG60000043003**

Apinumber:	03713268	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	89
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	gps		
Latitude27:	34.391685201		
Longitude2:	-118.628591291		
Latitude83:	34.391682637		
Longitude8:	-118.629512979		
Td:	0		

Sec:	35		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043003

34
South
1/2 - 1 Mile

OIL_GAS **CAOG60000042652**

Apinumber:	03712862	Operator:	Oryx Energy Co.
Lease:	Rancho San Francisco	Well no:	49
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.387209		
Longitude2:	-118.620106		
Latitude83:	34.387206618		
Longitude8:	-118.621027457		
Td:	0		
Sec:	36		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/08/1951
Abanddate:	03/14/1952	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042652

35
NW
1/2 - 1 Mile

OIL_GAS **CAOG60000043542**

Apinumber:	03712613	Operator:	Oryx Energy Co.
Lease:	Newhall Corp.-Wolfson	Well no:	1
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	006
Source:	hud		
Latitude27:	34.401215		
Longitude2:	-118.625593		
Latitude83:	34.401212031		
Longitude8:	-118.626514567		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	08/07/1941
Abanddate:	02/20/1942	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043542

Map ID
Direction
Distance

Database EDR ID Number

36
WNW
1/2 - 1 Mile

OIL_GAS **CAOG60000043387**

Apinumber:	03713258	Operator:	Oryx Energy Co.
Lease:	Rancho San Francisco	Well no:	79
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	136
Source:	hud		
Latitude27:	34.398406		
Longitude2:	-118.62866		
Latitude83:	34.398403153		
Longitude8:	-118.629581661		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/08/1951
Abanddate:	03/14/1952	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043387

37
NW
1/2 - 1 Mile

OIL_GAS **CAOG60000043478**

Apinumber:	03713264	Operator:	Oryx Energy Co.
Lease:	Rancho San Francisco	Well no:	85
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	136
Source:	hud		
Latitude27:	34.400023		
Longitude2:	-118.62779		
Latitude83:	34.400020084		
Longitude8:	-118.628711632		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/08/1951
Abanddate:	03/14/1952	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043478

38
SSE
1/2 - 1 Mile

OIL_GAS **CAOG60000042644**

Apinumber:	03712856	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	42
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.387072		
Longitude2:	-118.61767		
Latitude83:	34.387069621		
Longitude8:	-118.61859139		
Td:	0		
Sec:	36		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042644

39
NNW **OIL_GAS** **CAOG60000043611**
1/2 - 1 Mile

Apinumber:	03712618	Operator:	Oryx Energy Co.
Lease:	Newhall Corp.-Wolfson	Well no:	6-7
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.402421		
Longitude2:	-118.623989		
Latitude83:	34.402417979		
Longitude8:	-118.624910518		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	08/07/1941
Abanddate:	02/20/1942	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043611

40
SE **OIL_GAS** **CAOG60000042707**
1/2 - 1 Mile

Apinumber:	03712605	Operator:	Medallion Calif Prpts Co
Lease:	Ferguson	Well no:	3
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.387961249		
Longitude2:	-118.614344057		
Latitude83:	34.38795883		
Longitude8:	-118.615265395		
Td:	0		

Sec:	36		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042707

G41
WSW
1/2 - 1 Mile

OIL_GAS **CAOG60000043115**

Apinumber:	03712850	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	36
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.39311		
Longitude2:	-118.630378		
Latitude83:	34.393107379		
Longitude8:	-118.631299725		
Td:	0		
Sec:	35		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043115

42
WNW
1/2 - 1 Mile

OIL_GAS **CAOG60000043321**

Apinumber:	03712864	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	51
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.396733		
Longitude2:	-118.630947		
Latitude83:	34.396730226		
Longitude8:	-118.63186873		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043321

Map ID
Direction
Distance

Database EDR ID Number

G43
WSW
1/2 - 1 Mile

OIL_GAS **CAOG60000043045**

Apinumber:	03712653	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	151
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.392125292		
Longitude2:	-118.630941045		
Latitude83:	34.392122711		
Longitude8:	-118.631862743		
Td:	0		
Sec:	35		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043045

44
WNW
1/2 - 1 Mile

OIL_GAS **CAOG60000043398**

Apinumber:	03712867	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	55
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	134
Source:	hud		
Latitude27:	34.398571		
Longitude2:	-118.630682		
Latitude83:	34.398568148		
Longitude8:	-118.631603717		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043398

45
West
1/2 - 1 Mile

OIL_GAS **CAOG60000043289**

Apinumber:	03712633	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	14
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	opr		
Latitude27:	34.395750105		
Longitude2:	-118.6322195		
Latitude83:	34.395747379		
Longitude8:	-118.633141268		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043289

H46
West
1/2 - 1 Mile

OIL_GAS **CAOG60000043167**

Apinumber:	03713260	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	81
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.393841433		
Longitude2:	-118.632268166		
Latitude83:	34.39383878		
Longitude8:	-118.633189975		
Td:	0		
Sec:	35		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043167

47
SSE
1/2 - 1 Mile

OIL_GAS **CAOG60000042588**

Apinumber:	03712603	Operator:	Medallion Calif Prpts Co
Lease:	Ferguson	Well no:	1
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.386201635		
Longitude2:	-118.614156209		
Latitude83:	34.386199294		
Longitude8:	-118.615077495		
Td:	0		

Sec:	36		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042588

48
SE
1/2 - 1 Mile

OIL_GAS **CAOG60000042654**

Apinumber:	03712606	Operator:	Medallion Calif Prpts Co
Lease:	Ferguson	Well no:	4
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.387225434		
Longitude2:	-118.612170858		
Latitude83:	34.387223039		
Longitude8:	-118.613092137		
Td:	0		
Sec:	36		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042654

49
SSE
1/2 - 1 Mile

OIL_GAS **CAOG60000042487**

Apinumber:	03712650	Operator:	Oryx Energy Co.
Lease:	Rancho San Francisco	Well no:	32
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.384984		
Longitude2:	-118.615835		
Latitude83:	34.384981707		
Longitude8:	-118.616756346		
Td:	0		
Sec:	36		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/08/1951
Abanddate:	03/14/1952	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042487

Map ID
Direction
Distance

Database EDR ID Number

H50
West
1/2 - 1 Mile

OIL_GAS **CAOG60000043118**

Apinumber:	03712848	Operator:	Oryx Energy Co.
Lease:	Rancho San Francisco	Well no:	34
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.393161		
Longitude2:	-118.633157		
Latitude83:	34.393158379		
Longitude8:	-118.634078802		
Td:	0		
Sec:	35		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/08/1951
Abanddate:	03/14/1952	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043118

51
NW
1/2 - 1 Mile

OIL_GAS **CAOG60000043656**

Apinumber:	03712896	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	143
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.403648117		
Longitude2:	-118.628378252		
Latitude83:	34.403645051		
Longitude8:	-118.629299937		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043656

I52
WNW
1/2 - 1 Mile

OIL_GAS **CAOG60000043511**

Apinumber:	03713259	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	80
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.400539369		
Longitude2:	-118.631761799		
Latitude83:	34.400536435		
Longitude8:	-118.632683541		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043511

J53
West
1/2 - 1 Mile

OIL_GAS **CAOG60000043269**

Apinumber:	03712621	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	2
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.395341372		
Longitude2:	-118.634293065		
Latitude83:	34.395338658		
Longitude8:	-118.635214927		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043269

K54
WNW
1/2 - 1 Mile

OIL_GAS **CAOG60000043471**

Apinumber:	03712873	Operator:	Oryx Energy Co.
Lease:	Rancho San Francisco	Well no:	61
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.399819		
Longitude2:	-118.633035		
Latitude83:	34.399816097		
Longitude8:	-118.633956779		
Td:	0		

Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/08/1951
Abanddate:	03/14/1952	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043471

K55
WNW
1/2 - 1 Mile

OIL_GAS **CAOG60000043474**

Apinumber:	03713300	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	123
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.399862458		
Longitude2:	-118.633136816		
Latitude83:	34.399859555		
Longitude8:	-118.634058582		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043474

L56
West
1/2 - 1 Mile

OIL_GAS **CAOG60000043334**

Apinumber:	03712629	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	10
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	opr		
Latitude27:	34.397136156		
Longitude2:	-118.634322728		
Latitude83:	34.397133372		
Longitude8:	-118.635244523		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043334

Map ID
Direction
Distance

Database EDR ID Number

K57
WNW
1/2 - 1 Mile

OIL_GAS **CAOG60000043423**

Apinumber:	03712348	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	69
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.398984422		
Longitude2:	-118.633808122		
Latitude83:	34.398981553		
Longitude8:	-118.634729903		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043423

58
West
1/2 - 1 Mile

OIL_GAS **CAOG60000043144**

Apinumber:	03712651	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	149
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.393559856		
Longitude2:	-118.634695231		
Latitude83:	34.393557224		
Longitude8:	-118.635617044		
Td:	0		
Sec:	35		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043144

I59
WNW
1/2 - 1 Mile

OIL_GAS **CAOG60000043516**

Apinumber:	03712869	Operator:	Oryx Energy Co.
Lease:	Rancho San Francisco	Well no:	57
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	136
Source:	hud		
Latitude27:	34.400633		
Longitude2:	-118.633068		
Latitude83:	34.400630062		
Longitude8:	-118.633989777		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/08/1951
Abanddate:	03/14/1952	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043516

M60
WNW
1/2 - 1 Mile

OIL_GAS **CAOG60000043420**

Apinumber:	03712637	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	18
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	opr		
Latitude27:	34.398948261		
Longitude2:	-118.634301011		
Latitude83:	34.398945395		
Longitude8:	-118.635222817		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043420

61
NNW
1/2 - 1 Mile

OIL_GAS **CAOG60000043750**

Apinumber:	03712657	Operator:	Oryx Energy Co.
Lease:	Rancho San Francisco	Well no:	155
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.406209		
Longitude2:	-118.626209		
Latitude83:	34.40620582		
Longitude8:	-118.627130569		
Td:	0		

Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/08/1951
Abanddate:	03/14/1952	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043750

J62
West
1/2 - 1 Mile

OIL_GAS **CAOG60000043241**

Apinumber:	03712622	Operator:	Oryx Energy Co.
Lease:	Ranch San Francisco	Well no:	3
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.39486		
Longitude2:	-118.635153		
Latitude83:	34.394857309		
Longitude8:	-118.636074853		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/08/1951
Abanddate:	03/14/1952	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043241

N63
NW
1/2 - 1 Mile

OIL_GAS **CAOG60000043591**

Apinumber:	03713263	Operator:	Oryx Energy Co.
Lease:	Rancho San Francisco	Well no:	84
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	136
Source:	hud		
Latitude27:	34.402023		
Longitude2:	-118.632798		
Latitude83:	34.402020003		
Longitude8:	-118.633719766		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/08/1951
Abanddate:	03/14/1952	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043591

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

64
NE
1/2 - 1 Mile

OIL_GAS **CAOG60000043691**

Apinumber:	03705637	Operator:	MCOR Oil and Gas Corporation
Lease:	McCulloch NC	Well no:	1
Field:	Hasley Canyon	Caog m2 area:	Any Area
Map:	253	Status cod:	006
Source:	hud		
Latitude27:	34.404634		
Longitude2:	-118.610344		
Latitude83:	34.404630874		
Longitude8:	-118.611265129		
Td:	0		
Sec:	25		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	09/25/1971
Abanddate:	10/29/1971	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043691

M65
WNW
1/2 - 1 Mile

OIL_GAS **CAOG60000043400**

Apinumber:	03712630	Operator:	Oryx Energy Co.
Lease:	Rancho San Francisco	Well no:	11
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.398612		
Longitude2:	-118.635003		
Latitude83:	34.39860915		
Longitude8:	-118.635924837		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/08/1951
Abanddate:	03/14/1952	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043400

L66
West
1/2 - 1 Mile

OIL_GAS **CAOG60000043335**

Apinumber:	03712623	Operator:	Oryx Energy Co.
Lease:	Ranch San Francisco	Well no:	4
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.397141		
Longitude2:	-118.635448		
Latitude83:	34.397138213		
Longitude8:	-118.636369854		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/08/1951
Abanddate:	03/14/1952	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043335

67
NW
1/2 - 1 Mile

OIL_GAS **CAOG60000043714**

Apinumber:	03712900	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	147
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	036
Source:	hud		
Latitude27:	34.405297		
Longitude2:	-118.629468		
Latitude83:	34.405293862		
Longitude8:	-118.630389663		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043714

68
West
1/2 - 1 Mile

OIL_GAS **CAOG60000043262**

Apinumber:	03713266	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	87
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	gps		
Latitude27:	34.395236948		
Longitude2:	-118.635826333		
Latitude83:	34.395234244		
Longitude8:	-118.63674817		
Td:	0		

Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043262

N69
WNW
1/2 - 1 Mile

OIL_GAS **CAOG60000043579**

Apinumber:	03713288	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	109
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.401906675		
Longitude2:	-118.633455429		
Latitude83:	34.401903689		
Longitude8:	-118.634377184		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043579

70
NW
1/2 - 1 Mile

OIL_GAS **CAOG60000043667**

Apinumber:	03712886	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	132
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	067
Source:	hud		
Latitude27:	34.403961		
Longitude2:	-118.631592		
Latitude83:	34.40395792		
Longitude8:	-118.632513726		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043667

Map ID
Direction
Distance

Database EDR ID Number

71
West
1/2 - 1 Mile

OIL_GAS **CAOG60000043333**

Apinumber:	03713272	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	92
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	gps		
Latitude27:	34.397116049		
Longitude2:	-118.635855745		
Latitude83:	34.397113264		
Longitude8:	-118.636777565		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043333

72
ESE
1/2 - 1 Mile

OIL_GAS **CAOG60000043016**

Apinumber:	03705900	Operator:	Shell Western E. & P. Inc.
Lease:	Shell Ferguson	Well no:	2-7
Field:	Any Field	Caog m2 area:	Any Area
Map:	252	Status cod:	006
Source:	hud		
Latitude27:	34.391848		
Longitude2:	-118.604901		
Latitude83:	34.391845407		
Longitude8:	-118.60582202		
Td:	12464		
Sec:	31		
Twn:	04N	Rge:	16W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	04/16/1959
Abanddate:	06/24/1959	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043016

73
SE
1/2 - 1 Mile

OIL_GAS **CAOG60000042475**

Apinumber:	03712607	Operator:	Medallion Calif Prpts Co
Lease:	Ferguson	Well no:	5
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.384890487		
Longitude2:	-118.609796893		
Latitude83:	34.384888195		
Longitude8:	-118.610718079		
Td:	0		
Sec:	36		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042475

74
ESE **OIL_GAS** **CAOG60000042706**
1/2 - 1 Mile

Apinumber:	03712602	Operator:	Shell Oil Co.
Lease:	Shell Ferguson	Well no:	1-7
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	007
Source:	hud		
Latitude27:	34.387958		
Longitude2:	-118.606161		
Latitude83:	34.387955572		
Longitude8:	-118.607082068		
Td:	0		
Sec:	36		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/17/1928
Abanddate:	10/24/1929	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000042706

O75
WNW **OIL_GAS** **CAOG60000043490**
1/2 - 1 Mile

Apinumber:	03712863	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	50
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.400173		
Longitude2:	-118.635511		
Latitude83:	34.400170084		
Longitude8:	-118.636432847		
Td:	0		

Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043490

O76
WNW
1/2 - 1 Mile

OIL_GAS **CAOG60000043450**

Apinumber:	03713284	Operator:	Medallion Calif Prpts Co
Lease:	Rancho San Francisco	Well no:	105
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	008
Source:	gps		
Latitude27:	34.399447731		
Longitude2:	-118.636501784		
Latitude83:	34.399444846		
Longitude8:	-118.637423677		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	01/20/1977
Abanddate:	01/24/1977	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043450

77
West
1/2 - 1 Mile

OIL_GAS **CAOG60000043318**

Apinumber:	03712620	Operator:	Oryx Energy Co.
Lease:	Ranch San Francisco	Well no:	1
Field:	Newhall-Potrero	Caog m2 area:	Any Area
Map:	253	Status cod:	014
Source:	hud		
Latitude27:	34.396683		
Longitude2:	-118.637431		
Latitude83:	34.396680234		
Longitude8:	-118.638352911		
Td:	0		
Sec:	26		
Twn:	04N	Rge:	17W
Bm:	SB		
X coord:	0		
Y coord:	0		
Zone:	Not Reported	Spuddate:	12/08/1951
Abanddate:	03/14/1952	Comments 1:	Not Reported
District:	2	Site id:	CAOG60000043318

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zip	Total Sites	> 4 Pci/L	Pct. > 4 Pci/L
91355	13	0	0.00

Federal EPA Radon Zone for LOS ANGELES County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 91355

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.750 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2009 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Health Services
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

© 2010 Tele Atlas North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

APPENDIX 4.20

Cultural Resources

INTENSIVE PHASE I ARCHAEOLOGICAL SURVEY OF THE WEST RANCH AREA, NEWHALL RANCH, LOS ANGELES COUNTY

1.0 INTRODUCTION

Pursuant to a request from Ms. Gloria Glenn, Vice President - Planning, Newhall Land and Farming Company, an intensive Phase I archaeological survey and cultural resources assessment was conducted by W & S Consultants on the West Ranch portion of the Newhall Ranch, Los Angeles County, California (Figure 1). This survey of this approximately 12,000 acres study area was conducted in two phases, with the first occurring during June and July, 1993, and the second in February through April, 1994. This survey and assessment was intended to identify all cultural resources (prehistoric and historical archaeological sites) within the study area and to offer recommendations for any additional archaeological studies on the property that may be warranted.

The intensive Phase I archaeological survey established that the West Ranch study area has a very low density of prehistoric archaeological remains, apparently due to environmental conditions that were not favorable for aboriginal settlement. Historical archaeological resources, similarly, are restricted to one portion of the West Ranch. Although archaeological sites are present within the study area, they are primarily concentrated in two zones: historical cultural resources at the northeastern boundary of the project; and prehistoric sites on either side of the Santa Clara River, between Potrero and Chiquito Canyons.

This document is intended to summarize the background research conducted as part of the study; to outline the field techniques employed to intensively survey the West Ranch; to describe the results of the survey; and to suggest appropriate additional procedures for cultural resource management within the study area. We begin with a discussion of the background studies, before considering these additional topics in turn.

2.0 BACKGROUND STUDIES

2.1 Project Location and Environment

The West Ranch study area portion of the Newhall Ranch is located in northwestern Los Angeles County, immediately west of the City of Santa Clarita (Figure 1). It includes the Santa Clara River and its north and south banks from approximately Castaic Junction to the Los Angeles - Ventura Counties border; the lower reaches of San Martinez Chiquito Canyon on the north side of the river; and the uplands and valleys on the south side of the river to the crest of the Santa Susana Mountains, which constitutes the major portion of the study area. With the exception of the alluvial floodplain and stream bottom of the Santa Clara River, the West Ranch generally consists of highly disected, steeply sided hills, ridges and mountain peaks, with small and narrow intervening drainages. Potrero Canyon, entering the Santa Clara River from the south, comprises a wide and open valley in the otherwise relatively rugged topography of the southern portion of the study area. Flat, open upland mesas are present on the south side of the river, however. These include Potrero, Grapevine and Airport Mesas from west to east, respectively.

With the exception of the Santa Clara River, per se, the study area is notable for its limited water resources, a fact that undoubtedly affected aboriginal and historical use of the property. The study area south of the river, constituting the major portion of the study zone, for example, apparently contains no springs or streams with potable water (Merrill Castle, personal communication, 1993), and thus is unusually dry, even by inland southern California standards. It is for this

reason, discussed below, that the first Spanish map of the West Ranch area characterizes this region as lomas esterilas, "sterile hills".

Although historic and recent land-use changes have altered the environment considerably from what existed during prehistoric times, at least four major plant associations probably characterized the study area during the aboriginal period. These are chaparral, coastal sage scrub, southern oak woodlands, and riparian associations (cf. Muntz 1974).

The chaparral association covers steeper slopes with poorly developed soils and xeric conditions. It includes the following species: California sagebrush (Artemisia californica), white sage (Salvia mellifera), black sage (S. apliana), purple or white-leaved sage (S. Leucophylla), California encilia (Encilia californica), California buckwheat (Eriogonum fasciculatum), chamise (Adneostoma fasciculatum), buckbruch (Ceanothus cuneatus), scrub oak (Quercus dumosa), toyon (Heteromeles arbutifolia), mountain mahogony (Cercocarpus betuloides), lemonade sumac (Rhus integrifolia) and sugar sumac (R. ovata). This is a particularly common association in the West Ranch study area.

The coastal sage scrub community is the climax community for portions of inland-coastal southern California. It is generally composed of coast buckwheat (Eriogonum cinereum) and wild buckwheat (E. fasciculatum), along with black sage (Salvia apliana), common hazardia (Haplopappus squarrosus), prickly phlox (Leptodactylon californicum), yucca (Yucca whipplei) and California sagebrush (Artemisia californica) as major constituents.

Although both of the above plant associations were undoubtedly of subsistence importance to the aboriginal population of the region, the third association, the southern oak woodland, may have been of primary significance in the inland zones adjacent to the coastal strip. This results because of the great importance placed on the acorn as a food staple by Native Californians (Kroeber 1925), and the rarity of this resource on the coastal side of the Santa Monica Mountains. The association is characterized by the coast live oak (Quercus lobata) and the valley oak (Q. agrifolia), but also would have included various species of native grasses. Although currently restricted in distribution, this association may once have been found across much of the wide, upper reaches of Potrero Canyon and the mesas on the south side of the Santa Clara River. Currently, stands of oak woodlands are still found at higher elevations on the less precipitous ridge/hilltops on the southern side of the property.

The fourth and final plant association consists of riparian habitats, which are localized and poorly diversified woodlands found in areas of perennial moisture. They include such species as arroyo willow (Salix lasiolepsi), mule fat (Baccharis glutinosa), willow dock (Rumex salicifolius), swamp knotweed (Polygonum coccineum), nettle (Urtica holosericea), cocklebur (Xanthium strumarium) and rabbitsfoot grass (Polypogon monspeiensis). Though this plant association is limited in distribution, it can still be considered to have had significant economic importance in aboriginal times, especially in terms of the acquisition of raw materials for items like baskets, cordage and netting. In addition to the obvious aboriginal presence of riparian habitats in the Santa Clara River valley, small riparian habitats were probably once present in some of

the ephemeral drainages tributary to the valley, and in Salt Canyon on the southern side of the river.

2.2 Ethnographic Background

The Upper Santa Clara Valley region, including the West Ranch portion of the Newhall Ranch, appears to have been inhabited during the ethnographic past by an ethnolinguistic group known as the Tataviam. Some controversy exists in reference to this attribution, as the Tataviam are now extinct and were effectively so prior to the initiation of systematic anthropological studies at the turn of the century. But, based on a few existing word lists, descriptions provided by early travelers, mission placenames, and the recollections of other aboriginal informants, the Tataviam are generally accepted as the aboriginal inhabitants of this region. Their language is believed to represent a member of the Takic branch of the Uto-Aztecan linguistic family (King and Blackburn 1976). In this sense, it was related to other Takic languages in the Los Angeles County region, such as Gabrielino/Fernandeño of the Los Angeles Basin proper, and Kitanemuk of the Antelope Valley.

The Tataviam are thought to have inhabited the upper Santa Clara River drainage from about Piru eastwards to just beyond the Vasquez Rocks/Agua Dulce area; southwards as far as Newhall and the crests of the San Gabriel and Santa Susana Mountains; and northwards to include the middle reaches of Piru Creek, the Liebre Mountains and the southwesternmost fringe of the Antelope Valley (ibid; Kroeber 1925; Earle 1990; Johnson and Earle 1990). Their northern boundary most likely ran along

the northern foothills of the Liebre Mountains (i.e., the edge of the Antelope Valley), and then crossed to the southern slopes of the Sawmill Mountains and the Sierra Pelona, extending as far east as Soledad Pass (Earle 1990:94). Ethnographically, at least, the Tataviam do not appear to have controlled the Leona Valley or areas to the north, with the Elizabeth Lake area proper a zone of uncertainty.

Known Tataviam villages during the historic period include: pi?irukung and ?akavaya, both near modern Piru; tsavayu(?u)ng, San Francisquito; etseng, kuvung and huyung, on Piru Creek above Piru; tochonanga, near Newhall; kwarung, Elizabeth Lake; and tsawayung, near Castaic Junction. At kamulus, near modern Rancho Camulos, a mixed Chumash-Tataviam population lived (King and Blackburn 1976:535-6). Because the name kamulus is unquestionably Chumash and not Tataviam, however, the toponym has been viewed as problematical (Johnson and Earle 1990:197); that is, as not reflecting the original (Tataviam) name for this village. Regardless of original name, however, the Spanish missionary Señan, writing in 1804, indicated that the Chumash inhabitants of the village of sécpey had migrated to kamulos, accounting for this admixture (Señan 1962:15). Sécpey is of course now known as Sespe, near the modern town of Fillmore.

The putative historical Tataviam village of tsawayung, also known as chaguayabit or tacuyamam, has generated interest, due to its reported location at Castaic Junction and its association with Asistencia de San Francisco (cf. Henshaw 1955:196; King and Blackburn 1976:536; Johnson 1978; Johnson and Earle 1990). This Tataviam placename is controversial (or at least ambiguous) on two counts. First, the exact location of it was never precisely identified in the historical records.

Although it has been widely presumed to be at or immediately adjacent to the Asistencia, no archaeological or other evidence of such has yet been forthcoming. Second, and moreover, Henshaw (1955:196) argued that it was not the site of a major village where ceremonies were conducted, as many later authors have also assumed. However, John Johnson (personal communication, 1993) has mentioned that there are a significant number of entries in the San Fernando Mission registrar, noting births, baptism, marriages and deaths from persons originally inhabiting this locale, and suggesting that it was once a village of some size. Thus, it remains somewhat enigmatic. At this point, our best interpretation of its original location places it in approximately one-half mile east of the intersection of Rye Canyon Road and Interstate-5, based on evidence discussed subsequently.

Culturally-speaking, the Tataviam were in most respects similar to their Fernandeño and Chumash neighbors, to the south and west, respectively (King and Blackburn 1976). In this sense, they were hunters-gatherers, with subsistence emphasizing yucca, acorns, juniper berries, sage seeds and islay. Game was also hunted, with small animals, such as rabbits/hares and rodents, probably representing more significant contributions of meat protein than larger game, such as deer.

Almost nothing is known of Tataviam social and political organization. Based on analogies with surrounding groups, however, it can be suggested that they were organized in a series of tribelets, similar to the naciones described by Earle (1990) for the Antelope Valley, and found to be characteristic of much of California aboriginal socio-political organization (cf. Kroeber 1925). The tribelet represented an autonomous

land-holding unit, minimally controlled by a head-chief or big-man. They usually included one large, 'capital' village, sometimes occupied year-around, and a series of smaller, seasonally inhabited hamlets. Whether the Tataviam may have had exogomous clans and moieties, like the Cahuilla and Serrano to the east, is unknown. However, it is estimated that the Tataviam population was less than 1000 people at the time of Euro-American contact, and that only two or three of the largest villages throughout their territory were inhabited at any given time (King and Blackburn 1976).

It is also likely that Tataviam religion followed the patterns of their surrounding neighbors. In this case, shamanism would have functioned as the central element. This posits a direct and personal relationship between each individual and the supernatural world, with this relationship enacted by entering a trance or hallucinatory state (usually based on the ingestion of psychoto-mimetic plants, such as jimsonweed or native tobacco). Shamans, per se, who were considered individuals with an unusual degree of supernatural power, served as ritual specialists: ceremonies and rites were infrequent in occasion and limited in type. Perhaps most importantly, shamans served as healers or curers, with the etiology of disease as well as its cure held to lie in the supernatural world. Shamans are also known to have produced the rock art of this region (Whitley 1992), which depicted the hallucinations and spirits they observed in their vision quests.

Although the Tataviam were one of the earliest groups contacted by Spanish missionaries, with a number of their villages described by members of the Portolá expedition of 1769, a general lack of information on this group exists because, by 1810, all Tataviam had been baptized at Mission San

Fernando and were quickly absorbed by other groups through intermarriage. The last speaker of Tataviam died in 1916 (King and Blackburn 1976).

2.3 Archaeological Background

Archaeologically speaking, more information is available on the Upper Santa Clara River area, although here, too, less is known than for many of the surrounding regions of southern California. In general terms, the prehistory of this inland area appears to parallel that of the Santa Barbara Channel/southern California coastal zone (cf. McIntyre 1990), with William Wallace's (1955) cultural historical framework appropriate as a chronological system of reference.

Correspondingly, the earliest evidence for human occupation of this region corresponds to Wallace's Early Millingstone Period (or, alternatively, the Early Horizon), dated from about 7000 to 4000 years before present (B.P.). This represents a period during which subsistance and adaptation are said to have emphasized the collecting and processing of hard seeds, with inland artifact assemblages, correspondingly, dominated by mullers and millingstones known as manos and metates. Evidence for an Early Millingstone occupation of the Upper Santa Clara Valley region is, admittedly, very limited, and has been found at only two sites. Both of these are located near Vasquez Rocks, with temporal attribution based on the presence of a small number of Olivella barrel beads (McIntyre 1990). Such bead types have subsequently proven unreliable temporal indicators, throwing doubt on human inhabitation of this region before about 4000 years ago. Further, recent excavations at one of these putative early locales, the Escondido Canyon Site,

failed to uncover evidence for occupation prior to about 2700 years B.P. (Love 1990).

The second temporal unit in Wallace's chronology is the Intermediate Period (or Middle Horizon), dated from 3500 to 1500 years B.P. It is marked by a shift to the mortar and pestle, with an increased emphasis on hunting and hunting tools in artifact assemblages. Population appears to have increased during this period, with more temporary camps founded. Evidence for Intermediate Period occupation of the Upper Santa Clara Valley region is substantial, in that it has been found at a number of sites and has been based on radiocarbon, obsidian hydration and typological dating (McIntyre 1990). The Agua Dulce village complex, for example, includes occupation extending back to the Intermediate Period, at which time population of the village may have been 50 or more people (King et al n.d.). Furthermore, the Intermediate Period appears to represent a time during which a substantial exploitation of mid-altitude environments first began, with considerable use, for example, of portions of the nearby Hathaway Ranch (located to northwest of the study area) beginning at this time.

Assuming that the Upper Santa Clara River region was first significantly occupied during the Intermediate Period, as existing evidence now suggests, a parallel can be drawn with the inland Ventura County region, where a similar pattern has been identified (Whitley and Beaudry 1991), as well as possibly the Antelope Valley and western Mojave Desert (Sutton 1988a, 1988b). In all of these areas a major expansion in settlement, the establishment of large site complexes, and an increase in the range of environments exploited, appear to have occurred sometime roughly around 3000 years ago. Although most efforts to explain this expansion have focussed on very local

circumstances and events, it is increasingly clear that this was a major southern California-wide occurrence, and therefore that explanation of it must be sought at a larger level of analysis.

There is a continuity in the inland regions between the Intermediate Period and subsequent times, labelled the Late Prehistoric Period, lasting from 1500 years B.P. to historic contact, at about 200 years B.P. Site complexes first occupied in the Intermediate Period continued to be inhabited, although they increased in size, with more specialized and diversified sites added to the kinds of sites present. In fact, the principal distinction between Intermediate and Late Prehistoric sites in the inland regions is a change in certain diagnostic artifact types (notably, projectile points, with a shift from spear points to bow and arrow points). This change in fact may not signify consequential changes in culture, adaptation or subsistence, although the trends begun in the Intermediate accelerate over time during the Late Prehistoric. For example, a large number of Late Prehistoric Period sites are known from the Upper Santa Clara River/Agua Dulce region (cf. McIntyre 1990), with the Agua Dulce village complex estimated to have grown to a population of 200 to 300 people around A.D. 1500 - 1600 (King et al n.d.). Sometime during this period the Tataviam can be hypothesized to have occupied this region, although it is possible that they may have appeared somewhat earlier. However, the important point is that, during the Late Prehistoric Period, the patterns of lifeways recorded for the ethnographic period were fully in operation.

During the Historic Period, the aboriginal population appears to have dropped considerably. This, without doubt, can be attributed to the effects of missionization and its attendant

relocation of the aboriginal population to centralized locales, along with the depredations of introduced Old World diseases. The Upper Santa Clara River region appears to be one of those inland zones, like the Antelope Valley to the north, that quickly and completely lost its aboriginal population. In particular, the aboriginal population from the Upper Santa Clara Valley was moved into Mission San Fernando, in the San Fernando Valley, and the area was effectively depopulated.

2.4 Historical Background

As noted previously, Euro-American mention of the Newhall Ranch region first occurred in the chronicles of the Portolá expedition of 1769, which passed through the San Fernando Valley to Newhall, then to the Castaic Junction area, and then down the Santa Clara River, to Ventura, on its way to Monterey (Bolton 1971; Boneau Companys 1983; Brandes 1970; Cleland 1940). Portolá, in fact, camped at the confluence of the Santa Clara and Castaic Creeks - modern Castaic Junction - and suggested this locale as an appropriate spot for a mission. Portolá described Castaic Junction as follows:

> The country...is delightful and beautiful in the plain, although the mountains that surround it are bare and rough. In the plain we saw many tall and thick cottonwoods and oaks; the watering place [Castaic Junction] consists of an arroyo with a great deal of water which runs in a moderately wide valley, well grown with willows and cottonwoods. We stopped on the bank of the arroyo, where we found a populous village in which people lived without any cover, for they had no more than a light shelter fenced in like a corral...As soon as we arrived they gave us many baskets of different kinds of seeds, and a sort of sweet preserve like little raisins, and another

> resembling honeycomb, very sweet and purging, and made of the dew which sticks to the reed grass. It is a very suitable site for a mission, with much good land, many palisades, two very large arroyos of water, and five large villages close by.
>
> (Bolton 1971:153)

This description, which bears the ledger entry of Tuesday, August 8, 1769, apparently describes a temporary, late summer encampment of Tataviam, judging from the description of the corral-like huts of the village's inhabitants.

Although the Upper Santa Clara Valley region was traversed by a number of Spanish explorers in subsequent years, it initially remained isolated due to rugged topography, even though Portolá had suggested it as a locale for a mission. With the establishment of Missions San Buenaventura, in 1782, and San Fernando, in 1797, late-18th century historical events largely occurred in areas to the west and south of the Upper Santa Clara Valley proper, particularly inasmuch as the Camino Real - the Spanish Royal Road - was eventually established through the Conejo Corridor rather than down the Santa Clara Valley.

However, as the missions increased in size and their herds grew, it became necessary for many of them to establish mission ranchos, or estancias, to allow their cattle to graze some distance from the mission vineyards and fields, per se. With this geographical expansion of mission influence and activities, the Upper Santa Clara Valley region became important, if not pivotal, in a number of events central to the development of southern California. San Francisco Xavier served as the estancia for Mission San Fernando. It comprised the upper reaches of the Santa Clara Valley down to Piru (Cleland 1940; Perkins 1957; Smith 1977) - essentially what

would become the Newhall Ranch - and was established in 1804, a few years after the founding of the mission itself. The headquarters of Estancia San Francisco Xavier was constructed at Castaic Junction, on a bluff overlooking the confluence of the Santa Clara and Castaic Creeks from the south. Eventually it was raised from the status of Estancia to Asistencia, or sub-mission.

The Asistencia de San Francisco Xavier represents the first European settlement of the Castaic Junction region. During this period, its primary function was as a ranching and perhaps agricultural out-station, although it undoubtedly served as a religious outpost as well. Placed at the location suggested for a mission earlier by Father Crespi of the Portolá expedition, it consisted of two rectangular adobe buildings, measuring 105 by 17 feet and 107 by 22 feet, respectively, in size, one of which included a tiled sacristy (Reynolds 1992:17). Eventually a third adobe structure, referred to as the "Old Milk House", was constructed downhill from the main structures, an undated photo of which was published by Perkins (1957:112).

William Lewis Manly, for reasons discussed below, provided a description of the Asistencia in 1849. At that time it was no longer an adjunct to Mission San Fernando but had transferred in ownership to Antonio del Valle when the Asistencia's land was granted as Rancho San Francisco to del Valle by Governor Alvarado in 1839. Notably, Antonio del Valle had served as majordomo and later administrator of Mission San Fernando and its lands from 1834 to 1837, and the family had made supplications to the governor in 1835 and 1837 to obtain a grant in the Santa Clara Valley (Newhall 1958:36; Perkins 1957). When finally awarded, the rancho contained slightly more than 46,000 acres which, as Smith (1977) acknowledges,

was just under the maximum of 11 square leagues then legally allowed.

Manly's description pertains to the period when the Asistencia buildings served as a ranch headquarters for one of a number of del Valle's properties, while he and his family continued to live in Los Angeles. Manly described the Asistencia, his first sighting of California mission architecture, as follows:

> A house on higher ground soon appeared in sight. It was low, of one story with a flat roof, gray in color, and of a different style of architecture from any we had ever seen before. There was no fence around it, and there were no animals or wagons or persons to be seen...but a mule tied to a post told us there was some one about...The house...was built of sun-dried bricks about one by two feet in size, and one end was used as a storehouse...down the hill...[was a]...small, poorly, fenced field which was sometimes cultivated.
>
> (Manly 1924:178-179)

In 1845 the rancho passed to Antonio del Valle's son, Ygnacio. Ygnacio del Valle ultimately became a prominent politician in southern California, serving as Alcalde (mayor) of Los Angeles during the Mexican period, as a member of the Territorial Deputation when California was admitted into the Union in 1850, and in the State Legislature. Forced to fight off efforts by Pedro Carrillo to obtain the western portions of Rancho San Francisco, Ygnacio built a corral at Camulos (the approximate site of the Chumash-Tataviam village of kamulus) in 1841, and finally the Camulos Adobe in 1864, as well as one of the first commercial wineries in the state in 1867 (Smith 1977). The Camulos Adobe, which then became the del Valle family home, was visited by Helen Hunt Jackson in 1882, and served as the

setting for her famous early California novel Ramona. (The D.W. Griffith film "Ramona", starring Mary Pickford, was also filmed at the adobe in 1911).

However, prior to the development of Camulos, the Del Valle ranch headquarters remained at the old site of the Asistencia de San Francisco, above Castaic Junction. Furthermore, it was to the Asistencia that the lead group of the Manly-Walker party - the "Death Valley '49ers" - first emerged out of the wilderness from their efforts to cross the Mojave Desert (Manly 1924:178-179). Manly's description of the Asistencia's buildings, quoted above, represent not only his first sighting of California mission architecture, but his first encounter with civilization, after his harrowing escape from Death Valley.

Following established California agrarian practices, Rancho San Francisco was employed by the del Valles primarily for raising cattle, although Mexican law also required the establishment of an orchard and other agricultural endeavors to validate a land grant (Smith 1977). Perkins (1957:107), for example, recorded that del Valle raised 600 head of cattle on the ranch and planted wheat in a marshy area below Camulos. Notably, however, the original diseño or land grant map for Rancho San Francisco, drawn in 1843, labels the Santa Susana Mountains and hills, south of the Santa Clara River and west of Castaic Junction, as lomas esterilas, "sterile hills" (Smith 1977: frontispiece; Johnson and Earle 1990: Figure 2) which, presumably, was of marginal use to them. This area of "sterile hills" constitutes the large majority of the West Ranch project area.

Rancho San Francisco is, ultimately, the origin for the Newhall Ranch and the Newhall Land and Farming Company. Because the

history of this ranch is very well documented, with complete published accounts provided by Newhall (1958), Perkins (1957), Reynolds (1992), Rolle (1991) and Smith (1977), we provide only a brief summary here.

As is discussed below, del Valle sold the majority of Rancho San Francisco in 1865 for $1.25/acre, retaining only 1500 acres around Rancho Camulos. This 1865 sale was precipitated by the discovery of tar seeps in Pico Canyon, immediately to the south of the original land grant, where oil had been discovered in 1859. The purchasers of the ranch were Thomas A. Scott and Thomas Bard, representing the Philadelphia and California Petroleum Company. Because they believed that ranching and oil were incompatible activities, Scott and Bard subsequently sold 39,503 acres of the ranch to Henry Mayo Newhall, a San Francisco financier, in January, 1875, for $2.20/acre (Newhall 1958; Rolle 1991; Smith 1977). According to Thompson and West (1880:104), shortly thereafter Newhall placed 7000 acres of the ranch under cultivation for wheat and barley, and raised 700 head of cattle and 10,000 sheep. Headquarters for the ranch was adjacent to the Asistencia, in the area of the modern Magic Mountain parking lot.

The town of Newhall was created the following year, as a result of the Southern Pacific Railroad Company's move to place a rail line down the Santa Clara Valley to the coast at Ventura. Although the original development was unsuccessful - due to frequent sandstorms the town's six buildings and name of Newhall were moved three miles to the south in 1878, with the original townsite becoming known as Saugus - ultimately the rail line provided an outlet for the agricultural and ranching products of the ranch, and greatly stimulated oil production in the immediate area (Franks and Lambert 1985:7). For obvious

reasons, both circumstances stimulated the commercial development of the Newhall Ranch.

Henry Mayo Newhall was thrown from his horse on the ranch and died, in San Francisco, in 1883. The ranch then passed to his heirs. According to Rolle (1991:145), the Newhall financial empire subsequently went into decline, coming close to liquidation in 1930. At that point Athol McBean, son-in-law of William Mayo Newhall, was appointed chairman. McBean reorganized the Newhall Land and Farming Company and, aided by a restitution award of three-quarters of a million dollars resulting from the Saint Francis Dam catastrophe (see below), moved the ranch and company back onto sound financial footing. The company has continued as the major agricultural/ranching and land development concern in the region to the present time.

The Rancho San Francisco/Newhall Ranch and the upper reaches of the Santa Clara Valley also figured in three other important episodes in southern California history, two of which are landmarks in the economic history of the state. The first of these is the discovery of gold. Although the history of gold discovery and exploitation in California is often linked with James Marshall's 1848 discovery of gold in John Sutter's Coloma mill-race, it is a well-known fact that gold was found earlier in California 1842, in Placeritas Canyon, by Francisco Lopez, Manuel Cota and Domingo Bermudez (Smith 1977; Outland 1986; Reynolds 1992). But it is by no means clear that even this well-documented incident represents the first true discovery of gold in the state. Instead, a variety of lines of historical evidence suggest that gold may have been mined in the Santa Clara Valley region one to three decades earlier (e.g., see Clark 1970:176).

According to an account published by Outland (1986), a local tale indicates that a group of about 20 men, led by one Santiago Feliciano, left Mission San Fernando in 1820 to explore the Castaic region. After reaching the Castaic Junction area, they headed up Hasley Canyon (north of the study area), and travelled up it about 10 miles. There they discovered gold, and a mining camp, "San Feliciano" (from which San Feliciano Canyon apparently gets its name), was born. The region from San Feliciano to Soledad Canyon was subsequently prospected and mined (mostly for placer deposits) for a number of years, with little record of these efforts presumably resulting because of the legal complications involved in recording gold claims in Mexican California: while the granting of land for agricultural purposes could be effected by the Governor of California, the recording of a gold claim under Mexican law required a trip to Mexico City, an effort none were apparently willing to gamble.

Although, as Outland notes, there is no clear verification for this tale (which ultimately derives from the prominent early settler and local historian S.P. Guiberson), there is nonetheless fairly strong evidence that the Placeritas discovery in 1842 was by no means the first in this region (Smith 1977; Outland 1986; Clark 1970). In 1832, for example, Ewing Young discovered an old ore smelting oven in San Emigdio Canyon (Outland 1986), suggesting that gold mining in the area had occurred for one or two decades prior to the 1842 event, and a number of other sources indicate that the presence of gold in the area was known at least a few years prior to the famous 1842 Placeritas Canyon incident (Smith 1977:32-33), in which gold was discovered by Francisco Lopez.

Lopez's discovery is often trivialized as accidental: a fortuitous event resulting from digging up a wild onion. In fact, Lopez had

been educated at a mining college in Mexico City, and was known to have been systematically prospecting the region prior to the 1842 discovery. As the uncle of Antonio del Valle's widow, he had leased portions of Rancho San Francisco for cattle, and was headquartered at the old Asistencia. There is every reason to assume, thus, that this "official" discovery of gold resulted from intentional prospecting activities, carried out by the then-resident of the Asistencia.

Be this as it may, the 1842 discovery did have one important repercussion: it caused Lopez to continue to look further afield for gold, resulting in his second gold discovery of the state in San Feliciano Canyon (Perkins 1958). In turn, this led to the granting of Rancho Temescal to Lopez and Jose Arellanes, in 1843. This grant included most of Piru Creek, as well as Placerita and San Feliciano Canyons, and totalled over 13,000 acres. Apparently, the legality of this grant under Mexican law has always been a point of some question for, as noted previously, the Governor of California only held the right to award agricultural but not mining grants. However, Thompson and West (1886:74) record that the area was worked by miners from Sonora, Mexico, between 1842 and 1846, at which time they returned to Mexico, and that they extracted between six and eight thousand dollars of gold per year during that period. Nonetheless, about a dozen years later, Rancho Temescal was acquired by Ygnacio del Valle and added to his Rancho San Francisco holdings.

Thus, not only was this region the first in California in which gold was discovered, it was also the first where true oil drilling occurred (Smith 1977), which was the second historical event of statewide importance in the region. This led to discoveries of oil on Rancho San Francisco and, ultimately,

throughout the Santa Clara Valley region. This first major discovery of oil resulted when Ygnacio del Valle sold the majority of his Rancho San Francisco holdings to Thomas Bard, representing Senator Thomas A. Scott, in 1865. Seven weeks later, the first oil well came in on the south side of the Santa Clara River, on property acquired by Bard, near the del Valle adobe (Smith 1977). This discovery, of course, was instrumental in the regional oil boom that ensued.

Following the discovery of oil in the valley, and with the depletion of the (relatively small) placer gold deposits in the region by the 1880s, the Upper Santa Clara Valley region became renowned both for its oil and (ultimately) for its citrus crops. The study area is surrounded by, and includes, a number of oil fields, including the Hasley Canyon and the Castaic Junction Oil Fields to the north, and the Pico Oil Field (with its historical settlement of Mentryville) to the south, that were first developed in this period.

The third local event of historical importance was the collapse of Los Angeles Department of Water and Power's St. Francis Dam and the resulting flood of the Santa Clara River Valley on March 12 and 13, 1928. With the failure of dam close to midnight on March 12, water raged down San Francisquito Canyon to Castaic Junction, which it effectively leveled, and then on to Fillmore, Santa Paula and ultimately to the Pacific, causing great loss of life and destruction along the way. At Castaic Junction, the only survivor of the flood was George MacIntyre, son of the owner of McIntyre's motel and gas station. George was washed northwards by a great arc of the floodwaters, towards Castaic Canyon, where he was able to grab hold of a power pole and avoid drowning; the bodies of his father and one brother were found in Santa Paula; another

brother's body was never recovered. All told, at least 336 known deaths were caused by the flood, 101 individuals were missing and can now be presumed dead, 909 homes were destroyed, and countless acres of orchards were flattened (Outland 1963).

Within the larger Newhall Ranch, but outside of the West Ranch study area at Blue Cut in Ventura County, the flood waters rose to the level of the highway. The restriction of the Santa Clara River stream course at this spot momentarily bottled the flood, resulting in a temporary upsurge of waters against the flood current, creating a whirlpool. An Edison Company work camp of tents housing 150 men had been established at the railroad siding of Kemp, immediately east of Blue Cut, which was innundated by the upsurge. When the flood waters receeded, 84 of these men had been drowned by the catastrophe (Outland 1963:106-107).

In retrospect, it is interesting to note that the Newhall Land and Farming Company had independently hired Harmon Bonte, a consulting engineer, to review the suitability of the Saint Francis Dam in 1924, prior to its construction. Arguing against LADWP's William Mulholland, Bonte contended on the part of his clients that the conglomerate bedrock at the proposed dam site was unfit for dam anchorage. His report was widely published after the disaster, as an indictment of Mulholland's engineering studies (Outland 1963:43), and no doubt contributed to Mulholland's subsequent decision to retire from professional and public life.

In summary, it is apparent that the Newhall Ranch played an important role in both local and state historical events. Although the major portions of the West Ranch study area were

peripheral to these events, the study area nonetheless contained the first European settlement and building in the region; was associated with a number of important historical figures, including Portolá, Crespi, the del Valles, and the Newhalls; and played a role in a series of historical incidents, including the rescue of the Death Valley '49ers, the first discovery of gold in the state, the development of southern California's oil industry, and the Saint Francis Dam catastrophe of 1928.

3.0 ARCHIVAL RECORDS SEARCH

An archival records search of the West Ranch Study Area was completed by the UCLA Archaeological Information Center (AIC) staff to determine whether any prehistoric or historical sites were known on the property, and/or whether all or portions of it had been previously systematically surveyed by archaeologists.

A complete copy of the Records Search is included as Appendix A to this report. In summary form, however, the West Ranch Study Area was found to have never been systematically surveyed, although portions of 13 previous surveys had examined small portions of the property. Only two archaeological sites had been recorded within the study area during these previous studies. The first, CA-LAN-962H, was recorded in 1978 by Bob Edberg and represents the historical Asistencia de San Francisco. The second, recorded by Peak and Associates in 1992, is the prehistoric site of CA-LAN-2133. both of these sites are discussed and described subsequently.

In addition to the records search conducted at the UCLA AIC, we also conducted a preliminary review of existing, published records and maps to aid in defining the zones most likely to contain extant sites. In reference to prehistoric archaeological sites, a map of historical Native American villages in the region (Kroeber 1925; see also King and Blackburn 1976) indicates that all such known villages in the general study area were concentrated along the Santa Clara River, with most of them apparently situated on its north side. Furthermore, the original diseño or land grant map for the Rancho San Francisco, drawn in 1843, also locates these historical villages (Johnson and Earle 1990). In neither map are any of the historical

villages located within the study area, per se. Equally importantly, however, the diseño depicts the upland portions of the West Ranch study area - that is, the vast majority of the study area lying to the south of the river - as lomas esterilas, "sterile hills". This suggests that this area was neither occupied by major Native American villages, nor significantly used during the early historical period. From the perspective of prehistoric archaeological sites, the existing records suggested that the primary area of Native American occupation and use would lie immediately along the Santa Clara River.

Existing records were also useful for identifying areas that might contain historical sites warranting consideration during the CEQA process. These were particularly useful inasmuch as historical site locations were not as greatly constrained by environmental factors as were prehistoric sites. In addition to the 1843 diseño, we examined the Wheeler map of 1879 (Johnson 1978), various published histories of the area (e.g., Thompson and West 1880; Englehart 1927; Perkins 1957; Newhall 1958; Señan 1962; Heil 1974; Cowan 1977; Smith 1977; Outland 1986; Rolle 1991; and Reynolds 1992) and unpublished documents (Woodward n.d.). The Asistencia de San Francisco (CA-LAN-962H) and the adjacent, original headquarters of the Newhall Ranch, located at the eastern side of the project area (discussed below) is one such well-known historical locality. Aside from this specific area, the only additional historical site suggested by the existing records was the "San Martine stage station", said to be located near the Ventura County line (Outland 1986:135; note that we were unable to locate any extant evidence of this historical locality). Thus, the historical records suggested that the concentration of historical sites within the study area should lie at the northeastern end of the West Ranch study area.

4.0 SURVEY METHODS

The intensive Phase I survey of the approximately 12,000 acres West Ranch study area was conducted in two phases: June and July of 1993, and February through April, 1994. Project staff included David S. Whitley, Ph.D., Joseph M. Simon, George Gumerman, Ph.D., Robert Rechtman, Ph.D., Tamara Whitley, M.A., and Thomas Haile.

Field procedures involved spacing the crew at approximately 15 to 20 meter intervals and then walking the property in transects, generally following the contours of the local topography. The groundsurface was examined during these transects to identify evidence of prehistoric sites. Such evidence might include surface artifacts, dark organically rich midden soils, fire-cracked rock resulting from earth ovens and roasting pits, and shell and bone that might represent remnants of dietary remains. Particular attention was paid to cut-banks and road-cuts that exposed buried soils, as well as to rodent-hole backdirt piles that revealed subsurface soils. Any identified archaeological sites were carefully examined in order to obtain an initial estimate of the the existing artifact inventory, and to assess the current site integrity and size.

During the survey special attention was paid to geomorphological conditions that affect the preservation of archaeological remains. Road or bank-cuts that expose subsurface stratigraphy, for example, along with stable geomorphic and depositional environments, were carefully examined for evidence of cultural remains. Given the geomorphology of the current project area, these included saddles in particular, as likely spots for subsurface deposition,

and knolltops as areas also likely to contain cultural resources. In contrast, slopes of greater than about 25% grade, where erosional and gravitational forces would preclude the preservation of archaeological remains, were less intensively examined both because of the negligible possibility that sites might be present on them, and for the safety of the crewmembers.

5.0 FIELD RESULTS

Field conditions for the intensive Phase I survey of the West Ranch study area were, in general, very good. During the period of the survey, vegetative cover was typically low or minimal, affording good groundsurface visibility. Field conditions notwithstanding, the West Ranch study area was found to have a very low density of archaeological remains, with site locations closely conforming to the expectations derived from the review of published and unpublished documents discussed previously. With only two minor exceptions, identified sites are concentrated in two areas: prehistoric sites are principally restricted to both sides of the Santa Clara River in a stretch between the mouths of Potrero and Chiquito Canyons; while historical resources are clustered near the northeastern boundary of the property, near Magic Mountain.

The cultural resources identified and mapped during the intensive Phase I survey are located on Figure 2. Appendix B provides site record forms for each of these sites. They can be described as: a concentration of six prehistoric sites, including one rockshelter, and one isolated artifact along or near the Santa Clara River; one surface site on Grapevine Mesa; one rockshelter in upper Potrero Canyon; and a multi-component historical locality at the eastern end of the study area. We discuss each of these sites in turn.

5.1 Prehistoric Archaeological Sites

A total of eight prehistoric archaeological sites and one isolated artifact were identified during the intensive Phase I

survey. Six of the sites and the isolated artifacts are concentrated along both sides of the Santa Clara River between the mouths of Potrero and Chiquito Canyons. We describe each of these sites, by geographical location, below.

5.11 Santa Clara River Sites

The sites identified along or near the Santa Clara River include two villages, one possible cemetery, two camps, one rockshelter, and one isolated artifact. One of the village sites, CA-LAN-2133, was previously discovered during a pipeline survey that crossed the property. The remaining sites were all newly discovered during the Phase I survey.

CA-LAN-2133 (NLF-1) - Potrero Canyon Mouth Village

The only previously discovered prehistoric archaeological site within the study area is situated on the south side of the Santa Clara River, on a river terrace approximately 500 meters northeast of the mouth of Potrero Canyon. The site appears to cover an area about 200 meters E-W and perhaps 100 meters N-S. However, the southern side of the site, where it abuts the toe of the slope leading to Potrero Mesa, is currently experiencing rapid colluviation. The site is therefore mantled by topsoil to the south and may extend further in this direction.

The site consists of a relatively large village, as indicated by the presence of an organic midden deposit and a wide range of tool types. We noted a chert leaf-shaped projectile point, Olivella shell bead, mano, basket-hopper mortar, and chert, fused shale and quartzite lithic debitage. The debitage included primary, secondary and tertiary flakes. Fire-cracked rock and

burnt animal bone are also present on the site. Furthermore, there are two areas within an eroded cut on the site which appear to represent intact earth-oven features that are being exposed by erosional processes.

Based on the projectile point, which is a large atlatl or dart point, as well as the presence of the basket-hopper mortar, site CA-LAN-2133 appears to date to the Intermediate Period, or from about 3500 to 1500 years B.P. (before present). Although the eroded cut, noted above, has disturbed a portion of the site, CA-LAN-2133 appears to be mostly intact and to maintain a high degree of integrity.

CA-LAN-2241 (NLF-2) - Potrero Canyon Mouth # 2

Immediately to the east of CA-LAN-2133, but on a separate and lower river terrace, we discovered evidence of a second archaeological site. This was encountered in a bulldozed area, alongside the existing dirt road, which exposes some deeply lying sediments within which the site is found. The site's temporal and functional relationship to CA-LAN-2133 is unclear. Based on its location on a separate landform than CA-LAN-2133, and its relatively great depth within the soil profile, we believe that CA-LAN-2241 warrants designation as a distinct site.

At CA-LAN-2241 we found possible evidence of a human interment. This comprised a few broken and highly scattered bones that, based on preliminary observations, may be human in origin. They were found on the groundsurface in a scraped area but appear to be derived from a within a white, non-organic, sandy alluvium that is entirely distinct from the midden soil found at site CA-LAN-2133. There was no evidence to suggest

that any artifacts were associated with this possible interment as grave goods, and the strata from which the bones were apparently derived was close to artifact-free. However, we did discover a fragmentary steatite bowl, broken mortar, a pestle and a single quartzite flake eroding out of the deposit at the same level as the possible human bones.

Mortars and pestles typically date from the Intermediate Period into more recent times in southern California, or to sometime during the last 3500 years. However, occasional discoveries of mortars and pestles in putatively much earlier sites leave their dating in question. While the presence of these artifacts in the deposit of the site, then, suggests that it may date to the same time period as CA-LAN-2133 nearby, this inference is still to be determined. In particular, the nature of the soil combined with the depth and location of the bones and artifacts (approximately 5 feet below grade) argue, to the contrary, that CA-LAN-2241 might be somewhat older.

CA-LAN-2241 is currently in very poor condition. The small terrace that it sits upon, originally perhaps 60 by 60 meters in size, is at least one-half eroded away by recent arroyo cutting. The existing dirt road and recent bulldozer cut, although serving to expose a site that otherwise could not have been identified from the groundsurface alone, have also removed a large section of the archaeological stratum. We estimate that less than 25% of the original site area is still in existence. Further, it is apparent that the few fragmentary bones that have eroded out of the soil are very fragile and could easily be destroyed by natural processes, such as erosion and arroyo cutting.

CA-LAN-2235 (NLF-3) - Chiquito Canyon Village

What appears to be a small village site was discovered on the western side of the mouth of San Martinez Chiquito Canyon. It is located north of Highway 126 on a low knoll; currently an occupied farm house sits on its southern half. We noted substantial evidence of fire-cracked rock, possible midden soil, some shell, core/cobble complex tools, a possible metate fragment, and lithic debitage at this locale, principally around the periphery of the yard containing the house. Although no temporal diagnostics were noted among the surface artifacts, our preliminary estimate is that CA-LAN-2235 dates to the Late Prehistoric period. The area containing the site measures approximately 150 by 50 meters.

Construction of the house on the site has unquestionably resulted in considerable damage to its integrity. However, intact portions of the deposit still may be present peripheral to the house.

CA-LAN-2234 (NLF-4) - Chiquito Canyon Camp #1

A relatively small site was discovered on the south side of Highway 126, immediately to the east of the San Martinez Chiquito Canyon. The site sits between the highway and the original railroad right-of-way, and measures approximately 100 by 100 meters in size.

Although no evidence of midden soil was found at this locale, the surface of the site contained a moderate density of lithic debitage (principally quartzite and chert primary flakes), fire-cracked rock, and two manos. A small erosional cut on the site exposed a concentration of fire-cracked rock at a depth of about 20 centimeters. Accordingly, our preliminary interpretation is

that this site represents a small camp that is partly buried by natural colluvial processes.

Road construction and disking have disturbed the site to some degree and, in the interim between the two phases of the fieldwork, it was buried with a cap of fill (apparently to control erosion in this area), but it appears to be in fair condition. Although no temporal diagnostics were noted on the surface of the site, it is likely that it was functionally and temporally related to the occupation of CA-LAN-2235, the larger village site located a few hundred meters to the northwest.

CA-LAN-2233 (NLF-5) - Chiquito Canyon Camp # 2

A second campsite (possibly a small village) was located approximately 175 meters west of the mouth of San Martinez Chiquito Canyon, also on the high river terrace containing Highway 126. This site is similar in many respects to CA-LAN-2234, although apparently larger and more intact. It is located on either side of Highway 126 from the high bank of the stream to approximately 50 meters north of the highway. This area includes not only the highway right-of-way, but the original SPRR line as well, which ran parallel and south of the road. Railroad and highway construction, in other words, has seriously impacted the central portion of this site. Furthermore, the site area has been farmed for may years. Thus, its current integrity can only be considered moderate. We estimate its current dimensions at about 200 meters E-W by 150 meters N-S.

The site contains a high density of surface artifacts on its southern side, and a lower density to the north, upslope of the

highway, although these differences probably reflect recent agricultural activities and other impacts, rather than original condition. As at CA-LAN-2234, the artifacts consist principally of debitage and fire-cracked rock. The debitage includes chert/jasper, quartzite and fused shale flakes, including primary, secondary and tertiary specimens. The fire-cracked rock tends to be concentrated in about a half-dozen spots on the site, suggesting that relatively intact hearths or earth ovens may be present. Manos and core-cobble complex tools were also noted north of the highway.

No evidence of midden soil was noted and, in a small erosional cut on the site, we saw no indications of a subsurface component. However, it is possible that a low density of subsurface material has been buried by natural colluvial processes, as at CA-LAN-2235. Again, although no temporal diagnostics were noted on the groundsurface, it is likely that CA-LAN-2233 was functionally and temporally associated with the village at CA-LAN-2235.

As noted above, the highway and railroad may have destroyed the central portion of CA-LAN-2235. However, aside from some disking, the extant portion of the site appears to be in fair condition, notwithstanding the fact that the northern half once comprised a walnut orchard, which was removed over a decade ago.

CA-LAN-2242 (NLF-8) - Martinez Grande Cave

This site is a small west-facing cave, located on the eastern side of San Martinez Grande Canyon, slightly less than one mile north of the Santa Clara River. The cave measures approximately two meters deep by 3.5 meters wide, with a

ceiling that is currently about 1.5 meters high. However, judging from the exposure at the cave entry, it appears that as much as half a meter of soil may be blanketing the cave floor. The wall and ceiling of the cave currently have what appears to be deeply engraved historical grafitti. At the back wall, the word "MERRY" could be identified; other unintelligible words/letters are present on the ceiling. With the exception of this grafitti, the cave appears undisturbed.

Soil in the cave consists of fine, wind-blown sand, with no evidence of an organic midden-like soil. The cave ceiling is also currently free of fire-blackening. Although this last condition may have resulted from recent wind erosion on the ceiling, there is currently no evidence that the cave was used as a habitation, per se, in the sense of a living area. However, two aboriginal artifacts in the form of worked, ancient pieces of wood, are present on the surface of the cave, in a pack-rat nest, attesting to aboriginal use of it, probably as a cache cave.

Cache caves are common in the inland Los Angeles and Ventura Counties region (W & S Consultants 1989). In the immediate vicinity of this site (but outside of the study area), the important cache site Bower's Cave (CA-LAN-36) was discovered (Elsasser and Heizer 1963; Van Valkenburgh 1952). Although it is immediately apparent that this newly discovered cave does not contain a major cache of religious artifacts such as was found in Bower's Cave, it is likely that it was used for the temporary storage of utilitarian items and foodstuffs, as was common in the region, and thus is likely to contain a small quantity of buried archaeological remains.

Isolate-1

The final cultural resource located in the vicinity of Potrero and Chiquito Canyons was an isolated artifact, found within the flood channel of the river on its northern side. This consists of a broken, basket-hopper mortar, found immediately west of the mouth of San Martinez Grande Canyon. It is likely that it washed down the river (perhaps from the sites discovered near the mouth of Chiquito Canyon) during some flood season.

5.12 Other Prehistoric Sites

In addition to the concetration of sites along the Santa Clara River between Potrero and Chiquito Canyons, two other prehistoric archaeological sites were discovered during the intensive Phase I survey.

CA-LAN-2236 (NLF-6) - Grapevine Mesa Lithic Scatter

A very low density surface scatter of lithic flakes was discovered on the northern end of Grapevine Mesa, where it overlooks the Santa Clara River to the north. We identified approximately 8 primary quartzite flakes, spread over an area about 100 by 100 meters in size.

Although the site has suffered minor disturbance from disking, it appears essentially intact. This site apparently represents a small lithic workshop area. It is unlikely to contain a subsurface deposit.

CA-LAN-2240 (NLF-7) - Potrero Canyon Rockshelter

On the southeastern side of the study area, in a small tributary to Potrero Canyon, a small, dry rockshelter was located which may contain evidence of prehistoric use. The rockshelter measures approximately 5 meters across and 3 meters in depth, with a height of about 1.5 meters. The roof of the shelter is fire-blackened and a chert flake was noted on the groundsurface immediately outside of the dripline. Although it does not appear that this shelter served for intensive occupation or use, small rockshelters and caves were almost invariably employed as cache locales prehistorically, as noted above. Thus, it is likely that a small quantity of buried remains may be present in the aeolian deposit in this shelter.

5.2 Historical Archaeological Sites

Historical cultural resources are concentrated in what can best considered a single locality: the northeastern end of the project area, adjacent to the boundary with Magic Mountain. This area includes the Asistencia de San Francisco Xavier and the original Newhall Ranch headquarters. Both of these have been previously recorded as distinct archaeological sites but, because they grade into one another, they are most appropriately discussed as a different temporal components of a single archaeological locality.

5.21 The Asistencia (CA-LAN-962H)

The Asistencia de San Francisco Xavier proper is recorded as site CA-LAN-962H in the files of the UCLA Archaeological Information Center. It is registered as California Historical

Landmark 556 and is also listed in Historic Landmarks in Los Angeles County (County Superintendent of Schools, Los Angeles, 1956). It was originally founded in 1804 as an outpost or Estancia of Mission San Fernando, and was elevated to the status of an Asistencia, or sub-mission subsequently, probably when a second adobe structure on the site was built. The Asistencia continued to be occupied until at least 1861, however, having served as the original headquarters of Rancho San Francisco, controlled by the del Valle family. It was also the location at which Francisco Lopez resided when he made the first "official" discovery of gold in California, in Placeritas Canyon, in 1842. Furthermore, Manly and Rogers of the Death Valley '49ers first emerged into civilization at the Asistencia, in search of aid to rescue the other members of the stranded Bennett-Arcane party of Death Valley '49ers, as discussed above. Thus, the site not only represents the first Euro-American occupation of the Upper Santa Clara Valley region, but it was also associated with a series of notable historical persons and events in California history.

The Asistencia consisted of two long, rectangular buildings, connected by a low wall, and a kiln, located on a terrace overlooking the Santa Clara River and Castaic Junction; a small "milk house", said in one reference to lie in an adjacent canyon (Reynolds 1992) and, in another, to stand on the slope below the two main buildings (Smith 1977); a roadway and a series of ancillary corrals, fields, and so on, on the large flat below the two main structures. The two primary adobe buildings, on the terrace overlooking the river, apparently included tile flooring, a granary, and a small chapel. Perkins (1957) has published an undated photo of the "milk house". From the photo, it appears that this adobe structure stood on the slope below the terrace containing the main adobe buildings.

None of the existing documents indicate that the main buildings on the terrace were modified to any extent once the Asistencia was taken over by the del Valles when they acquired Rancho San Francisco in 1839. In fact, it appears that the principal del Valle residence was in Los Angeles until they moved the ranch headquarters, and the family, to the Camulos Adobe in the 1860s (cf. Smith 1977:116). Manly's (1924:178-179) description of the Asistencia in 1849, quoted previously, suggests that the Asistencia may have been principally occupied by ranch-workers.

A very brief, one-day exploratory excavation of the Asistencia was conducted in 1933 by Arthur Woodward of the Los Angeles County Museum of Natural History. Although Woodward published no report on this project, we have obtained a copy of his unpublished one-page typewritten fieldwork summary from the Museum (see Appendix C). Woodward's excavation goal was apparently just to define the orientation, size and number of internal rooms of the two main structures on the terrace. Judging from Smith's (1977:245, n. 29) published comments, Woodward's 1933 testing was planned as a preliminary effort to be followed by later, more substantial excavations at the site, which were never realized.

In his preliminary effort, Woodward found that the buildings had cobble foundations that were 24" wide and 20" deep, surmounted by adobe brick walls almost three feet thick. The first or northern structure was 105 feet long (E-W) by 17 feet wide (N-S). The second structure, parallel and to the south of the first, was slightly larger: 107 by 22 feet, divided into five separate rooms, one of which was an altar and chapel. Both buildings had tile roofs and floors.

Woodward evidently made no systematic effort to recover an artifact collection from the site during his one-day excavation. His typewritten notes indicate solely the recovery of a "few fragments of English blue pottery", a silver band and a small Spanish coin. According to recent conversations with Mr. Chris D. Coleman (personal communication, 1993), Collections Manager for the Anthropology Section of the Museum, there is no known artifact collection from this site currently housed at the Museum.

According to Smith (1977:245, n. 29), Woodward's intentions to continue with excavating the site were "abandoned in 1937 when vandals broke up the tile floors and removed most of the adobe walls in a search for mission treasure". A note in Historic Landmarks in Los Angeles County (p. 51) states further that the portions of the adobe wall and kiln that were still-standing following Woodward's excavation were subsequently bulldozed. A local resident has told us that this bulldozing occurred to discourage the vandals and pothunters that were apparently trespassing on and looting the site.

On the terrace area where the two main structures once stood we re-located a dense concentration of historical archaeological remains, including evidence of the cobble building foundations. This portion of the site includes an historical midden (i.e., kitchen refuse deposit) containing quantities of ash and burnt bone, and a considerable quantity of artifacts. These include roof and floor tiles, adobe bricks, hand-blown bottle glass, hand-made nails, and ceramics. Included in the ceramics are examples of pearlware, produced principally between 1780 and 1830, shell-edged ware (1750 - 1830), and annular ware (1795 - 1815). One ceramic maker's

mark was also noted on a whiteware sherd. This is the William Adams and Sons "Damascus" mark, produced about 1840 (Praetzellis et al 1983; Felton and Schulz 1983). Thus, it is apparent that substantial archaeological remains are intact on the site, including some architectural remains.

Although the artifact density is significantly lower below the terrace area, per se, we did identify a few specimens of mission-era remains (floor tiles, adobe brick and ceramics) in the large open area below and to the southeast. Currently, three houses are occupied below this terrace, and graded pads for two or more additional structures are evident. It is likely that additional Asistencia remains (privies, perhaps the foundations of the "milk house") are preserved in-and-around these houses and their yards. Furthermore, the original mission-era road is still intact in places along the hillside to the southeast of the terrace.

One issue related to the Asistencia warrants mention at this time, which has been alluded to above. This is the contention that the Asistencia was located at or near a major historical Tataviam village labelled in different orthographies as chaguayabit, tsawayung and tacuyamam (Perkins 1957; King and Blackburn 1976; Johnson 1978; Johnson and Earle 1990). This village is widely recognized as having been located in the Castaic Junction area and, although some have assumed it was located at the same spot as the Asistencia, its exact location has, in fact, never been determined. Various archaeologists have looked for evidence of the village. In 1990, Dr. Louis Tartaglia unsuccessfully attempted to locate it using a back-hoe. We found no evidence to suggest that it was located within or adjacent to the West Ranch project area, let alone at the Asistencia per se, although we intensively surveyed both sides

of the river bank upstream and downstream of this historical Euro-American site.

In addition to the mounting negative evidence suggesting that the village was actually not located at or immediately near the Asistencia, there is additional evidence supporting the interpretation that it may have been in the general Castaic Junction vicinity and not at this locale, per se. First, the Spanish in fact did not usually place their camps and settlements within or immediately adjacent to existing villages, due to health reasons. As a number of chroniclers recounted, the villages usually were ridden with vermin, so the Spanish preferred to establish their habitations some distance away. Second, Arthur Woodward worked at the Asistencia in 1933 while he and Richard Van Valkenburgh were conducting excavations at another historical Tataviam village in nearby Piru Canyon. Had there been a major prehistoric site at or close to the Asistencia in 1933, it is almost certain that Woodward and Van Valkenburgh would have noted such in his notes and maps, and investigated it directly. Further, that Woodward apparently conducted no investigations at the village suggests that, even in 1933 when he was working in the region, its location was unknown.

Thus, the actual whereabouts of chaguayabit/tsawayung may remain a mystery, but it does not appear to have been at the Asistencia, per se. It is possible that it may have been slightly lower lying than the Asistencia, and thus could have been destroyed by the San Francisquito Dam flood of 1928. According to Outland (1963), the waters of the flood raged across four miles of what was then Highway 99 (now I-5) at Castaic Junction, with the water as much as 30 feet high. Any archaeological site lying within the path of this flood, either at

Castaic Junction or further downstream on the Santa Clara River, clearly would have been destroyed by this catastrophe. Perhaps more likely, a Late Prehistoric village site has been identified and excavated about one-half mile east of the intersection of Interstate 5 and Rye Canyon Road, within an existing business park. This excavation resulted in the recovery of nine burials, suggesting that the site was a major or at least significant village locale. Our best estimate, unless and until additional evidence is obtained, is that chuguyabit/tsawayung was this Rye Canyon Road site.

In summary, the Asistencia can be considered a significant historical resource within the West Ranch study area. Although the built-structures have been destroyed over the years, it is apparent that their archaeological remnants are still largely intact, and that much of the historical land-use fabric (such as the mission road) is still evident at this locale.

5.22 The Newhall Ranch Headquarters (CA-LAN-961H)

The Newhall Ranch, founded by Mr. Henry Mayo Newhall in 1875, was originally headquartered at essentially the same locale as the Asistencia (Newhall 1958; Perkins 1957; Rolle 1991). The Newhall family home, the focus of the ranch headquarters, is recorded as site CA-LAN-961H at the UCLA AIC. It was located immediately off-property in what is now the Magic Mountain parking lot, though the house itself has been moved to the William S. Hart Park.

Features and historical artifacts from the ranch headquarters, however, are still present within the West Ranch project area,

overlapping with the extent of the Asistencia. In particular, the southernmost of three occupied houses in this area appears to be an example of turn-of-the-century, vernacular ranch architecture. It is 1"x12" board and batten construction, probably without internal studs, currently sitting on a concrete block foundation. Although this last fact indicates that it was moved to its present location sometime after its original construction, it nonetheless may represent a relatively intact example of historical, rural southern California architecture. Other historical features (e.g., privy pits, old structure foundations) may also be located in this same general area.

The historical cultural resources on the northeastern side of the West Ranch study area, accordingly, include remains and evidence of land-use dating from the Mission, Mexican rancho, and early Anglo-American periods. Indeed, this portion of the property documents the changing land-use patterns during this early, transitional period in California history, as well as the initial Euro-American occupation and use of the Upper Santa Clara River Valley. These scattered remains can be estimated to cover an area approximately 600 by 200 meters in size. However, the majority of them appear to be concentrated towards the north, around the terrace containing the Asistencia proper and the occupied houses immediately below.

6.0 SUMMARY AND RECOMMENDATIONS

An intensive Phase I archaeological survey and cultural resources assessment was conducted on the approximately 12,000 acres West Ranch study area, Newhall Ranch, northwestern Los Angeles County, California. This study, which involved an on-foot survey of the property and a review of written and unpublished documents on the archaeology, history and ethnography of the region, resulted in the evaluation of one previously recorded prehistoric (Native American) sites, the discovery of seven previously unrecorded prehistoric archaeological sites, one isolated artifact, and the assessment of two previously recorded historical (Euro-American) sites. In general, archaeological site density in the study area was found to be very light, probably due to the limited availability of water away from the Santa Clara River, with the identified sites, accordingly, clustering along the river course.

Identified sites were found in two primary concentrations. The first concentration is along both sides of the Santa Clara River, between the mouths of Potrero and Chiquito Canyons, where six prehistoric sites and one isolated artifact are found. Four of the sites and the isolate are located on the north side of the river near Chiquito Canyon; the remaining two sites are on the south bank near Potrero Canyon. The second concentration of cultural resources consists of a historical locality, found on the northeastern side of the study area near Magic Mountain. This includes the Asistencia de San Francisco Xavier (CA-LAN-962H), which also served as the original Rancho San Francisco headquarters occupied by the del Valle family, and the historical Newhall Ranch headquarters (CA-LAN-961H). (Although these two historical sites have been given different

trinomial designations, and though the primary focus of CA-LAN-961H was the Newhall house which is now off property, that portion of them within the study area properly should be considered a single historical locality containing different temporal/cultural components). In addition, two smaller prehistoric archaeological sites, consisting of a small surface scatter and a small rockshelter, were also located within the study area.

6.1 Recommendations

According to the guidelines provided by Appendix K of the California Environmental Quality Act (CEQA), Phase II test excavations and determinations of site significance are required for all sites that have the potential to be directly impacted by a proposed project. We therefore recommend that Phase II test excavations and determinations of site significance be conducted on the eight prehistoric archaeological sites and the historical locality within the study area. Recording of the isolated artifact designated I-1 will, according to CEQA guidelines, satisfactorily mitigate any adverse impacts to this artifact. No additional archaeological work, therefore, is required in reference to this resource.

The Phase II study for the eight prehistoric sites and the historical locality should be designed to provide baseline data from which the size, nature and significance of each resource can be determined. Final recommendations for the management or disposition of each of these cultural resources can then be provided, based on the results of the Phase II test excavations, and the determinations of significance derived therefrom.

7.0 CITED REFERENCES

Bolton, H.E.
1971 Fray Juan Crespi: Missionary Explorer on the Pacific Coast, 1769-1774. AMS Press, New York.

Boneau Companys, F.
1983 Gaspar de Portolá: Explorer and Founder of California (translated by A.K. Brown). Instituto de Estudios Ilerdenses, Lerida, Spain.

Brandes, R. (translator)
1970 The Costansó Narrative of the Portolá Expedition: First Chronicle of the Spanish Conques of Alta California. Newhall: Hogarth Press.

Clark, W.B.
1970 Gold Districts of California. Bulletin 193. California Division of Mines and Geology, Sacramento.

Cleland, R.G.
1940 The Place Called Sespe: The History of a California Ranch. Privately printed.

County Superintendent of Schools
1956 Historic Landmarks in Los Angeles County: A Descriptive Guide for Teachers. Los Angeles.

Cowan, R.G.
1977 Ranchos of California. Los Angeles: Historical Society of Southern California.

Earle, D.
1990 New Evidence on the Political Geography of the Antelope Valley and the Western Mojave Desert at Spanish Contact. In B. Love and W.H. DeWitt, eds., Archaeology and Ethnohistory of the Antelope Valley and Vicinity, Antelope Valley Archaeological Society, Occasional Papers No. 2, pp. 87-104.

Elsasser, A.B. and R.F. Heizer
1963 The Archaeology of Bowers Cave, Los Angeles County, California. University of California, Archaeological Survey, Reports, No. 59. Berkeley.

Englehart, Z.
1927 San Fernando Rey: The Mission of the Valley. Chicago: Franciscan Herald Press.

Felton, D.L. and P.D. Schulz
1983 The Diaz Collection: Material Culture and Social Change in Mid-Nineteenth-Century Monterey. California Archaeological Reports No. 23. Department of Parks and Recreation, Sacramento.

Franks, K.A. and P.F. Lambert
1985 Early California Oil. College Station: Texas A & M Press.

Heil, G.W. (editor)
1974 Staging and Stations on the Santa Clara. Ventura County Historical Society Quarterly 19(3).

Henshaw, H.
1955 Mission Indian Vocabularies. Anthropological Records 15(2).

Johnson, J.
1978 The Road to Kashtiq. Journal of California Anthropology 5:188-198.

Johnson, J. and D. Earle
1990 Tataviam Geography and Ethnohistory. Journal of California and Great Basin Anthropology 12:191-214.

King, C.D. and T. Blackburn
1976 Tataviam. In: Handbook of North American Indians, Volume 8, California. R. Heizer, editor, pp. 535-537. Smithsonian Institution.

King, C., C. Smith and T. King
n.d. Archaeologial Report Related to the Interpretation of Archaeological Resources Present at the Vasquez Rocks County Park. Report on file, UCLA AIC.

Kroeber, A.L.
1925 Handbook of the Indians of California. Bureau of American Ethnology, Bulletin 78. Washington, D.C.

Love, B.
1990 Archaeological Testing of a Portion of LAn-618, the Escondido Canyon Site, Near Agua Dulce, Los Angeles County, California. In B. Love and W.H. DeWitt, eds., Archaeology and Ethnohistory of the Antelope Valley and Vicinity, Antelope Valley Archaeological Society, Occasional Papers No. 2, pp.21-42.

Manly, W. L.
1924 Death Valley in '49: An Important Chapter of California Pioneer History. New York: Wallace Hebberd.

McIntyre, M.
1990 Cultural Resources of the Upper Santa Clara River Valley, Los Angeles and Ventura Counties, California. In B. Love and W.H. DeWitt, eds., Archaeology and Ethnohistory of the Antelope Valley and Vicinity, Antelope Valley Archaeological Society, Occasional Papers No. 2, pp. 1-20.

Muntz, P.A.
1974 A Flora of Southern California. Berkeley: University of California Press.

Newhall, R.W.
1958 The Newhall Ranch: The Story of the Newhall Land and Farming Company. San Marino: Huntington Library.

Outland, C.F.
1963 Man-Made Disaster: The Story of the St. Francis Dam. Glendale: Arthur H. Clark.

1986 Mines, Murders and Grizzlies: Tales of California's Ventura Back Country. Ventura: Ventura County Historical Society.

Perkins, A.P.
1957 Rancho San Francisco: A Study of a California Land Grant. Historical Society of Southern California Quarterly 39:99-126.

1958 Mining Camps of the Soledad (Parts I and II). Historical Society of Southern California Quarterly 40:149-175.

Praetzellis, M., B. Rivers and J.K. Schulz
1983 Ceramic Marks from Old Sacramento. California Archaeological Reports No. 22. Department of Parks and Recreation, Sacramento.

Reynolds, J.
1992 Santa Clarita: Valley of the Golden Dream. Granada Hills: World of Communications, Inc.

Rolle, A.
1991 Henry Mayo Newhall and His Times: A California Legacy. San Marino: Huntington Library.

Señán, J.
1962 The Letters of José Señán, OFM: Mission San Buenaventura 1796-1823. (Translated by P.D. Nathan, Edited by L.B. Simpson). Ventura: Ventura County Historical Society.

Smith, W.E.
1977 This Land Was Ours: The Del Valles and Camulos. Ventura: Ventura County Historical Society.

Sutton, M.Q.
1988a An Introduction to the Archaeology of the Western Mojave Desert, California. Archives of California Prehistory, No. 14. Salinas: Coyote Press.

1988b On the Late Prehistory of the Western Mojave Desert. Pacific Coast Archaeological Society Quarterly 24(1):22-29.

Thompson, T.H. and A.A. West
1880 History of Los Angeles County, California, With Illustrations and Biographical Sketches of Its Prominent Men and Pioneers. Oakland.

Van Valkenburgh, R.
1952 We Found the Lost Indian Cave of the San Martins. Desert 15:5-9.

W & S Consultants
1989 Archaeological Test Excavations at Fifteen Prehistoric Sites in the Lake Sherwood Development Areas, Ventura County, California. Report on file, UCLA AIC.

Wallace, W.J.
1955 A Suggested Chronology for Southern California Coastal Archaeology. Southwestern Journal of Anthropology 11(3):214-230.

Whitley, D.S.
1992 Shamanism and Rock Art in Far Western North America. Cambridge Archaeological Journal 2:89-113.

Whitley, D.S. and M.P. Beaudry
1990 Chiefs on the Coast: The Development of Complex Society in the Tiquisate Region in Ethnographic Perspective. In W. Fowler, ed., The Development of Complex Civilizations in Southeastern Mesoamerica, pp. 101-120. CRC Press, Orlando.

Woodward, A.
n.d. Investigation of adobe ruins located on the Newhall ranch about one mile from Castaic Junction, California. Manuscript, Los Angeles County Museum of Natural History.

8.0 Figures

List of Figures

1 - The West Ranch study area, Newhall Ranch, northwestern Los Angeles County, California.

2 - Location of identified archaeological sites within the West Ranch study area.

CONFIDENTIAL

9.0 APPENDIX A:
ARCHIVAL RECORDS SEARCH

CONFIDENTIAL

10.0 APPENDIX B: SITE RECORD FORMS

CONFIDENTIAL

11.0 APPENDIX C:
WOODWARD'S REPORT ON THE ASISTENCIA

Investigation of adobe ruins located on the Newhall Rancho about one mile from Castaic unction, California. May 13th. 1933.

In the party were Arthur Woodward, Curator of History, Los Angeles Co. Museum.
Dr. John Nordskog.
J. Marshall Miller.
R. F. Van Valkenburg of Field Staff L.A.Co. Museum.
A. B. Perkins.
Arthur Perkins.
Valentine Perkins.

The apparent length of the original structure was 107'-4" and the width was 22'-8", the nterior width was 17'. Work by Mr. Woodward, Dr. Nordskog, Mr. Miller, and Mr. Van Valkenburg showed a rubble foundation 24" wide and 20" deep, surmounted by adobe brick walls '-10" thick made of sun baked adobe bricks approximately 10" x 21" x 3½". Cleaning away f rubbish exposed a tile floor, portions of which were exposed in places These were kiln-urned flat floor tile, laid without bonding, of sizes 11"x 11", 11"x 11½", and 8½"x 11½", ll being from 1½" to 2" thick. The top of the foundation approximated the top of the loor line. The foundation was laid with adobe lime mortar, as also the walls. The inside as apparently plastered with this mix.

The main building was apparently divided into five appartments running, from the west, s follows in width 25', (from outside to partition center) 20', (partition center to par-ition center) 16' (last named centers) 22' (likewise) 25'- 6" (this from partition center o outside edge of wall). Lack of time made it impossible to locate the entrances. From ile fragments found on the floor, in the debris, and on the surrouding hillside, the struct-ure was apparently roofed with typical Mission roof tile, the matt of the tile being approx-mately ⅜" thick, Kiln-burned.

A few fragments of English blue pottery, typical of other finds at mission ruins, were found, also a small metal (possibly silver) band, about 2" long and 3/8" in width (widened t center) apparentlt cut for inlay (opinion of Mr. Woodward) and one small Spanish silver oin (probably a reale, but not yet deciphered).

Owing to lack of time, openings were not definitely located, and the rubbish was not thouroughly cleared from the floor, nor screened.

The tile floor in place was cleared for about a 5' length and two tile width at a point about 30' from southwest corner on southerly line. Adjacent to the tile floor in place, was one of several excavations on the ruins, made at some time in the past, possibly by treasure unters, which had gone two or three feet below floor level and also taken out part of one tier of the wall bricks. The laying of the adobe bricks in the main walls was rather strange. On the long north wall the adobe brick toward the interior were all laid parallel to the length of the wall and although bonded with one another there was no bond with the bricks to the exterior which were all laid perpendicular to the length of the wall and bonded with each other. The opposite or south long wall was laid in similar manner only in this case the bricks laid parallel to the length of the wall were on the exterior and those perpen-licular on the interior.

About 60' southerly from the above described structure, and perallel to it, is another ruined wall, with possible abutments toward the north ruin. These abutments were not in-vestigated fully. Work on the easterly end showed a rubble foundation in place surmounted with adobe brick, this wall apparently running east and west,(parallel to the main ruin). The wall running northerly from this east end showed no signs of a rubble foundation but the bottom was several feet lower than the bottom of the rubble foundations of the adjoin-ing wall.

(over)

This site is located on the south side of the Santa Clara River Valley at the junction of the Castaic (or Castac) Valley with the Santa Clara River Valley, Los Angeles County. Ruins located on prominence at turn of river and about 25' above the general valley floor. Latitude 34°26' N., Longitude 118°36'30" W. Santa Susana Quadrangle, U. S. Geologic Survey topographical maps.

This property is now owned by the Newhall Land and Farming Company, (headquarters for the San Francisco Rancho at Piru), was originally held by San Fernando Mission, and upon secularization passed into the hands of Antonio del Valle (do not confuse with Ygnacio del Valle of Camulos).

Reference: Engelhardt, "San Fernando Rey", pp. 16, 52, 59, and 143. Reference to an adobe grainary and necessary rooms, size about 105'x 17', located on San Francisco Ranhho, built in 1804 by San Fernando Mission Indians of the adjoining rancheria of Chaguayabit. (This ranch is still known as the San Francesquito or San Francisco Rancho.) Rumer had it that Del Valle had built a home on the ranch about 1840 at the site of discovery, of which no details were known and as the ruins were supposed to have been only the Del Valle home site they had not previously been investigated.

by Arthur Woodward

ADDENDUM TO
INTENSIVE PHASE I ARCHAEOLOGICAL SURVEY OF THE WEST RANCH PROJECT AREA, LOS ANGLES COUNTY, CALIFORNIA: ARCHAEOLOGICAL SURVEY OF THE VALENCIA BOULEVARD EXTENSION STUDY AREA

Prepared For:

Mr. David Crowder
Newhall Ranch Company
23929 Valencia Blvd., Suite 207
Valencia, CA 91355

Prepared By:

W & S Consultants
2242 Stinson Street
Simi Valley, California 93065
(805) 581-3577

December 1995

MANAGEMENT SUMMARY

An intensive Phase I archaeological survey and cultural resources assessment was conducted for the Valencia Road extension study area, northern Los Angeles County, California. This investigation constituted an addendum to an earlier Phase I survey of the Newhall Ranch, and involved a review of archival records and an intensive, on-foot survey of the approximately 2.6 miles long by 800 feet wide study area. No cultural resources of any kind were found within the study area, and the extension of Valencia Boulevard will not result in adverse impacts to cultural resources.

TABLE OF CONTENTS

MANAGEMENT SUMMARY i

1.0 INTRODUCTION 1

2.0 ARCHIVAL RECORDS SEARCH 2

3.0 SURVEY METHODS 4

4.0 FIELD RESULTS 5

5.0 SUMMARY AND RECOMMENDATIONS 6

6.0 CITED REFERENCES 7

7.0 FIGURES 8
List of Figures 8

8.0 APPENDIX A: ARCHIVAL RECORDS SEARCH 10

ADDENDUM TO PHASE I ARCHAEOLOGICAL SURVEY OF THE NEWHALL RANCH, LOS ANGLES COUNTY, CALIFORNIA

1.0 INTRODUCTION

At the request of Mr. David Crowder, Newhall Ranch Company, an intensive Phase I archaeological survey and cultural resources assessment was conducted for the proposed Valencia Boulevard extension, northern Los Angeles County, California (Figure 1). This study constitutes an addendum to an earlier Phase I archaeological survey of and report on the Newhall Ranch (W & S Consultants 1994a). The current proposed project, to be conducted as part of the proposed work in the area covered by the earlier Phase I report, will consist of the extension of Valencia Boulevard westward from Interstate 5 for a distance of about 2.6 miles.

The purpose of this Phase I archaeological addendum was to provide an archival records search in order to establish whether any known archaeological sites were present in the project zone, and/or whether any systematic study of the project area had been conducted by archaeologists; an intensive, pedestrian or on-foot survey of the project area in order to identify any previously unrecorded cultural resources; and, should any be found within the subject property, a preliminary assessment of such resources. Background studies of the prehistory, ethnography and history of the study area, as well as a review of pertinent previous research, have been provided in the Phase I report for the proposed project (W & S Consultants 1994a).

This manuscript constitutes a report on the Phase I archaeological addendum. Subsequent sections provide a description of the investigation, including the results of the archival record search; a summary of the field surveying techniques employed; the results of the fieldwork; and management recommendations derived therefrom.

2.0 ARCHIVAL RECORDS SEARCH

An archival record search was conducted at the UCLA Institute of Archaeology, Archaeological Information Center (AIC), by AIC staff members to determine: (i) if prehistoric or historical archaeological sites had previously been recorded within the Valencia Boulevard extension project area; (ii) if the project area had been systematically surveyed by archaeologists prior to the initiation of this field study; and/or (iii) whether the region of the field project was known to contain archaeological sites and to thereby be archaeologically sensitive. The complete results of this archival record search are included in this document as Appendix A.

Files and records at the UCLA AIC indicate that the project area had never been systematically surveyed in its entirety by archaeologists. No sites of any kind had been recorded in the study zone. Furthermore, only one prehistoric site had been recorded within a one-half mile radius of the study zone. This site, CA-LAN-2240, is located 400 feet south of the current study area. Furthermore, a Phase II test excavation and determination of significance was conducted on this site, a small rockshelter, as part of the investigations for the proposed project. It was determined to have no extant archaeological remains, therefore to not maintain significance nor to warrant any protection or mitigation measures (W & S Consultants 1994b).

Examination of historical maps (specifically, Santa Susana 1903 and 1941 15' series topographical sheet) failed to reveal any indications that historical sites would be present within the study area, although unimproved roads were present in the general area.

Historical inventories were also examined. The National Register of Historic Places (NRHP) and the California State Historical Resources Inventory (HRI) lists one property within a one-half mile radius of the study area. This is Well No. 4 of the Pico Canyon Oil Field, which was California's first commercially productive oil well. In addition, Mentryville is also a California Historical Landmark. Well No. 4 and

Mentryville are located south of the study area, in Pico Canyon.

In summary, the archival record search indicated that the project area had never been adequately surveyed to ascertain whether cultural resources were present within it, that no sites were known to be on it, and that archaeological sensitivity in this area was relatively low.

3.0 FIELD SURVEY METHODS

An intensive field survey of the Valencia Boulevard extension study area, Los Angeles County, California, was conducted by Joseph M. Simon and David S. Whitley, Ph.D., on December 1, 1995. The ground surface was examined with the crew spaced at 10 to 15 meter intervals, walking transects across the 800 feet wide study area to identify artifacts or other archaeological indicators that might be present on the ground surface. In addition, cut-banks of arroyos within the study area (where visible) were also examined to ascertain whether buried archaeological deposits might be present, while special attention was paid to potential areas of subsurface deposition, such as swales and saddles.

4.0 SURVEY RESULTS

The intensive Phase I field survey of the Valencia Boulevard extension study area found that ground surface visibility was excellent. Vegetation in the study area was minimal, thereby affording clear visibility of the groundsurface. However, the study area was found to comprise landforms that are largely unsuited for the preservation of cultural resources. The eastern side of the project area consists of a large open wash, subject to occasional flooding. The remainder of the study area comprises heavily dissected narrow ridges and steep bottomed arroyos, neither of which are suited for Native American inhabitation.

The field survey failed to find any evidence for the presence of cultural resources of any kind within the study area and, given the nature of the landforms within the study area, the likelihood that archaeological remains would have been deposited or could have been preserved in this area is minimal.

5.0 RECOMMENDATIONS

An intensive Phase I archaeological survey was conducted for the Valencia Boulevard extension study area, northern Los Angeles County, California. This involved an archival records search of site maps and files at the UCLA Archaeological Information Center; and an intensive, on-foot examination of the study area. Background studies and the archival records search failed to find evidence that archaeological sites of any kind had been previously recorded on the subject property, although no previous systematic study of the area in its entirety had been conducted. The subsequent on-foot survey of the study area failed to find any evidence that cultural resources are present in this area and, given the nature of the landforms in the study area, it is unlikely that any archaeological resources would have ever been present in this area.

Construction of the Valencia Boulevard extension project, therefore, will result in no adverse impacts to cultural resources, and no further archaeological work is required at this locale. However, in the unlikely event that archaeological resources are discovered during any phase of the project, it is recommended that an archaeologist be contacted to record, stabilize and/or recover such remains.

6.0 Cited References

W & S Consultants

1994a Intensive Phase I Archaeological Survey of the West Ranch Project Area, Los Angeles County, California. Manuscript on file, Los Angeles County Regional Planning Department.

1994b Phase II Test Excavations and Determinations of Significance at CA-LAN-2133, 2233, -2234, -2235, -2236, -2240, -2241, -2242, Los Angeles County, California. Manuscript on file, Los Angeles County Regional Planning Department.

7.0 FIGURES

List of Figures

1 - Location of the Valencia Boulevard extension study area, Los Angeles County, California.

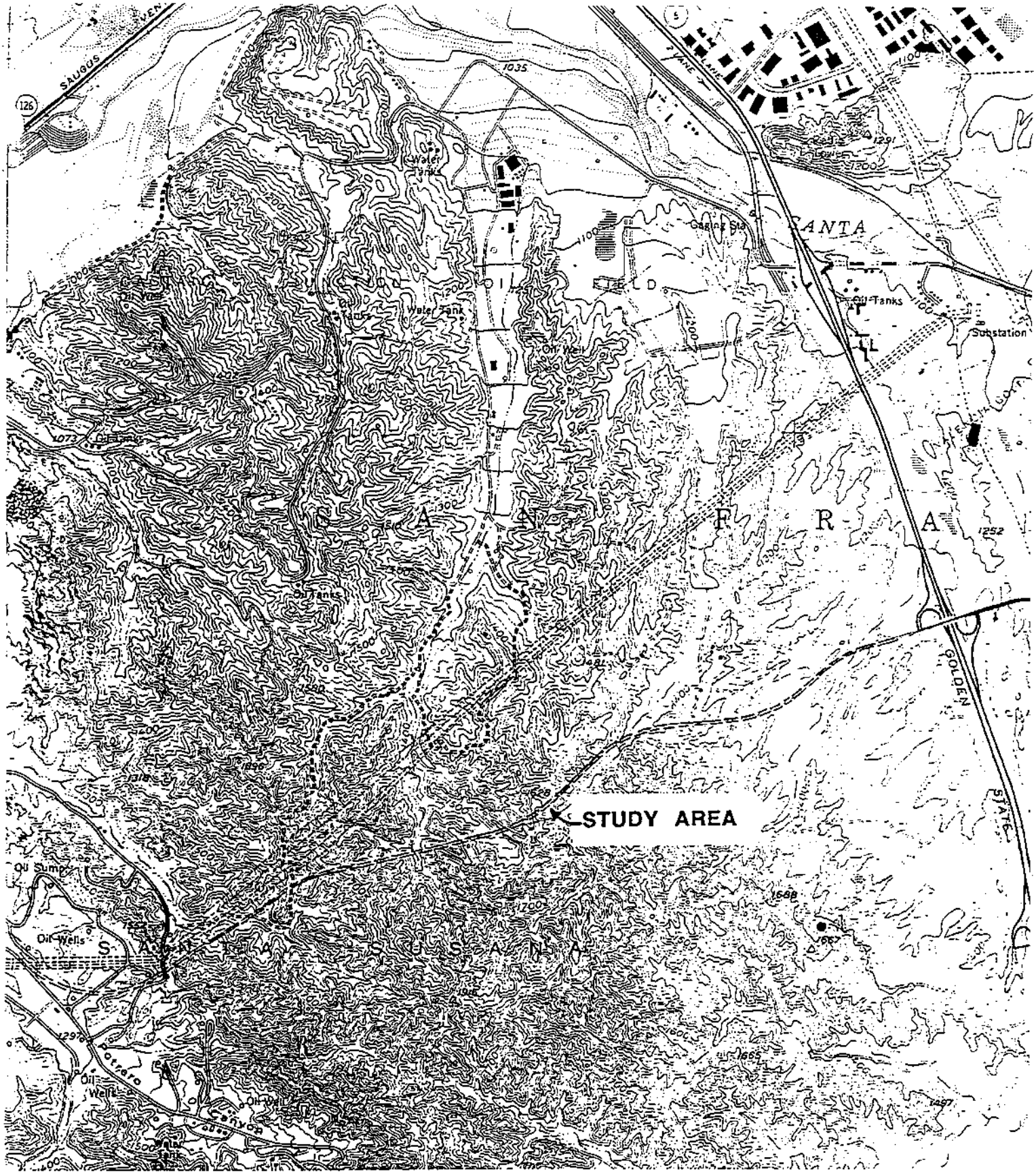


FIGURE 1: Valencia Boulevard extension study area, northern Los Angeles County, California. Base map: USGS Newhall 7.5' quadrangle; scale - 1 : 2000.

8.0 APPENDIX A: ARCHIVAL RECORDS SEARCH

November 16, 1995

Joseph M. Simon
W & S Consultants
2242 Stinson Street
Simi Valley, CA 93065

RE: Record search for a Phase I archaeological survey of the 2.6 mile Valencia Blvd. Extension in Los Angeles County, California

Dear Mr. Simon,

As per your request of October 31, we have conducted a records search for the above referenced project. This search includes a review of all recorded historic and prehistoric archaeological sites within the project area as well as a review of all known cultural resource survey and excavation reports. In addition, we have checked our file of historic maps, the National Register of Historic Places, the California State Historic Resources Inventory, the California Points of Historical Interest, and the listing of California Historical Landmarks in the region. The following is a discussion of our findings regarding the project area.

PREHISTORIC RESOURCES:

One prehistoric site has been identified within a half mile radius of the project area (see enclosed map). This site is not located within the project area, but is 400 feet south of the southern portion of the project area.

HISTORIC RESOURCES:

No historic sites have been identified within a half mile radius of the project area (see enclosed map).. Inspection of our historic maps -- Santa Susana (1903, 1941) 15' series -- indicated that the project area labeled San Francisco on the 1903 map was minimally developed by the turn of the century. One unimproved road entered the area from the west and one jeep trail bisected the area from Castac in the north. The Santa Clara River flowed from east to west north of the project area and numerous intermittent streams crossed through the project area. By 1941, the jeep trail had become an unimproved road. State Route 99 bounded the project area on the east. Several other improved roads cut through the area. A secondary highway was routed thru Pico and Potrero Canyons. The Pico Oil Field and numerous other scattered oil wells were located around the project.

The National Register of Historic Places lists one property within a half mile radius of the project area. This resource was identified as Well No.4 of Pico Canyon Oil Field in San Fernando designated in 11/13/66 (NR# 66000212).

The California State Historic Resources Inventory lists one property within a half mile radius of the project area. This is the same property as the one listed in the National Register of Historic Places. Identified as Well No.4, please refer to the above mentioned resource.

The listings of the California Historical Landmarks (1990) of the Office of Historic Preservation, California Department of Parks and Recreation, indicate that there are two California Historical Landmarks within a half mile radius of the project area. No. 516 has already been indicated above as Oil Well No.4. The second landmark is identified as No.516-2.

> No.516 Well No. "CSO" 4 (Pico No.4)
> On this site stands CSO-4 (Pico No.4), California's first commercially productive well. It was spudded in early 1876 under the direction of Demetrious G. Scofield who later became the first president of Standard Oil Company of California, and was completed at a depth of 300 feet on September 26, 1876, for an initial flow of 30 barrels of oil a day. Later that year, after the well was deepened to 600 feet with what was perhaps the first steam rig employed in oil well drilling in California, it produced at a rate of 150 barrels a day; it is still producing after 77 years (1953). The success of this well prompted formation of the Pacific Coast Oil Company of California, and led to the construction of the state's first refinery nearby. It was not only the discovery well of the Newhall Field, but was a powerful stimulus to the subsequent development of the California petroleum industry. Located On W Pico Canyon Rd, 3.3 mi W of I-5, Newhall

> No.516-2 Mentryville
> Named after pioneer oil developer Charles Alexander Mentry, who in 1876 drilled the first successful oil well in California. His restored home and barn and Felton School remain here where the Star Oil Company, one of the predecessors of Standard Oil of California was born. Located at 27201 W Pico Canyon Rd, 2.8 mi W of I-5, Newhall

There are no California Points of Historical Interest (1992) within a half mile radius of the project area.

PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS:

Sixteen surveys and/or excavations have been conducted within a half mile radius of the project area. Seven of these are located within the project area (see enclosed map and bibliography): L-510, 2031, 2427, 2450, 2477, 2848, 2950.

Please forward a copy of any reports resulting from this project to our office as soon as possible. Due to the sensitive nature of site location data, we ask that you do not include record search maps in your report. If you have any questions regarding the results presented herein, please feel free to contact our office at (310) 825-1980.

Invoices are mailed approximately two weeks after records searches. This enables your firm to request further information under the same invoice number. Please reference the invoice number listed below when making inquires. Requests made after invoicing necessitate the preparation of a separate invoice with a $15.00 handling fee.

Sincerely,

Ruth W. Chin
Staff Archaeologist

Enclosures:

(X) Map
(X) Bibliography
( ) Site list
( ) Site records
( ) Survey reports
(X) Confidentiality Form
( ) Invoice# 5894

BIBLIOGRAPHY

UCLA
FILE #

L-510 VAN HORN, DAVID M.
1979 PRELIMINARY ARCHAEOLOGICAL OVERVIEW: A 3,000+/- ACRE PARCEL BORDERING PORTRERO CANYON NEAR NEWHALL, CA.
Report on file, UCLA ARCH. INFO. CENTER
Particulars: PARTIAL SURVEY
QUADS: NEWHALL
QUADS: VAL VERDE
ACRES: 3000
SITES: CA-LAN-1020
FIRM: ARCHAEOLOGICAL ASSOCIATES, LTD.
AGENCY: ULTRASYSTEMS, INC.
PAGES: 15

L-1107 Wlodarski, Robert J.
1981 AN EVALUATION OF THE IMPACTS TO CULTURAL RESOURCES BY THE PROPOSED CONSTRUCTION OF AN OIL WELL AND APPURTENANCES (MAGIC MOUNTAIN #1), NEAR MAGIC MOUNTAIN PARKWAY IN LOS ANGELES COUNTY
Report on file, UCLA ARCH. INFO. CENTER
Particulars: SURVEY
QUADS: Newhall
ACRES: 2
SITES: NONE
FIRM: H.E.A.R.T.
AGENCY: MCR Services
PAGES: 18

L-1171 Tartaglia, Louis James
1982 CULTURAL RESOURCE SURVEY TENTATIVE TRACT NO. 34989
Report on file, UCLA ARCH. INFO. CENTER
Particulars: SURVEY
QUADS: Newhall
ACRES: 46
SITES: NONE
FIRM: LOUIS TARTAGLIA, C.A.
AGENCY: The Newhall Land and Farming Company
PAGES: 38

L-1180 Hawthorne, Janice G.
1981 CULTURAL RESOURCE SURVEY FOR ZC-80-065 VALENCIA, LOS ANGELES, CALIF.
Report on file, UCLA ARCH. INFO. CENTER
Particulars: PARTIAL SURVEY
QUADS: Newhall
ACRES: 20
SITES: NONE
FIRM: NARC
AGENCY: Sikand Engineering Associates
PAGES: 3

L-1235 Colby, Susan
1983 AN ARCHAEOLOGICAL RESOURCE SURVEY AND IMPACT ASSESSMENT OF A 5+ ACRE PARCEL IN VALENCIA, LOS ANGELES COUNTY, CALIF.
Report on file, UCLA ARCH. INFO. CENTER

UCLA
FILE #

QUADS: Newhall
ACRES: 5
SITES: NONE
FIRM: UCLA AS
AGENCY: Valencia Corporation
PAGES: 8

L-1266 Tartaglia, Louis James
1983 CULTRUAL RESOURCE RESURVEY OF TENTATIVE TRACT NO.34989
Report on file, UCLA ARCH. INFO. CENTER
Particulars: SURVEY
QUADS: Newhall
ACRES: 23
SITES: NONE
FIRM: C.A.
AGENCY: Valencia Corporation
PAGES: 8

L-1595 Brown, Robert S., and David M. Van Horn
1984 ARCHAEOLOGICAL SURVEY REPORT: A 400+ ACRE TRACT LOCATED IN THE SANTA SUSANA MOUNTAINS WEST OF NEWHALL, CALIF.
Report on file, UCLA ARCH. INFO. CENTER
Particulars: PARTIAL SURVEY
QUADS: Newhall
ACRES: 400
SITES: CA-LAN-1020
FIRM: ARCHAEOLOGICAL ASSOCIATES, LTD.
AGENCY: Ultrasystems, Inc.
PAGES: 7

L-2031 McIntyre, Michael J.
1977 ASSESSMENT OF THE IMPACT ON CULTURAL RESOURCES BY THE PROPOSED DEVELOPMENT OF THE EQUESTRIAN ESTATES (W.O. 1020-83G), VALENCIA
Report on file, UCLA ARCH. INFO. CENTER
Particulars: SURVEY
QUADS: NEWHALL
ACRES: 500
SITES: NONE
FIRM: NARC
AGENCY: SIKAND ENGINEERING ASSOCIATES
PAGES: 28

L-2396 SINGER, C. A., AND J. ATWOOD
1991 CULTURAL RESOURCES SURVEY AND IMPACT ASSESSMENT FOR TENTATIVE TRACT NO. 44374, A 183.7 ACRE PARCEL IN THE CITY OF SANTA CLARITA, LOS ANGELES COUNTY, CALIFORNIA
Report on file, UCLA ARCH. INFO. CENTER
Particulars: SURVEY
QUADS: NEWHALL
ACRES: 184
SITES: NONE
FIRM: SINGER
AGENCY: JIM HINZDEL & ASSOCIATES, INC.
PAGES: 13

BIBLIOGRAPHY

UCLA
FILE #

L-2427 VAN HORN, DAVID M.
1990 ARCHAEOLOGICAL SURVEY REPORT: A SURFACE MINING PROJECT ON THE STEVENSON RANCH NEAR NEWHALL, LOS ANGELES COUNTY
Report on file, UCLA ARCH. INFO. CENTER
Particulars: SURVEY
QUADS: NEWHALL
QUADS: VAL VERDE
ACRES: 50
SITES: NONE
FIRM: AA
AGENCY: ULTRASYSTEMS, INC.
PAGES: 6

L-2450 TARTAGLIA, LOUIS JAMES
1991 CULTURAL RESOURCES ARCHAEOLOGICAL SURVEY I-5 FREEWAY AND VALENCIA BLVD. VALENCIA, CALIFORNIA
Report on file, UCLA ARCH. INFO. CENTER
Particulars: SURVEY
QUADS: NEWHALL
ACRES: 5
SITES: NONE
FIRM: C.A.
AGENCY: SIKAND ENGINEERING ASSOCIATES
PAGES: 32

L-2477 WHITNEY-DESAUTELS, NANCY A.
1989 ARCHAEOLOGICAL ASSESSMENT RECLAIMED WATER DISTRIBUTION SYSTEM LOS ANGELES COUNTY, CALIFORNIA PRELIMINARY REPORT
Report on file, UCLA ARCH. INFO. CENTER
Particulars: SURVEY
QUADS: NEWHALL
LINEAR MILES: 11
SITES: NONE
FIRM: SRS
AGENCY: KENNEDY/JENKS/CHILTON
PAGES: 17

L-2721 WEBER, CARMEN A., AND DAVE FERRARO
1992 CULTURAL RESOURCES SURVEY 82.7 ACRE PARCEL NEAR NEWHALL TENTATIVE PARCEL MAP NO. 8576
Report on file, UCLA ARCH. INFO. CENTER
Particulars: SURVEY
QUADS: NEWHALL
ACRES: 84
SITES: NONE
FIRM: CHAMBERS GROUP, INC.
AGENCY: RILEY/PEARLMAN COMPANY
PAGES: 13

L-2848 PEAK AND ASSOCIATES, INC.
07OCT1992 CULTURAL RESOURCE ASSESSMENT OF THE PROPOSED NEWHALL ALTERNAT ALIGNMENT, VENTURA AND LOS ANGELES COUNTIES, CALIFORNIA
Report on file, UCLA ARCH. INFO. CENTER
Particulars: SURVEY

UCLA
FILE #

QUADS: NEWHALL
LINEAR MILES: 11
SITES: CA-LAN-1020, LAN-962H, LAN-961H, LAN-36, L-IF-19
FIRM: PEAK AND ASSOCIATES, INC.
AGENCY: L.W. REED CONSULTANTS, INC.
PAGES: 37

L-2950 ANONYMOUS
05OCT1992 CONSOLIDATED REPORT: CULTURAL RESOURCE STUDIES FOR THE PROPOSED PACIFIC PIPELINE PROJECT
Report on file, UCLA ARCH. INFO. CENTER
Particulars: SURVEY
QUADS: SEE REPORT
ACRES: 172
SITES: SEE REPORT
FIRM: PEAK AND ASSOCIATES
AGENCY: L.W. REED CONSULTANTS, INC.
PAGES: 356

L-2951 GIBSON, ROBERT O.
22NOV1993 RESULTS OF ARCHAEOLOGICAL RECORDS REVIEW FOR THE PACIFIC PIPELINE PROJECT EMIDIO LATERAL PIPELINE KERN AND LOS ANGELES COUNTIES, CA
Report on file, UCLA ARCH. INFO. CENTER
Particulars: RECORD SEARCH
QUADS: SEE REPORT
LINEAR MILES: 67
SITES: SEE REPORT
FIRM: CONSULTING ARCHAEOLOGIST
AGENCY: L.W. REED CONSULTING, INC.
PAGES: 42

PHASE II TEST EXCAVATIONS AND DETERMINATIONS OF SIGNIFICANCE AT CA-LAN-2133, -2233, -2234, -2235, -2236, -2240, -2241 AND -2242, LOS ANGELES COUNTY, CALIFORNIA

Prepared For:

Ms. Gloria Glenn
Newhall Land and Farming Company
23823 Valencia Blvd.
Valencia, CA 91355

Prepared By:

W and S Consultants
2242 Stinson Street
Simi Valley, California 93065

14 October 1994

MANAGEMENT SUMMARY

Phase II archaeological test excavations and determinations of significance were conducted on eight sites within the West Ranch study area, Western Los Angeles County, California. This included mapping, the collection of artifacts on the groundsurface, and the hand excavation of test pits at each of these sites, as well as an analysis of the recovered archaeological assemblages. Three of these sites, designated CA-LAN-2133, -2233 and - 2235, were found to be subsurface archaeological deposits resulting from small seasonal encampments. Each of these sites was found to date to the Intermediate Period, or from approximately 3500 to 800 years B.P. (before present). One archaeological site (CA-LAN-2236) was found to comprise a small, very low density surface lithic scatter of unknown age. Another presumed surface scatter (CA-LAN-2234) was found to consist of introduced fill derived from a nearby site, and thus to be artifact bearing, although lacking in integrity. A cave site (CA-LAN-2242) once comprised a cache of work tools and food, but was found to have been almost entirely looted at some point in the past; a second rockshelter (CA-LAN-2240) was found to contain no extant evidence of prehistoric use, and thus to not constitute a cultural resource. Finally, a small site (CA-LAN-2241) discovered in a disturbed, graded area was determined to no longer contain any extant, intact deposit or remains. Final recommendations for the management of each of these sites are presented.

TABLE OF CONTENTS

1 - INTRODUCTION

1.1 Summary & Background	1
1.2 Environmental & Cultural Overview	2
1.21 Environmental Background & Site Descriptions	2
1.22 Ethnographic Background	14
1.23 Archaeological Background	18

2 - FIELD METHODS

2.1 Introduction	23
2.2 Surface Collection	24
2.3 Test Excavations	25

3 - FIELD RESULTS

3.1 Introduction	27
3.2 CA-LAN-2133 (NLF1)	28
3.3 CA-LAN-2241 (NLF2)	32
3.4 CA-LAN-2235 (NLF3)	37
3.5 CA-LAN-2234 (NLF4)	41
3.6 CA-LAN-2233 (NLF5)	44
3.7 CA-LAN-2236 (NLF6)	52
3.8 CA-LAN-2240 (NLF7)	53
3.9 CA-LAN-2242 (NLF8)	54

4 - ARTIFACT ASSEMBLAGES & ANALYTICAL CONCERNS

4.0 Introduction	58
4.1 Laboratory Procedures	59
4.12 Taxonomic Considerations	59
4.2 Artifact Assemblage - CA-LAN-2133	66
4.3 Artifact Assemblage - CA-LAN-2241	88
4.4 Artifact Assemblage - CA-LAN-2235	91
4.5 Artifact Assemblage - CA-LAN-2234	107
4.6 Artifact Assemblage - CA-LAN-2233	109
4.7 Artifact Assemblage - CA-LAN-2236	120
4.8 Artifact Assemblage - CA-LAN-2242	121
4.9 Interpretive Concerns	128

Table of Contents, Cont'd

5 - CONCLUSIONS & RECOMMENDATIONS	143
5.1 Summary & Conclusions	143
5.2 Final Recommendations, CA-LAN-2133 (NLF1)	149
5.3 Final Recommendations, CA-LAN-2241 (NLF2)	149
5.4 Final Recommendations, CA-LAN-2235 (NLF3)	151
5.5 Final Recommendations, CA-LAN-2234 (NLF4)	152
5.6 Final Recommendations, CA-LAN-2233 (NLF5)	152
5.7 Final Recommendations, CA-LAN-2236 (NLF6)	155
5.8 Final Recommendations, CA-LAN-2240 (NLF7)	156
5.9 Final Recommendations, CA-LAN-2242 (NLF8)	156
6 - CITED REFERENCES	158
7 - TABLES	167
List of Tables	167
8 - FIGURES	217
List of Figures	217

CHAPTER 1
INTRODUCTION

1.1 Summary and Background to the Project

At the request of The Newhall Land and Farming Company, Valencia, California, Phase II archaeological test excavations and determinations of significance were conducted at sites CA-LAN-2133, -2241, -2235, -2234 -2233, -2236, -2240 and -2242, northern Los Angeles County, California (Figure 1). This project was intended to determine the size, nature and significance of these eight prehistoric archaeological sites and thereby to provide baseline data from which an assessment of potential adverse impacts to these resources could be made. These data have been employed to develop final management recommendations for the treatment of these cultural resources.

This study was conducted by W & S Consultants during August and September, 1994. David S. Whitley, Ph.D., and Joseph M. Simon served as principal investigators for the project; Robert Rechtman, Ph.D., was field director for the study; while the laboratory analyses were conducted by Tamara K. Whitley, M.A., and D.S. Whitley. Glenn Russell, Ph.D., of the UCLA Institute of Archaeology, Obsidian Hydration Laboratory, provided chronometric analyses, while Paul Bouey, Ph.D., of Geotrace,

conducted the obsidian source tracing. This report was prepared by D.S. Whitley and Simon. Richard Angulo and Anthony Angulo, representing the California Indian Foundation, served as Native American monitors for the project.

The remainder of this chapter provides environmental and cultural background to the prehistory of the region, including a summary of previous archaeological research conducted in this region; and descriptions of the eight sites considered in this study. This is followed by the field methods used at each of the sites tested during this field program, along with summaries of the field results. We then turn to an assessment of the artifact assemblages recovered from each site, and certain of the analytical conclusions derived from the study of the recovered archaeological collections. We conclude with final recommendations for each of the eight cultural resources considered during this Phase II study.

1.2 Environmental and Cultural Overview

1.21 Environmental Background & Site Descriptions

Archaeological sites CA-LAN-2133, -2241, -2235, -2234 - 2233, -2236, -2240 and -2242 are located within the West

Ranch study area which sits astride the upper Santa Clara River immediately below Castaic Junction, northwestern Los Angeles County, California (Figure 1). Although historic and recent land-use changes have altered the environment considerably from what existed during prehistoric times, at least four major plant associations probably characterized the region containing these sites during the aboriginal period. These are chaparral, coastal sage scrub, southern oak woodlands, and riparian associations (cf. Muntz 1974).

The chaparral association covers steeper slopes with poorly developed soils and xeric conditions. It includes the following species: California sagebrush (Artemisia californica), white sage (Salvia mellifera), black sage (S. apliana), purple or white-leaved sage (S. Leucophylla), California encilia (Encilia californica), California buckwheat (Eriogonum fasciculatum), chamise (Adneostoma fasciculatum), buckbruch (Ceanothus cuneatus), scrub oak (Quercus dumosa), toyon (Heteromeles arbutifolia), mountain mahogony (Cercocarpus betuloides), lemonade sumac (Rhus integrifolia) and sugar sumac (R. ovata). This is a particularly common association in the West Ranch study area.

The coastal sage scrub community is the climax community for portions of inland-coastal southern California. It is generally composed of coast buckwheat (Eriogonum cinereum) and wild

buckwheat (E. fasciculatum), along with black sage (Salvia apliana), common hazardia (Haplopappus squarrosus), prickly phlox (Leptodactylon californicum), yucca (Yucca whipplei) and California sagebrush (Artemisia californica) as major constituents.

Although both of the above plant associations were undoubtedly of subsistence importance to the aboriginal population of the region, the third association, the southern oak woodland, may have been of primary significance in the inland zones adjacent to the coastal strip. This results because of the great importance placed on the acorn as a food staple by Native Californians (Kroeber 1925), and the rarity of this resource on the coastal side of the Santa Monica Mountains. The association is characterized by the coast live oak (Quercus lobata) and the valley oak (Q. agrifolia), but also would have included various species of native grasses. Although currently restricted in distribution, this association may once have been found across much of the wide, upper reaches of Potrero Canyon and the mesas on the south side of the Santa Clara River. Currently, stands of oak woodlands are still found at higher elevations on the less precipitous ridge/hilltops on the southern side of the property.

The fourth and final plant association consists of riparian habitats, which are localized and poorly diversified woodlands

found in areas of perennial moisture. They include such species as arroyo willow (Salix lasiolepsi), mule fat (Baccharis glutinosa), willow dock (Rumex salicifolius), swamp knotweed (Polygonum coccineum), nettle (Urtica holosericea), cocklebur (Xanthium strumarium) and rabbitsfoot grass (Polypogon monspeiensis). Though this plant association is limited in distribution, it can still be considered to have had significant economic importance in aboriginal times, especially in terms of the acquisition of raw materials for items like baskets, cordage and netting. In addition to the obvious aboriginal presence of riparian habitats in the Santa Clara River valley, small riparian habitats were probably once present in some of the ephemeral drainages tributary to the valley, and in Salt Canyon on the southern side of the river.

With the exception of CA-LAN-2133, which was found during a pipeline survey in 1992 (Peck and Associates 1992), all of the sites considered during the Phase II study were first discovered during a recent Phase I survey of the West Ranch property (W & S Consultants 1994a). Six of these sites can be considered as clustering into a grouping of locales along the Santa Clara River between Potrero and San Martinez Chico Canyons, with the remaining two sites located elsewhere within the study area. At that time, they were described as follows:

CA-LAN-2133 (NLF1) - Potrero Canyon Mouth Village

The only previously discovered prehistoric archaeological site within the study area is situated on the south side of the Santa Clara River, on a river terrace approximately 500 meters northeast of the mouth of Potrero Canyon. The site appeared to cover an area about 200 meters E-W and perhaps 100 meters N-S.

The site was believed to consist of a relatively large village, as indicated by the presence of an organic midden deposit and a wide range of tool types. We noted a chert leaf-shaped (atlatl) projectile point, an Olivella shell bead, mano, basket-hopper mortar, and chert, fused shale and quartzite lithic debitage during the Phase I survey of the property (W & S Consultants 1994a). The debitage included primary, secondary and tertiary flakes. Fire-cracked rock and burnt animal bone are also present on the site. Furthermore, there are two areas within an eroded cut on the site that appeared to represent intact earth-oven features that are being exposed by erosional processes.

Based on the projectile point, which is a large atlatl or dart point, as well as the presence of the basket-hopper mortar, site CA-LAN-2133 appeared to date to the Intermediate Period, or from about 3500 to 1500 years B.P. (before present). Although the dirt road and eroded cut, noted above, have disturbed a

portion of the site, it appeared to be mostly intact and to maintain a high degree of integrity.

CA-LAN-2241 (NLF2) - Potrero Canyon Mouth #2

Immediately to the east of CA-LAN-2133, but on a separate and lower river terrace, we discovered evidence of a second archaeological site (originally given the temporary designation of NLF2). This was first encountered in a bulldozed area, alongside the existing dirt road. The site's temporal and functional relationships to CA-LAN-2133 were unclear. Based on its location on a separate landform than CA-LAN-2133, it appeared that CA-LAN-2241 warranted designation as a distinct site.

At CA-LAN-2241 we initially discovered a fragmentary steatite bowl, broken mortar and a pestle in a heavily disturbed area. Subsequently, we also found evidence of at least two separate human interments. Both burials were partial and disturbed and, in one case at least, very fragmentary and scattered. One series of fragmentary human bones was found on the groundsurface scattered across a bull-dozer scraped area immediately south of the dirt road, near where the surface artifacts were found. The second, discovered during the fieldwork, was located in the bottom of a stream channel, having apparently fallen out of the stream sidewall. There was

no evidence to suggest that any artifacts were directly associated with either of these interments as grave goods, and the strata seeming to contain the burials appeared to be artifact-free.

Mortars and pestles typically date from the Intermediate Period into more recent times in southern California, or to sometime during the last 3500 years. While the presence of these artifacts on the site, then, suggests that it may date to the same time period as CA-LAN-2133 nearby, this inference is still to be supported.

CA-LAN-2241 was found to be in very poor condition. The small terrace that it sits upon, originally perhaps 60 by 60 meters in size, is approximately 85% eroded away by arroyo cutting. The existing dirt road and recent bulldozer cut have also removed a large section of the archaeological stratum, assuming one was at one time present at this locale. We estimate that less than 15% of the original site area is still in existence.

CA-LAN-2235 (NLF3)- Chiquito Canyon Village

What appears to be a small village site was discovered on the western side of the mouth of San Martinez Chiquito Canyon (temporary designation NLF3). It is located north of Highway 126 on a low knoll; currently an occupied farm house sits on the

southern half of this knoll. We noted substantial evidence of fire-cracked rock, possible midden soil, some shell, core/cobble complex tools, a possible metate fragment, and lithic debitage at this locale, principally around the periphery of the yard containing the house. The area containing the site measures approximately 150 by 50 meters.

Construction of the house on the site has unquestionably resulted in considerable damage to its integrity. However, isolated intact portions of the deposit still were thought to be present peripheral to the house.

CA-LAN-2234 (NLF4) - Chiquito Canyon Camp #1

A relatively small site was discovered on the south side of Highway 126, immediately to the east of the San Martinez Chiquito Canyon (temporary designation NLF4). The site sits between the highway and the original railroad right-of-way, and was believed to measure approximately 100 by 100 meters in size.

Although no evidence of midden soil was found at this locale, the surface of the site contained a moderate density of lithic debitage (principally quartzite and chert primary flakes), fire-cracked rock, and two manos. A small erosional cut on the site exposed a concentration of fire-cracked rock at a depth of about

20 centimeters. Accordingly, our preliminary interpretation is that this site represents a small camp that is partly buried by natural colluvial processes.

Road construction and disking have disturbed the site to some degree however. Although no temporal diagnostics were noted on the surface of the site, it is likely that it was functionally and temporally related to the occupation of CA-LAN-2235, the larger village site located a few hundred meters to the northwest.

CA-LAN-2233 (NLF5) - Chiquito Canyon Camp #2

A second campsite (possibly a village) was located approximately 175 meters west of the mouth of San Martinez Chiquito Canyon, also on the high river terrace containing Highway 126 (temporary designation NLF5). This site is similar in many respects to CA-LAN-2234, although apparently larger and more intact. It is located on both sides of Highway 126 from the high bank of the stream to at least 100 meters north of the highway. This area includes not only the highway right-of-way, but the original SPRR line as well, which ran parallel and south of the road. Railroad and highway construction, in other words, has seriously impacted the central portion of this site. Furthermore, the site area has been farmed for many years. Thus, its current integrity can only be considered

moderate. We estimated its dimensions at about 200 meters E-W by 150 meters N-S at the time of its discovery.

The site contains a high density of surface artifacts on its southern side, and a much lower density to the north, upslope of the highway, where colluviation is burying the deposit. As at nearby CA-LAN-2234, these consist principally of debitage and fire-cracked rock. The debitage includes chert/jasper, quartzite and fused shale flakes, including primary, secondary and tertiary specimens. Manos and core-cobble complex tools were also noted north of the highway.

No evidence of midden soil was noted and, in a small erosional cut on the site, we saw no indications of a subsurface component. However, it was believed possible that subsurface material has been buried by natural colluvial processes, especially to the north of the highway, were active farming might be bringing materials downslope. Again, although no temporal diagnostics were noted on the groundsurface, it was thought likely that CA-LAN-2233 was functionally and temporally associated with the village at CA-LAN-2235.

CA-LAN-2242 (NLF8)- Martinez Grande Cave

This site is a small west-facing cave, located on the eastern side of San Martinez Grande Canyon, slightly less than one mile

north of the Santa Clara River (temporary designation NLF8). The cave measures approximately 4.5 meters deep by 3.5 meters wide, with a ceiling that is currently about 1.5 meters high. However, judging from the exposure at the cave entry, it appears that as much as half a meter of soil may be blanketing the cave floor. The wall and ceiling of the cave currently have what appears to be deeply engraved historical grafitti. At the back wall, the word "MERRY" could be identified; other unintelligible words/letters are present on the ceiling. With the exception of this grafitti, the cave appears undisturbed.

Soil in the cave consists appeared to be a fine, wind-blown sand, with no obvious evidence of an organic midden-like soil. The cave ceiling is also currently free of fire-blackening. Although this last condition may have resulted from recent wind erosion on the ceiling, there was no evidence that the cave was used as a habitation, per se, in the sense of a living area. However, two putative aboriginal artifacts in the form of worked, ancient pieces of wood, were noted on the surface of the cave, in a pack-rat nest, thus suggesting aboriginal use of the cave, probably as a cache cave.

Cache caves are common in the inland Los Angeles and Ventura Counties region (W & S Consultants 1989). In the immediate vicinity of this site (but outside of the West Ranch study area), the important cache site Bower's Cave (CA-LAN-36) was

discovered (Elsasser and Heizer 1963; Van Valkenburgh 1952). Although it is immediately apparent that this newly discovered cave does not contain a major cache of religious artifacts such as was found in Bower's Cave, it is likely that it was used for the temporary storage of utilitarian items and foodstuffs, as was common in the region, and thus is likely to contain a small quantity of buried archaeological remains.

CA-LAN-2236 (NLF6) - Grapevine Mesa Lithic Scatter

A very low density surface scatter of lithic flakes (temporary designation NLF6) was discovered on the northern end of Grapevine Mesa, where it overlooks the Santa Clara River to the north, some distance from the above described grouping of sites. We identified approximately 8 pieces of lithic debitage, spread over an area about 100 by 100 meters in size, at this locale.

Although CA-LAN-2236 had suffered minor disturbance from disking, it appeared to be essentially intact. This site apparently represents a small lithic workshop area. It was thought unlikely to contain a subsurface deposit.

CA-LAN-2240 (NLF7) - Potrero Canyon Rockshelter

On the southeastern side of the study area, in a small tributary

to Potrero Canyon, a small, dry rockshelter was located which appeared to contain evidence of prehistoric use (temporary designation NLF7). The rockshelter measured approximately 5 meters across and 2 meters in depth, with a height of about 2.5 meters. The roof of the shelter was fire-blackened and a chert flake was noted on the groundsurface immediately outside of the shelter. Although it did not appear that this shelter served for intensive occupation or use, small rockshelters and caves were frequently employed as cache locales prehistorically, as noted above. Thus, it was considered very likely that a small quantity of buried remains may be present in the aeolian deposit in this shelter.

1.22 Ethnographic Background

The Upper Santa Clara Valley region, including the West Ranch portion of the Newhall Ranch, appears to have been inhabited during the ethnographic past by an ethnolinguistic group known as the Tataviam. Some controversy exists in reference to this attribution, as the Tataviam are now extinct and were effectively so prior to the initiation of systematic anthropological studies at the turn of the century. But, based on a few existing word lists, descriptions provided by early travelers, mission placenames, and the recollections of other aboriginal informants, the Tataviam are generally accepted as

the aboriginal inhabitants of this region. Their language is believed to represent a member of the Takic branch of the Uto-Aztecan linguistic family (King and Blackburn 1976). In this sense, it was related to other Takic languages in the Los Angeles County region, such as Gabrieleño/Fernandeño of the Los Angeles Basin proper, and Kitanemuk of the Antelope Valley.

The Tataviam are thought to have inhabited the upper Santa Clara River drainage from about Piru eastwards to just beyond the Vasquez Rocks/Agua Dulce area; southwards as far as Newhall and the crests of the San Gabriel and Santa Susana Mountains; and northwards to include the middle reaches of Piru Creek, the Liebre Mountains and the southwesternmost fringe of the Antelope Valley (ibid; Kroeber 1925; Earle 1990; Johnson and Earle 1990). Their northern boundary most likely ran along the northern foothills of the Liebre Mountains (i.e., the edge of the Antelope Valley), and then crossed to the southern slopes of the Sawmill Mountains and the Sierra Pelona, extending as far east as Soledad Pass (Earle 1990:94). Ethnographically, at least, the Tataviam do not appear to have controlled the Leona Valley or areas to the north, with the Elizabeth Lake area proper a zone of uncertainty.

Known Tataviam villages during the historic period include: pi?irukung and ?akavaya, both near modern Piru; tsavayu(?u)ng, San Francisquito; etseng, kuvung and huyung, on Piru Creek

above Piru; tochonanga, near Newhall; kwarung, Elizabeth Lake; and tsawayung, near Castaic Junction. At kamulus, near modern Rancho Camulos, a mixed Chumash-Tataviam population lived (King and Blackburn 1976:535-6). Because the name kamulus is unquestionably Chumash and not Tataviam, however, the toponym has been viewed as problematical (Johnson and Earle 1990:197); that is, as not reflecting the original (Tataviam) name for this village. Regardless of original name, however, the Spanish missionary Señan, writing in 1804, indicated that the Chumash inhabitants of the village of sécpey had migrated to kamulos, accounting for this admixture (Señan 1962:15). Sécpey is of course now known as Sespe, near the modern town of Fillmore.

Culturally-speaking, the Tataviam were in most respects similar to their Fernandeño and Chumash neighbors, to the south and west, respectively (King and Blackburn 1976). In this sense, they were hunters-gatherers, with subsistence emphasizing yucca, acorns, juniper berries, sage seeds and islay. Game was also hunted, with small animals, such as rabbits/hares and rodents, probably representing more significant contributions of meat protein than larger game, such as deer.

Almost nothing is known of Tataviam social and political organization. Based on analogies with surrounding groups,

however, it can be suggested that they were organized in a series of tribelets, similar to the naciones described by Earle (1990) for the Antelope Valley, and found to be characteristic of much of California aboriginal socio-political organization (cf. Kroeber 1925). The tribelet represented an autonomous land-holding unit, minimally controlled by a head-chief or big-man. They usually included one large, 'capital' village, sometimes occupied year-around, and a series of smaller, seasonally inhabited hamlets. Whether the Tataviam may have had exogomous clans and moieties, like the Cahuilla and Serrano to the east, is unknown. However, it is estimated that the Tataviam population was less than 1000 people at the time of Euro-American contact, and that only two or three of the largest villages throughout their territory were inhabited at any given time (King and Blackburn 1976).

It is also likely that Tataviam religion followed the patterns of their surrounding neighbors. In this case, shamanism would have functioned as the central element. This posits a direct and personal relationship between each individual and the supernatural world, with this relationship enacted by entering a trance or hallucinatory state (usually based on the ingestion of psychoto-mimetic plants, such as jimsonweed or native tobacco). Shamans, per se, who were considered individuals with an unusual degree of supernatural power, served as ritual specialists: ceremonies and rites were infrequent in occasion

and limited in type. Perhaps most importantly, shamans served as healers or curers, with the etiology of disease as well as its cure held to lie in the supernatural world. Shamans are also known to have produced the rock art of this region (Whitley 1992), which depicted the hallucinations and spirits they observed in their vision quests.

Although the Tataviam were one of the earliest groups contacted by Spanish missionaries, with a number of their villages described by members of the Portolá expedition of 1769, a general lack of information on this group exists because, by 1810, all Tataviam had been baptized at Mission San Fernando and were quickly absorbed by other groups through intermarriage. The last speaker of Tataviam died in 1916 (King and Blackburn 1976).

1.23 Archaeological Background

Archaeologically speaking, more information is available on the Upper Santa Clara River area, although here, too, less is known than for many of the surrounding regions of southern California. In general terms, the prehistory of this inland area appears to parallel that of the Santa Barbara Channel/southern California coastal zone (cf. McIntyre 1990), with William Wallace's (1955) cultural historical framework appropriate as a chronological

system of reference.

Correspondingly, the earliest evidence for human occupation of this region corresponds to Wallace's Early Millingstone Period (or, alternatively, the Early Horizon), dated from about 7000 to 4000 years before present (B.P.). This represents a period during which subsistance and adaptation are said to have emphasized the collecting and processing of hard seeds, with inland artifact assemblages, correspondingly, dominated by mullers and millingstones known as manos and metates. Evidence for an Early Millingstone occupation of the Upper Santa Clara Valley region is, admittedly, very limited, and has been found at only two sites. Both of these are located near Vasquez Rocks, with temporal attribution based on the presence of a small number of Olivella barrel beads (McIntyre 1990). Such bead types have subsequently proven unreliable temporal indicators, throwing doubt on human inhabitation of this region before about 4000 years ago. Further, recent excavations at one of these putative early locales, the Escondido Canyon Site, failed to uncover evidence for occupation prior to about 2700 years B.P. (Love 1990).

The second temporal unit in Wallace's chronology is the Intermediate Period (or Middle Horizon), dated from 3500 to 800 years B.P. It is marked by a shift to the mortar and pestle, with an increased emphasis on hunting and hunting

in artifact assemblages. Population appears to have increased during this period, with more temporary camps founded. Evidence for Intermediate Period occupation of the Upper Santa Clara Valley region is substantial, in that it has been found at a number of sites and has been based on radiocarbon, obsidian hydration and typological dating (McIntyre 1990). The Agua Dulce village complex, for example, includes occupation extending back to the Intermediate Period, at which time population of the village may have been 50 or more people (King et al n.d.). Furthermore, the Intermediate Period appears to represent a time during which a substantial exploitation of mid-altitude environments first began, with considerable use, for example, of portions of the nearby Hathaway Ranch (located to northwest of the study area) beginning at this time.

Assuming that the Upper Santa Clara River region was first significantly occupied during the Intermediate Period, as existing evidence now suggests, a parallel can be drawn with the inland Ventura County region, where a similar pattern has been identified (Whitley and Beaudry 1991), as well as possibly the Antelope Valley and western Mojave Desert (Sutton 1988a, 1988b). In all of these areas a major expansion in settlement, the establishment of large site complexes, and an increase in the range of environments exploited, appear to have occurred sometime roughly around 3000 years ago. Although most efforts to explain this expansion have focussed on very local

circumstances and events, it is increasingly clear that this was a major southern California-wide occurrence, and therefore that explanation of it must be sought at a larger level of analysis.

There is a continuity in the inland regions between the Intermediate Period and subsequent times, labelled the Late Prehistoric Period, lasting from 800 years B.P. to historic contact, at about 200 years B.P. Site complexes first occupied in the Intermediate Period continued to be inhabited, although they increased in size, with more specialized and diversified sites added to the kinds of sites present. In fact, the principal distinction between Intermediate and Late Prehistoric sites in the inland regions is a change in certain diagnostic artifact types (notably, projectile points, with a shift from spear points to bow and arrow points). This change in fact may not signify consequential changes in culture, adaptation or subsistence, although the trends begun in the Intermediate accelerate over time during the Late Prehistoric. For example, a large number of Late Prehistoric Period sites are known from the Upper Santa Clara River/Agua Dulce region (cf. McIntyre 1990), with the Agua Dulce village complex estimated to have grown to a population of 200 to 300 people around A.D. 1500 - 1600 (King et al n.d.). Sometime during this period the Tataviam can be hypothesized to have occupied this region, although it is possible that they may have appeared somewhat earlier.

However, the important point is that, during the Late Prehistoric Period, the patterns of lifeways recorded for the ethnographic period were fully in operation.

During the Historic Period, the aboriginal population appears to have dropped considerably. This, without doubt, can be attributed to the effects of missionization and its attendant relocation of the aboriginal population to centralized locales, along with the depredations of introduced Old World diseases. The Upper Santa Clara River region appears to be one of those inland zones, like the Antelope Valley to the north, that quickly and completely lost its aboriginal population. In particular, the aboriginal population from the Upper Santa Clara Valley was moved into Mission San Fernando, in the San Fernando Valley, and the area was effectively depopulated.

CHAPTER 2
FIELD METHODS

2.1 Introduction

Phase II archaeological fieldwork at sites CA-LAN-2133 (temporary designation NLF1), -2241 (NLF2), -2235 (NLF3), -2234 (NLF4), -2233 (NLF5), -2236 (NLF6), -2240 (NLF7) and -2242 (NLF8) was intended to establish the nature and significance of each site, and to thereby provide baseline data from which a determination of the ultimate disposition of these cultural resources could be made. This required the collection of a representative sample of artifacts and archaeological indicators from each of these cultural resources, the establishment of the vertical and horizontal boundaries of each cultural deposit, and an analysis of the recovered artifact assemblage from these archaeological localities.

Procedures followed in the collection of data useful for establishing the nature and significance of the sites included mapping, surface collecting of artifacts lying on the groundsurface, and test excavation of pits to establish the presence or absence of a subsurface archaeological deposit, as well as to characterize such a deposit if found to be present on the sites considered in this study. Though these procedures

were systematized so that the recovered data would be comparable between each site, as well as with previous studies in the region, the magnitude of effort varied somewhat between the sites, reflecting the field conditions specific to each locale. We discuss each of these field methods below, with details on the level of effort expended at each site provided in the subsequent chapter.

2.2 Surface Collection

In order to determine the maximum areal extent of each site, the initial field procedure was to locate, map and collect all surface remains present on the groundsurface. In order to identify all such remains, the general area of each site was walked by crew-members spaced in approximate two meter intervals. Identified artifacts and archaeological indicators were then marked with flagging tape. Surface remains found within an area of approximately 3 meters-square in size (i.e., within a circle with a one-meter radius) were treated as discrete artifact associations and collected as clusters. Transit, stadia and surveyor's chain were subsequently used to map all remains or clusters of remains, which were numbered and collected by these provenience points.

2.3 Test Excavations

Employing a procedure used at all sites tested during this Phase II project, the number and location of the test pits placed on each site were predicated on an evaluation of the very localized geomorphological conditions found to be immediately present. Specifically, recognizing that subsurface archaeological remains could only be expected in areas where depositional processes contributed to the accumulation of soils, and that areas of active degradation would not only lack subsurface deposits but would also most likely contain surface finds (if found to be present) out of original context, test pits were placed in areas where the probability of deposition was deemed highest on each site, and subsequently located to delineate any such discovered deposits. In general, such depositional areas can be said to include: toeslopes and foots of hills; swales; and areas where active rodent activity or vegetative vigor indicate soil accumulation and depth. Conversely, areas of daylighting bedrock and erosional ridges, hilltops and slopes were conceeded only a minimal amount of testing, because of the very limited likelihood that they could accumulate buried archaeological remains.

Excavation units dug on each site were designated numerically. Each unit was dug with pick, shovel and trowel in arbitrary ten

centimeter spits or levels. Spoils from each of these levels was screened through one-eighth inch mesh. All artifacts and archaeological indicators were collected and bagged by unit level. In the initial units excavated on each site, excavation was continued for approximately 50 cm beyond the apparent termination of the cultural deposit, in order to obtain a clear indication of the soils stratigraphy present. Subsequent to stratigraphic definition and profiling, excavation was continued through two culturally sterile levels (i.e., 20 centimeters), or until decomposing bedrock was encountered.

CHAPTER 3
FIELD RESULTS

3.1 Introduction

Using the procedures outlined above, Phase II fieldwork at sites CA-LAN-2133, -2241, -2235, -2234 -2233, -2236, -2240 and -2242, resulted in the collection of a substantial quantity of archaeological remains, although the recovered remains were not uniformally distributed between the eight sites. In the next chapter we discuss the recovered archaeological remains from these sites in detail, including a summary of the laboratory procedures by which these collections were processed and analyzed, a review of each site's assemblage in typological terms, and an outline of certain of the analytical concerns and conclusions these collections allow us to draw. However, prior to considering the artifact collections in specific terms, below we present a summary of the field results in a more general sense, particularly in reference to the size of the surface manifestations of each site, the presence/absence of subsurface remains, the nature of the soils present, and what these features imply about each cultural resource.

3.2 CA-LAN-2133 (NLF1)

A total of 20 excavation units were dug on CA-LAN-2133 (Figure 2). These revealed an archaeological site deposit that is relatively deep but of low density, and is variable in depth. In particular, it appears that the site is primarily a subsurface deposit buried by downslope colluviation originating on Potrero Mesa to the south. Thus, only 14 artifacts were recovered from the groundsurface, all or most of which appear to have been displaced upwards in rodent-hole backdirt piles.

Soils and stratigraphic relationships at the site are depicted in Figure 3, which represents one of the pits (Unit 19) containing a thinner section of the cultural deposit, thereby illustrating the kinds and degrees of taphonomic processes affecting the preservation of the site and its artifacts in a truncated fashion.

All stratigraphic units depicted in this profile are A Horizon (i.e., "topsoil") strata. Starting at the top with A1, there is a lens that is 20 - 25 cm thick of sandy loam that is dark brown/brown (Munsell 10 YR 4/3) in color, and contains a low density of archaeological remains. Immediately below this stratum is an abrupt contact to a thin layer designated A2. This represents a single climatological event, a mudflow, and thus consists of poorly sorted but bedded coarse sands and pebbles. It is light yellowish brown in color (10 YR 6/4), averages about

5 cm in thickness, and is effectively devoid of archaeological remains. The contact between A2 and A3, below it, is irregular and abrupt, suggesting that the surface of layer A3 may have been stripped before A2 was deposited. Stratum A3 is also silty loam, but in this case a dark greyish brown (10 YR 4/2). It is approximately 10 to 15 cm in thickness, and represents the primary archaeological deposit. At about 40 cm in depth, there is a gradual contact with the A4 stratum, which is brown/dark brown in color (10 YR 4/3). In Unit 19, this stratum was about 20 cm thick. While artifacts are present within it, these appear to have moved downwards due to krotovinas (rodent burrows), which extend from the A4 base upwards to the modern ground-level. Although not depicted on Figure 3, stratum A5 lies below A4, and consists of an indurated yellowish brown (10 YR 4/4) clayey loam. It is entirely culturally sterile.

Thus, the soils at CA-LAN-2133 may be conceptually understood as comprising: 1 - a layer of topsoil (A1) that has a low density of archaeological remains that have been brought up from a stratum below; 2 - a primary archaeological deposit (A3) that varies between roughly 20 and 40 cm in thickness; and 3 - a lower lying layer (A4) that contains artifacts derived from the layer above.

Two taphonomic factors are important to emphasize with

reference to this soil profile at CA-LAN-2133. The first is the large number of krotovinas on the site, a circumstance very typical of local sites. These apparently are responsible for moving archaeological remains out of the primary cultural stratum (A3) down into A4, as well as up to A1 and the groundsurface. Furthermore and secondly, these burrows are particularly heavily concentrated in the A4 stratum near the contact with A5. This is due to the change in bulk density of the soil at this contact with the underlying, more indurated lower stratum, resulting in an accumulation of horizontal rather than vertical subterranean chambers near the A4/A5 contact. From an archaeological perspective, however, the important point is that dead rodents tend to die and to be "deposited" in these lower horizontal burrows. This yields an accumulation of clearly naturally-deposited, small mammal bones at or near the contact with the more indurated soils. We discuss the general taphonomic problems in the interpretation of mammal bones from these sites subsequently; here it is simply appropriate to note that an increase in small mammal bones occurs at the lower levels of the site due to natural and not cultural factors.

The subsurface deposit at CA-LAN-2133, accordingly, can best be characterized as a buried cultural lens (A3) that varies between 40 - 50 cm in thickness in the center of the site, to 20 cm or less on the site edges. As is typical in sites in the

region, archaeological materials from this primary cultural lens have been moved downwards into the lower (A4) soils by rodent activities and, inasmuch as the primary cultural deposit is capped by higher materials (A1 and A2), also upwards to the groundsurface.

This subsurface deposit, per se, is centered in an area approximately midway between the E-W dirt road and the edge of the river terrace at the north of the site, and between a large bulldozer cut on the west side of the site and an eastern sloping edge of the terrace that trends towards neighboring site CA-LAN-2241. In the center of the site the lower limits of the A4 stratum varies from 100 to 130 cm in depth. However, the deposits thin laterally outwards from this central area, resulting in an archaeological deposit that is progressively shallower, but still blanketed by overburden, as one moves outwards. Although the site is elliptical in shape, overall dimensions of the site are 70 m N-S by 165 m E-W, for a site area of approximately 11,550 m^2.

Disturbance to this site deposit, then, is of two kinds. As detailed above, rodent disturbance has impacted the stratigraphic integrity of the deposit, spreading cultural remains both up and down the profile. This activity also accounts for the the apparent absence of intact features in the site: although hearths and housepit floors would be expected in

campsites such as CA-LAN-2133, no evidence of intact subsurface features of any kind was uncovered. Second, the westernmost and southern sides of the site have been bulldozed; in the first instance, by the implacement of a pipeline and cow-path leading down to the Santa Clara River and, in the second, by the graded dirt road that traverses the site. Thus, the current integrity of CA-LAN-2133 must be considered no better than moderate.

3.3 CA-LAN-2241 (NLF2)

At the nearby site of CA-LAN-2241 a considerably different picture emerged during the fieldwork. As noted above, surface artifacts and two concentrations of human remains were encountered on the groundsurface of this site during our fieldwork. Inspector Nils Linder of the Los Angeles County Coroner's Office was notified of these human remains, while consultation with and monitoring by the California Indian Council Foundation occurred during the fieldwork, to determine the initial treatment of the human remains.

Mapping and surface collection on the site resulted in the recovery of a very small artifact assemblage, consisting of only six artifacts. These were entirely derived from the disturbed portions of the site: the roadway, the windrow alongside it, and

the bulldozed area to the south of the road. No surface artifacts or other archaeological indicators of any kind could be found on the small portions of intact ground on the site.

In addition to the mapping and collection of the groundsurface remains, four test units were excavated at CA-LAN-2241 (Figure 4). Because all of the surface archaeological remains from CA-LAN-2241 were found in heavily disturbed areas, and because road grading and run-off from Potrero Mesa have removed most of the original groundsurface in the site area, testing was concentrated in the three small portions of the site still containing original groundsurface. Each of the units was excavated by 10 cm level to a minimum depth of 50 cm; Units 1 and 3 were dug to 75 and 60 cm depth, respectively. Soils in each unit were a light yellow brown sandy colluvium. All of the units were entirely culturally sterile, indicating that no subsurface archaeological deposit is present at this site.

The human remains were found in two very different contexts. Burial #1 consists of a few heavily weathered and fragmentary pieces of a human cranium, humerus, femur and radius, found on the groundsurface of a bull-dozed area south of the dirt road. These were collected during the fieldwork for laboratory analysis and eventual re-interment, as requested by the California Indian Council Foundation.

All of the human remains from Burial #1 are apparently derived from an adult, but they are too fragmentary to age to any more specific degree, or to sex or to identify pathologies. The location in which Burial #1 was found corresponds to the area in which a number of the surface artifacts were also found. Based on the weathered nature of the human bones, their discovery in an area of obvious bulldozer disturbance, and the absence of any subsurface archaeological deposit in this location, they apparently were secondarily-deposited during the bulldozer activity, along with the surface artifacts from this same locale. That is, Burial #1 at CA-LAN-2241 consists of a highly disturbed, fragmentary interment in a secondary context. Given the absence of any extant subsurface remains at CA-LAN-2241 or surface artifacts in undisturbed groundsurface contexts, it is likely that this burial and the artifacts found near it on the site derive from an archaeological deposit that was destroyed during grading. That is, we believe that there is no longer an extant archaeological deposit at this site.

Burial #2, in contrast, provides a different and somewhat more ambiguous picture. It was found at the bottom of a steeply-sided arroyo (tributary to the Santa Clara River) that runs north-south along the presumed western side of CA-LAN-2241. At the time of discovery, it had apparently fallen out of the sidewall of this arroyo in a slope failure. A preliminary evaluation of it suggested that it comprised a fairly complete,

albeit obviously disturbed, human burial, that had fallen out of the upper portion of the arroyo sidewall. However, prior to a complete exposure and recording of it, a second slope failure occurred, burying this interment with many cubic yards of soil.

Extensive efforts were made to uncover and then to stabilize Burial #2 because, given its location on the bottom of the arroyo, it is clear that it eventually will be destroyed by natural stream action. However, the second slope failure proved to be very substantial, completely stymieing our efforts to uncover the burial. Thus, Burial #2 is still present on the site and, although it is currently buried by a considerable number of yards of soil from the slope failure, it is nonetheless apparent that natural stream erosion in the arroyo (which was ultimately responsible for both slope failures) will result in its eventual destruction.

At this point and given the above data, any interpretation of this burial must be considered very preliminary. The excavation of two of the test pits (Units #1 and 2) above the arroyo in the immediate area where the burial is presumed to be derived failed to find any evidence for subsurface archaeological remains. Thus, it is possible that Burial #2 represents an isolated prehistoric interment that is currently buried in the bottom of an arroyo by a slope failure. Alternatively, it is also possible that the burial is not an aboriginal interment at all,

but instead represents a victim of the 1928 San Francisquito Flood disaster, which caused the death of over 400 people, many of whose bodies were never recovered (Outland 1963). Although such a scenario might seem far-fetched, we have observed buried modern cow bones lying under five to six feet of alluvial overburden at about the same elevation on the same side of the Santa Clara River; it is known that a 300 feet wall of water inundated Castaic Junction, not far upstream from the site, during the flood; and a major wall of water was trapped slightly downstream from the site at Blue Cut (now known as 40 Mile Curve), causing a massive whirlpool that resulted in the loss of 84 men's lives who were, at that time, living in an Edison work camp along the river (ibid:106-107). Furthermore, our test excavations in the landform from which this burial presumably was derived indicate that soils at this spot are alluvial overbank deposits; that is, flood deposits.

In summary, then, our best estimate of CA-LAN-2241 is that it was once a small site that has been destroyed by road grading, bulldozer activities and natural erosion. With the exception of Burial #2, all archaeological remains from the site, which consisted entirely of disturbed surface remains, were collected during the Phase II test. Burial #2, although now heavily disturbed by natural erosional activities, is still present within the general confines of the site area. Most likely, it represents another prehistoric human burial from the site that will

eventually be destroyed if left in its current context. Alternatively, it may represent a modern flood victim that only coincidentally was laid to rest in the area of a prehistoric archaeological site.

Given the current destroyed status of CA-LAN-2241, then, it is impossible to estimate its original size. However, it is possible to infer that, in its original condition, it must have been very small, probably no more than 20 meters in diameter. This inference is based on the simple fact that the area within which the site was located is itself a small and narrow arroyo mouth, with the site presumably having originally sat on one of the arroyo terraces found therein. Further, the presence of only a very small quantity of disturbed artifacts supports the interpretation that this site was once quite small in size. In fact, it is possible that CA-LAN-2241 originally consisted simply of two human burials, both of which were disturbed over the years.

3.4 CA-LAN-2235 (NLF3)

Field conditions were, likewise, considerably different at CA-LAN-2235 than at the previous two sites, based on the obvious presence of a modern house, with its attendant utility system and ornamental vegetation, in the approximate middle of the

site, along with a paved road on its presumed southern and western sides. Fourteen test pits were excavated on the site (Figure 5) and, during the mapping and surface collection, 14 surface artifacts were collected. These procedures revealed the presence of a low density subsurface archaeological deposit. As at CA-LAN-2133, this deposit was variable in depth, in this case with greatest cultural depth at the southern end of the low knoll containing the site, thinning laterally towards the north and towards the sides.

The stratigraphic relationships at the site are revealed in Figure 6, which provides a profile of Unit 11, the deepest pit at CA-LAN-2235. As is evident in this profile, three A horizon strata are present at this site. The A1 or top 20 cm of the site is a plow zone and root layer, which has been heavily disturbed by disking and vegetation. Soil in this stratum is silty loam that is dark greyish brown (10 YR 4/2). Below A1, with a thickness of about 50 cm, is A2, also a silty loam but brown/dark brown in color (10 YR 4/3). This is the primary archaeological deposit on CA-LAN-2235. The A3 stratum, a sandy loam that is dark yellowish brown (10 YR 4/4), lies below A2. There is a gradual and diffuse contact between these two soil units; this contact is itself approximately 20 cm thick, lying between 70 and 90 cm in depth. Although artifacts are present in this gradual contact zone, these appear to have been moved into this lower contact zone by rodent activity, as

krotovinas are common in the A1, A2 and A3 strata.

Thus, the intact subsurface archaeological deposit at CA-LAN-2235 consists of a primary deposit that ranges from about 20 cm in thickness, at the northern end of the site, to approximately 50 cm in depth at the south. Above this primary deposit, the top 20 cm across the site has been heavily disturbed by disking. Additional disturbance has occurred at the base of the deposit, where rodent activity has moved archaeological materials deeper down the profile from the primary deposit, in some cases 20 cm or more.

As implied above, the size of CA-LAN-2235 is effectively defined by a paved dirt road on the southern and western side of the low knoll, and by the edge of the San Martinez Chico arroyo to the east. Dimensions north-south extend from the toeslope of the knoll (at the paved road) northwards up the elongated knoll about midway through the dirt lot north of the existing house on the site. Thus, the site covers an area 100 m NW-SE and 50 m SW-NE, for a total of 5000 m^2.

Note, however, that within this total site area considerable disturbance has occurred which has greatly reduced the extant area of intact site. The house and driveway, for example, cover approximately 600 m^2, or ~12% of the site area. These have effectively destroyed all vestiges of the archaeological deposit

that was once under them. Furthermore, during the excavation of Unit 6, the northern edge of a modern gravel leach field was encountered. This extended from 40 to 60 cm in depth. Although the archaeological deposit was 70 cm deep itself at this spot, the presence of a 20 cm gravel layer between 40 and 60 cm in depth here indicates that everything above 60 was at one point excavated out, the gravel was then spread within the leach field, and topsoil was placed on top of the gravel. That is, for all intents and purposes the archaeological deposit in the area of the leach field was also effectively destroyed, thus expanding the area of complete archaeological deposit destruction northwards from the house another 20 meters.

Based on the above figures, then, we can calculate that approximately 24% of CA-LAN-2235 has been completely destroyed by house and leach field construction, while the remaining portions of the site have been impacted by the rodent disturbance that is typical in the region, as well as by disking and horticultural modifications associated with a modern residence.

In summary, CA-LAN-2235 was found to have a primary, intact subsurface archaeological deposit ranging from 20 to approximately 50 cm in thickness; the 20 cm above this primary deposit has been disturbed by disking. Furthermore, although the site covers an area 5000 m^2 in size, construction within

this area has reduced this figure by roughly 24%, leaving about 3800 m^2 of intact deposit. Given these circumstances, CA-LAN-2235 can be considered to be highly disturbed; that is, in very poor condition.

3.5 CA-LAN-2234 (NLF4)

Surface collection and the excavation of nine test pits (Figure 7) were completed on CA-LAN-2234. These resulted in the recovery of seven surface specimens and a small quantity of subsurface archaeological remains. However, based on our excavations and on subsequent discussions with members of the Newhall Land and Farming Company agricultural division staff, subsurface soil conditions at the site proved to be complex, and indicated that the site had a relatively involved depositional history.

In order to fully understand the circumstances at this site, it is important to note that it sits immediately east of the San Martinez Chico arroyo; soils on the site, thus, are all alluvial overbank deposits. Within the approximate center of the site there is currently a large, mature oak. To the dripline of this oak the groundsurface is intact and undisturbed by disking or other modern activities. However, it is apparent that the tree

actually sits on the western bank of a small drainage, a fact that is masked by artificially elevated and recently disked soils around this island of undisturbed soil. That is, soils around the oak are essentially level in all directions, indicating at a minimum that soils had been brought in and placed southeast of the oak to fill-in the small drainage upon whose side this tree sits.

Excavation units in the disked soils on the site resulted in the recovery of very low densities of artifacts; typically on the order of one or two pieces of chipping waste per 10 cm level, extending in most cases to about 30 cm, but in two units to 60 cm. However, the distribution of the units containing different depths of cultural remains proved to follow no discernible pattern, as should occur in all subsurface deposits; instead, the depth distribution of cultural remains was completely random rather than, for example, having a deep deposit at one locale with a progressively thinner cultural deposit outwards from this deepest locale, which is the normal depositional pattern. Moreover, within the island of undisturbed soil in the middle of the site, no artifacts of any kind were encountered. That is, precisely where the most intact cultural deposit would be expected under normal site conditions, no archaeological remains of any kind were found. Based on the visibly identifiable artificial elevation of soils around the island containing the oak, the random depth distribution of cultural

materials, and the absence of cultural materials within the undisturbed island area, we inferred that the soils containing the site might be introduced fill derived from a nearby archaeological site.

Such an inference was verified by the agricultural staff of Newhall Land and Farming Company, who stated that the soils containing the artifacts at this "site" in fact had been borrowed from the area of CA-LAN-2233, to the west of the Martinez Chico arroyo and south of Highway 126, about 10 years previously, and were spread in their current location for erosion control. That is, CA-LAN-2234 in fact proved to not be an archaeological site, in the sense of an intact deposit of cultural remains, but instead represents a small quantity of out-of-context, highly disturbed artifacts that were moved from their original locations some years earlier. Given the extremely low density of artifacts recovered from the introduced fill, it appears that the portion of the nearby site of CA-LAN-2233 that was graded for this erosion control was a primarily a periperhal surface deposit.

Thus, CA-LAN-2234 entirely lacks integrity and, as a secondary deposit of introduced fill containing artifacts, is rightly not an archaeological site in the proper sense of the word. Any estimation of site size or depth, therefore, would be meaningless.

3.6 CA-LAN-2233 (NLF5)

Thirteen test pits were excavated on this site (Figure 8), which straddles Highway 126. Three of the test pits (Units #1 - 3) were placed south of the highway; the remainder (Units #4 - 13) were excavated to the north in an agricultural field extending towards CA-LAN-2235. Site conditions proved to be distinct between the southern and northern portions of the site; accordingly, we discuss each of these areas in turn.

That section of CA-LAN-2233 south of Highway 126 represents a relatively narrow portion of the lower terrace immediately overlooking the Santa Clara River, and appears to have been heavily impacted by various modern construction activities. In addition to the highway itself, which rests upon a large bed of fill where it crosses the southern section of CA-LAN-2233 (thus burying portions of the site), this southern section also includes the old railroad right-of-way and a dirt road alongside the former rail tracks. Furthermore, as noted above, the eastern end of this southern site area served as a borrow pit for fill dumped on nearby CA-LAN-2234. The southern section of the site, finally, has been cultivated, and thus has been disked and plowed for an unknown number of years. In short, there is ample evidence of considerable disturbance in this portion of

CA-LAN-2233.

That said, it is nonetheless true that surface artifacts are readily exposed on the ground in this portion of the site, indicating presumably that little in the way of colluviation has occurred here that would bury the surface expression of the site. Surface collecting undertaken in this portion of CA-LAN-2233 resulted in the recovery of 14 archaeological specimens.

The three test units excavated in the southern site area also yielded a very small assemblage of archaeological remains. However, all of these specimens were concentrated in alluvial overbank deposits in the top three levels of these units; that is, within the plow and disk zone, with no archaeological materials present below this zone of mechanical disturbance, and with no indication that a true subsurface archaeological deposit was present in this portion of the site. Accordingly, the handful of lithic waste flakes found during the excavations in this southern portion of the site clearly represent surface materials that were introduced into the subsurface by agricultural activities.

The southern section of CA-LAN-2233, thus, represents a small surface lithic scatter that has been heavily disturbed by the construction and then demolition and removal of a railroad track, by the grading of a dirt road, by the borrowing of topsoil,

by disking and plowing, and by the construction of Highway 126 over it. Most likely, this southern portion of CA-LAN-2233 once served as a peripheral activity area associated with the larger section of the site to the north. Our fieldwork on the southern site area, however, resulted in the collection of all extant surface artifacts in this area.

Although their geomorphological relationships are now slightly obscured by Highway 126, the northern portion of CA-LAN-2233 sits on what was once a higher terrace slightly northeast of the southern section of the site. Historically the northern portion of the site was a walnut orchard; for at least a dozen years it has been actively farmed with row crops. These activities have accelerated colluvial movement from the northern end of this terrace to the southern end, now truncated by the highway. The result is a buried subsurface archaeological deposit which thickens towards the south, and with surface expressions limited to very occassional evidence brought up in rodent back-dirt piles, by plowing, or perhaps by stump removal when the walnut orchard was cut-down and its remnants removed.

Ten test pits were dug in the northern portion of CA-LAN-2233 (Figure 8). These revealed the presence of a deep but very low density archaeological deposit. In one unit (#8) this deposit extended to a depth of 200 cm; average depth, however, was about 140 cm, with lateral thinning towards the edges of the

site, especially from south to north.

The nature of this deposit is best revealed with reference to a representative soil profile, as illustrated by Figure 9, which depicts the west wall of Unit 5. There are three pertinent soil horizons in this profile. Stratum A1 is the plow and disk zone, which extends from a minimum of 20 to a maximum of 30 cm below the modern groundsurface. A1 soil is silty loam that is yellow brown in color (10 YR 4/4). There is an abrupt but irregular contact between the A1 and underlying A2 strata. In some units (though not present in Unit 5 and not depicted in Figure 9), a stone line was found at the base of the plow zone, reflecting the settling of heavier materials at the bottom of this highly disturbed layer.

A2, which is the primary cultural deposit on the site, extends from the irregular contact with A1 to about 100 cm in depth in Unit 5; in some units it is considerably deeper. A2 is also silty loam but it is dark brown (10 YR 3/3) in color. This stratum has been disturbed by both krotovinas and by walnut tree roots; although the orchard was removed a number of years ago, large root casts were still noticeable in many of the test pits. Furthermore, certain of the units (particularly Unit 4) displayed no intact A2 stratum; instead, a heavily mixed deposit of A2 and A3 soils was found where intact A2 stratum should have been located. Although these mixed A2/A3 horizon areas

contained artifacts, we assume they result from former tree stump locations on the site. Removals of these stumps would have mixed the soils from these two strata and, of course, artifacts would be left within these disturbed areas, although they are now out-of-context and lack any archaeological integrity.

The contact between A2 and A3 is gradual and diffuse. A3 proper, however, is a pale brown sandy loam (10 YR 6/3), and is culturally sterile.

Although there are small numbers of artifacts throughout the A2 stratum (including a few in A1), the majority tend to be concentrated in the lower half of the A2 horizon in most units. For example, in Unit 8 only 23% of the lithic artifacts (tools and debitage) were found between 0 and 100 cm depth; 78%, in contrast, were recovered between 100 and 170 cm. Similarly, in Unit 8, these proportions are 26% and 74%. That is, the lower portion of the deposit contained three times as many lithic specimens as the upper portion, even though the lower section is only about two-thirds as thick as its upper counterpart.

Although this circumstance may be partly attributable to the downward movements of artifacts in a disturbed profile, we suspect that it also reflects the fact that the major and more intensive portion of the occupation of the site occurred during

its earlier period. That is, rodent, walnut orchard and plowing have clearly moved archaeological remains both up and down within the profile, and colluviation on the site has been quite rapid, leading to a thick soil profile. Nonetheless, there appears to be a sufficiently strong pattern of concentration towards the base of the A2 cultural deposit to suggest that the site was most intensely occupied early in its history.

One other aspect of the excavation of the northern portion of CA-LAN-2233 warrants mention at this time. This was the discovery of a human burial in Unit 6 between 80 and 100 cm depth. Inspector Nils Linder of the Los Angeles County Coroner's Office was notified of this discovery, while the California Indian Council Foundation was consulted with regards to its disposition, and provided monitoring services during its exposure and recording. At the request of this last group, it was decided to expose and record as much of the burial as possible, but to leave it in place and thus re-bury it in-situ.

The cranium of this burial was found protruding out of the south wall of Unit 6 at ~80 cm depth. A window was cut into the sidewall of this unit to expose as much as was feasible of this burial; this allowed us to examine and record portions of the cranium and the left radius and ulna. The burial was well preserved and, we believe, largely intact, although we cannot be certain of this fact given our limited and partial exposure of it.

Based on our observed evidence, we have inferred that it is a prone burial, facing west, with the body extending north-south. No grave goods were observed associated with the portion of the burial that was exposed.

Based on this partial exposure, it was apparent that the cranium, frontal, parietal, temporal, zygomatic and occipital portions of the skull were present. A fragmentary left radius and ulna were also observed. All observed bones were gracile and clearly adult. Although speculative, it thus appears that the burial may represent a female. No pathologies could be observed on the very few bones that were exposed.

In addition to the in-situ human bones, some small human bone fragments were also found in the 70 - 80 cm level of the unit. These include a fragmentary foot phalange and a few small pieces of rib bone. Furthermore, a highly worn lateral incisor was recovered in the 20 - 30 cm level of this unit. It is very common for smaller bones to get displaced from an in-situ burial, being moved by rodent activities and root disturbance. These small, out of context fragments apparently represent such occurrences. These bones were likewise re-buried with the in-situ burial when the unit was back-filled.

it is important to note that Unit 6 was placed on the southernmost edge of the northern portion of CA-LAN-2233;

specifically, immediately adjacent to a small dirt frontage road that runs along Highway 126. Subsequent to the testing of this site, it was determined that the exact location of this unit falls within the highway right-of-way; that is, outside of the project area, per se.

In summary, CA-LAN-2233 can be considered to consist of two discrete sections. The southern section, south of Highway 126, originally consisted of a surface lithic scatter on the periphery of the site. Mapping and collecting at this location resulted in the recovery of all extant surface remains present there, but disturbance within this southern portion of the site has been so extreme that it is currently impossible to obtain any meaningful estimate of its original extent. The northern portion of the site, to the north of Highway 126, consists of a subsurface deposit that averages 140 cm in depth. Although this portion of the site was found to contain a human burial, this apparently is located outside of the project area, per se, in the highway right-of-way.

The extant subsurface deposit within the northern portion of CA-LAN-2233 currently covers an area of 150 m N-S by 60 m E-W, or 9000 m^2. Originally the site undoubtedly was longer but the construction of Highway 126 has truncated the deposit to the south. This deposit is in moderate condition: in addition to its southern truncation, it has suffered from rodent disturbance

typical for sites in the area but, more importantly, it has been impacted by the existence of a historical orchard on the site. In certain areas, this has resulted in a heavy mixing of the site deposit with culturally sterile soils, thus leaving the artifacts out of original context and therefore lacking integrity.

3.7 CA-LAN-2236 (NLF6)

Mapping, surface collection and subsurface testing at CA-LAN-2236 included the excavation of two test pits (Figure 10) and the recovery of four lithic waste flakes on the groundsurface of the site. The test pits revealed the presence of a thin layer of silty loam topsoil (very pale brown, 10 YR 7/3 in color), which graded between 15 and 20 cm to a more indurated sandy loam (brown, 10 YR 5/3). Two flakes were recovered from the top few centimeters of Unit 1; otherwise the subsurface was entirely culturally sterile.

Because the site area had been disked, it is apparent that CA-LAN-2236 consisted of a small, very low density surface lithic scatter which has had a few pieces of lithic chipping waste introduced a few centimeters into the soil by disking. It measured approximately 20 m E-W by 15 m N-S, or 300 m^2, for an extremely low surface artifact density of one flake per 75 m^2. Phase II testing at this locale resulted in the recovery of

effectively all extant remains from this small surface site.

3.8 CA-LAN-2240 (NLF7)

This site is a small rockshelter, measuring 5 m E-W, 2.5 m N-S and 2.25 m in maximum height, located along upper Portero Canyon, and thus some distance from the Santa Clara River, as well as from all other sites discovered within the study area. When first located, this locale was inferred to be an archaeological site based on the presence of fire-blackening on the ceiling (typically, indicating that fires have burned within the cave), the presence of a single chert flake on the groundsurface immediately outside of the cave mouth, and the fact that the vast majority of caves and rockshelters in this region served as caches for prehistoric remains, even if they do not manifest visible surface evidence of archaeological specimens (W & S Consultants 1989a).

Phase II testing at CA-LAN-2240, however, proved that it was the exception to this rule. Two test pits were dug within this rockshelter (Figure 11). These demonstrated that the soils are very shallow within the rockshelter, consisting of fine aeolian sands, which were entirely culturally sterile. That is, the excavation of both units failed to result in the recovery of any archaeological remains from this locale. Furthermore, the

single isolated chert flake found outside of the mouth of the shelter could not be relocated; most likely, it had eroded down slope as a result of rains or windstorms.

Thus, CA-LAN-2240, is apparently not an archaeological site but instead a natural rockshelter with no extant evidence of prehistoric use. Fire-blackening on the ceiling, accordingly, may have been caused by the burning of naturally accumulated brush (such as packrat wood piles) in the shelter during a wildfire in the region, or by prehistoric peoples who used the shelter but left no extant artifactual remains from such use.

3.9 CA-LAN-2242 (NLF8)

Archaeological site CA-LAN-2242 likewise is a small cave. Unlike CA-LAN-2240, however, it is located in San Martinez Grande Canyon near the Santa Clara River and the other sites considered during this study. Furthermore, it was found to contain significant evidence of prehistoric use.

Eight test pits were placed within this cave (Figure 12), which measures 3.5 m N-S, 4.25 m E-W, 1.5 m in height, and with an opening 2.75 m across. Only four of these units, however, were a full 1x1 m in size; the remainder were smaller portions of meter squares configured to correspond to the irregular

dimensions of the cave walls. Each unit was excavated to bedrock, which varied from a few to approximately 30 cm in depth. Soils within the cave proved to be fine aeolian sand, with one exception: at the front of the cave near the drip-line, a small deposit of light brown soil, extending from the groundsurface to bedrock, was encountered. This consists of the aeolian sands enriched by organics. Contact between this brown sand and the clean aeolian sand in the interior of the cave was essentially vertical. A series of artifacts and archaeological specimens were recovered from within this relatively small section of brown sand. These included bone tools, a steatite arrow shaft straightener, shell beads, asphaltum bearing impressions of baskets, and a small quantity of faunal remains. In addition, modern remains (such as wooden matchsticks and pieces of plastic sheeting) were also found in the deposit, including essentially resting on bedrock. These modern specimens, however, were found in the clean aeolian sands towards the back of the cave, not in the organically enriched brown sands at the front.

Although we discuss the artifact assemblage from this site subsequently, a few comments are in order to explain this collection. First, the nature of this prehistoric assemblage is such that it is clearly a cache of work tools and other items; that is, it is not a sample of artifacts and remains that would result from an occupation of the cave, nor is it a cache of

ceremonial or religious artifacts. Second, the distinctive transition between the clean aeolian sands, in the interior of the cave, which contain modern artifacts, and the organically enriched sand at the front containing the prehistoric remains, is important in terms of understanding the status of the cave. It is apparent that the interior of the cave has been entirely looted, and that the accumulation of clean sands in the back of the cave has occurred since this looting event. The few remaining artifacts found at the front of the cave in the intact deposit, in contrast, appear to represent the remnants left behind by the looters. This inference is substantiated, third, when historical background on cache caves in this immediate area is considered.

Cache caves are common in the region (W & S Consultants 1989a). The most famous of these is Bowers' Cave (CA-LAN-36), which is located about one mile away from CA-LAN-2242 near Val Verde. It was discovered before the turn of the century by two local teen-agers, the Pyle Brothers, who lived at Mud Springs in Hasley Canyon, and was found to contain a wealth of ritual items: ceremonial wands, feather sashes and skirts, bullroarers, and baskets. Because of the rarity of these items, they were purchased by the Rev. Steven Bowers (hence "Bowers' Cave"), a Ventura resident, who subsequently sold most of the artifacts to the Peabody Museum at Harvard University. Bowers is known to have paid the Pyle brothers

$1800.00 for the artifacts which, prior to the turn of the century, would have been considered a very substantial sum of money (Van Valkenburgh 1952; Elsasser and Heizer 1963).

The end result of the discovery and sale of the Bowers' Cave artifacts was, apparently, a systematic search for and looting of local caves. (Among other evidence, oral history in the Fillmore-Piru area indicates that at least one additional ceremonial cache cave was ultimately discovered by the brothers, but in this case at a now unknown location in Piru Canyon. One of the ceremonial sashes obtained at this Piru Canyon cave is displayed in Harry Lechler's Piru museum). Given the proximity of CA-LAN-2242 to Bowers' Cave as well as the Pyle Ranch, the visibility of the site from the canyon bottom, and the interest in cave looting generated by the Bowers' Cave artifact sale, it would have required miraculous circumstances for CA-LAN-2242 to have survived intact.

CA-LAN-2242, accordingly, appears to have originally comprised a cave used to cache tools and storage baskets. For all intents and purposes, however, it was effectively destroyed by looters, most likely before the start of this century. Our Phase II testing at the site removed the last few remnants of archaeological remains that were once present at this locale.

CHAPTER 4
ARTIFACT ASSEMBLAGE AND ANALYTICAL CONCERNS

4.0 Introduction

Although the general patterns of artifact distributions, enumerated in the previous chapter, provide important information relative to the size and nature of the archaeological sites considered in this Phase II study, proper determination of the significance and scientific importance of these resources can only be obtained with a more intensive analysis of the recovered artifact assemblages. Accordingly, in this chapter we consider these assemblages in some analytical detail, and what they imply about each of the sites as well as aspects of the prehistory of the region. We begin by detailing the laboratory procedures followed in the processing and curation of the recovered remains. Subsequently we outline the taxonomic system employed to categorize and classify each site's collection. This is followed by a typological summary of the artifacts and archaeological indicators recovered from each site. Finally, we consider the scientific importance of these remains in slightly larger comparative terms. This places them in a regional perspective, and informs an understanding of their probable functions and chronological positions.

4.1 Laboratory Procedures

Following the completion of the Phase II fieldwork at CA-LAN-2133, -2241, -2235, -2234 -2233, -2236, and -2242, the recovered artifact assemblages were taken to the W & S Consultants' laboratory for washing, processing and analysis. (Note that no artifact collection was obtained at CA-LAN-2240, which proved to not to contain any extant archaeological remains, and thus it is not considered in this chapter). After each specimen was washed and labelled, metrical and typological analyses were performed. We provide measurements and weights for the various artifacts and archaeological indicators in the respective site catalogs (Tables 1 - 7) included in this report. In order to facilitate typological comparisons between these sites, as well as to other similar sites from this same region, we have employed a standardized taxonomic system. We describe this classificatory system in some detail below.

4.12 Taxonomic Considerations

In considering the artifacts recovered from the Phase II investigations at CA-LAN-2133, -2241, -2235, -2234 -2233, -2236, and -2242, we employ a morphological stone tool typology first published by Whitley et al (1979) and now widely

used in the region. This affords a number of advantages. First, because of its widespread use (e.g., Johnson 1979; W and S Consultants 1984, 1989a, 1989b) it permits easy comparability between existing studies. Second, because it is morphologically rather than functionally based, it provides greater objectivity in taxonomic assignments. Specifically, it avoids the dangers inherent in inferring dubious functional purposes for stone tools that may have had multiple uses, and that often exhibit little in the way of formal attributes. In the inland southern California region, in particular, it is increasingly clear that most sites are characterized by expediant or casual tool assemblages, probably reflecting the fact that the sites resulted from dispersal phase activities that little emphasized formal patterns of behavior (W & S Consultants 1989b). Thus, a typology based on the elucidation of tool manufacturing stages, rather than one assuming final function of the implements, stands less chance of leading interpretations astray. However, this is not to imply that functional interpretations are unwarranted or undesired. Such is not the case; instead, it is simply to emphasize that functional interpretations must be made somewhat independent of - and therefore including other lines of evidence from - the typological assignments alone.

The morphological typology employed here is based on four major categories of stone artifacts (cf. Whitley et al 1979). These are: (i) groundstone implements; (ii) core/cobble tools;

(iii) flaked stone tools; and (iv) tool manufacturing waste, or debitage. Groundstone implements are tools that have been pecked and/or ground into shape. They include manos (or mullers) and metates (or basal grinding slabs), along with mortars, pestles, stone bowls and comals (or griddles). Although there is a general association between groundstone artifacts and plant grinding, pulping and processing, as in the case of manos, metates, mortars and pestles, this is not invariably so: stone bowls and comals, for example, had other uses, with certain kinds of bowls, in particular, sometimes reserved for ceremonial purposes.

Groundstone artifacts are usually (but not invariably) made of softer lithic materials. Metates, for example, are often made from sandstone or some other sedimentary material; bowls and comals are typically manufactured from steatite (soapstone or talc schist). Manos, however, were often derived directly from river cobbles of appropriate size, so that quartzite is a common material source.

Core/cobble tools are generally large, bulky implements made by the re-use and/or modification of a river cobbles and lithic cores. They include 'hammerstones', 'choppers' and 'scraper planes'. Hammerstones are usually unshaped or minimally shaped, roughly fist-sized, stones that exhibit characteristic battering and pounding scars, but often otherwise lack

modification. Choppers are cobbles or cores that have been unifacially or bifacially flaked to create a relatively sharp edge. Scraper planes are high-backed, unifacially flaked tools that are usually 'biscuit-shaped' in plan, with edge angles near perpendicular, and with heavy use-scars along their convex face.

All of these tools were apparently employed for heavy pounding, scraping and/or battering tasks. There is a frequent association of core/cobble tools with groundstone artifacts (specifically manos and metates) in the nearby Conejo Corridor region (Whitley 1979b), suggesting that the two categories may have been functionally related; that is, that core/cobble tools may have served as part of a plant acquisition and processing toolkit. This is supported in reference to the scraper planes, in particular, which are argued to represent special yucca processing tools (Kowta 1969; Salls 1985). Further, this suggests in turn that the core/cobble tools were part of a woman's plant gathering toolkit (W & S Consultants 1989b).

Flaked or chipped stone tools are secondary reductions from cores and cobbles. That is, they represent tools manufactured from flakes struck-off the primary sources of lithic materials. These flakes may be used without modification as 'utilized flakes'; they may be bifacially flaked; or they may be unifacially flaked. It is apparent that the majority of the

flaked or chipped stone tools in the region are either utilized flakes with no modification, or have edges that have been flaked unifacially or bifacially, but exhibit little or no effort for further edge modification or shape regularization (W & S Consultants 1989b). Again, this further emphasizes the casual or expediant nature of these tools, and also implies that they may have been used for a variety of tasks with little functional specialization.

Correspondingly, the majority of the chipped stone tools from this region are what we have defined as biface or uniface 'edges', and they may have been used for any number of general cutting, scraping and abrading tasks. Of course, occassional projectile points and drills represent special types of bifaces with specific and known functions, whereas biface 'knives' (large leaf or knife-shaped tools) are presumed to have been used for cutting and piercing/stabbing tasks.

Generally, chipped stone tools were made from material with particular flaking characteristics; specifically, those subject to conchoidal fracture. Crypto-crystallates such as chert and chalcedony, therefore, are common raw materials, but fused shale, quartzite, cherty-siltstone, rhyolite, andesite, basalt and occassionally obsidian may also be present in a collection. Because small hand specimens of rhyolite, andesite and basalt are, in fact, only distinguishable with petrographic analysis, we

treat them all as "fine-grained volcanics". And, as we have recently discovered (W & S Consultants 1991b), "fused sandstone", resulting from contact metamorphism between Miocene Conejo Volcanics and sedimentary beds, was also a lithic material of common use in the region. Because of its similarities to fused shale (based, of course, on similar metamorphic origins), it has often been mistaken for this latter material. This would be inconsequential, save for the assumption that the putative fused shale has its sole origins in Grimes and Happy Camp Canyons, north of Moorpark. Instead, it is apparent that a number of fused sandstone quarries are present in the nearby Conejo Corridor; that their respective lithic materials are widely mis-recognized as fused shale; and that, therefore, lithic exploitation was probably much more widely ranging than the often inferred simple exploitation of major quarries at Grimes Canyon might suggest (W & S Consultants 1991b).

The final category of stone artifacts is what can be considered lithic waste or debitage. It includes spent cores, waste flakes, and angular shatter. There are a number of different kinds of cores and flakes, and the presence of these varieties at a site tends to signify different types of tool reduction or manufacturing techniques. For example, the presence of large numbers of secondary and tertiary flakes usually indicates that chipped stone tool manufacture occurred at a locale, whereas

primary flakes alone might be associated with the making of the cruder chipped stone tools, or might be expected at quarries where only the preliminary stages of tool manufacturing were conducted. Similarly, relatively large proportions of tertiary flakes correlate with habitation/campsites, in that tool maintenance and finishing occurred at these locales. Furthermore, because different lithic materials tend to correlate with different categories of tools, the material present in the debitage collection can also be a clue to a site's function. Quartzite and other 'crude' lithic materials, for example, are often found where core/cobble tools are manufactured, whereas crypto-crystallates tend to occur where chipped stone tools are manufactured. And, in a general way, there is an association between these last materials, chipped stone artifacts, and habitation sites (W & S Consultants 1989c).

In addition to the lithic tool typology, other classes of artifacts may be present at local sites. Dietary remains, in the form of shellfish and faunal bones, are sometimes present, as are ornaments, usually in the form of shell beads. Where appropriate, based on the specifics of each recovered artifact assemblage, we consider these categories of remains below, on a site by site basis, as well.

4.2 Artifact Assemblage: CA-LAN-2133 (NLF1)

The prehistoric artifact assemblage from CA-LAN-2133 (temporary designation NLF1) consisted of a total of 815 lithic specimens (Tables 1, 8 and 9). As in most sites, this was dominated by debitage or waste flakes, representing 796 specimens, or 98% of the assemblage total. The remaining 19 formal lithic artifacts (2%) included 2 examples of core-cobble complex tools (~11%), five flaked stone tools (~26%) and 12 piece of groundstone (~63%). Other archaeological specimens include three miscellaneous artifacts and a small quantity of shellfish and bone. We discuss the categories of artifacts present on the site in turn.

Core/cobble complex tools

Core/cobble complex tools from CA-LAN-2133 (Table 8) were limited to two examples, representing 11% of the formal tool assemblage from the site. These are a Type 2A minimally modified cobble hammerstone (see Whitley et al 1979:18), made of quartzite (catalog number #2133-188); and a Type 2 meta-volcanic biface core chopper (#2133-189; ibid:15). Both artifacts were recovered at depth from the site, being derived from the 40 - 50 cm level of Unit 18 and the 50 - 60 cm level of Unit 19, respectively.

With an assemblage of only two core/cobble complex artifacts, functional inferences of any kind are, necessarily, difficult to make. However, one characteristic of this assemblage - in this case the negative evidence that it presents - appears important for archaeological interpretations. This concerns the putative importance of core/cobble complex tools, particularly hammerstones and scraper planes, in agave processing. Earth ovens used for agave roasting are quite common in the archaeological record of the Upper Santa Clara Valley in the Acton/Agua Dulce area; thus one might infer that agave constituted an important part of the diet of the inhabitants of this region. We presume that artifact assemblages from sites in the Acton area would reflect this subsistence emphasis, with significant numbers of these kinds of core/cobble artifacts. Although we would have assumed that this subsistence pattern would have also held for the West Ranch study area around Castaic Junction, the absence of any significant numbers of these tool types, combined with our earlier failure to find agave roasting ovens during the archaeological survey of the property, demonstrate that the subsistence importance of agave was restricted to the more eastern, and therefore drier portions, of the Upper Santa Clara River.

Flaked Stone Tools

Although not common at the site, flaked stone tools were more frequently encountered than core/cobble complex tools, with five flaked stone artifacts recovered. This represents 26% of the formal tool assemblage.

Flaked stone tools include one projectile point, three biface tools, and one uniface artifact. The projectile point (#2133-29) is a fragmentary chert tip, recovered from the 50 - 60 cm level of Unit 2. As such, it is not temporally diagnostic and thus provides no information on the age of the site. However, it is worth noting that, at the time of the Phase I survey of the West Ranch study area, an atlatl point was discovered on the site surface, along an active cattle path. This could not be relocated at the time of the Phase II study, no doubt due to regular use of the pathway by cattle. Nonetheless, it demonstrates that at least some use of the site occurred prior to the introduction of the bow and arrow into the region, or prior to approximately A.D. 500 (cf. Yohe 1989).

The biface artifacts recovered from CA-LAN-2133 include one chert knife mid-section (#2133-185, Unit 18, 0 - 10 cm level), and two biface edges. Of the biface edges, artifact #2133-11 (Unit 1, 60 - 70 cm level) is made of chert, while artifact #2133-186 (Unit 18, 20 - 30 cm level) is made of quartz.

Although locally available, quartz is a particularly intractable lithic material for flaking purposes, and thus is only occasionally represented in the tool and debitage assemblage from the site. Given the difficulty in working quartz, this last biface edge is crude and clearly represents a casual and expedient tool form.

The final flaked stone tool from CA-LAN-2133 is a uniface edge made of quartzite (#2133-177), recovered from Unit 3, 90 - 100 cm level. As with the biface edges, it is also a crude and expedient stone tool.

Groundstone

Groundstone comprised the largest component of the formal tool assemblage from the site, with 12 artifacts, constituting 63% of the formal tool assemblage. Manos, or hand grinding stones, were the largest contributor to this class, represented by seven examples, for fully 37% of the formal tool assemblage. The manos included four Type 4B shaped biface artifacts (cf. Whitley et al 1979:43), one Type 4A shaped biface specimen, and two small untypable fragments. That the typable manos are all variants of Type 4 shaped biface specimens indicates that considerably more care was expended in groundstone manufacture than in the flaked stone assemblage, which (as we have noted) was dominated by expedient, casual tools.

Type 4B manos from CA-LAN-2133 include specimens #2133-68 (Unit 5, 50 - 60 cm level), made of schist; #2133-108 (Unit 6, 80 - 90 cm level), sandstone; #2133-176 (Unit 3, 70 - 80 cm level), quartzite; and #2133-250 (Unit 9, 30 - 40 cm level), also sandstone. The Type 4A mano is #2133-125 (Unit 10, 20 - 30 cm level), made of sandstone. The untypable fragments are both made of quartzite (#2133-175, Unit 3, 70 - 80 cm, and #2133-190, Unit 20, 40 - 50 cm). It is apparent that a wide range of materials, thus, were employed in mano manufacture. With one exception, these are locally available, presumably from the nearby river bed. The exception is the schist; presumably, Sierra Pelona schist from the Acton area. Although this has not been sourced chemically, as a general observation we have noted that what appears to be Sierra Pelona schist is common in the groundstone assemblages from Upper Santa Clara River sites, whereas it is not found in sites further towards the west and south.

Two unshaped but utilized pestles were also recovered from the site. Both of these are made of sandstone (#2133-87, Unit 5, 80 - 90 cm, and #2133-111, Unit 6, 50-60 cm).

The presence of pestles on the site is important for two reasons. First, it has long been assumed by archaeologists that manos (and their corresponding metates) and pestles (with

mortars) were functionally distinct: manos used to grind hard seeds, and pestles to pound acorns. Although this distinction has never been proven, it is reasonable enough, and it has an important implication about subsistence practices at the site: a variety of plant foods were being gathered and processed at CA-LAN-2133.

The second implication of the pestles is chronological: mortars and pestles first occur in the southern California archaeological record at the beginning of the Intermediate or Middle Period, or approximately 3500 years B.P. The presence of these artifacts at CA-LAN-2133, therefore, suggests that the site is an Intermediate Period, or later, occupation. This inference, furthermore, is substantiated by the atlatl point that was noted on the site surface during the Phase I survey, mentioned above, which is minimally 1500 years in age. The combination of these two temporal diagnostics suggests strongly that at least portions of the site date between 1500 B.C. and A.D. 500.

In addition to the hand groundstone, one fragment of a basal groundstone implement was recovered: an untypable portion of a metate (#2133-174, Unit 3, 50 -60 cm), made of sandstone. In addition, one miscellaneous piece of groundstone was encountered. This is a lightly ground piece of schist (#2133-109, Unit 6, 80 - 90 cm), which is either a fragment of a mano

or a groundstone plaque of unknown function.

Debitage

As noted above, debitage is almost invariably the most common class of remains from local sites. This proved true at CA-LAN-2133, where debitage constituted ~98% of the recovered assemblage. Details concerning the materials and classes of debitage recovered from the site are provided in Table 9. However, the debitage assemblage can be summarized as follows.

By lithic material, locally available chert was the most common debitage form, contributing ~58% of the total. Fused shale was also a very important lithic material at the site, constituting ~27% of the debitage. As noted previously, major fused shale sources are present in Grimes Canyon, near modern Fillmore, with smaller sources dispersed throughout the Conejo Volcanics to the southwest of Moorpark. Other quantitatively significant lithic materials include metavolcanics (7%), quartzite (~6%), and obsidian (~1%). Fine-grained volcanics and quartz are also represented, but in minor quantities (<1%).

The presence of fused shale on CA-LAN-2133 is important inasmuch as it reflects lithic material acquisition at a distance, albeit a relatively short distance. More to the point,

however, the obsidian from the site is clearly derived from volcanic glass sources in eastern California, and therefore demonstrates trade over long distances.

Five obsidian specimens from CA-LAN-2133 have been submitted to Glenn Russell, Ph.D., UCLA Institute of Archaeology Obsidian Hydration Laboratory, for hydration dating, and Paul Bouey, Ph.D., Geotrace, for x-ray flourescence (XRF) sourcing. Although the results of the XRF sourcing analysis are not yet available, and the dating must be based on the source from which the obsidian was obtained, there are nonetheless some provisional inferences that can be plausibly made, due to a very strong local pattern in prehistoric obsidian trading networks. This pattern demonstrates that the large majority of obsidian specimens from southern California sites are derived from the Coso obsidian source of Inyo County, which is approximately 175 miles from the site.

Until the final XRF results are available, it may be reasonably assumed that the inhabitants of CA-LAN-2133 were involved in long-distance trade of some form with the Coso region near Little Lake. In terms of trading networks it is important to note that, should the samples from CA-LAN-2133 prove to have been derived from other obsidian sources, the distance of this long-distance trade network will be increased, inasmuch as the Coso source is in fact the closest source to southern California.

However, accepting for a moment the assumption that the obsidian from the site is derived from Coso, we can then use the Coso calibration of 220 microns/year proposed by Meighan (1981) to obtain provisional direct chronometric ages for the specimens from CA-LAN-2133. These chronometric ages are as follows:

Catalog #	Microns	Years BP	Years AD/BC
22	4.9	1078	AD 874
48	7.0	1540	AD 412
56	9.6	2112	160 BC
65	3.6	792	AD 1160
86	7.2/7.7	1584/1694	AD 368/258

Thus, these provisional obsidian hydration dates suggest an occupation of CA-LAN-2133 extending minimally from 160 BC to AD 1160. This chronological inference, even though provisional at this point in our analyses, fits neatly with the estimates of site age made on the presence of an atlatl point and pestles, as noted previously. That is, this gives us three lines of evidence supporting an occupation of CA-LAN-2133 during the latter portion of the Intermediate Period, and perhaps mostly between roughly 200 BC and AD 1200.

The distribution of waste materials by debitage class is also useful for inferring the function of different archaeological sites: quarry and lithic workshops, for example, are dominated by cores, primary flakes and angular shatter; habitation sites

tend to have large proportions of secondary and especially tertiary flakes, reflecting final tool manufacturing and refinement. At CA-LAN-2133, the proportions per class are as follows: primary flakes - ~19% of the total; secondary flakes - ~22%; tertiary flakes - ~53%; and angular shatter - ~14%; with <1% cores and biface thinning flakes present.

The preponderance of tertiary flakes, followed by a significant quantity of secondary flakes, of course, matches the minimal numbers primary flakes, pieces of angular shatter and cores on the site. As noted above, the classes of debitage present on the site are those associated with final tool production, refinement and maintenance, not with primary lithic reduction and tool production. Moreover, the kinds of flakes present on the site are those typically associated with habitation sites: villages or campsites. In turn, this final inference is supported by the general nature of the tool assemblage which, even though relatively small quantitatively, is nonetheless characterized by a broad range of types and classes of implements.

One final point concerning the debitage needs be made. This concerns the absence of any clearly discernible pattern of lithic reduction in the flakes; for example, biface thinning flakes, which result from systematic biface manufacture (e.g., arrow points or knives), are all but absent in the debitage assemblage. Thus, while the debitage reflects final tool manufacture and

maintenance, it does not appear that this was either systematic or that it was conducted to any great intensity at this site.

Miscellaneous Artifacts

A small quantity of miscellaneous artifacts was also recovered from CA-LAN-2133 (Table 8). As regards bone tools, two tips of bone awls were recovered from the site (#2133-47, Unit 3, 50 - 60 cm, and #2133-193, Unit 6, 80 - 90 cm). Both of these, presumably, were manufactured from deer cannon bones. More importantly, they demonstrate that basketry production occurred on the site, inasmuch as bone awls were the primary tools used to weave coiled baskets.

The final category of miscellaneous artifacts is a bead, in this case a disk bead made of steatite (#2133-70, Unit 5, 60 - 70 cm). This, of course, is an indication that some degree of personal ornamentation was practiced by the inhabitants of the site, as was typical throughout prehistoric California. Unfortunately, while beads and ornaments are often useful as chronological indicators, this particular steatite bead represents a type used almost throughout the entirety of the prehistory of the region (cf, C. King 1981).

Faunal Remains

In addition to the lithic and bone artifacts, faunal remains were also recovered from CA-LAN-2133. Animal bone from the site is summarized in Table 10. In interpreting such a collection of faunal remains from local archaeological sites, however, an important analytical concern is the taphonomic history of the collection. That is, because bones may occur naturally in the subsoil - especially bones of small mammals such as pocket gophers and ground squirrels that commonly reside and die in burrows - it is not always a straightforward process to determine which specimens in a faunal collection are truly archaeological and which are present as the result of normal animal activities. This problem is compounded by the fact that certain of these same burrowing animals may have been employed as parts of the prehistoric aboriginal diet. Furthermore, domestic dogs and wild coyotes may take or leave bones on sites, while large mammals can die on them after their prehistoric occupation. And, in the case of caves and rockshelters, a very wide range of animals may have lived and died in these sheltered habitats, or have been dropped there by other non-human predators.

Because of these confounding factors we have developed a series of short and general guidelines to aid in determining which specimens are most likely 'cultural', in the sense of

having resulted from aboriginal behavior, and which bones are most probably unrelated to the archaeological remains and therefore only within the archaeological deposit due to serendipitous circumstances. In terms of positively determining that a given bone was brought onto a site by human agency we consider the following as useful criteria: (i) butchering and cutting marks; (ii) evidence of burning and charring; (iii) knowledge of the habits of a given species, indicating a low probability of its remains being naturally interred in a particular type of deposit; and (iv) ethnographic information concerning the diet and butchering habits of local aboriginal groups. Information counting against the inclusion of a given bone in a reconstruction of prehistoric diet includes: (a) knowledge concerning the behavior of a given species, indicating a high likelihood of natural deposition in the type of deposit in question; (b) 'freshness' of the bone; (c) absence of butchering marks and burning, or the presence of modern saw-cut marks; and (d) ethnographic data discounting the use of that species by local groups.

Thus, a cut long bone of a deer or a charred rabbit femur both would be considered most probably as 'cultural' specimens, and of course any marine mammal or fish bones could only have been deposited in an archaeological deposit by human activities. By contrast, pocket gopher and ground squirrel bones would be considered with suspicion if derived from an open-air deposit,

such as CA-LAN-2133, particularly if they lacked any evidence of butchering or charring.

With these considerations in mind, the collection of faunal remains from CA-LAN-2133 was analyzed and is tabulated in Table 10. As is typical in sites in the region (cf. Reynolds 1978), the large majority of this collection consists of very small fragments, resulting from a heavy processing of the bones (probably by breaking and smashing) to extract the marrow. The result is a collection that is very difficult, if not essentially impossible, to speciate, especially since there are few articulations upon which to base a positive species identification. Consequently, we have organized the specimens, as well as those from the other sites considered in this study, into a series of size categories that provide some idea of the probable species (or range of species) from which they were derived. Except in cases in which the bone is so fragmentary so as to preclude any categorization whatsoever, unspeciated bone has been assigned to the appropriate size grouping; where possible, the skeletal element has been identified as well. These categories, with the range of species potentially observable in southern California sites along with certain of their live weights (cf. Reynolds 1978), are as follows:

Small mammal:
Pocket gopher (2.5 - 8.8 ozs)
Kangaroo rat (1.6 - 2.7 ozs)

Harvest mouse (0.3 - 0.6 ozs)
Dusky-footed woodrat (8 - 13.75 ozs)
Meadow mouse (1.5 - 3.5 ozs)
Audobon cottontail (912 gms)
Brush rabbit (1.25 - 1.8 lbs)
Ground squirrel (0.2 - 0.5 lbs)
Western grey squirrel (average = 1.75 lbs)

Medium mammal:
Black-tailed hare (4.4 - 6.1 lbs)
Grey fox (7 - 13 lbs)
Coyote (20 - 50 lbs)
Domestic dog
Racoon (1.8 - 22.2 kg)
Badger (3.6 - 10 kg)
Striped skunk (6 - 14 lbs)
Bobcat (15 - 35 lbs)

Large mammal:
Mule deer (125 - 200 lbs)
Guadalupe fur seal (50 - 100 lbs)
California sea lion (males to 600 lbs, females to 400 lbs)
Grey wolf (60 - 100 lbs)
Horse
Domestic sheep
Domestic cow

We emphasize, again, the relatively high degree of processing that the faunal remains from CA-LAN-2133 exhibit. With the above difficulties and caveats in mind, it can then be reported that 1195 pieces of animal bone were recovered from the site, representing a total of 234.5 gms. Following typical regional patterns, small mammal bone is the most common constituent

of this assemblage, by count, whereas large mammal bone provides the majority of the bone by weight. More specifically, the figures for the different faunal classes are as follows: large mammal - 179 pieces or 15% by count, and 132.6 gms or 57% by weight; medium mammal - 52 pieces or 4%, and 16.8 gms or 7%; and small mammal - 906 pieces or 78%, and 78.1 gms or 33%. There was also a significant quantity of bone that was so heavily rendered that it could not be classed by size (31 pieces or ~3% and 2.5 gms for 1%). Reptiles are represented in the assemblage by two turtle scutes, presumably from the Pacific Pond Turtle, Clemmys marmorata. Birds are also present (21 pieces, or ~2% and 7.0 gms or ~3%) in small but significant quantities.

Although close to all of the bone has been so heavily rendered for marrow extraction that speciation is impossible, a few observations and inferences can still be derived from this assemblage. The first is that, relative to other sites in the general southern California region, there is a very rough equity between the large and small mammal bone in this assemblage. This could be interpreted two ways. The first is that there is a higher than usual presence of intrusive small mammal bones in the collection. Although there is no objective way for us to evaluate this inference, it seems unlikely, simply because it requires an invocation of special and unique circumstances to explain the faunal assemblage. The second potential

interpretation, then, and the one that we favor, is that the exploitation and use of small mammals constituted an important part of the animal protein in the diet of the site's inhabitants. The plausibility of this interpretation is enhanced given the known ethnographic use of small mammals by southern California groups.

Even given the apparent relative importance of small mammals at the site, it is also clear that large mammals provided the bulk of the meat protein to the inhabitants of CA-LAN-2133. It is therefore worth mentioning that, even while unspeciated, this large mammal faunal assemblage undoubtedly is almost primarily mule deer; certainly, there is no evidence that large marine mammals are represented in this assemblage. Furthermore, the large mammal assemblage is notable because it is heavily dominated by broken long-bone shaft fragments. Although this may to some degree reflect preservational factors and such activities as dogs scavenging on the site while it was occupied, it also suggests to us patterning in the butchering practices of the inhabitants of CA-LAN-2133; namely, that deer were killed at some distance from the site; butchered at or near the kill locality; and that only the more transportable portions of the carcass were brought back to the site, where they were heavily rendered for their grease. Such butchering practices, furthermore, reflect a relatively sedentary camp or village population, matched against a

relatively wide-ranging hunting strategy. This last inference may itself reflect a relatively low carrying capacity for the immediate region of the site for, as we have observed elsewhere (W & S Consultants 1994a), the hills to the south of CA-LAN-2133 are notable for their absence of potable water, leading the first mapper of the region to characterize this area in the 1840s as "lomas esterilos" - sterile hills.

Shellfish

A small amount of shellfish was recovered from CA-LAN-2133. This is quantified in Table 11. The total of all shell from the site is only 3.7 grams, representing 11 shell fragments. This shell is heavily weathered and, with only one exception, cannot be identified. The exception is a fragment of a Conus californicus shell. Although this does not appear to have been modified, Conus shells were used for beads rather than food; that is, it is the remains of an ornament, and therefore not reflective of subsistence practices at the site.

Much thought has been given to the interpretation of shellfish remains from California sites and, in certain cases, considerable effort has been expended in reconstructing the dietary implications of the different mixes of shellfish at different sites. There appears to be significant value in such efforts, at least for sites located immediately along the

coastal verge. However, as we have noted previously (W & S Consultants 1992a:60-61), there is some difficulty in inferring that shellfish remains at inland sites solely represent dietary remnants. This results for two reasons. (1) Untreated shellfish are notorious for quick spoilage and the production of bacterial toxins that are often fatal, and inland sites are effectively beyond the time-limits by which shellfish could be safely walked-in for consumption. (2) Moreover, it makes no logical sense that, in putatively carrying-in shellfish for consumption, the meat would be left attached to the shell. A far easier strategy would be to remove the meat from the shell and to just carry-in the edible meat, without the weight of the waste shells.

Because of these factors, we have speculated that shellfish in inland sites may not represent dietary remains, but instead shells brought-in for other purposes entirely, perhaps for the production of lime used in the preparation of pespibata, a native tobacco-based emetic that was widely used in Native California (ibid:61). This is supported by the observation that much of the shellfish at inland sites is burned, which is the primary means by which lime was produced to augment native tobacco in the pespibata admixture.

A corollary of the above speculations would be ethnographic evidence that coastal California natives processed shellfish at

the beach by removing it from the shell, and that they dried the removed meat to prevent spoilage. Thus, that shellfish meat would be transported without the shell. Just such a process is confirmed by Delfina Cuero, who noted that the meat of shellfish was removed from the shell at the beach, it was boiled to clean it, and then spread on the rocks to dry. If salt was available, the meat was also salted so it would "keep better" (Shipek 1991:28, 57). Notably, during Cuero's youth, upon which these recollections were based, she lived some distance inland from the coast, and thus this practice applies to inland dwellers concerned with the transporting their shellfish away from the coast, and preventing its rapid spoilage.

Cuero, of course, was not a Tataviam, Gabrielino or Chumash but a Kumeyaay, and thus some differences potentially may have existed from region to region in the way that shellfish were processed. However, we have no ethnographic data on local shellfish production, and the rapidity with which shellfish turn toxic represents a constraint that is truly cross-cultural in implications. Thus, although our speculations about the use of shellfish in the production of pespibata must remain hypothetical, we feel there is a strong likelihood, nonetheless, that the shellfish we find in inland sites represents something other than direct dietary remains. That is, our most plausible interpretation at this time is that shellfish from inland sites such as CA-LAN-2133 is not a dietary remnant, but instead a

by-product of some other activity.

Regardless of ultimate function, however, one point can be made about the relative importance of shellfish at this site vis-a-vis others in the inland region. We have calculated the grams of shellfish recovered from three sites/site complexes per areal meter square of excavation (W & S Consultants 1991b) for comparison with the sample from CA-LAN-2133. At CA-VEN-294 the resulting figure is 30.2 grams/m^2; at the Ring Brothers Site Complex the comparable figure is 29.3/m^2. At CA-LAN-760 the figure is 0.9/m^2 (W & S Consultants 1992). At CA-LAN-2133, in contrast, this figure is 0.6 gm/m^2. From these comparative figures, two conclusions result. The first is that there was considerable variation in the degree of shellfish use at different inland southern California sites in this region. The second is that the amount of shellfish present at CA-LAN-2133 is more than an order of magnitude less than that at some other, comparable inland sites. Thus, while it is apparent that some inland sites had sufficient access to coastal resources to acquire shellfish in some quantities, others (including CA-LAN-2133) had effectively little or no such access. Certainly, given the low amount of meat per gram of shell, it is clear that shellfish could not served as a significant dietary component for the site's inhabitants, even if our arguments for the potential use of shell in pespibata are discounted.

CA-LAN-2133 - Summary

The artifact assemblage from CA-LAN-2133, in summary, provides a coherent picture of prehistoric activity and occupation at this locale. As regards chronology, three artifact classes contribute to the temporal placement of the site. The pestles recovered during the excavation indicate that the site was occupied sometime after 1500 B.C. The atlatl point observed on the site surface during the Phase I survey suggests a minimum occupation between approximately 1500 B.C. and A.D. 500. Finally, obsidian from the site has been directly dated with six chronometric assays on five specimens yielding ages ranging from 160 BC to AD 1160. When these different lines of evidence are combined they provide a temporal span of occupation corresponding to the later portion of the Intermediate Period, from approximately 200 BC to AD 1200.

As regards site function, it is notable that the site artifact assemblage included a wide range, even if relatively small quantity, of tool types. Groundstone is the most common class of tool, although flaked stone tools are also represented in significant numbers. Though not collected and tabulated as part of the artifact assemblage, per se, it is also worth noting that fire-cracked rock was present in the excavation units. This last fact, combined with the presence of rendered faunal

remains and the high proportion of secondary and especially tertiary flakes, supports an interpretation of this site as a small, probably seasonally-occupied habitation site; that is, most likely a small camp, occupied during specific seasons by a small group, such as a single extended family. Subsistence practices for this group apparently emphasized plant foods, which may have included small seeds (e.g., grasses and chia) and acorns. Notably, agave does not appear to have been part of the inhabitant's diet to any significant degree, based on both the absence of scraper planes in the lithic assemblage, and our earlier failure to find earth ovens during the Phase I survey of the West Ranch study area. Finally, meat protein was provided in significant quantities by both large (e.g., deer) and small (rabbits and rodents) game. Butchering and rendering practices evident in the large game remains suggest a hunting strategy that was wide-ranging, with butchering occurring at the kill sites, and the meatiest portions of the carcass brought back to the camp. In this sense, CA-LAN-2133 may have served as a kind of base-camp for a small group of fairly wide-ranging foragers.

4.3 Artifact Assemblage: CA-LAN-2241 (NLF2)

Aside from the human remains found at CA-LAN-2241 (temporary designation NLF2), discussed in some detail

previously, a very small collection of artifacts was also obtained. All of these were also found within the disturbed surface portion of the site: the road and bulldozer borrow area. These artifacts are summarized in Table 2.

As indicated in this table, all of these artifacts are examples of groundstone. They include a miscellaneous piece of very lightly ground tabular schist (#2241-1), perhaps a schist plaque or thin, unshaped uniface mano; three fragments of a single steatite bowl (#2241-2), apparently made from Sierra Pelona talc schist; a sandstone bowl/mortar fragment (#2241-3); an unshaped sandstone pestle fragment (#2241-4); and a complete, small sandstone basket-hopper mortar with an asphaltum-coated rim (#2241-5).

Two inferences immediately result from this assemblage. First, these artifacts are clear indicators of plant food processing, with a presumed emphasis on acorns using mortars/bowls and basket-hopper mortars with pestles. Moreover, these artifacts all occur in Intermediate Period and later temporal contexts, suggesting an age of 3500 years B.P. or less for the site. Second, and even though disturbed, the assemblage is quite small in quantity and very limited in its range of artifact classes. Thus, although there appears to have been a site at this locale that was destroyed by bulldozing, this apparently was a very small site, probably representing a

limited, specialized activity area.

What is less clear is the context of these artifacts: as noted above, all were found in either the road or road windrow, or in a heavily bulldozed borrow area immediately south of the road. No artifacts were found on any intact portions of the groundsurface of the site, nor during the test excavations there. That is, all of the artifacts from the site were found in heavily disturbed contexts, with original proveniences then effectively lost.

One interpretation of the distribution of these artifacts in their disturbed contexts might be that they are derived from nearby site CA-LAN-2133. We think this is unlikely because we failed to find a continuous distribution of artifacts in the roadway between these two sites, as would be expected if the artifacts from CA-LAN-2241 originated from the grading of the road through CA-LAN-2133 and had been pushed to the east. Instead, their concentration in a relatively restricted area at CA-LAN-2241 suggests to the contrary that there was once a small archaeological deposit at this locale, but that it was essentially and unfortunately destroyed by bulldozing.

This said, it is nonetheless notable that the artifact assemblage from CA-LAN-2241 may be approximately equivalent in age to that from CA-LAN-2133. Such a

circumstance is not unusual inasmuch as groundstone milling stations in the inland southern California region, for example, are often associated with larger nearby habitation sites (Whitley 1979). Thus, it is possible that CA-LAN-2241 served as an ancillary activity area related to the occupation of CA-LAN-2133. Unfortunately, however, given the fact that CA-LAN-2241 had been effectively destroyed before any archaeological investigation of it, we may never adequately establish whether the two sites were utilized at the same time.

4.4 Artifact Assemblage: CA-LAN-2235 (NLF3)

The artifact assemblage from CA-LAN-2235 (temporary designation NLF3) included a total of 403 lithic specimens, one bone tool, and 5.6 gms of faunal remains (Tables 3, 12, 13 and 14). Formal tools are limited to 10 artifacts (~3% of the total): three pieces of groundstone; one core/cobble complex tool; and six flaked stone tools. We discuss this artifact assemblage by major class below.

Core/Cobble Complex Tools

Only a single core/cobble complex tool was recovered during the Phase II test excavations at CA-LAN-2235 (Table 12): a metavolcanic, Type 3 irregular core hammerstone (see Whitley

et al 1979:18). This artifact (catalog #2235-84) was encountered in the 20 - 30 cm level of Unit 8.

As noted previously, core/cobble complex tools, including hammerstones, may have been used in plant pulping and rendering, as well as stone tool flaking and groundstone roughening. Thus, any immediate functional attribution based on the presence of a single hammerstone at CA-LAN-2235 would be fool-hardy. This is not to imply that the core/cobble complex assemblage from the site is of limited inferential value. Instead, following the argument made earlier concerning CA-LAN-2133, we note that the absence of core/cobble complex tools here itself is of significance, further demonstrating a pattern in which the processing of heavy vegetal foods, such as agave, was not undertaken to any significant degree.

Groundstone Artifacts

Groundstone tools are the second most common components of the formal tool assemblage from CA-LAN-2235, with three specimens representing 30% of these tools. All of the groundstone from the site are fragments of manos. These include a Type 4B shaped biface specimen (#2235-20, Unit 8, 30 - 40 cm) made of quartzite; a Type 3C unshaped biface mano (#2235-21, Unit 8, 40 - 50 cm), also of quartzite; and a Type 3B unshaped biface mano variant (#2235-30, Unit 9, 30 - 40

cm) that is metavolcanic (cf. Whitley et al 1979:38, 43).

Two factors stand-out concerning these artifacts, when compared to CA-LAN-2133, discussed previously. The first is that greater specialization is indicated, in that manos but no pestles/mortars are included in the assemblage. Although the sample is sufficiently small to preclude any strong inferences, it can be suggested provisionally that small seed exploitation was the plant food emphasis of the site's inhabitants. The second notable factor in this assemblage is that all of the lithic materials present here are locally available, in the stream bed to the south of the site. This contrasts with CA-LAN-2133, again, where Sierra Pelona schist was present in the groundstone assemblage. Thus, site inhabitants were using exclusively local lithic materials in the manufacture of their groundstone tools.

Flaked Stone Tools

As implied above, flaked stone tools constituted the majority of the formal tool assemblage from CA-LAN-2235, with the six artifacts of this class representing 60% of the worked tools (Table 12). Included in this total are two projectile points, one biface, two uniface edges and one bifacially utilized flake.

The two projectile points include one atlatl point (#2235-82,

Unit 3, 20 - 30 cm level) and one arrow point (#2235-87, Unit 10, 0 - 10 cm; see Figure 13). The atlatl point is a relatively large and thick leaf-shaped specimen made of chert. As an atlatl, it can be confidently assumed to pre-date the introduction of the bow and arrow at A.D. 500; that is, it suggests a range of occupation for the site from 1500 B.C. to A.D. 500 (cf. Yohe 1992).

The arrow point is also made of chert. Although relatively crude, in general terms it resembles a Rose Spring side-notched point, as defined for the Mojave Desert. These points date from A.D. 500 - 1200 in eastern California and are presumed to so-date in the coastal region; that is, they apparently pre-date the start of the Late Prehistoric Period and instead represent the terminal portion of the Intermediate Horizon. The combination of the atlatl and arrow points on the site, thus, suggests a late Intermediate Period age, or roughly A.D. 1 to 1200, in addition to indicating that hunting occurred at the site. Note, however, that both artifacts were recovered from the upper levels of the site deposit. It is thus entirely possible that the initial occupation of the site was somewhat earlier than suggested by these projectile points.

Other flaked stone tools include a biface knife fragment (#2235-88, Unit 10, 70 - 80 cm); two uniface edges (#2235-83, Unit 8, 10 - 20 cm; and #2235-86, Unit 9, 60 - 70 cm); and

a utilized flake showing bifacial edge attrition (#2235-89, surface). With the exception of the utilized flake, all of these are made of chert; the exception is metavolcanic.

With the exception of the projectile points, indicative of hunting, the flaked stone tool assemblage from the site represents a non-specialized and largly expedient group of implements. Thus, although these tools out-number the groundstone from the site, which clearly reflects plant processing, it is difficult (if not impossible) to contend that any other activity may have been of greater importance than plant gathering to the site's inhabitants. Instead, the flaked stone tool assemblage suggests very generalized camp maintenance activities.

Debitage

The waste lithic material from CA-LAN-2235 included a total of 393 specimens (Table 13) which, like all hunter-gatherer archaeological sites, constitutes the vast majority of the recovered remains. As regards types of lithic materials, chert is by far the dominant contributor to this assemblage, representing fully 84% of the total. Metavolcanics are the second most common lithic material, contributing 8%. These two are followed by quartzite (13%); fused shale and obsidian (2% each); with a very small quantity of quartz (<1%).

The dominance of the chert followed by metavolcanics at a distant second is a pattern also evident in the flaked stone tools, as noted above; thus formal tool and debitage lithic material patterns are essentially equivalent, suggesting that the tools might be locally manufactured rather than traded-in as finished implements. Perhaps more interesting in the debitage assemblage is the relative proportions of obsidian and fused shale. As noted in reference to CA-LAN-2133, fused shale is a relatively local although restricted lithic resource, deriving from Grimes Canyon near Fillmore and other areas in the Conejo Volcanics Formation southwest of Moorpark. Obsidian, in great contrast, is from eastern California, with the closest source almost 200 miles away at Coso in Inyo County. Because there is this great disparity in distance from sources, it is then important to note that as much obsidian is present at CA-LAN-2235 as fused shale, even though the obsidian source is ten times further away than the fused shale quarries near Fillmore. This contrasts quite dramatically with CA-LAN-2133, where more normal relative frequencies of these materials were obtained (27% fused shale versus 1% obsidian).

The apparent contrast in relative frequency relative to distance from lithic source in obsidian and fused shale at CA-LAN-2133 appears quite important. Although the data at hand are too small to allow us to provide a final interpretation of this

empirical circumstance, we can offer some preliminary alternative hypotheses to account for this otherwise anomolous situation. First, this circumstance may reflect a situation in which fused shale trade was controlled and access to this raw material by the site's inhabitants was heavily restricted. While such a scenario is entirely speculative at this point, the plausibility of this scenario is enhanced by the fact that, historically at least, the fused shale quarries where located in Chumash and not Tataviam territory. Currently we have no ethnographic information indicating that there was any kind of a trade boundary between the Chumash and the Tataviam; however, we do know that access to resources and trade became highly structured during the Late Prehistoric Period in the Chumash realm. It is not inconceivable that such a circumstance developed towards the end of the Intermediate Period in reference to the fused shale quarries in Grimes Canyon; however, CA-LAN-2235 is not a Late Prehistoric Period site, and may not even date to the latter end of the Intermediate Period (see below). Moreover, it should also be noted in support of this theory that there is no ancillary evidence of trade between the inhabitants of this site and the Chumash, who controlled the coastal region; specifically, and in contrast to CA-LAN-2133, no shellfish or fish bone were found at the site, thus further emphasizing the minimal evidence for east - west trade into Chumash territory.

Alternatively, it might be posited that the time of site occupation occurred during the period of obsidian trade but before a significant fused shale trade had developed. Although this possibility is not inconceivable, we currently have no empirical evidence indicating that fused shale use and trade was necessarily later dating than the Intermediate Period obsidian trading network. Furthermore, should this be true, a corollary of it would be that CA-LAN-2235 and CA-LAN-2133 should represent different chronological periods of occupation, inasmuch as there is clear evidence of significant fused shale trade at CA-LAN-2133. Currently, there is no strong evidence to support this inference, as discussed below.

A third possibility that might explain this lithic material distribution would be a hypothesis based on the unique function of the site, or its specific season of occupance. Both of these possibilities are, at this point, unknowns, although there is nothing in the artifact assemblage suggesting that the site's function or seasonal period of occupation was necessarily dramatically different than CA-LAN-2133, for example. Moreover, our typical understanding of seasonal occupation rounds and the kinds of behaviors associated with different stages in these rounds would suggest that "exotic" trade goods, such as obsidian, would be rarely found at small dispersal camps, such as CA-LAN-2235, or at least would not occur in unusually large quantities, further emphasizing the anomolous

nature of this debitage assemblage.

The absence of any immediate and strong explanation for this lithic waste distribution reflects our general lack of knowledge about upper Santa Clara River drainage prehistory. However, it also suggests that there are aspects of the prehistory of this specific region that differ dramatically from the neighboring Chumash area, which is much better known, and that there may be a series of very interesting research problems that can be addressed in this region.

The above circumstance, thus, requiring further consideration as research proceeds in this region, we can nonetheless turn to other issues derived from the debitage, including specifically the direct chronometric ages that can be obtained from the obsidian found on the site. As at CA-LAN-2133, we have obtained obsidian hydration readings but not yet XRF sources for the obsidian specimens at this time. Making the reasonable assumption that these specimens are most likely derived from the Coso source, and using the average Coso rate of 220 microns per year, the following chronometric ages result:

Catalog #	Microns	Years BP	Years AD/BC
13	9.3	2046	94 BC
27	19.1	4202	2250 BC
41	17.6	3872	1920 BC
71	4.6	1012	AD 940
74	7.3/12.5	1606/2750	AD346/798 BC

These direct chronometric ages are fairly wide-ranging, and suggest a series of possible alternative explanations. First, they may all be valid, thus indicating that the site was used for a considerably long period stretching from 2250 BC to AD 940 - a span of slightly more than 3000 years. This would indicate occupance immediately prior to and then through the Intermediate Period, essentially starting with the Early Millingstone Horizon/Intermediate Period transition. Further, such an lengthy span of occupation would suggest that the actual use of the site at any given time was quite ephemeral, given the general paucity of artifacts at it. Second, it is also possible that some of the earlier hydration readings are derived from natural cortical rather than cultural surfaces and/or that inhabitants of the site "scavenged" pieces of flaked obsidian off earlier sites, and then brought them to CA-LAN-2235, in which case they would be considered "intrusive" dates. Care was certainly taken at the UCLA Obsidian Hydration Lab to insure that only cultural surfaces were examined. Moreover, the very divergent readings, and therefore dates, on specimen #74 (AD 346 and 798 BC) strongly support the fact that at least some older pieces of obsidian were being re-used (and therefore re-flaked) at later dates, in this case almost 1200 years apart. However, it still must be recognized that such "scavenging" of older obsidian could as easily have occurred on the site itself, as from some other locale. Third, it may also be that some of

these samples are from sources other than Coso and thus that the divergent readings reflect the need to apply different calibration rates, rather than high variance in their actual ages.

Resolution of these differing potential interpretations can only be achieved once the XRF sourcing studies are completed. In the meantime, it must be emphasized that these chronometric ages are all essentially consistent with an Intermediate Period age for the site, starting at roughly 1500 BC and extending to AD 1200, and perhaps beginning a half-millenium or more earlier. Thus, CA-LAN-2235 is roughly coeval with the occupation of CA-LAN-2133, albeit CA-LAN-2235 appears to have been first occupied at a slightly earlier date.

Finally, the patterning in the classes of debitage present on CA-LAN-2235 can be considered to help develop a perspective on the function of the site. By debitage type, the assemblage was dominated by tertiary flakes (48%) followed by secondary flakes (32%). Primary flakes and angular shatter are both present but in limited quantities, representing only 7% and 13% of the assemblage, respectively. From these figures we may conclude that primary lithic reduction and tool manufacture were limited activities on the site and that stone flaking, instead, emphasized tool maintenance and perhaps final tool finishing. As noted previously, this is a pattern that typically occurs in habitation rather than specialized activity sites.

Miscellaneous artifacts

A single miscellaneous artifact was recovered from CA-LAN-2235. This is the tip of a bone awl, presumably made from the cannon bone of a deer. This artifact (#2235-81) was recovered from the 40 - 50 cm level of Unit 12. As with bone awls generally, it indicates that basket making probably occurred at the site, as this was the primary function to which these implements were directed.

Faunal remains

As noted previously, a total of only 5.6 gms of faunal remains was recovered from CA-LAN-2235, representing 29 specimens of animal bone (Table 14). In keeping with the caveats and principles of faunal analysis discussed in reference to CA-LAN-2133, these remains were sorted and classified into animal size classes. Notably, no medium size mammal bones, reptile, bird, fish or marine mammal bones were recovered. Instead, the assemblage was dominated by large terrestrial mammal bones both by count (16 specimens, or 55%) and weight (4.1 gms, or 73%). A considerably smaller quantity of small mammal bones was also present (6 pieces, or 21% by count; 0.6 gm, or 11% by weight). The remaining faunal remains (7 for 24% and 0.9 gm for 16%) were too fragmentary even for size classification.

Four points, then, need be made about this bone assemblage. The first is that, like many sites in the region, the bone is too heavily rendered for marrow extraction to allow for any speciation; thus, food preparation procedures are equivalent to those noted at CA-LAN-2133, and other sites in the region. Second, and that said, the assemblage is dominated by large mammal bones to a degree not typically seen in the area; not only are small mammals much less common, but there is no evidence for other occasional components, such as birds, medium sized mammals or reptiles. This circumstance, rightly, may simply reflect the small sample size under consideration. Alternatively, it may represent a real (and not simply statitistical) pattern, thus signalling the fact that large mammal procurement was the primary hunting activity at this site. Note that, even if this were so, it nonetheless does not appear that animal meat protein was a particularly significant part of the site inhabitants' diet.

Third, it can also be noted that, with one exception, the large mammal bone all essentially consists of long-bone shaft fragments. The single exception is a very small cranial fragment; inasmuch as this specimen was recovered in the plow zone of the site, it is possible that it is a recent, introduced rather than prehistoric specimen. The predominance of long bone shaft fragments, then, suggests a butchering strategy that

would have been completed at the kill site, with the meatier portions of the carcass brought in to the camp.

Fourth, it is important to consider the distribution of the animal bone across the site. As is evident in Table 14, all of the bone from CA-LAN-2235 is derived from only three units (#1, 5 and 11). However, one of these units (#5) contained nothing but a small quantity of bone and was located a considerable distance from what is interpreted as the site deposit. We interpret the bone from this unit, accordingly, as non-cultural (or, at least, non-prehistoric). This interpretation is supported by the fact that the bone from this unit included the more anomolous components (such as a large mammal cranial fragment, which is highly unlikely to have been preserved in the deposit for any great length of time, and more probably represents a modern specimen). Once Unit 5 is removed from the probable collection of prehistoric, cultural faunal remains from the site, almost all of the faunal assemblage is derived from a single pit, Unit 11. This fact further supports an interpretation that faunal resources were of limited importance to the inhabitants of the site.

In sum, the faunal assemblage suggests that hunting was of minimal subsistence importance at the site but that, when practiced, it emphasized large game. Further, it appears that the butchering and cooking strategies then employed were

equivalent to those seen at other sites in the region: butchering at or near to the kill sites; transport of only the meatier portions of the carcass into the camp; and then heavy pounding and rendering of the bone for marrow extraction. However, we would provisionally infer that this hunting was of somewhat less importance here than at CA-LAN-2133, for example, as well as other sites in the region.

CA-LAN-2235 - Summary

The artifact assemblage from CA-LAN-2235, albeit small, provides at least initial information on the age and nature of the site. First, in reference to chronology, three temporal indicators were recovered from the site. Two of these are projectile points: an atlatl and an arrow point. The combination of these two artifacts suggests a site age of 1500 B.C. to A.D. 1200, or essentially the Intermediate Period. The presence of obsidian on the site, even in small quantities, provides the third temporal estimator. Direct chronometric assays on five obsidian flakes from the site yielded dates ranging from 2250 BC to AD 940, or essentially from slightly before the beginning of the Intermediate Period, some 3500 years ago, to near the end of this period at AD 1200.

The possibility of an occupation of this site in the earlier portion of the Intermediate Period, and perhaps even

immediately before the Intermediate Period during the Early Millingstone Horizon/Intermediate Period transition, moreover, is generally supported by another observation that can be made on the artifact assemblage; namely, the absence of pestles and mortars in the groundstone assemblage. It is difficult to build chronological arguments solely on groundstone implements, because manos and metates were never entirely replaced by mortars and pestles, and therefore because the use of these different implements was more resource and environment specific than temporally diagnostic. Still, the absence of pestles and mortars may provide weak evidence in favor of a slightly earlier occupation of this site, especially in comparison to the other large sites considered in this study (CA-LAN-2133 and -2233).

The artifact assemblage from the site is small but diverse, containing all major classes of lithic remains, and (beyond the groundstone) no indication of specialized economic or subsistence activities of any kind. Further, although dietary remains in the form of animal bones are present at the site, these only occur in very small quantities. Combined with the presence of fire-cracked rock, indicative of camp fires,which was noted during the excavation, this suggests that some degree of habitance occurred at this site. Given the depth of the deposit, the very small size of the artifact asemblage, and the potentially extensive length of time within which the site

was occupied of roughly 3000 years, we can only conclude that CA-LAN-2235 served as a very sporadically utilized seasonal camp. That is, it is clearly a location that was inhabited by a very small group, probably a single family, but likely not seasonally on a yearly basis. Instead, as we discuss subsequently, it may have been tied to the occupation of CA-LAN-2233, and may have been occupied seasonally during years when nearby CA-LAN-2233 was not inhabited.

4.5 Artifact Assemblage: CA-LAN-2234 (NLF4)

The artifact assemblage from CA-LAN-2234 (temporary designation NLF4) is summarized in Table 4. It includes two formal lithic artifacts, one ornament, one bone tool, 39 pieces of debitage weighing 63.6 gms, and eight fragments of animal bone weighing 2.5 gms.

The formal lithic artifacts from CA-LAN-2234 (Table 15) are limited to a bifacially flaked drill (#2234-28, Unit 3, 20 - 30 cm), made of chert (see Figure 13); and a fragment of an unshaped quartzite pestle (#2234-30, surface artifact #1). The miscellaneous artifacts include a square Haliotis bead (#2234-7, Unit 2, 10 - 20 cm) with a single, round, central perforation; and the tip of a bone awl (#29, Unit 6, 0 - 10 cm). Unfortunately, square abalone beads such as the example found

at CA-LAN-2234 are not temporally diagnostic (cf. King 1981:375-380).

By lithic material, debitage from the site (Table 16) was dominated by chert, which contributed 66% of the total by count. Fused shale was next in importance, contributing 21%. This was followed by metavolcanics (8%), and obsidian and quartzite (1% each). By debitage class, tertiary flakes were by far the most common, contributing 61%. Secondary flakes were next in numerical importance, with 26% of the total, followed by primary flakes (5%) and angular shatter (1%).

Faunal remains from CA-LAN-2234 are summarized in Table 17. They include two pieces of small mammal bone weighing a total of 0.2 gms; one piece of medium mammal bone weighing 0.4 gms; and five pieces of large mammal bone weighing 1.9 gms. The large mammal bone is predominated by shaft fragments of long-bones, including a number of burnt specimens.

As noted previously, the deposit from CA-LAN-2234 apparently represents deposited fill from a nearby site, apparently from the southern section of CA-LAN-2233. Thus, the archaeological materials from the site are out-of-original context and therefore are not immediately interpretable. In general terms, however, they do reflect a range of lithic tool and material types similar to those found on this nearby site, as discussed

below.

4.6 Artifact Assemblage: CA-LAN-2233 (NLF5)

The artifact assemblage recovered from CA-LAN-2233 (temporary designation NLF5) included 12 formal lithic tools, 279 pieces of debitage, five miscellaneous artifacts, and 138.8 gms of animal bone (Tables 5, 18, 19 and 20). Formal tools, which we discuss below, include seven groundstone implements, one core/cobble tool, and four flaked stone tools.

Core/cobble complex tools

Paralleling a situation noted at other sites tested during the project, CA-LAN-2233 had a very limited core/cobble complex tool assemblage, in this case restricted to a single example (Table 18). This artifact (#2233-44) is a Type 2A minimally modified cobble hammerstone (cf. Whitley et al 1979:18) made of quartzite and recovered from the 50 - 60 cm level of Unit 7.

As we have emphasized previously, the presence of a single core/cobble complex tool on the site is functionally ambiguous. Nonetheless, the general absence of this class of artifacts at this site supports our contention that agave (which required pounding, scraping and pulping) did not serve as an important

part of the local prehistoric diet, and that large amounts of lithic reduction were not undertaken at local sites either. Thus, we see a pattern in the artifact assemblage from CA-LAN-2233 that was also noted at CA-LAN-2133 and -2235, at least, but that differs somewhat from sites in the nearby Conejo and Simi Corridors, for example. In this sense the negative evidence from CA-LAN-2233 helps establish a regional pattern in tool assemblages, and presumably therefore local adaptive patterns.

Groundstone implements

Groundstone contributes the majority of the formal tool assemblage (7 or 58%) from CA-LAN-2233. As at nearby CA-LAN-2235, the groundstone from the site is entirely hand grinding tools, but in this case it includes both manos and pestles (Table 18).

Manos are the primary components of the groundstone and, in fact, formal tool assemblage as a whole, with six recovered from the site. Two of these are Type 3A unshaped biface manos (see Whitley et al 1979:38; #2233-79, Unit 8, 40 - 50 cm level; and #2233-113, Unit 9, 30 - 40 cm). These are quartzite and metavolcanic, respectively. Two manos consist of Type 4B shaped biface specimens (ibid:43; #2233-115, Unit 9, 40 - 50 cm; and #2233-135, Unit 11, 80 - 90 cm), both of which are

quartzite. One example is a Type 7 quadriface mano (ibid:46; #2233-97, Unit 8, 130-140 cm) made of quartzite. The final contributor to the mano assemblage is an untypable fragment (#2233-144, Unit 11, 110 - 120 cm), also made of quartzite.

As at nearby CA-LAN-2235, the groundstone assemblage, thus, is entirely dominated by locally available lithic materials. The presence of a pestle fragment at the site, however, provides chronological evidence that CA-LAN-2233 was occupied sometime after 3500 years B.P., or from the Intermediate Period onwards. Although the numbers are too small to warrant strong inferences, this may also suggest more varied plant subsistence practices at CA-LAN-2233 when compared to CA-LAN-2235.

Flaked stone tools

The flaked stone tools from the site constituted 33% of the formal tool assemblage, representing four artifacts. All of these are bifacially flaked specimens, and all are made of locally available chert (Table18).

Perhaps the most notable member of this class is a bifurcate-stemmed atlatl point (#2233-164) recovered from the 130 - 140 cm level of Unit 8 (Figure 13). By any measure this is a crude projectile point made from a side-struck flake with

minimal morphological modification. In fact, flaking has essentially been limited to edge regularization and sharpening, with no overall thinning such that the catenary pressure ripples from original removal of the flake are still evident.

Bifurcate-stemmed atlatl points are common in far western North America, even if slightly ambiguous in terms of chronological placement. In the desert the correspond to the Gypsum, Pinto or Gatecliff series types, depending upon region and author. Typically, these are believed to be between roughly 4000 and 2000 years in age in the Great Basin (cf. Holmer 1986). In the southern Sierra Nevada, in slight contrast, they occur during the Chowchilla Phase, or from approximately 2000 to 1700 years B.P. (Moratto 1984). In southern California, per se, they in fact are not typically present, but are probably typologically closest to Elko series points dating to what corresponds to the Intermediate Period locally (cf. Glenn 1991).

Although it is not yet clear that southern California coastal point types have fully equivalent chronological spans, the temporal patterns suggested by the temporal placement of these points in the remainder of the far west provide us with some sense of the probable age of bifurcate-stemmed points in this region. Thus, it seems likely that the specimen from CA-LAN-2233 is roughly 2000 years in age.

The remaining flaked stone tools from the site include two fragmentary biface knives (#2233-160, Unit 1, 20 - 30 cm; and #2233-162, Unit 8, 20 - 30 cm), and a bifacially flaked drill (#2233-161, Unit 7, 160 - 170 cm). While the drill was clearly used for drilling and gouging activities, the biface knife fragments could have been used for almost any purpose. Thus, although the flaked stone tool assemblage from the site is more restricted than that found at the other sites in the region, it nonetheless does not reflect any obvious level of specialization, whether economic, subsistence or otherwise.

Debitage

Lithic debitage recovered from CA-LAN-2233 is summarized in Table 19. It totalled 279 pieces. By material, and following the pattern seen at other sites during this project, locally available chert is by far the dominant lithic material, constituting fully 85% of the debitage. In order of quantitative importance, this is followed by metavolcanics (10%), fused shale (3%), quartzite (1%) and obsidian (1%).

The relative contributions of fused shale and obsidian from CA-LAN-2233, 3% and 1% respectively, closely parallel these same proportions at nearby CA-LAN-2235, which are 2% each; these figures are, statistically speaking, fully equivalent. Thus, the pattern first observed in raw lithic material at this nearby site

is verified by this additional, albeit slightly smaller, debitage assemblage from CA-LAN-2233. We have reviewed above the possible explanations that may account for the apparent fact that we have found equivalent quantities of raw materials from sources that are, respectively, about 20 and almost 200 miles distant from these sites. Note also that at CA-LAN-2233, as at CA-LAN-2235 (but not at CA-LAN-2133), no shellfish was recovered, further emphasizing the limited amount of trade between the inhabitants of this site and groups to the west. That this pattern is repeated at CA-LAN-2233 simply further speaks of the need for additional regional data from which to test these alternative competing hypotheses.

Obsidian from the site is, of course, valuable for chronometric analyses and therefore the temporal placement of the deposit. Five obsidian samples were dated at the UCLA Obsidian Hydration Lab. Bearing in mind the caveats mentioned earlier in reference to similar samples from CA-LAN-2133 and -2235, the following results were obtained:

Catalog #	Microns	Years BP	Years AD/BC
8	5.2	1144	AD 808
25	7.4	1628	AD 324
62	7.8	1716	AD 236
86	7.3/11.0	1606/2420	AD 346/468 BC
163	6.0	1320	AD 632

As noted in reference to the sample with two widely divergent readings from CA-LAN-2235, the differing dates for specimen

#86 from CA-LAN-2233 are also problematic. They may represent the inadvertent reading of a natural and not cultural surface, or they may reflect scavenging of obsidian from earlier sites. Excluding this single, slightly anomolous chronometric age, the obsidian samples from CA-LAN-2233 otherwise display a very tight temporal cluster, ranging from only AD 236 to AD 808, or in the terminal portion of the Intermediate Period. But even if the divergent reading from specimen #86 is included, all of these direct chronometric dates fall within the latter half of the Intermediate Period.

Turning to debitage classes, the waste lithic materials from CA-LAN-2233 are, once again, dominated by tertiary (43%) and secondary (37%) flakes. Primary flakes are relatively rare (<4%), with angular shatter somewhat more common (17%). As at CA-LAN-2133 and 2233, where similar patterns were observed, this suggests that tool maintenance and perhaps final tool finishing were conducted at the site, and that little in the way of primary lithic reduction or tool manufacture occurred at this locale.

Miscellaneous artifacts

Two classes of miscellaneous artifacts were recovered from CA-LAN-2233 (Table 18). The first is an incised schist plaque fragment (#2233-131), recovered from Unit 11 in the 50 - 60

cm level. This artifact appears to be a portion of a shaped, circular or semi-circular (perhaps lunate) piece, ground on both sides along both faces and the external edge to a smooth finish. On one side it also exhibits a lightly scratched geometric design (see Figure 14). The extant portions of this appear to consist of two slightly overlapping "pine tree"-like motifs. It appears that this plaque has been rubbed with red ochre on its incised side.

Such small incised plaques are unusual although not necessarily rare objects in the archaeological record, being particularly common in the desert region to the east. Some have been found locally, however, including at Medea Creek in western Ventura County (L. King 1981). A number of authors have noted the design similarities between these pieces of mobiliary art and scratched style petroglyphs (Ritter 1994). Such scratched petroglyphs are found in Tataviam territory at Vasquez Rocks, to the east (L. King 1981), but their function and relationship to the mobiliary art is still unknown.

The four remaining miscellaneous artifacts from CA-LAN-2233 are all portions of bone tools. Two of these are awl fragments (#2233-168 and #2233-169, both from Unit 7, 50 - 60 cm); again, presumably made from deer cannon bones and used in basketry manufacture. The remaining two specimens are small, polished pieces of bone that are too fragmentary to be

classified (#2233-170, Unit 8, 160 - 170 cm; and #2233-171, Unit 11, 130 - 140 cm), but also may ultimately derived from bone awls or needles.

Faunal remains

The faunal assemblage from CA-LAN-2233 consists of 641 pieces of animal bone weighing 138.8 grams, and is summarized in Table 20. As is frequently the case, large mammal bone is the largest contributor by weight (50%), but small mammal bone holds the position of prominence by count (64%). More specifically, the tabulations are as follows: large mammal class - 17% by count and 50% by weight; medium mammal - 5% and 6% respectively; small mammal - 64% and 31% respectively; and unidentifiable fragments - 15% and 12% respectively. Reptiles are also represented in this assemblage, in this case based on the presence of a single turtle scute, presumably derived from Clemmys marmorata, the Pacific Pond Turtle, which was used for both food and to make shell rattles. Birds, fish and marine mammals, however, are not represented in the bone assemblage.

Although differing somewhat from the faunal assemblage at CA-LAN-2235, where large mammal bones dominated in terms of both weight and count, the animal bones from CA-LAN-2233 resemble the collection from CA-LAN-2133 in terms of

proportions. In both cases, large mammals are quantitatively dominant by weight but small mammals by count, a fact which may simply reflect the high probability for the introduction of small mammal carcasses in archaeological site deposits after their formation. Difficulties in taphonomic interpretation notwithstanding, therefore, we can reasonably infer that large mammal exploitation (probably of mule deer) was the primary hunting activity of the inhabitants of CA-LAN-2233. Furthermore, the large mammal remains from the site are predominated by long bone shaft fragments, a situation that probably reflects butchering practices in which carcasses were dismembered near the kill site, and only the meatier portions of the animals brought back to the camp.

CA-LAN-2233 - Summary

Three temporal indicators were recovered from CA-LAN-2233: an atlatl point which can be inferred to date at roughly 2000 years B.P.; a pestle, which post-dates 3500 years B.P.; and a small but significant quantity of obsidian flakes. These have been directly dated, with ages ranging from AD 236 to AD 808. Based on these data, the site can be interpreted as Intermediate Period in age, maximally dating from 1500 B.C. to A.D. 1200, and conservatively placed between about A.D. 1 and 800. Note that this is essentially the same time range inferred for sites CA-LAN-2133 and -2235, a point to which we return in our

conclusions.

As regards function, CA-LAN-2233 also appears similar to CA-LAN-2133 and -2235. It has a small but diverse lithic tools assemblage with a significant quantity of groundstone and a limited amount of faunal remains. It has a debitage assemblage dominated by the kinds of flakes that result from activities typically conducted at habitation sites such as camps or villages. Yet there is essentially no evidence for economic or subsistence specialization at the site, while the presence of a burial on the site further supports the interpretation that it is a habitation and not special activity locale.

Thus, the evidence at hand suggests that CA-LAN-2233 most likely served as a small, seasonally occupied camp, probably used over a millenium or more by a small group, perhaps a single family. Based on its proximity to and chronological overlap with CA-LAN-2235, furthermore, we can infer that these two sites represent portions of a single site complex; granted, CA-LAN-2235 may in part be slightly earlier dating than CA-LAN-2233, but there are nonetheless clear indications for at least some coterminous occupation. Based on patterns observed elsewhere in the inland southern California region (see Whitley 1979), these two discrete but adjacent archaeological sites probably represent a manifestation of horizontal, rather than vertical, stratigraphy. That is, they

most likely represent portions of the same functional settlement unit, with each of them occupied successively, as fire or pest infestation would occasionally cause the camp's occupants to shift the exact locations of their brush huts from one site to the next.

4.7 Artifact Assemblage: CA-LAN-2236 (NLF6)

Fitting its interpretation as a small surface lithic scatter, the artifact assemblage from CA-LAN-2236 (temporary designation NLF6) consisted of a small number of pieces of lithic debitage (Table 6). These consisted of six specimens total, all recovered from the surface of the site with the exception of two pieces found in the first few centimeters of Unit 1.

By material, metavolcanics were the most common class, constituting half of the total. Quartzite, chert and fused shale were each represented by a single specimen. Secondary flakes were the most common by debitage type, again with half of the total. Two tertiary flakes were also recovered, along with a single primary flake.

The artifact collection from CA-LAN-2236, thus, clearly represents a small lithic scatter resulting from an unknown activity, such as plant collecting or hunting. Nothing in this

assemblage is temporally or functionally diagnostic, but it is likely that the debitage found at this locale nonetheless results as a bi-product of some other specific activity. Given the location of this site on a mesa edge overlooking the river, hunting would seem an obvious possibility, but this same mesa may equally well have provided a valuable plant gathering area. Moreover, the diversity in lithic material types suggests that even the flaking activity at this site was diverse and non-specialized.

What is inferentially most useful about this assemblage, then, is the simple fact that it indicates that some prehistoric use of these upland areas occurred. In this case this use was clearly ephemeral and light, but this still is suggestive of wide-ranging foraging activities.

4.8 Artifact Assemblage: CA-LAN-2242 (NLF8)

The artifact assemblage recovered from CA-LAN-2242 (temporary designation NLF8) is summarized in Table 7. It is an unusual assemblage in that the site itself appears to have served as a cache locality, and because the cave was very heavily looted at some time in the past. Thus, as discussed previously, the extant artifacts were recovered from a small intact area under the drip-line of the cave, with the majority of

the interior of the cave apparently excavated-out and swept clean by looters. It is entirely possible that the area within which the artifacts were found during our test excavation represents the back-dirt pile left by the looters, with the artifacts simply their overlooked items. But by whatever agency, the result is an assemblage that is at once very mixed, and that hints at what once may have been present in this small cave.

As is evident in Table 7, worked artifacts from the site include one complete bone awl (#2242-8), one steatite shaft straightener (#2242-20), one steatite bowl fragment (#2242-16), three shell beads (#2242-3), and a possible shell pendant (#2242-10). Sixteen fragments of asphaltum, weighing a total of 40.4 gms, were also recovered. Twelve of these display impressions of basketry, indicating that they were once pressed on tarred baskets. Finally, 34 pieces of animal bone, weighing a total of 72.7 gms, were collected, along with two shell fragments weighing 6.8 gms.

The bone awl is a large, complete example made from a deer cannon bone. Because the preservation is excellent in the dry cave and/or due to the relative youthfullness of this specimen, it appears essentially new and little used or weathered. One other faunal specimen from the cave (#2242-23) consists of a deer cannon bone articulated end. Although this example is too

fragmentary to determine whether it was worked into an awl, there is a reasonable likelihood that such may have been the case.

The shaft straightener, made of steatite, is a relatively small (4.9 cm maximum length) elliptical implement with a single, deep groove across it. This groove measures 3.7 cm in length, 1.29 cm in width, and approximately 0.75 cm in depth. Although it is impossible to be certain without a petrographic thin-section, it appears that it is made of Sierra Pelona talc schist, from the steatite source area located in Tataviam territory near Agua Dulce. The steatite bowl fragment might be considered a bowl sherd, in the sense of being a relatively small sidewall fragment. It derives from a relatively thin-walled vessel (~1.48 cm in wall thickness) that was smoothed on both the interior and exterior surfaces. This specimen is clearly made from Sierra Pelona and not Catalina Island steatite, judging from a small, fresh break on its side.

All three shell beads are made from Olivella biplicata shells. Two are wall disks, the third is a cup. As such, they are not temporally diagnostic in any exact sense (cf. C King 1981:360). One of the disks, however, shows clear evidence of having had its central perforation drilled with a metal needle, demonstrating that it is historical in age and most likely dating after the beginning of Spanish colonization (ibid:295-296); i.e.,

post - A.D. 1769. Thus, the beads support the interpretation of CA-LAN-2242 as historical, perhaps even nineteenth century, in age.

The single shell pendant from the site is a large, flat, triangular-shaped piece of Haliotis rufescens shell (see Figure 14). It lacks any perforation, but the extreme end of the apex (where a perforation would be expected) is worn away, indicating that the presence/absence of a perforation is ambiguous. The two cut edges of the shell piece, however, are ground smooth, and the dorsal surface has been ground and polished to remove the epidermis of the shell. It seems most likely that this specimen served as a pendant hung from a perforation at its apex; however, we cannot discount the possibility that it originally constituted some other form of ornament, given the current absence of any perforation.

As noted above, 40.4 gms of asphaltum were found in the cave, with the majority of these displaying evidence of basketry impressions. Such would result from tarred baskets, which were used as water bottles or jugs, globular storage baskets, or as part of basket-hopper mortars. Furthermore, the discovery of tarred basketry fragments in caves in inland southern California is quite common (W & S Consultants 1989a). Thus, the presence of these fragments in the cave suggests that baskets were once kept at this locale; whether they were looted

from the cave or removed aboriginally, however, may never be known.

Only one of the basketry impressions is sufficiently large and detailed to provide any indication of the kind of basket it once covered. This specimen (#2242-11) itself only measures 2.01 by 1.45 by 0.26 cm, demonstrating, among other things, that the asphaltum coating was quite thin. It was placed on what appears to be a simple close twined basket, using the technological terminology of Adovasio (1977). Wefts are 0.25 cm wide and 0.65 cm high; there are thus approximately three wefts per centimeter, and slightly less than two warps per centimeter. Given the impossibility of orienting this small specimen, it is not possible to determine whether it was **s** or **z** slant twined.

In addition to the prehistoric or aboriginal remains from CA-LAN-2242, a small quantity of modern Euro-American artifacts were also recovered, and are listed in Table 7. These include two match sticks, some plastic sheeting fragments, and a corroded metal strap of some kind, perhaps from a bucket. The inferential importance of these artifacts pertains to the evidence they provide for disturbance of the deposit. As is evident in Table 7, they indicate that modern materials were introduced essentially to bedrock; that is, that the deposit had been turned-over, further supporting our interpretation of it as

The final class of archaeological remains from the cave is faunal specimens. A total of 34 pieces of animal bone, weighing 72.7 gms, and two pieces of shell weighing 6.8 gms, were recovered from the cave (Table 21). As regards the animal bone, and as noted previously, one of these specimens (#2242-23) is the articulated end of a deer cannon bone that may be a fragment of a bone awl. When this is subtracted from the collection, 33 pieces of bone were found weighing 55.8 gms. All of this, with two exceptions, consists of large mammal bone. The exceptions are, first, 11 pieces of small mammal bone weighing 0.4 gms and, second, a single piece of turtle shell, (Clemmys marmorata) weighing 0.6 gms.

Faunal remains from cave deposits are particularly difficult to interpret, inasmuch as the taphonomic problems are greatly compounded by the fact that such settings may be used by coyotes and other predators, who would also introduce bone into the deposit. This circumstance relative to CA-LAN-2242 is particularly acute in that there is no clear evidence that the site served as a habitation or camp; indeed, its small size and low-ceiling essentially precludes such having occurred. Thus, although we think it likely that some of the animal bone (including the turtle remains) may have been brought into the cave by human agency, there is no feasible way to argue

whether or not the bulk of the faunal collection is natural or cultural.

Two pieces of unmodified shellfish were, however, recovered during the excavation. These consist of single fragments of pectin and Conus californicus. In the latter case, this is a shell species used for ornamental, not dietary, purposes, thus fitting with the interpretation of the site as a cache rather than habitation area.

In summary, CA-LAN-2242 appears to have been a small cache cave, used to store baskets (perhaps water bottles), and various tools (such as shaft straighteners and bone awls) and ornaments (including shell beads). At least one of these last artifacts indicates that the cave was used into the historical period, perhaps during the early nineteenth century. Unlike the famous nearby Bowers' Cave, however, we found no evidence to suggest that ceremonial or sacred objects, such as ritual wands and feather sashes and capes, were stored at this locale. However, the cave appears to have been looted sometime in the past, so a complete understanding of its original contents may never be obtained.

4.9 Interpretive Concerns

The excavation of eight sites within the West Ranch study area revealed the presence of three small camps or habitation sites (CA-LAN-2133, -2233 and -2235); one very small lithic scatter (CA-LAN-2236); and one historical cache cave that had been heavily looted some time in the past (CA-LAN-2242). The three remaining sites investigated proved in one case to represent a small site seemingly destroyed in its entirety by inadvertent bulldozer activities and natural erosion (CA-LAN-2241), in the second a secondary deposit of fill derived from a nearby site and thus containing a small quantity of out of context artifacts (CA-LAN-2234), and in the third a cave that was found to have no extant evidence of aboriginal use (CA-LAN-2240). Thus, in terms of substantive archaeological concerns, our emphasis necessarily is on the three habitation or camp sites.

The data obtained from the Phase II test excavations at the prehistoric sites within the West Ranch study area can then be summarized in terms of a few key issues. The first concerns site distributions, and therefore settlement patterns on the Santa Clara River drainage. As now seems apparent, prehistoric sites are exclusively concentrated immediately along this river course, with no evidence for upland or off-river occupation in this immediate region in the Castaic Junction area. While we presume that natural resources were exploited away from the

river, it is very clear that that inhabitation was tethered to the river course, most likely due to the presumed absence of potable water sources away from this riparian zone. Alternatively, it is possible that subsistence heavily emphasized riparian resources that we have not yet recognized archaeologically, but in either case the riverine environment was a primary inhabitation region, at least during parts of the seasonal round.

Note, further, that the qualitative and quantitative nature of the artifact assemblages from the three habitation sites suggests seasonal and essentially non-intensive site use. There is no evidence to support either an interpretation that these sites were year-around villages, or that they were even seasonally inhabited by large groups of peoples. Instead, they appear to represent small dispersal phase camps, perhaps occupied by single or extended families during part of a seasonal movement pattern. This raises a subsidiary question concerning the nature of this putative seasonal round and, in particular, where else on the landscape the inhabitants of these sites may have travelled during their yearly cycle of transhumance. The current project certainly cannot provide a final resolution to this regional question. However, based on the absence of sites in the upland areas of the Santa Susana Mountains south of the river (W & S Consultants 1994a), it seems most likely that seasonal movements involved either

shifts to higher elevations in the Los Padres to the north, or movements along the Santa Clara River towards the east. We discount the possibility that seasonal movements may have been directed towards the coast, based on the dramatic negative evidence on these three sites indicating little or no interaction with coastal peoples and/or access to coastal resources.

Our prehistoric evidence from these sites, thus, matches what is known about the historical distribution of villages in this region (cf. Kroeber 1925), which places all villages on the banks of the Santa Clara River. However, this raises the second, and perhaps primary, issue, chronology, and its corollary concern, the relationship between the sites in the study area, per se. When the sites considered in this study are placed chronologically, a very clear pattern emerges. The three largest sites, CA-LAN-2133, -2233 and -2235 are all temporally equivalent, dating to the Intermediate Horizon (albeit it is possible that CA-LAN-2235 may include a slightly earlier occupation than the other two sites). That is, we have obtained relative temporal diagnostics as well as direct chronometric ages for these sites that place them between 3500 and 800 years B.P. No evidence was obtained to support significantly earlier or later occupations in the region.

The regional implications of the discovery of three habitation

deposits within an approximately 12,000 acres study area, but located in very close proximity and dating to the same time period with no evidence of earlier or later occupation, are quite great. This evidence suggests a dramatic punctuation in the prehistoric occupation of this region, involving a population that first becomes archaeologically visible during the Intermediate Period and, at its end, all but disappears from the area. We argue that this circumstance in the Santa Clara River drainage represents a local variant of a major adaptive radiation and population expansion which we have recently identified, and that apparently occurred after approximately 4000 years B.P. throughout far western North America.

In the last few years, we have undertaken a re-analysis of the artifact assemblages, chronometric and relative ages, and soils stratigraphies of all excavated sites in Ventura, Los Angeles, Riverside, and portions of Kern and Inyo Counties (Whitley 1994; Whitley and Beaudry 1991; Whitley et al 1988; Whitley et al, n.d.; Whitley and Simon n.d.; cf., W & S Consultants 1989a, 1989b, 1991a, 1991b; 1994b; etc.). In addition, we have completed major surveys as well as test and salvage excavations on a number of sites, for numerous different projects, in a general transect that runs from the Ventura/Los Angeles coast through the middle elevations of the Los Padres and San Gabriel Mountains, including the upper Santa Clara Valley, Agua Dulce/Acton region; through the Antelope Valley;

across the southern Sierra Nevada; and into the western Great Basin. Combined with the data from a series of published studies (e.g., McGuire and Garfinkel 1980; Horne 1981; Meighan 1981; Sutton 1988; Whitley 1994), this re-analysis has resulted in one important conclusion: essentially all previous temporal assignments of inland and interior sites to the Early Millingstone Period (or Early Horizon), beyond surface finds of projectile points in the desert regions, are dubious in the extreme. That is, we have found that the "evidence" for Early Millingstone occupation of the inland and interior regions is either based on the presence of non-diagnostic, functional distinctions in artifact assemblages which, more rightly, pertain to site adaptive function rather than age (cf. Glassow 1965:68), or to a very small number of highly suspect chronometric assays. Moreover, we have also found a soils stratigraphic "basement" level for cultural deposits in the inland Ventura/western Los Angeles County region that, based on our own chronometric ages, dates to no more than 3500 to 4000 years in age.

That is, we have found that although Early Millingstone Period sites are relatively common along the coast, there is little if any evidence for the occupation of the inland and interior regions during this early time period. While the millingstone adaptation to seeds and plants, and toolkits dominated by plant processing tools, are present (if not common) in the inland and

interior zones, they appear to date to a later time period, with true Early Millingstone Period occupation apparently restricted to the coastal strip, proper (Whitley and Beaudry 1991). It is currently unclear whether this pattern is fully a function of real differences in inland and interior versus coastal settlement distributions, or whether it reflects site preservation problems in the inland region, but the widespread nature of the pattern tends to preclude causality due to site formation processes alone.

An appropriate example of the confusion of millingstone functional and adaptational patterns for Early Millingstone Period chronological diagnostics at inland sites, and the resulting muddle in the cultural-historical sequence, is provided by the so-called "Topanga Culture", as exemplified by excavations at CA-LAN-1, the "Tank Site" (cf. Heizer and Lemert 1947; Treganza and Malamud 1950; Treganza and Bierman 1958). This is widely regarded as "Early Millingstone" chronologically, and its base ("Phase I") was initially assigned 10,000 years of age, due to the large numbers of millingstones, "crude" choppers and "cog stones" (see Treganza and Bierman 1958:75, Table 1). More recently, it has been assigned a revised age of more than 5000 years B.P. (Moratto 19845:127). But, as Johnson (1966) has rightly pointed out, Phase III of the Topanga Culture, as demonstrated by his excavations at CA-LAN-2, is only 2500 years old; that is, it is Intermediate and not Early Millingstone

in age. It then must follow that the preceding Phase II can only be considered 3500 to 2500 years old, due to the presence of (Intermediate Period) mortars and pestles in the Phase II assemblage. That is, Phase II of the Topanga Culture also can only be Intermediate period in age. Since Phase I lies immediately and comformally below Phase II stratigraphically, it likewise must follow that it immediately pre-dates the Intermediate Period Topanga Phase II remains. At best, then, Phase I of the Topanga Culture is terminal Early Millingstone or transitional Early Millingstone/Intermediate, but not necessarily of any great antiquity. This intepretation is confirmed when it is recognized that one of the key classes of temporal diagnostics said to support the very early age assignment for Phase I, the cogged stones, were all recovered from the Phase II deposit, even though Treganza and Bierman (1958) incorrectly assigned them to the Phase I assemblage (Eberhart 1961:366-7). That is, cogged stones are part of an assemblage that includes Intermediate Period mortars and pestles. Thus, there is currently no evidence to suggest any great antiquity for Phase I of the Topanga culture; instead it appears to be simply ~4000, rather than 10,000 or even 5000+ years in age. And, once it is acknowledged that a "classic" Early Millingstone temporal diagnostic, the cogged stone, is in fact only Intermediate Period in age, then a whole series of putatively 6000 to 8000 year old inland sites - the basement level for most inland regions - immediately become

Intermediate Period in age.

In the general inland southern California region, chronometric arguments for an Early Millingstone inland occupation then reduce to a single early radiocarbon age from CA-VEN-294 (Rosen 1978) which, for reasons discussed at length elsewhere (Whitley 1979) is stratigraphically and typologically unlikely. Elsewhere in interior south-central California and the western Great Basin, the plausible case for a pre-~4000 years B.P. occupation of any consequence is also close to non-existant.

Our point here is not to suggest that no inhabitation or exploitation of inland/interior southern California and the western Great Basin occurred before 3500 - 4000 years ago. We are sure that such did occur, especially in light of the occassional discovery of Paleoindian/Late Pleistocene and Early Holocene remains from this region. Instead, it is simply to emphasize two points. First, there is little or no evidence of such occupation, away from the immediate coastal verge, prior to ~4000 years ago. That is, the inland and interior regions appear to have been more or less depopulated prior to roughly 4000-3500 years ago. In the desert regions we certainly know that substantial population existed during the Early Holocene/Western Pluvial Lakes Tradition Period. Thus, the depopulation appears to represent the middle Holocene, essentially the Altithermal climatic period, while the

population increase correlates with the so-called neo-glacial. Second, it is apparent that after ~4000 B.P. there was a very dramatic increase in site numbers, site functional types, and environmental zones exploited, in addition to the diversity represented by artifact assemblages. For example, we have noted that the initial occupations of many middle elevation zones in the Los Padres and San Gabriel Mountains, near to the southern California coastal zone, as well as in the southern Sierra Nevada, first occurred at approximately 4000 - 3500 years ago. And, as has been noted for a number of years in the coastal Santa Barbara region, per se, the Intermediate Period is signalled by an addition of new subsistance strategies and artifact types in the archaeological record.

Thus, we would like to suggest that CA-LAN-2133, -2233 and -2235, all dispersal phase camps located in inland southern California, reflect far western North American-wide demographic and cultural processes that occurred during what is referred to, locally, as the Intermediate Period or Middle Horizon, and represents the improving post-Altithermal climatic period. These processes included a major demographic explosion, which resulted in the inhabitation of previously depopulated or under-populated inland and interior regions; a concomitant diversification of adaptive strategies and exploitation of a wide range of terrestrial resources, and the demographic radiation into new kinds of environments.

The flip-side of this argument is a circumstance that has only recently become apparent; namely, the widespread abandonment of inland sites at the start of the Late Prehistoric Period (W & S Consultants 1994b). Although the details of this seeming reduction in population and settlement have yet to be fully explored, there again appears to be a process that extended from the western Great Basin (Whitley 1994) and, in fact, throughout the greater Southwest, across the Mojave Desert and Antelope Valley (Sutton 1988) and, as is evident at sites CA-LAN-2133, -2233 and -2235, into the Santa Clara River drainage, at a minimum. Furthermore, some perturbations of this same process are evident near the coast in the Santa Barbara Channel area (ibid). In this case, environmental change again may be a driving force behind these abandonment, as a long-term circa AD 1200 drought has been identified as a major disruptive factor across the far western United States.

Again, we do not mean to imply that no aboriginal population lived in the Santa Clara River drainage after AD 1200; historical records, among others, demonstrate that there certainly was a resident population in this region. Instead, our current interpretation is that the Intermediate Period maintained a higher population and therefore denser settlement pattern than the subsequent Late Prehistoric, most likely reflecting changes in the relative carrying capacity of the

natural environment over time.

Thus, CA-LAN-2133, -2233 and -2235 appear to reflect prehistoric inhabitation of the Santa Clara River system during an environmentally-optimal period in the past, with the appearance of these sites thus correlating with the end of the hot and dry Altithermal climatic period and the beginning of the cooler and wetter neo-glacial. In contrast, their abandonment occurred at a time of drought and therefore reduced available natural resources.

This apparent demographic pattern leads to a corollary concern, which is the nature of the relationship between these three specific habitation sites. We have implied aspects of their inferred relationships above, but these warrant explicit consideration here. First, it is quite clear that although CA-LAN-2233 and -2235 sit upon different landforms, and therefore fully qualify as distinct sites, for all intents and purposes they represent the same geographical location: the west bank of the Martinez Chico arroyo at its confluence with the Santa Clara River. This fact, combined with their essentially coeval occupation spans, as well as the very similar constituents of their respective artifact assemblages, leads to one conclusion: although definable in a clerical sense as distinct sites, CA-LAN-2233 and -2235 clearly represent a single behavioral pattern. That is, they are manifestations of

the same functional settlement unit.

In order to accomodate circumstances such as this, where distinctive sites in fact appear to reflect aspects of the same functional settlement unit, we have developed the term "site complex": a clustering of sites and deposits that, in the large sense, were probably occupied by the same group of people following the same adaptive strategies (Whitley 1979; Whitley and Beaudry 1991). Site complexes are particularly common in inland Ventura and western Los Angeles Counties, where they reflect the fact that archaeological sites develop horizontal, as well as vertical, accretions over time. Such minor changes in the focus of habitation sites - e.g., from one knolltop to an immediately adjacent knolltop - occurred most likely due to minor circumstances, such as the burning of a camp, or its infestation by pests. Indeed, Spanish accounts attest to the fact that villages had an average lifespan of about seven years, at which point they would be burned and shifted slightly to a nearby location. Availability of water, of course, prevented the village locations from changing to any consequential degree.

Thus, it is clear that CA-LAN-2233 and -2235 are portions of the same functional settlement unit. Less clear is the relationship of these two archaeological deposits to CA-LAN-2133, across the river and slightly downstream from their locations. The following appear to be the pertinent factors

intents and purposes, located within the same environmental zone as the two north bank sites. We thus can dismiss the possibility that CA-LAN-2133 represents part of the seasonal round of the inhabitants of the other two sites. If such were the case, at least one of the sites would necessarily be located in a different kind of environment, so as to facilitate access to seasonally variable resources in different environments. Thus, the north bank and south bank sites appear to be equivalent in terms of probable position in seasonal subsistence patterns. Although there are some seemingly minor differences in stone tool assemblages and faunal remains between the north bank and south bank sites, furthermore, in general there is a quite close correspondance in artifact assemblages and faunal remains. Certainly, given the evidence currently available, there is no strong case in the artifact assemblages for differing functional or subsistence specializations between these sites, thus supporting the above inference.

Second, if we compare the size of the two subsurface deposits from the north bank sites with that on the south, they can be stated as grossly equivalent in size, especially considering that variations in depth should contribute to different areal dimensions, even with fully equivalent population numbers and lengths of occupation: CA-LAN-2133 covers approximately 11,550 m^2; the combined size of CA-LAN-2233 and -2235 is 12,800 m^2. That is, at a gross level the contrast between the

two north bank sites and the single south bank habitation suggests roughly equivalent population sizes, here assuming (as is widely accepted) that there is some constant between population size, site area, and amount of artifactual debris generated.

Third, however, there is one seemingly distinctive difference when the north bank sites as a unit are compared to the south bank site. This concerns evidence for trade. As discussed at some length above, all sites display essentially equivalent evidence for trade in the form of obsidian with eastern California. Only CA-LAN-2133 on the south bank, though, has substantial evidence of trade with the area to the west, most noticeably in the amount of fused shale on the site and, to a lesser degree, in coastal shell. Furthermore, this site has a larger number of pieces of Sierra Pelona steatite, originating in the Acton area to the east. That is, CA-LAN-2133 has apparently significantly greater evidence for trade to the west and to the east than either CA-LAN-2233 and -2235 singly or combined.

It is difficult to offer any strong interpretation of this seemingly significant circumstance, given the relatively limited data at hand. Clearly, however, the inhabitants of CA-

LAN-2133 had greater access to western resources, and therefore stronger ties with populations living downstream in the drainage than the north bank occupants. Perhaps surprisingly, CA-LAN-2133's inhabitants also seemingly had greater access to resources to the east, specifically to Sierra Pelona steatite. The only plausible explanation for this circumstance, accordingly, is that CA-LAN-2133 on the west, and CA-LAN-2233 and -2235, on the east, sat astride a cultural boundary of some sort, with the increased accessibility maintained by the inhabitants of CA-LAN-2133 to western resources such as fused shale and coastal items allowing them to more readily obtain eastern trade goods, such as Sierra Pelona steatite, than the inhabitants of sites that were actually slightly more closely located to these resources. That is, this explanation assumes a difference in relative economic value between these various trade goods. While there is no independent support for such an assumption, no more plausible interpretation appears to exist which can account for the empirical evidence obtained from these sites.

Thus, it is apparent that the archaeological evidence obtained during the Phase II test excavations on sites in the West Ranch study area both contribute to emerging interpretive reconstructions in far western North American prehistory, as well as suggest additional problems requiring further analysis and study.

CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary and Conclusions

Test excavations and determinations of site significance were conducted at eight prehistoric archaeological sites within the West Ranch study area, designated CA-LAN-2133, -2241, -2235, -2234 -2233, -2236, -2240 and -2242, northern Los Angeles County, California. This Phase II fieldwork involved mapping, the surface collecting of groundsurface artifacts and archaeological indicators, and the hand excavation of test pits on each site, along with laboratory processing, cataloging and analyses of the recovered artifact collections.

CA-LAN-2133 (NLF1) proved to comprise a subsurface archaeological deposit mantled by natural colluviation, and was found to measure approximately 11,550 m^2 in size. Judging from artifacts recovered from the site it appears to represent a small campsite or habitation, probably occupied by a single extended family on a seasonal basis. Temporally diagnostic artifacts from the site indicate that it was inhabited sometime during the Intermediate Period, or between about 3500 to 800 years B.P.; however, direct chronometric assays on obsidian

flakes from the site support an occupation restricted to the latter half of the Intermediate Period, from 160 B.C. to A.D. 1160. Currently, CA-LAN-2133 is in moderate to good condition. A graded road and disking have impacted the upper levels of the site, and its western end has been truncated by a eroded cut leading down to the river; otherwise, it is largely intact.

CA-LAN-2241 (NLF2) appears to have once represented a very small archaeological deposit that contained one, and possibly two, isolated human burials, and a small number of plant processing tools. No extant portions of this site could be located during the Phase II test. Instead, the human bones and artifacts found at this site were recovered in heavily disturbed contexts; specifically, on the groundsurface of a graded dirt road and in a large bulldozed area adjacent to the road, where all recovered artifacts were found and a few very fragmentary human bones were collected. A second human burial was also observed on the site in an immediately adjacent arroyo bottom. It had eroded out of the side-wall of the arroyo and had fallen to the stream bed when first located, but a subsequent arroyo side-wall collapse buried this interment under a very large volume of dirt. Efforts to expose and record this second burial by hand excavation were unsuccessful, due to the volume of collapsed soils covering it. It is assumed that this burial is also prehistoric in origin, based on its proximity to the other

prehistoric aboriginal remains. However, there is currently no positive empirical evidence in support this inference, and the apparent stratigraphic context of the burial in alluvial overbank (flood) deposits suggests the possibility that it may actually represent one of the many unrecovered bodies of a vicitim from the 1928 San Francisquito Dam disaster.

Thus, with the exception of this burial, all artifacts and human remains from CA-LAN-2241 have been removed from the site area. There are currently no extant portions of this site still in existence, although a disturbed burial of unknown origin is present in the arroyo bottom on the western side of the site.

CA-LAN-2235 (NLF3) consists of a subsurface archaeological deposit measuring approximately 3800 m^2 in size. It was found to represent a small, probably seasonally occupied camp or habitation, most likely used by a single extended family during their seasonal subsistence rounds. Artifacts from the site indicate that it dates to the Intermediate Period; chronometric assays on obsidian flakes from this locale, however, suggest an occupation beginning immediately before the start of the Intermediate Period, at 2250 BC, and extending to AD 940. Although the earlier obsidian dates from this site are slightly anomolous, they nonetheless are generally consistent with the temporal assignment based on the nature of the artifact assemblage recovered during the testing.

CA-LAN-2235 is currently in poor condition. A modern house, driveway and leach field are located within the approximate middle of the site, and have resulted in the complete destruction of approximately 20% of the site, while the remainder has been less severely impacted by modern land-use around this house.

CA-LAN-2234 (NLF4) was found to comprise introduced fill used to control erosion near the east bank of Martinez Chico Canyon. This fill was derived from the southern portion of nearby site CA-LAN-2233, and thus was itself artifact-bearing. Although a small quantity of archaeological artifacts and specimens was, accordingly, recovered from this putative site, these are out-of-original context, therefore entirely lacking in context and integrity, and thus of little or no scientific value.

CA-LAN-2233 (NLF5) consists of two components or loci, now separated by Highway 126. To the north is a subsurface archaeological deposit covering approximately 9000 m^2. This deposit contains a small habitation site apparently related to nearby site CA-LAN-2235. As at CA-LAN-2235, the northern portion of CA-LAN-2233 appears to represent a seasonally occupied single family camp. Artifacts from the deposit indicate that it dates to the Intermediate Period. This is confirmed by obsidian hydration ages from the site, which

indicate an occupation range of at least AD 236 to AD 808. A single human burial was exposed, recorded and re-buried in-situ on CA-LAN-2233 during the Phase II test. This was located adjacent to Highway 126. Subsequent to the Phase II fieldwork it has been determined that this burial falls within the highway right-of-way, and therefore outside of the study area, per se.

The northern portion of CA-LAN-2233 is in moderate condition. Its southern end has been truncated by Highway 126; plowing and disking have impacted its upper levels; and the development and ultimate removal of a historical walnut orchard has resulted in considerable stratigraphic mixing within the subsurface deposit at the site.

The southern portion of CA-LAN-2233 was determined to be a low density surface lithic scatter that had been very seriously and adversely impacted: a portion of it had been borrowed and used as fill on CA-LAN-2234; a railroad track and frontage road had been placed across the site, with the rail line subsequently removed; it has been plowed and disked for a number of years; and portions of it have been buried by Highway 126. Surface collecting during the Phase II test resulted in the recovery of all extant archaeological remains at this locale. Thus, there are no longer any extant archaeological remains within the southern portion of CA-LAN-2233.

CA-LAN-2236 (NLF6) was found to consist of a small, very low density surface lithic scatter. No temporally diagnostic artifacts or chronometrically datable materials were found on this site. It appears to have served as a non-specialized chipping station, probably created in concert with some other economic activity, such as plant gathering or hunting. Phase II fieldwork at this site resulted in the collection of all extant archaeological remains from this locale.

CA-LAN-2240 (NLF7) represents a small rockshelter that was inferred would contain archaeological remains. Subsurface excavation in this shelter demonstrated that no archaeological remains of any kind are still extant at this locale. That is, CA-LAN-2240 does not represent an extant cultural resource.

CA-LAN-2242 (NLF8) is a small cave. Test excavations within this cave indicate that it had been used to cache tools and implements, perhaps as late as the early part of the nineteenth century. However, the vast majority of the cave had been thoroughly looted. Only a few archaeological specimens were still present in the cave when test excavated during the current project. All of these were collected during this Phase II program; there are, thus, no longer any extant archaeological remains at this locale.

5.2 Final recommendations for CA-LAN-2133 (NLF1)

CA-LAN-2133 was found to contain a subsurface archaeological deposit and intact prehistoric artifacts that can contribute to the scientific reconstruction of prehistoric lifeways in the Santa Clara River Valley. Development at this locale has the potential to result in adverse impacts to cultural resources. Following the guidelines provided by Appendix K of the California Environmental Quality Act (CEQA), therefore, we recommend that any such adverse impacts to this site be mitigated by avoidance and preservation. Should preservation of this site be unfeasible, however, we recommend that a Phase III data recovery (salvage excavation) project be completed at CA-LAN-2133, to collect and preserve the scientific information contained therein.

5.3 Final recommendations for CA-LAN-2241 (NLF2)

Archaeological site CA-LAN-2241 was found to consist of a destroyed small prehistoric site, dating from sometime after 3500 years B.P. The site contained a handful of groundstone artifacts and two human burials, all of which were located in disturbed contexts at the time of the fieldwork. That is, subsurface testing demonstrated that no intact deposit is present on this site. Phase II surface collecting resulted in the recovery of all extant artifacts from this site, along with the

few fragmentary human bones constituting Burial 1. A second burial was also observed on this site. This had eroded out of an arroyo sidewall and had fallen into a stream bed. Subsequent arroyo wall collapse prior to an opportunity to record and stabilize this burial have re-buried this interment under a very considerable volume of soil. Efforts to re-expose it through hand-excavation were unsuccessful. Although it is assumed that Burial 2 on CA-LAN-2241 is aboriginal in origin, it apparently eroded out of Santa Clara River flood deposits. Thus, it must be recognized that this burial may instead represent one of the many unrecovered bodies of the victims of the 1928 San Francisquito Dam disaster.

Although there is no longer an extant archaeological site at this locale, a burial of unknown origin is still present in a disturbed context within the site area. Development of this area, therefore, has the potential to result in adverse impacts to archaeological remains (whether ultimately historical or prehistoric in age). Following the guidelines of CEQA, we recommend that any such adverse effects be mitigated through site avoidance and preservation. Should this prove unfeasible, we recommend that an effort be made to re-locate, analyze and re-inter the extant burial in the arroyo bottom at some more appropriate and environmentally secure locale within the region.

5.4 Final recommendations for CA-LAN-2235 (NLF3)

CA-LAN-2235 proved to be a subsurface archaeological deposit covering approximately 3800 m^2 in size. Artifacts recovered from the site and chronometric assays conducted on obsidian indicate that this site dates to the Intermediate Period, perhaps including the transitional period immediately before the beginning of this temporal phase, or from approximately 2250 BC to AD 940. It is thus at least partly coeval with CA-LAN-2133, as well as with CA-LAN-2233.

CA-LAN-2235 was found to be heavily disturbed, with at least 24% of it completely destroyed by the construction of a modern house, driveway and leach field within the approximate middle of the deposit. Nonetheless, the site has the potential to contribute to our scientific reconstruction of the prehistory of this region; further development on this site therefore has the potential to result in adverse impacts to cultural resources. Following Appendix K of CEQA, accordingly, we recommend that any additional adverse impacts to this site be mitigated by avoidance and preservation. Should this prove unfeasible, we recommend that a Phase III data recovery be conducted at this site to collect and preserve the scientific information contained therein.

5.5 Final recommendations for CA-LAN-2234 (NLF4)

The location designated CA-LAN-2234 was determined to comprise an area of imported fill. This fill was itself obtained from a nearby surface lithic scatter; hence the original recording of this locale as archaeological site CA-LAN-2234.

This location, accordingly, does not constitute a cultural resource with integrity. Given the fact that the few extant artifacts at this location are entirely out of original context, they have little potential to contribute to the scientific reconstruction of prehistoric lifeways in the region. Development of this locale, therefore, will not result in adverse impacts to significant cultural resources. We recommend that no additional archaeological work be required at this locale.

5.6 Final recommendations for CA-LAN-2233 (NLF5)

Due to the construction of Highway 126 through the site, CA-LAN-2233 is best considered in reference to two components: a southern portion, located south of the highway; and a northern portion, found in agricultural fields north of the highway.

The southern portion of CA-LAN-2233 was found to represent a very low density surface lithic scatter. It has been seriously

disturbed by the construction and then removal of a railroad line across this portion of the site; the grading of a dirt frontage road along the rail line course; the borrowing of fill eventually taken to the locale of CA-LAN-2234; plowing and disking for an unknown number of years; and the partial burial of the site component by the highway.

Phase II fieldwork determined that the southern portion of CA-LAN-2233 is solely a surface scatter of lithic tools, and resulted in the recovery of all extant surface artifacts at this locale, thus yielding scientifically consequential information from and about this component of this cultural resource. This has served to completely and satisfactorily mitigate any adverse impacts that might result from the development of that portion of CA-LAN-2233 lying south of Highway 126. Accordingly, we recommend that no additional archaeological work be required at this locale. However, following the guidelines of CEQA, it is recommended that an archaeologist be present for topsoil grading and removals at this location, to record, stabilize and evaluate any archaeological remains that might be uncovered during such activities.

The northern portion of CA-LAN-2233, in contrast, was found to contain a subsurface archaeological deposit covering approximately 9000 m^2. As with CA-LAN-2133 and -2235, this deposit was found to date to the Intermediate Period, with

chronometric assays indicating an occupation between AD 236 and 808. Furthermore, this northern portion of CA-LAN-2233 was determined to represent a small seasonal camp, probably occuppied by a single extended family during portions of their yearly subsistence round.

The condition of the subsurface deposit constituting the northern portion of CA-LAN-2233 was found to be moderate: its southern end has been truncated by Highway 126, while plowing and the develop and subsequent removal of a walnut orchard have contributed to a mixing of the stratigraphic layers at the site in certain areas. Nonetheless, the site has the potential to yield information valuable for the scientific reconstruction of prehistoric lifeways in this region. Moreover, a single human burial was uncovered and then re-buried on the site during the Phase II fieldwork. Although this was subsequently determined to fall outside of the project area, per se, and to be located in a road right-of-way, it is clearly of religious importance to local Native American groups. Development of the northern portion of CA-LAN-2233, therefore, has the potential to result in adverse impacts to cultural resources.

Following the guidelines of CEQA, we recommend that any adverse impacts to this site be mitigated by avoidance and preservation. Should this be unfeasible with reference to the entirety of the northern component of CA-LAN-2233, we

recommend that the human burial located within the site be preserved in-situ, and that adverse impacts to other portions of this component of the site be mitigated by a Phase III data recovery program.

5.7 Final recommendations for CA-LAN-2236 (NLF6)

Phase II testing at CA-LAN-2236 demonstrated that this site was a small, very low density surface lithic scatter. This fieldwork resulted in the recovery of all extant artifacts at this site, thus resulting in the recovery of scientifically consequential information from and about this cultural resource. This has served to completely and adequately mitigate all adverse impacts to this site that might accrue due to development at this locale. Accordingly, we recommend that no additional archaeological work be required at this locale. However, following Appendix K of CEQA, it is recommended that an archaeological monitor be present on this site for topsoil grading and removals, to identify, record and evaluate any archaeological remains that might be uncovered during such activities.

5.8 Final recommendations for CA-LAN-2240 (NLF7)

CA-LAN-2240 was recorded as a small rockshelter that was presumed to contain archaeological materials. Phase II testing failed to obtain any evidence that extant archaeological remains are present at this locale. Accordingly, CA-LAN-2240 does not constitute a cultural resource. Development at this locale, accordingly, will not result in adverse impacts to cultural resources. Based on this fact, we recommend that no additional archaeological work be required at this locale.

5.9 Final recommendations for CA-LAN-2242 (NLF8)

CA-LAN-2242 is a small cave that once was used to cache work tools and supplies. Based on the results of the Phase II testing of this cave, it was apparently very heavily looted at some time in the historical past. Our test excavations, accordingly, discovered only a small portion of the original contents of this site, which were localized in a small, and apparently overlooked area, at the mouth of the cave. There are currently no extant archaeological remains at this site, with the Phase II test having resulted in the recovery of scientifically consequential information from and about it. This has served to completely and adequately mitigate any adverse impacts that might accrue to this cultural resource due to development at this locale. We

recommend that no additional archaeological work be required at this cave site, therefore, following the guidelines of CEQA.

6.0
CITED REFERENCES

Adovasio, J.

1977 Basketry Technology: A Guide to Identification and Analysis. Chicago: Aldine.

Earle, D.

1990 New Evidence on the Political Geography of the Antelope Valley and the Western Mojave Desert at Spanish Contact. In B. Love and W.H. DeWitt, eds., Archaeology and Ethnohistory of the Antelope Valley and Vicinity, Antelope Valley Archaeological Society, Occasional Papers No. 2, pp. 87-104.

Eberhart, H.

1961 The Cogged Stones of Southern California. American Antiquity 26:361-370.

Elsasser, A.B. and R.F. Heizer

1963 The Archaeology of Bowers Cave, Los Angeles County, California. University of California, Archaeological Survey, Reports, No. 59. Berkeley.

Glassow, M.A.

1965 The Conejo Rockshelter: An Inland Chumash Site in Ventura County. Archaeological Survey, Annual Report 7:19-80. UCLA.

Heizer, R.F. and E.M. Lemert

1947 Observations on Archaeological Sites in Topanga Canyon, California. University of California Publications in American Archaeology and Ethnology 44(2):237-258.

Holmer, R.
1986 Common Projectile Points of the Intermountain West. In Anthropology of the Desert West, ed. by CJ Condie and DD Fowler, pp. 89-116. University of Utah Press, Anthropological Papers, Number 110.

Horne, S.P.
1981 The Inland Chumash: Ethnography, Ethnohistory and Archeology. Ph.D. dissertation, UCSB.
Archaeology. Monograph 15, UCLA.

Johnson, J.
1978 The Road to Kashtiq. Journal of California Anthropology 5:188-198.

Johnson, J. and D. Earle
1990 Tataviam Geography and Ethnohistory. Journal of California and Great Basin Anthropology 12:191-214.

Johnson, K.L.
1966 Site LAN-2: A Late Manifestation of the Topanga Complex in Southern California Prehistory. Anthropological Records 23. UC Berkeley.

Johnson, M.
1980 Archaeological Investigations at Ven-271. In Inland Chumash Archaeological Investigations, edited by D.S. Whitley, E. McCann and C.W. Clewlow, Jr. Institute of

King, C.D.
1981 The Evolution of Chumash Society: A Comparative Study of Artifacts Used in Social System Maintenance in the Santa Barbara Channel Region. PhD dissertation, UCD.

King, C.D. and T. Blackburn
1976 Tataviam. In: Handbook of North American Indians,

Volume 8, California. R. Heizer, editor, pp. 535-537. Smithsonian Institution.

King, C., C. Smith and T. King
n.d. Archaeologial Report Related to the Interpretation Archaeological Resources Present at the Vasquez Rocks County Park. Report on file, UCLA AIC

King, L.
1981 The Incised Peytroglyph Sites at Agua Dulce, Los Angeles County, California. In Messages from the Past: Studies in California Rock Art., ed. by CW Meighan, pp 21 - 50. UCLA Institute of Archaeology Monograph 20.

Kowta, M.
1969 The Sayles Complex: A Late Milling Stone Assemblage from the Cajon Pass and the Ecological Implications of Its Scraper Planes. Publications In Anthropology, 6. University of California, Berkeley.

Kroeber, A. L.
1925 Handbook of the Indians of California. Bureau of American Ethnology, Bulletin 78.

Love, B.
1990 Archaeological Testing of a Portion of LAn-618, the Escondido Canyon Site, Near Agua Dulce, Los Angeles County, California. In B. Love and W.H. DeWitt, eds., Archaeology and Ethnohistory of the Antelope Valley and Vicinity, Antelope Valley Archaeological Society, Occasional Papers No. 2, pp.21-42.

McIntyre, M.
1990 Cultural Resources of the Upper Santa Clara River Valley, Los Angeles and Ventura Counties, California. In

B. Love and W.H. DeWitt, eds., Archaeology and Ethnohistory of the Antelope Valley and Vicinity, Antelope Valley Archaeological Society, Occasional Papers No. 2, pp. 1-20.

McGuire, K. and A. Garfinkel
1980 Archaeological Investigations in the Southern Sierra Nevada: The Bear Mountain Segment of the Pacific Crest Trail. Cultural Resource Publications, Archaeology. BLM. Bakersfield.

Meighan, C.W.
1981 The Little Lake Site, Pinto Points, and Obsidian Hydration Dating in the Great Basin. Journal of California and Great Basin Anthropology 3:200-214.

Moratto, M.
1984 California Archaeology. Academic Press, New York.

Muntz, P.A.
1974 A Flora of Southern California. Berkeley: University of California.

Outland, C.F.
1963 Man-Made Disaster: The Story of the St. Francis Dam. Glendale: Arthur H. Clark.

Peak and Associates
1992 Consolidated Report: Cultural Resource Studies for the Proposed Pacific Pipeline Project. Manuscript on file, UCLA AIC.

Reynolds, R.
1979 Faunal Analysis. In J. Pritchett and A. McIntyre, The Running Springs Ranch Site: Archaeological Investigations at Ven-65 and Ven-261. Institute of

Archaeology Monograph 12, UCLA.

Ritter, E.
1994 Scratched Rock Art Complexes in the Desert West: Symbols for Socioreligious Communication, In New Light on Old Art: Recent Advances in Hunter-Gatherer Rock Art Research, ed. by DS Whitley and LL Loendorf, pp. 51-66. UCLA Institute of Archaeology Monograph 36.

Rogers, D.B.
1929 Prehistoric Man of the Santa Barbara Coast. Santa Barbara Museum of Natural History. Santa Barbara, California.

Rosen, M.D.
1978 Archaeological Investigations at Ven-294, an Inland Chumash Village Site. In The Archaeology of Oak Park, Ventura County, California, Vol. II, ed. by C.W. Clewlow, H.F. Wells and A.G. Pastron, pp. 7-114. UCLA Institute of Archaeology, Monography V.

Salls, R.
1985 The Scraper Plane: A Functional Interpretation. Journal of Field Archaeology 12(1):99-106.

Señán, J.
1962 The Letters of José Señán, OFM: Mission San Buenaventura 1796-1823. (Translated by P.D. Nathan, Edited by L.B. Simpson). Ventura: Ventura County Historical Society.

Shipek, F.C.
1991 Delfina Cuero: Her Autobiography, An Account of Her Last Years and Her Ethnobotanic Contributions. Menlo Park: Ballena Press.

Sutton, M.Q.

1988a An Introduction to the Archaeology of the Western Mojave Desert, California. Archives of California Prehistory, No. 14. Salinas: Coyote Press.

1988b On the Late Prehistory of the Western Mojave Desert. Pacific Coast Archaeological Society Quarterly 24(1):22-29.

Thomas, D.H.

1981 How to Classify the Projectile Points from Monitor Valley, Nevada. Journal of California and Great Basin Anthropology 3:7-43.

Treganza, A.E. and A. Bierman

1958 The Topanga Culture: Final Report on Excavations, 1948. Anthropological Records 20:2.

Treganza, A.E. and C.G. Malamud

1950 The Topanga Culture: First Season's Excavations at the Tank Site, 1947. Anthropological Records 12:4.

Van Valkenburgh, R.

1952 We Found the Lost Indian Cave of the San Martins. Desert 15:5-9.

W & S Consultants

1984 Archaeological Investigations at Sites CA-Ven-315, -323, -324, -325, -326 and -327, Thousand Oaks, Ventura County, California. Manuscript on file, City of Thousand Oaks.

1989a Archaeological Test Excavations at Fifteen Prehistoric Sites in the Lake Sherwood Development Area, Ventura County, California. Manuscript on file, County of Ventura.

1989b Phase II Archaeological Test Excavations at CA-Ven-982 and -983, Dos Vientos Ranch, Newbury Park, Ventura County, California. Manuscript on file, City of Thousand Oaks.

1989c Preliminary Archaeological Investigations at Sites CA-VEN-221, -222, -705, -706, -708, -709, and -710 on the Ahmanson Ranch, Ventura County, California. Manuscript on file, County of Ventura.

1991a Phase II Archaeological Test Excavations at CA-KER-1115, -1118 and -1947, Near Cache Peak, Kern County, California. Manuscript on file, CSUB AIC.

1991b Phase II Archaeological Test Excavations at CA-VEN-478, -1038, -1042/H, -1043, -1044, -1045 and -1046, TPM 4687, Ventura County, California. Manuscript on file, County of Ventura.

1992a Phase III Data Recovery at Archaeological Site CA-VEN-654, Thousand Oaks, Ventura County, California. Manuscript on file, UCLA AIC.

1992b Phase II Archaeological Test Excavations at CA-LAN-1884, -1886 and -1887, VTT #49856, Calabasas, Los Angeles County, California. Manuscript on file, UCLA AIC.

1993 Phase II Archaeological Test Excavations at CA-LAN-760A/H, -760B, -760C, -866, -867A and -867B, Calabasas, Western Los Angeles County, California. Manuscript on file, W & S Consultants.

1994a Phase I Archaeological Survey of the West Ranch Study Area, Western Los Angeles County, California.

Manuscript on file, W & S Consultants.

1994b PhaseIII Data Recovery at CA-SBA-1661, Santa Barbara County, California. Manuscript on file, W & S Consultants.

Wallace, W.
1955 A Suggested Chronology for Southern California Coastal Archaeology. Southwestern Journal of Anthropology 11 (3):214-230.

Whitley, D.S.
1979a A Historical Perspective on the Research at Oak Park. In The Archaeology of Oak Park, Ventura County, California, Volume 3. Edited by C.W. Clewlow and D.S. Whitley. Institute of Archaeology, Monograph 11. UCLA.

1979b Subsurface Features, Toolkits and a Sweathouse Pit at the Ring Brothers Complex. In Archaeological Investigations at the Ring Brothers Site Complex, Thousand Oaks, California, edited by C.W. Clewlow, Jr., D.S. Whitley and E.L. McCann, pp.101-110. Institute of Archaeology, Monograph 13. UCLA.

1992 Shamanism and Rock Art in Far Western North America. Cambridge Archaeological Journal 2(1):89-113.

1994 By the Hunter, For the Gatherer: Art, Social Relations and Subsistence Change in the Western Great Basin. World Archaeology 25:356-373.

Whitley, D.S. and M.P. Beaudry
1991 Chiefs on the Coast: Developing Chiefdoms in the Tiquisate Region in Ethnographic Perspective. In The Development of Complex Societies in Southeastern Mesoamerica, edited by W. Fowler. CRC Press, Orlando.

Whitley, D.S., G. Gumerman IV, J. Simon and T. Rose
1988 The Late Prehistoric Period in the Coso Range and Environs. Pacific Coast Archaeological Society, Quarterly 24(1):2-20.

Whitley, D.S., E.L. McCann, J.M. Simon and M.P. Drews
1979a Artifacts from the Ring Brothers Complex. In Archaeological Investigations at the Ring Brothers Site Complex, Thousand Oaks, California, edited by C.W. Clewlow, Jr., D.S. Whitley and E.L. McCann, pp.11-100. Institute of Archaeology, Monograph 13. UCLA.

Whitley, D.S., J. Simon and G. Gumerman IV
n.d. Out West at 3500 Years B.P. Manuscript.

Yohe, R.M.
1992 A Reevaluation of Western Great Basin Cultural Chronology and Evidence for the Timing of the Introduction of the Bow and Arrow to Eastern California Based on New Excavations at the Rose Spring Site (CA-INY-372). PhD dissertation, UCR.

7.0
TABLES

List of Tables

1 - ARTIFACT CATALOG, CA-LAN-2133
2 - ARTIFACT CATALOG, CA-LAN-2241
3 - ARTIFACT CATALOG, CA-LAN-2235
4 - ARTIFACT CATALOG, CA-LAN-2234
5 - ARTIFACT CATALOG, CA-LAN-2233
6 - ARTIFACT CATALOG, CA-LAN-2236
7 - ARTIFACT CATALOG, CA-LAN-2242
8 - CA-LAN-2133, ARTIFACTS
9 - CA-LAN-2133, DEBITAGE
10 - CA-LAN-2133, FAUNAL REMAINS
11 - CA-LAN-2133, SHELLFISH
12 - CA-LAN-2235, ARTIFACTS
13 - CA-LAN-2235, DEBITAGE
14 - CA-LAN-2235, FAUNAL REMAINS
15 - CA-LAN-2234, ARTIFACTS
16 - CA-LAN-2234, DEBITAGE
17 - CA-LAN-2234, FAUNAL REMAINS
18 - CA-LAN-2233, ARTIFACTS
19 - CA-LAN-2233, DEBITAGE
20 - CA-LAN-2233, FAUNAL REMAINS
21 - CA-LAN-2242, FAUNAL REMAINS & SHELLFISH

TABLE 1: CA-LAN-2133 ARTIFACT CATALOG

Cat#/2133-	Unit/level	Material	L x W x T	Weight (gm)	Number	Type
1	1/0-10	Lithic	---------	0.9	1	Debitage
2	1/10-20	Lithic	---------	22.7	1	Debitage
3	1/20-30	Lithic	---------	4.6	3	Debitage
4	1/30-40	Lithic	---------	2.1	2	Debitage
5	1/40-50	Bone	---------	2.6	16	Faunal remains
6	1/40-50	Lithic	---------	1.6	5	Debitage
7	1/50-60	Bone	---------	3.3	8	Faunal remains
8	1/50-60	Lithic	---------	0.1	1	Debitage
9	1/60-70	Bone	---------	0.4	4	Faunal remains
10	1/60-70	Lithic	---------	0.2	2	Debitage
11	1/60-70	Chert	4.01x3.19x2.2	19.4	1	Biface edge
12	1/70-80	Bone	---------	2.8	18	Faunal remains
13	1/70-80	Lithic	---------	10.4	3	Debitage
14	1/80-90	Bone	---------	0.6	2	Faunal remains
15	1/80-90	Lithic	---------	0.1	1	Debitage
16	1/90-100	Bone	---------	5.2	25	Faunal remains
17	1/100-120	Bone	---------	5	8	Faunal remains
18	1/100-110	Lithic	---------	3.5	2	Debitage
19	1/110-120	Bone	---------	2.5	18	Faunal remains
20	2/0-10	Lithic	---------	11.4	5	Debitage
21	2/10-20	Bone	---------	1.2	3	Faunal remains
22	2/10-20	Lithic	---------	1.5	4	Debitage
23	2/20-30	Lithic	---------	0.3	3	Debitage
24	2/30-40	Lithic	---------	19.6	8	Debitage
25	2/40-50	Bone & shell	---------	3.1	9	Faunal remains
26	2/40-50	Lithic	---------	6.2	6	Debitage
27	2/50-60	Bone	---------	1.1	5	Faunal remains
28	2/50-60	Lithic	---------	6	5	Debitage
29	2/50-60	Fused shale	1.2x1.1x0.4	0.3	1	Proj pt tip
30	2/60-70	Lithic	---------	0.7	7	Debitage
31	2/80-90	Bone	---------	0.4	1	Faunal remains
32	2/90-100	Bone	---------	0.7	3	Faunal remains
33	2/90-100	Lithic	---------	0.5	2	Debitage
34	2/100-110	Bone	---------	1.9	1	Faunal remains
35	2/100-110	Lithic	---------	9.4	5	Debitage
36	3/0-10	Bone	---------	1.3	14	Faunal remains
37	3/0-10	Lithic	---------	54.8	19	Debitage
38	3/10-20	Bone	---------	2	9	Faunal remains
39	3/10-20	Lithic	---------	28.8	17	Debitage
40	3/20-30	Bone	---------	4.4	13	Faunal remains
41	3/20-30	Lithic	---------	6	9	Debitage
42	3/30-40	Bone	---------	5.7	27	Faunal remains
43	3/30-40	Lithic	---------	7.5	6	Debitage

TABLE 1: CA-LAN-2133 ARTIFACT CATALOG

44	3/40-50	Bone	---------	20.5	146	Faunal remains
45	3/40-50	Lithic	---------	21.4	15	Debitage
46	3/50-70	Bone	---------	3.9	291	Faunal remains
47	3/50-70	Bone	1.7x0.5x0.3	0.1	1	Awl fragment
48	3/70-80	Lithic	---------	12.6	16	Debitage
49	3/80-90	Bone	---------	7.4	24	Faunal remains
50	Deleted	---------	---------	---------	---------	---------
51	3/90-100	Bone	---------	5	25	Faunal remains
52	3/90-100	Lithic	---------	9.6	4	Debitage
53	3/100-110	Bone	---------	5.7	19	Faunal remains
54	3/100-110	Lithic	---------	1.2	8	Debitage
55	3/110-120	Bone	---------	5.3	18	Faunal remains
56	3/110-120	Lithic	---------	3.5	4	Debitage
57	3/120-130	Bone	---------	4.3	25	Faunal remains
58	5/0-10	Lithic	---------	3.3	6	Debitage
59	5/10-20	Bone	---------	0.9	2	Faunal remains
60	5/10-20	Lithic	---------	19.4	8	Debitage
61	5/20-30	Bone	---------	0.4	2	Faunal remains
62	5/20-30	Lithic	---------	9.2	10	Debitage
63	5/30-40	Bone	---------	0.8	3	Faunal remains
64	5/30-40	Lithic	---------	19.5	13	Debitage
65	5/40-50	Lithic	---------	105.3	33	Debitage
66	5/50-60	Bone	---------	6.9	5	Faunal remains
67	5/50-60	Lithic	---------	42.3	23	Debitage
68	5/50-60	Schist	14.4x10.6x2.4	587.5	1	Mano
69	5/60-70	Steatite	1.12x0.41	0.1	1	Bead fragment
70	5/60-70	Lithic	---------	65.9	28	Debitage
71	5/70-80	Bone	---------	0.3	2	Faunal remains
72	5/70-80	Lithic	---------	63.1	21	Debitage
73	8/0-10	Lithic	---------	1.3	4	Debitage
74	8/10-20	Bone	---------	1.6	1	Faunal remains
75	8/10-20	Lithic	---------	10	5	Debitage
76	8/20-30	Lithic	---------	15.1	9	Debitage
77	Deleted	---------	---------	---------	---------	---------
78	8/30-40	Lithic	---------	3.3	9	Debitage
79	8/40-50	Bone	---------	0.4	4	Faunal remains
80	8/40-50	Lithic	---------	43.1	7	Debitage
81	8/50-60	Bone	---------	2.1	3	Faunal remains
82	8/50-60	Lithic	---------	36.3	4	Debitage
83	8/60-70	Bone	---------	0.5	2	Faunal remains
84	8/60-70	Lithic	---------	3.5	5	Debitage
85	5/80-90	Bone	---------	3.4	5	Faunal remains
86	5/80-90	Lithic	---------	63.2	40	Debitage
87	5/80-90	Sandstone	5.8x5.3x6.9	335.7	1	Pestle frag

TABLE 1: CA-LAN-2133 ARTIFACT CATALOG

88	5/90-100	Bone	---------	0.2	3	Faunal remains
89	5/90-100	Lithic	---------	101.9	25	Debitage
90	6/0-10	Bone	---------	0.1	1	Faunal remains
91	6/0-10	Lithic	---------	15.5	5	Debitage
92	6/10-20	Bone	---------	0.8	8	Faunal remains
93	6/10-20	Lithic	---------	10.4	7	Debitage
94	6/20-30	Bone	---------	3.9	8	Faunal remains
95	6/20-30	Lithic	---------	3.4	7	Debitage
96	6/30-40	Bone	---------	0.2	1	Faunal remains
97	6/30-40	Lithic	---------	38.2	4	Debitage
98	6/40-50	Bone	---------	0.6	5	Faunal remains
99	6/40-50	Lithic	---------	6	8	Debitage
100	6/50-60	Bone	---------	3.5	16	Faunal remains
101	6/50-60	Lithic	---------	1.4	6	Debitage
102	6/60-70	Lithic	---------	82.1	8	Debitage
103	6/60-70	Bone	---------	6.2	34	Faunal remains
104	6/70-80	Bone	---------	4.4	26	Faunal remains
105	6/70-80	Lithic	---------	17	12	Debitage
106	6/80-90	Bone	---------	4.8	37	Faunal remains
107	6/80-90	Lithic	---------	9.5	6	Debitage
108	6/80-90	Sandstone	7.0x9.5x5.5	495.2	1	Mano fragment
109	6/80-90	Schist	---------	81.4	7	Misc. grndstn
110	6/90-100	Bone	---------	2.8	13	Faunal remains
111	6/50-60	Sandstone	6.3x6.3x3.0	134.1	1	Pestle frag
112	9/10-20	Lithic	---------	0.8	1	Debitage
113	9/10-20	Bone	---------	0.3	1	Faunal remains
114	9/20-30	Lithic	---------	1.8	3	Debitage
115	9/30-40	Bone	---------	0.2	1	Faunal remains
116	9/30-40	Lithic	---------	4.3	6	Debitage
117	9/40-50	Lithic	---------	1.6	7	Debitage
118	9/50-60	Lithic	---------	5.9	6	Debitage
119	9/50-60	Lithic	---------	0.4	3	Faunal remains
120	10/0-10	Lithic	---------	2.1	3	Debitage
121	10/10-20	Bone	---------	0.7	2	Faunal remains
122	10/10-20	Lithic	---------	12.5	8	Debitage
123	10/20-30	Bone	---------	0.1	1	Faunal remains
124	10/20-30	Lithic	---------	5.9	10	Debitage
125	10/20-30	Sandstone	11.5x8.4x5.4	896.1	1	Mano
126	10/30-40	Bone	---------	0.3	6	Faunal remains
127	10/30-40	Lithic	---------	1.4	5	Debitage
128	10/40-50	Bone	---------	0.7	5	Faunal remains
129	10/40-50	Lithic	---------	3.8	5	Debitage
130	10/50-60	Metal	---------	---------	1	Fence staple
131	10/50-60	Bone	---------	1.6	8	Faunal remains

TABLE 1: CA-LAN-2133 ARTIFACT CATALOG

132	10/50-60	Lithic	---------	11.5	5	Debitage
133	11/0-10	Lithic	---------	0.9	2	Debitage
134	11/10-20	Lithic	---------	2.6	4	Debitage
135	11/10-20	Bone	---------	0.3	2	Faunal remains
136	11/20-30	Lithic	---------	0.4	1	Debitage
137	11/30-40	Lithic	---------	3.7	3	Debitage
138	11/50-60	Lithic	---------	1.1	4	Debitage
139	11/60-70	Bone	---------	0.1	1	Faunal remains
140	11/60-70	Lithic	---------	0.2	2	Debitage
141	12/0-10	Bone	---------	1.1	1	Faunal remains
142	12/0-10	Lithic	---------	0.1	1	Debitage
143	12/30-40	Bone	---------	0.1	1	Faunal remains
144	12/30-40	Lithic	---------	3	1	Debitage
145	12/40-50	Lithic	---------	26.6	3	Debitage
146	12/50-60	Bone	---------	4.7	2	Faunal remains
147	12/50-60	Lithic	---------	0.1	1	Debitage
148	12/50-60	Sandstone	13.6x4.4x4.5	423.1	1	Pestle fragm
149	15/0-10	Lithic	---------	0.5	3	Debitage
150	15/10-20	Lithic	---------	1	2	Debitage
151	16/0-10	Bone	---------	0.5	1	Faunal remains
152	16/0-10	Lithic	---------	0.8	3	Debitage
153	16/10-20	Lithic	---------	2.4	3	Debitage
154	16/20-30	Bone	---------	0.7	11	Faunal remains
155	16/20-30	Lithic	---------	0.2	2	Debitage
156	16/20-30	Metal	---------	---------	1	Tack
157	16/30-40	Lithic	---------	0.9	2	Debitage
158	15/30-40	Lithic	---------	0.9	1	Debitage
159	15/40-50	Bone	---------	1.2	1	Faunal remains
160	15/50-60	Lithic	---------	0.6	1	Debitage
161	16/70-80	Lithic	---------	2.2	1	Debitage
162	14/0-10	Lithic	---------	1.6	2	Debitage
163	14/0-10	Bone	---------	0.4	1	Faunal remains
164	14/10-20	Bone	---------	0.9	3	Faunal remains
165	14/10-20	Lithic	---------	7.8	2	Debitage
166	14/20-30	Bone	---------	0.4	3	Faunal remains
167	14/20-30	Lithic	---------	8.6	5	Debitage
168	14/30-40	Bone	---------	0.8	5	Faunal remains
169	14/30-40	Lithic	---------	4.6	2	Debitage
170	14/40-50	Lithic	---------	21.4	4	Debitage
171	14/40-50	Bone	---------	1.7	4	Faunal remains
172	14/50-60	Bone	---------	0.3	3	Faunal remains
173	14/50-60	Lithic	---------	1.9	2	Debitage
174	3/50-70	Quartzite	7.1x6.4x6.6	446.1	1	Metate frag
175	3/70-80	Quartzite	6.1x3.8x4.3	117.7	1	Mano fragment

TABLE 1: CA-LAN-2133 ARTIFACT CATALOG

176	3/70-80	Quartzite	11.5x6.1x3.9	407.8	1	Mano fragment
177	3/90-100	Quartzite	8.3x4.7x3.4	104.5	1	Uniface edge
178	7/50-60	Lithic	---------	19.2	4	Debitage
179	7/50-60	Bone	---------	4.3	7	Faunal remains
180	7/60-70	Bone	---------	1.3	8	Faunal remains
181	7/60-70	Lithic	---------	3.3	1	Debitage
182	7/70-80	Bone	---------	0.7	2	Faunal remains
183	7/70-80	Lithic	---------	5.8	2	Debitage
184	7/80-90	Bone	---------	0.3	2	Faunal remains
185	18/0-10	Chert	1.4x1.6x1.7	2.4	1	Biface frag
186	18/20-30	Quartz	3.9x3.3x1.6	22.9	1	Biface edge
187	18/30-40	Lithic	---------	4.5	6	Debitage
188	18/40-50	Quartzite	6.3x3.5x4.9	150.8	1	Hammerstone
189	19/50-60	Meta-volcanic	5.7x5.9x4.4	156.3	1	Biface chopper
190	20/40-50	Quartzite	5.5x4.1x2.4	61.7	1	Mano fragment
191	3/50-60	Bone	---------	---------	1	Tooth fragment
192	3/70-80	Bone	---------	---------	1	Tooth fragment
193	6/80-90	Bone	2.8x0.7x0.4	0.7	1	Awl fragment
194	14/60-70	Bone	---------	2.7	3	Faunal remains
195	19/0-10	Bone	---------	0.3	3	Faunal remains
196	19/0-10	Lithic	---------	2.6	3	Debitage
197	19/10-20	Lithic	---------	3.6	4	Debitage
198	19/10-20	Bone	---------	0.1	1	Faunal remains
199	19/20-30	Lithic	---------	0.7	1	Debitage
200	19/30-40	Bone	---------	2.6	4	Faunal remains
201	19/30-40	Lithic	---------	7.5	4	Debitage
202	19/40-50	Bone	---------	9.8	6	Faunal remains
203	19/40-50	Lithic	---------	5.4	7	Debitage
204	Deleted	----------	----------	----------	----------	----------
205	19/50-60	Bone	---------	6.1	7	Faunal remains
206	19/50-60	Lithic	---------	11.9	4	Debitage
207	16/40-50	Bone	---------	2.5	9	Faunal remains
208	16/40-50	Lithic	---------	2.4	3	Debitage
209	16/50-60	Bone	---------	3.3	17	Faunal remains
210	16/50-60	Lithic	---------	7.3	7	Debitage
211	16/60-70	Bone	---------	12.9	62	Faunal remains
212	16/60-70	Lithic	---------	168.3	12	Debitage
213	16/70-80	Bone	---------	8	29	Faunal remains
214	Deleted	----------	----------	----------	----------	----------
215	17/10-20	Bone	---------	1.4	2	Faunal remains
216	17/10-20	Lithic	---------	9.6	10	Debitage
217	17/20-30	Bone	---------	6.9	5	Faunal remains
218	17/20-30	Lithic	---------	18.6	6	Debitage
219	17/30-40	Bone	---------	0.4	1	Faunal remains

TABLE 1: CA-LAN-2133 ARTIFACT CATALOG

220	17/30-40	Lithic	---------	1.7	3	Debitage
221	17/40-50	Bone	---------	0.8	2	Faunal remains
222	17/60-70	Bone	---------	4.5	15	Faunal remains
223	17/60-70	Lithic	---------	2.5	7	Debitage
224	18/0-10	Lithic	---------	5	5	Debitage
225	18/0-10	Bone	---------	1.4	3	Faunal remains
226	18/10-20	Bone	---------	1.2	5	Faunal remains
227	18/10-20	Lithic	---------	0.6	5	Debitage
228	18/20-30	Bone	---------	0.2	8	Faunal remains
229	18/20-30	Lithic	---------	11.2	5	Debitage
230	18/30-40	Bone	---------	0.4	4	Faunal remains
231	18/40-50	Bone	---------	0.9	4	Faunal remains
232	18/40-50	Lithic	---------	2.4	6	Debitage
233	18/50-60	Lithic	---------	0.3	3	Debitage
234	18/50-60	Bone	---------	0.2	2	Faunal remains
235	20/0-10	Bone	---------	0.1	1	Faunal remains
236	20/0-10	Lithic	---------	3.7	5	Debitage
237	20/10-20	Bone	---------	0.1	1	Faunal remains
238	20/10-20	Lithic	---------	16.6	7	Debitage
239	20/10-20	Metal	---------	---------	1	Fence staple
240	20/20-30	Bone	---------	0.1	1	Faunal remains
241	20/20-30	Lithic	---------	15.1	8	Debitage
242	20/30-40	Bone	---------	0.5	2	Faunal remains
243	20/30-40	Lithic	---------	9.6	2	Debitage
244	20/40-50	Bone	---------	0.2	1	Faunal remains
245	20/40-50	Lithic	---------	18.6	3	Debitage
246	20/50-60	Bone	---------	0.8	2	Faunal remains
247	20/50-60	Lithic	---------	3.6	4	Debitage
248	17/60-70	Metal	---------	---------	1	Nail
249	Deleted	----------	----------	----------	----------	----------
250	9/30-40	Sandstone	9.0x8.5x5.4"	548.3	1	Mano
251	SA#1	Lithic	---------	1.6	1	Debitage
252	SA#2	Lithic	---------	6.4	1	Debitage
253	SA#3	Lithic	---------	2.6	1	Debitage
254	SA#4	Lithic	---------	5.3	1	Debitage
255	SA#5	Lithic	---------	3.8	1	Debitage
256	SA#6	Lithic	---------	6.4	1	Debitage
257	SA#7	Lithic	---------	5.1	1	Debitage
258	SA#11	Lithic	---------	0.2	1	Debitage
259	SA#12	Lithic	---------	4	1	Debitage
260	SA#13	Lithic	---------	7.1	1	Debitage
261	SA#14	Lithic	---------	1.6	1	Debitage
262	SA#15	Lithic	---------	1.9	1	Debitage
263	SA#16	Lithic	---------	13.9	1	Debitage

TABLE 1: CA-LAN-2133 ARTIFACT CATALOG

264	SA#19	Lithic	---------	59.3	1	Debitage

TABLE 2: CA-LAN-2241 ARTIFACT CATALOG

Cat#/2241	Unit/level	Material	L x W x T	Weight (gm)	Number	Type
1	SA#1	Schist	14x9.4x1.6"	345.2	1	Misc grndstn
2	SA#2	Steatite	13x8x2.7"	563.2	1	Bowl
3	SA#3	Sandstone	17.6x13.6x6.7	1360.7	1	Bowl
4	SA#4	Sandstone	16.9x18.3x16.	1122.3	1	Pestle
5	SA#5	Sandstone	12.4x12.9x6.4	1571.8	1	Basket-hopper

TABLE 3: CA-LAN-2235 ARTIFACT CATALOG

Cat#/2235	Unit/level	Material	L x W x T	Weight (gm)	Number	Type
1	1/40-50	Bone	---------	0.4	1	Faunal remains
2	1/40-50	Lithic	---------	6.4	3	Debitage
3	SA#15	Lithic	---------	5.8	1	Debitage
4	2/0-10	Lithic	---------	0.6	1	Debitage
5	2/10-20	Lithic	---------	1.5	3	Debitage
6	2/20-30	Lithic	---------	15.1	1	Debitage
7	2/20-30	Lithic	---------	1.6	3	Debitage
8	3/20-30	Lithic	---------	3.4	4	Debitage
9	3/30-40	Lithic	---------	16.4	8	Debitage
10	3/40-50	Lithic	---------	0.4	1	Debitage
11	3/50-60	Lithic	---------	1.9	2	Debitage
12	3/60-70	Lithic	---------	4.3	3	Debitage
13	6/20-30	Lithic	---------	15.9	3	Debitage
14	6/30-40	Lithic	---------	1.4	1	Debitage
15	SA#15	Quartzite	1.1x6.0x4.5	173.1	1	Hammerstone
16	6/60-70	Lithic	---------	2.1	3	Debitage
17	8/10-20	Lithic	---------	4.6	2	Debitage
18	8/20-30	Lithic	---------	13.4	6	Debitage
19	8/30-40	Lithic	---------	10.4	7	Debitage
20	8/30-40	Quartzite	7.8x3.8x4.2*	175.2	1	Mano
21	8/30-40	Quartzite	11.7x6.7x4.4*	412.8	1	Mano
22	8/40-50	Lithic	---------	3.4	10	Debitage
23	8/50-60	Lithic	---------	24.3	8	Debitage
24	8/60-70	Lithic	---------	23.2	7	Debitage
25	8/70-80	Lithic	---------	16.3	4	Debitage
26	9/0-10	Lithic	---------	2.4	2	Debitage
27	9/10-20	Lithic	---------	11.8	11	Debitage
28	9/20-30	Lithic	---------	13.8	6	Debitage
29	9/30-40	Lithic	---------	6.7	4	Debitage
30	9/30-40	Meta-volcanic	12.3x8.4x8.4*	572.4	1	Mano
31	Deleted	---------	---------	---------	---------	---------
32	9/40-50	Lithic	---------	10	7	Debitage
33	9/50-60	Lithic	---------	25.9	4	Debitage
34	9/60-70	Lithic	---------	15.2	14	Debitage
35	9/70-80	Lithic	---------	15.8	6	Debitage
36	9/80-90	Lithic	---------	2.4	3	Debitage
37	11/0-10	Lithic	---------	72.1	2	Debitage
38	11/10-20	Lithic	---------	53.6	16	Debitage
39	11/20-30	Lithic	---------	21.4	10	Debitage
40	11/20-30	Bone	---------	0.3	3	Faunal remains
41	11/30-40	Lithic	---------	4.1	11	Debitage
42	11/30-40	Bone	---------	0.2	2	Faunal remains
43	11/40-50	Lithic	---------	7.9	8	Debitage

TABLE 3: CA-LAN-2235 ARTIFACT CATALOG

44	11/50-60	Lithic	---------	8.2	8	Debitage
45	11/50-60	Bone	---------	1.5	7	Faunal remains
46	11/60-70	Lithic	---------	21.3	12	Debitage
47	11/60-70	Bone	---------	0.4	2	Faunal remains
48	11/70-80	Lithic	---------	16.9	14	Debitage
49	11/70-80	Bone	---------	0.1	1	Faunal remains
50	11/80-90	Lithic	---------	9	16	Debitage
51	11/80-90	Bone	---------	0.7	5	Faunal remains
52	11/90-100	Bone	---------	0.3	1	Faunal remains
53	11/90-100	Lithic	---------	8.2	11	Debitage
54	11/100-110	Bone	---------	0.4	2	Faunal remains
55	11/100-110	Lithic	---------	2.1	1	Debitage
56	1/0-10	Lithic	---------	3.1	1	Debitage
57	1/10-20	Lithic	---------	1.6	2	Debitage
58	1/20-30	Bone	---------	0.1	1	Faunal remains
59	3/0-10	Lithic	---------	8.8	3	Debitage
60	SA#11	Chert	4.7x3.9x2.2	46.5	1	Core
61	5/0-10	Bone	---------	0.3	2	Faunal remains
62	5/10-20	Bone	---------	0.1	1	Faunal remains
63	5/20-30	Bone	---------	0.8	1	Faunal remains
64	6/0-10	Lithic	---------	1.7	1	Debitage
65	6/10-20	Lithic	---------	2.8	1	Debitage
66	SA#10	Lithic	---------	0.5	1	Debitage
67	8/0-10	Lithic	---------	5.7	6	Debitage
68	10/0-10	Lithic	---------	1.4	3	Debitage
69	10/10-20	Lithic	---------	15.2	12	Debitage
70	10/20-30	Lithic	---------	7.3	11	Debitage
71	10/30-40	Lithic	---------	17.4	18	Debitage
72	10/40-50	Lithic	---------	8.7	13	Debitage
73	10/50-60	Lithic	---------	26.2	17	Debitage
74	10/60-70	Lithic	---------	13	10	Debitage
75	10/70-80	Lithic	---------	0.4	2	Debitage
76	12/0-10	Lithic	---------	12.6	7	Debitage
77	12/10-20	Lithic	---------	30	9	Debitage
78	12/20-30	Lithic	---------	7	9	Debitage
79	12/30-40	Lithic	---------	5.4	2	Debitage
80	12/40-50	Lithic	---------	4.1	2	Debitage
81	12/40-50	Bone	1.5x0.4x0.4*	0.2	1	Awl
82	3/20-30	Chert	2.9x1.6x0.7*	2.1	1	Projectile pt
83	8/10-20	Chert	6.6x4.4x1.7	36.8	1	Uniface edge
84	8/20-30	Quartzite	7.4x5.5x4.3	187.2	1	Hammerstone
85	8/70-80	Plastic	---------	---------	1	Pipe frag
86	9/60-70	Chert	6.1x6.0x2.1	101.8	1	Uniface edge
87	10/0-10	Chert	1.6x1.1x0.4*	0.5	1	Projectile pt

TABLE 3: CA-LAN-2235 ARTIFACT CATALOG

88	10/70-80	Chert	1.7x1.0x0.5*	0.6	1	Biface
89	Surface	Metavolcanic	5.2x3.7x1.7	22.6	1	Utilized flake
90	SA#1	Quartzite	7.1x7.8x6.0	377.6	1	Hammerstone
91	SA#2	Lithic	---------	2.1	1	Debitage
92	SA#3	Lithic	---------	1.6	1	Debitage
93	SA#4	Lithic	---------	7.9	1	Debitage
94	SA#5	Lithic	---------	5.7	1	Debitage
95	SA#6	Lithic	---------	1.3	1	Debitage
96	SA#7	Sandstone	9.8x7.8x4.7*	454.2	1	Metate
97	SA#8	Schist	11.8x10.1x2.(	385.5	1	Comal (?)
98	SA#9	Sandstone	8.0x5.8x6.2*	312	1	Mano

TABLE 4: CA-LAN-2234 ARTIFACT CATALOG

Cat#/2234	Unit/level	Material	L x W x T	Weight (gm)	Number	Type
1	1/0-10	Bone	---------	0.4	1	Faunal remains
2	1/10-20	Lithic	---------	0.3	2	Debitage
3	1/20-30	Lithic	---------	0.2	1	Debitage
4	1/30-40	Lithic	---------	1.1	2	Debitage
5	1/50-60	Bone	---------	0.3	1	Faunal remains
6	1/50-60	Lithic	---------	0.4	1	Debitage
7	2/10-20	Shell	---------	0.1	1	Haliotis bead
8	3/0-10	Lithic	---------	5.6	1	Debitage
9	3/10-20	Lithic	---------	2.6	3	Debitage
10	3/20-30	Lithic	---------	0.1	1	Debitage
11	3/30-40	Lithic	---------	0.1	1	Debitage
12	4/0-10	Bone	---------	0.3	1	Faunal remains
13	4/0-10	Lithic	---------	1.6	5	Debitage
14	4/10-20	Lithic	---------	0.4	3	Debitage
15	4/20-30	Lithic	---------	1.7	2	Debitage
16	4/20-30	Bone	---------	0.4	1	Faunal remains
17	5/0-10	Bone	---------	0.6	1	Faunal remains
18	5/0-10	Lithic	---------	0.1	1	Debitage
19	5/10-20	Lithic	---------	0.3	1	Debitage
20	6/0-10	Bone	---------	0.2	2	Faunal remains
21	6/0-10	Lithic	---------	9.1	5	Debitage
22	6/10-20	Bone	---------	0.3	1	Faunal remains
23	6/10-20	Lithic	---------	1.2	2	Debitage
24	6/20-30	Lithic	---------	0.1	1	Debitage
25	6/30-40	Lithic	---------	2.1	1	Debitage
26	6/40-50	Lithic	---------	1.4	1	Debitage
27	9/0-10	Lithic	---------	12.7	3	Debitage
28	3/20-30	Chert	3.4x1.1x0.8	2.7	1	Drill
29	6/0-10	Bone	2.3x0.4x0.4*	0.4	1	Awl
30	SA#1	Quartzite	20.3x7.9x6.5	>2500.0	1	Pestle
31	SA#2	Lithic	----------	23.6	6	Debitage

TABLE 5: CA-LAN-2233 ARTIFACT CATALOG

Cat#/2233	Unit/level	Material	L x W x T	Weight (gm)	Number	Type
1	1/0-10	Bone	---------	0.4	1	Faunal remains
2	1/0-10	Lithic	---------	0.4	2	Debitage
3	1/0-10	Bone	---------	0.3	1	Faunal remains
4	1/10-20	Lithic	---------	0.5	1	Debitage
5	1/20-30	Bone	---------	1.1	6	Faunal remains
6	1/20-30	Lithic	---------	7.3	1	Debitage
7	2/10-20	Lithic	---------	5.7	3	Debitage
8	2/20-30	Lithic	---------	3.4	3	Debitage
9	2/20-30	Bone	---------	0.9	2	Faunal remains
10	3/0-10	Lithic	---------	0.9	2	Debitage
11	3/10-20	Lithic	---------	1.7	5	Debitage
12	4/0-10	Bone	---------	0.7	3	Faunal remains
13	4/0-10	Lithic	---------	0.3	2	Debitage
14	4/10-20	Bone	---------	0.1	1	Faunal remains
15	4/10-20	Lithic	---------	1.8	3	Debitage
16	4/20-30	Bone	---------	2.3	5	Faunal remains
17	4/20-30	Lithic	---------	6.2	5	Debitage
18	4/30-40	Bone	---------	1.5	16	Faunal remains
19	4/30-40	Lithic	---------	5.4	7	Debitage
20	4/40-50	Bone	---------	4.1	14	Faunal remains
21	4/40-50	Lithic	---------	15.8	11	Debitage
22	4/50-60	Bone	---------	6.3	37	Faunal remains
23	4/50-60	Lithic	---------	1.9	5	Debitage
24	4/60-70	Bone	---------	3.3	31	Faunal remains
25	4/60-70	Lithic	---------	8.4	1	Debitage
26	4/70-80	Bone	---------	2.4	10	Faunal remains
27	4/70-80	Lithic	---------	0.4	1	Debitage
28	6/0-10	Bone	---------	0.3	3	Faunal remains
29	6/10-20	Lithic	---------	0.4	1	Debitage
30	6/20-30	Bone	---------	1.2	4	Faunal remains
31	6/20-30	Lithic	---------	0.6	1	Debitage
32	6/30-40	Bone	---------	0.5	3	Faunal remains
33	6/30-40	Lithic	---------	8.5	6	Debitage
34	6/40-50	Bone	---------	3	12	Faunal remains
35	6/40-50	Lithic	---------	19.8	6	Debitage
36	6/50-60	Bone	---------	3	21	Faunal remains
37	6/50-60	Lithic	---------	5.6	5	Debitage
38	6/60-70	Bone	---------	4.1	16	Faunal remains
39	6/60-70	Lithic	---------	7.8	4	Debitage
40	6/70-80	Bone	---------	4.9	37	Faunal remains
41	6/70-80	Lithic	---------	0.3	3	Debitage
42	6/80-90	Bone	---------	4.6	23	Faunal remains
43	6/80-90	Lithic	---------	4.1	4	Debitage
44	7/50-60	Quartzite	8.5x7.3x5.1	331.3	1	Hammerstone

TABLE 5: CA-LAN-2233 ARTIFACT CATALOG

45	7/50-60	Bone	---------	0.1	1	Faunal remains
46	7/50-60	Lithic	---------	3.6	2	Debitage
47	7/60-70	Bone	---------	0.2	3	Faunal remains
48	7/60-70	Lithic	---------	0.6	2	Debitage
49	7/70-80	Bone	---------	0.6	4	Faunal remains
50	7/80-90	Lithic	---------	3.4	1	Debitage
51	7/90-100	Bone	---------	0.6	3	Faunal remains
52	7/90-100	Lithic	---------	0.3	1	Debitage
53	7/100-110	Bone	---------	1.3	13	Faunal remains
54	7/100-110	Lithic	---------	3.3	3	Debitage
55	7/100-110	Bone	---------	3.9	12	Faunal remains
56	7/110-120	Lithic	---------	0.7	2	Debitage
57	7/130-140	Bone	---------	1.2	4	Faunal remains
58	7/130-140	Lithic	---------	13.4	9	Debitage
59	7/140-150	Bone	---------	0.5	5	Faunal remains
60	7/140-150	Lithic	---------	16.8	9	Debitage
61	7/150-160	Bone	---------	3	17	Faunal remains
62	7/150-160	Lithic	---------	15.4	9	Debitage
63	7/160-170	Bone	---------	2.2	9	Faunal remains
64	7/160-170	Lithic	---------	5.9	13	Debitage
65	7/170-180	Lithic	---------	0.1	1	Debitage
66	7/180-190	Lithic	---------	5.1	2	Debitage
67	7/0-10	Bone	---------	1.2	1	Faunal remains
68	7/20-30	Bone	---------	0.4	1	Faunal remains
69	7/30-40	Bone	---------	0.8	8	Faunal remains
70	7/30-40	Lithic	---------	0.5	4	Debitage
71	7/30-40	Quartzite	7.7x4.3x5.1*	323.8	1	Pestle
72	7/40-50	Lithic	---------	5.1	1	Debitage
73	8/0-10	Bone	---------	0.1	1	Faunal remains
74	8/0-10	Lithic	---------	4.6	3	Debitage
75	8/10-20	Bone	---------	0.1	1	Faunal remains
76	8/20-30	Lithic	---------	11	3	Debitage
77	8/30-40	Bone	---------	0.5	1	Faunal remains
78	8/30-40	Lithic	---------	3.5	2	Debitage
79	8/40-50	Quartzite	13.9x8x6	1077.6	1	Mano
80	8/40-50	Bone	---------	1.7	4	Faunal remains
81	8/40-50	Lithic	---------	0.7	2	Debitage
82	8/50-60	Bone	---------	0.3	3	Faunal remains
83	8/50-60	Lithic	---------	0.3	1	Debitage
84	8/60-70	Bone	---------	0.2	2	Faunal remains
85	8/70-80	Bone	---------	0.9	5	Faunal remains
86	8/70-80	Lithic	---------	3.1	4	Debitage
87	8/80-90	Bone	---------	1.9	8	Faunal remains
88	8/80-90	Lithic	---------	4.1	1	Debitage
89	8/90-100	Bone	---------	0.6	3	Faunal remains

TABLE 5: CA-LAN-2233 ARTIFACT CATALOG

90	8/90-100	Plastic	---------	---------	---------	Fragments
91	8/100-110	Bone	---------	4.5	21	Faunal remains
92	8/100-110	Lithic	---------	3.6	3	Debitage
93	8/110-120	Bone	---------	4.4	24	Faunal remains
94	8/110-120	Lithic	---------	28.5	20	Debitage
95	8/130-140	Bone	---------	2.5	17	Faunal remains
96	8/130-140	Lithic	---------	5.8	8	Debitage
97	8/130-140	Quartzite	14.8x9.7x6.9	1640.4	1	Mano
98	8/140-150	Bone	---------	4.6	8	Faunal remains
99	8/140-150	Lithic	---------	16.8	6	Debitage
100	8/150-160	Bone	---------	6.2	8	Faunal remains
101	8/150-160	Lithic	---------	17	7	Debitage
102	8/160-170	Bone	---------	2.4	5	Faunal remains
103	8/160-170	Lithic	---------	18.2	9	Debitage
104	8/170-180	Lithic	---------	0.1	1	Debitage
105	8/180-190	Bone	---------	0.1	2	Faunal remains
106	8/190-200	Bone	---------	0.1	1	Faunal remains
107	9/0-10	Lithic	---------	0.8	2	Debitage
108	9/10-20	Bone	---------	0.2	2	Faunal remains
109	9/10-20	Lithic	---------	20.8	1	Debitage
110	9/20-30	Lithic	---------	1.6	1	Debitage
111	9/30-40	Bone	---------	0.1	2	Faunal remains
112	9/30-40	Lithic	---------	33.2	2	Debitage
113	9/30-40	Meta-volcanic	11.3x7x5.7	638.7	1	Mano
114	9/40-50	Lithic	---------	5.6	2	Debitage
115	9/40-50	Quartzite	4.1x4.1x5.7*	179.7	1	Mano
116	9/50-60	Lithic	---------	29.6	3	Debitage
117	9/60-70	Bone	---------	5.6	16	Faunal remains
118	9/60-70	Lithic	---------	6.1	4	Debitage
119	9/70-80	Bone	---------	2.8	13	Faunal remains
120	9/70-80	Lithic	---------	4.9	4	Debitage
121	9/80-90	Bone	---------	5	11	Faunal remains
122	9/80-90	Lithic	---------	0.2	1	Debitage
123	9/90-100	Bone	---------	2.3	19	Faunal remains
124	9/90-100	Lithic	---------	8.2	1	Debitage
125	9/100-110	Bone	---------	0.4	5	Faunal remains
126	11/10-20	Lithic	---------	0.3	1	Debitage
127	11/20-30	Lithic	---------	0.4	1	Debitage
128	11/40-50	Lithic	---------	1.4	2	Debitage
129	11/50-60	Lithic	---------	6.7	2	Debitage
130	11/50-60	Bone	---------	1.1	5	Faunal remains
131	11/50-60	Schist	6.7x6.7x1.7	120.1	1	Incised plaque
132	11/60-70	Lithic	---------	5.9	4	Debitage
133	11/60-70	Bone	---------	1.4	5	Faunal remains
134	11/70-80	Lithic	---------	8.1	1	Debitage

TABLE 5: CA-LAN-2233 ARTIFACT CATALOG

135	11/80-90	Quartzite	10.2x6.8x5.3*	325.9	1	Mano
136	11/80-90	Bone	---------	2.7	13	Faunal remains
137	11/80-90	Lithic	---------	3.2	4	Debitage
138	11/90-100	Bone	---------	7.2	16	Faunal remains
139	11/90-100	Lithic	---------	24.3	4	Debitage
140	11/100-110	Bone	---------	2.6	15	Faunal remains
141	11/100-110	Lithic	---------	6.6	2	Debitage
142	11/110-120	Bone	---------	1.8	6	Faunal remains
143	11/110-120	Lithic	---------	2.9	4	Debitage
144	11/110-120	Quartzite	6.4x5.4x5.6*	170.1	1	Mano
145	11/120-130	Bone	---------	4.1	11	Faunal remains
146	11/120-130	Lithic	---------	0.3	4	Debitage
147	11/130-140	Bone	---------	2.2	9	Faunal remains
148	Deleted	---------	---------	---------	---------	---------
149	11/140-150	Bone	---------	0.6	7	Faunal remains
150	Deleted	---------	---------	---------	---------	---------
151	11/150-160	Bone	---------	0.2	2	Faunal remains
152	11/150-160	Lithic	---------	4.9	2	Debitage
153	11/160-170	Bone	---------	0.9	4	Faunal remains
154	11/160-170	Lithic	---------	3.3	2	Debitage
155	12/0-10	Lithic	---------	4.9	2	Debitage
156	Deleted	---------	---------	---------	---------	---------
157	12/30-40	Lithic	---------	2.1	2	Debitage
158	12/40-50	Lithic	---------	4.2	2	Debitage
159	Deleted	---------	---------	---------	---------	---------
160	1/20-30	Chert	1.6x1.3x0.7*	1.2	1	Biface
161	7/160-170	Chert	2.4x1.2x0.5*	1.2	1	Drill
162	8/20-30	Chert	2.2x1.5x0.7*	1.5	1	Biface
163	8/80-90	Obsidian	2.5x2.0x1.3	1.7	1	Biface
164	8/130-140	Chert	3.4x2.5x3.4	3.2	1	Projectile pt
165	6/20-30	Bone	---------	---------	1	Tooth
166	6/50-60	Bone	---------	---------	2	Misc. frags
167	6/70-80	Bone	---------	---------	4	" "
168	7/50-60	Bone	4.6x0.5x0.4*	0.7	1	Awl
169	7/50-60	Bone	2.2	0.1	1	Awl frag
170	8/160-170	Bone	7x0.72x0.68	4.6	1	Misc worked fr
171	11/130-140	Bone	3.7x0.4x0.4	0.9	1	Needle
172	SA#1	Lithic	---------	3.7	1	Debitage
173	SA#2	Sandstone	9.2x5.8x6.3*	400.9	1	Metate
174	SA#4	Lithic	---------	2.9	1	Debitage
175	SA#5	Sandstone	6.4x8.8x6.2*	380.3	1	Mano
176	SA#7	Quartzite	7.4x6.1x4.4	331.6	1	Hammerstone
177	SA#8	Sandstone	7.8x3.5x5*	206.4	1	Mano
178	SA#9	Chert	3.9x3.6x2.6	31.9	1	Core
179	SA#11	Lithic	---------	4.2	1	Debitage

TABLE 5: CA-LAN-2233 ARTIFACT CATALOG

180	SA#13	Lithic	---------	2.8	1	Debitage
181	SA#15	Sandstone	7.4x7.2x6.2"	482.9	1	Metate
182	SA#16	Lithic	---------	6.8	1	Debitage
183	SA#17	Lithic	---------	7.2	1	Debitage
184	SA#18	Lithic	---------	4.4	1	Debitage
185	SA#20	Schist	16.3x10x3"	673.2	1	Misc grndstn

TABLE 6: CA-LAN-2236 ARTIFACT CATALOG

Cat#/2236	Unit/level	Material	L x W x T	Weight (gm)	Number	Type
1	1/0-10	Lithic	---------	4.1	2	Debitage
2	SA#1	Lithic	---------	21.6	1	Debitage
3	SA#2	Lithic	---------	67.1	1	Debitage
4	SA#5	Lithic	---------	1.3	1	Debitage
5	SA#6	Lithic	---------	0.2	1	Debitage

TABLE 7: CA-LAN-2242 ARTIFACT CATALOG

Cat#/	Unit/level	Material	L x W x T	Weight (gm)	Number	Type
1	1/10-20	Asphaltum		3.3	4	Basket impres.
2	1W/30-40	Bone	---------	1.9	5	Faunal remains
3	1W/20-30	Shell	0.7x0.7x0.2	0.2	3	Beads
4	1W/30-40	Asphaltum	----------	1.7	1	Basket impres.
5	1W/40-50	Asphaltum	----------	12.6	1	Basket impres.
6	2/0-10	Asphaltum	----------	7.6	1	Basket impres.
7	2/10-20	Wood	---------	---------	1	Match
8	2/20-sterile	Bone	16.2x2.4x1.2	24.7	1	Awl
9	2/20-sterile	Bone	---------	2.1	1	Faunal remains
10	2/20-sterile	Shell	9.6x5.9x0.5"	22.1	1	Pendant
11	2/20-sterile	Asphaltum	----------	0.3	1	Basket impres.
12	2/20-sterile	Wood	---------	---------	1	Match
13	2/20-sterile	Bone	---------	1.5	1	Faunal remains
14	1W/20-30	Asphaltum	----------	2.7	4	Chunk
15	2W/10-20	Bone	---------	27.4	6	Faunal remains
16	2W/20-30	Steatite	5.4x4.2x4.5"	58.9	1	Bowl
17	2W/20-30	Shell & bone	---------	5.1	22	Faunal remains
18	2W/30-40	Asphaltum	----------	4.3	4	Basket impres.
19	2W/30-40	Shell	---------	4.2	1	Fragments
20	2W/30-40	Steatite	4.9x3.9x2.2	75.6	1	Straightener
21	3/0-10	Metal	---------	---------	1	Strap
22	3/10-sterile	Plastic	---------	---------	---------	Sheet frags
23	3W/20-30	Bone	---------	16.9	1	Faunal remains

TABLE 8: CA-LAN-2133 LITHIC TOOLS & MISCELLANEOUS ARTIFACTS

Cat.#/2133	Unit/level	Material	Description/type
GROUNDSTONE TOOLS:			
68	5/50-60	Schist	Type 4B mano
87	5/80-90	Sandstone	Pestle fragment
108	6/80-90	Sandstone	Type 4B mano
109	6/80-90	Schist	Mano or plaque fragment
111	6/50-60	Sandstone	Pestle fragment
125	10/20-30	Sandstone	Type 4A mano
148	13/50-60	Sandstone	Pestle
174	3/50-60	Sandstone	Untypable metate fragment
175	3/70-80	Quartzite	Untypable mano fragment
176	3/70-80	Quartzite	Type 4B mano
190	20/40-50	Quartzite	Untypable mano fragment
250	9/30-40	Sandstone	Type 4B mano fragment
CORE/COBBLE COMPLEX TOOLS:			
188	18/40-50	Quartzite	Type 2A hammerstone
189	19/50-60	Meta-volcanic	Biface chopper
FLAKED STONE TOOLS:			
11	1/60-70	Chert	Biface edge
29	2/50-60	Chert	Projectile point tip
177	3/90-100	Quartzite	Uniface edge
185	18/0-10	Chert	Biface mid-section fragment
186	18/20-30	Quartz	Biface edge
MISCELLANEOUS ARTIFACTS:			
47	3/50-70	Bone	Awl tip
70	5/60-70	Steatite	Disk bead fragment
193	6/80-90	Bone	Awl tip

TABLE 9: CA-LAN-2133 DEBITAGE

Cat.#/2133	Unit/level	Material	#/Wt. (gms)	Type
1	1/0-10	Chert	1/0.9	P-1
2	1/10-20	Quartzite	1/22.9	P-1
3	1/20-30	Chert	3/4.6	P-1, S-2
4	1/30-40	Chert	2/2.1	P-2
6	1/40-50	Chert	3/1.3	S-2, T-1
		Quartzite	1/0.1	T-1
		Fused Shale	1/0.2	T-1
8	1/50-60	Fused shale	1/0/1	T-1
10	1/60-70	Chert	1/0.1	T-1
		Fused shale	1/0.1	T-1
13	1/70-80	Chert	3/10.4	P-1, AS-2
15	1/80-90	Chert	1/0.1	T-1
18	1/100-110	Chert	2/3.5	P-1, S-1
20	2/0-10	Chert	4/9.7	P-1, S-1, T-2
		Fused shale	1/1.7	S-1
22	2/10-20	Chert	2/1.3	P-1, S-1
		Fused shale	1/0.1	T-1
		Obsidian	1/0.1	T-1
23	2/20-30	Fused shale	3/0.3	T-3
24	2/30-40	Chert	4/19.0	P-3, S-1
		Fused shale	3/0.5	T-3
		Quartzite	1/0.1	T-1
26	2/40-50	Chert	5/6.1	S-4, T-1
		Fused shale	1/0.1	T-1
28	2/50-60	Fused shale	3/5.0	P-1, T-1, BTF-1
		Chert	2/1.0	S-1, AS-1
30	2/60-70	Chert	1/0.2	S-1
		Fused shale	5/0.4	T-5
		Obsidian	1/0/1	T-1
33	2/90-100	Chert	1/0.5	S-1
35	2/100-110	Chert	3/7.7	P-1, S-1, AS-1
		Fused shale	2/1.7	P-1, T-1
37	3/0-10	Chert	10/53.4	P-2, S-2, T-1, AS-5
		Fused shale	9/1.4	S-1, T-9
39	3/10-20	Chert	11/26.3	P-4, S-3, T-2, AS-2
		Fused shale	6/2.5	S-2, T-4
41	3/20-30	Chert	5/2.4	S-2, T-2, AS-1
		Fused shale	3/1.5	P-1, S-2
		Quartzite	1/2.1	P-1
43	3/30-40	Chert	6/7.5	S-2, T-3, AS-1
45	3/40-50	Chert	12/19.4	S-4, T-6, AS-2
		Fused shale	3/0.2	T-3

TABLE 9: CA-LAN-2133 DEBITAGE

47	3/50-60	Fused shale	12/3.6	S-1, T-11
		Chert	26/13.2	P-3, S-3, T-17, AS-17
48	3/70-80	Chert	4/1.3	S-2, T-2
		Fused shale	9/0.6	T-9
		Quartzite	2/11.4	S-2
		Obsidian	1/0.3	AS-1
52	3/90-100	Chert	3/5.1	P-2, AS-1
		Quartzite	1/4.5	P-1
54	3/100-110	Chert	8/1.2	T-8
56	3/110-120	Chert	2/2.5	S-1, AS-1
		Obsidian	1/0.1	T-1
		Fused shale	1/0.9	T-1
58	3/120-130	Chert	5/3.2	S-3, T-2
		Fused shale	1/0.1	T-1
60	5/10-20	Chert	6/14.3	P-2, T-2, AS-2
		Quartzite	2/5.1	S-2
62	5/20-30	Chert	5/7.9	P-1, S-1, T-2, AS-2
		Fused shale	5/1.2	T-4, BTF-1
64	5/30-40	Fused shale	10/1.3	S-1, T-9
		Metavolcanic	2/16.8	P-2
		Quartzite	1/0.4	S-1
65	5/40-50	Chert	20/12.9	P-2, S-5, T-11, BTF-1, AS-1
		Metavolcanic	4/90.4	P-2, S-2
		Quartzite	2/0.4	T-2
		Obsidian	1/0.1	T-1
		Fused shale	6/1.5	S-2, T-4
67	5/50-60	Chert	11/13.2	P-3, S-1, T-2, AS-5
		Quartzite	2/19.2	P-2
		Metavolcanic	6/9.5	P-3, S-3
		Fused shale	4/0.4	T-4
70	5/60-70	Chert	21/13.7	S-9, T-10, AS-2
		Fused shale	3/0/2	T-3
		Metavolcanic	2/11.1	AS-2
		Quartzite	2/40.9	P-2
72	5/70-80	Metavolcanic	2/37.9	S-1, AS-1
		Quartzite	3/14.6	P-3
		Fused shale	2/0.3	T-3
		Chert	14/10.3	P-1, S-4, T-5, AS-3
86	5/80-90	Chert	23/14.7	S-6, T-11, AS-6
		Fused shale	10/4.4	S-1, T-9
		Quartzite	2/0.5	T-2
		Metavolcanic	4/43.5	S-3, AS-1
		Obsidian	1/0.1	T-1

TABLE 9: CA-LAN-2133 DEBITAGE

89	5/90-100	Chert	12/11.9	S-2, T-7, As-3
		Fused shale	5/2.6	S-1, T-4
		Quartzite	3/73.9	S-2, T-1
		Metavolcanic	5/14.5	S-2, As-3
91	6/0-10	Chert	4/3.1	S-2, T-2
		Quartzite	1/12.4	P-1
93	6/10-20	Chert	6/4.4	S-4, T-2
		Quartzite	1/6.0	P-1
95	6/20-30	Chert	7/3.4	S-3, T-4
97	6/30-40	Chert	2/36.7	T-1, As-1
		Metavolcanic	1/1.3	S-1
		Fused shale	1/0.2	T-1
99	6/40-50	Chert	1/0.7	S-1
		Fused shale	7/5.3	P-2, T-5
101	6/50-60	Chert	4/0.7	T-4
		Fused shale	2/0.7	S-1, T-1
102	6/60-70	Chert	6/2.1	S-2, AS-4
		Fused shale	1/1.1	T-1, AS-1
		FG volcanic	1/78.9	C-1
105	6/70-80	Chert	8/16.2	P-1, T-6, AS-1
		Fused shale	4/0.8	T-4
107	6/80-90	Fused shale	1/0.1	T-1
		Chert	5/9.4	S-1, T-4
109	6/90-100	Chert	3/0.3	T-3
		Metavolcanic	2/77.6	P-1, AS-1
		Fused shale	1/0.1	T-1
		Quartzite	1/3.4	AS-1
178	7/50-60	Chert	3/19.1	T-2, AS-1
		Fused shale	1/0.1	T-1
181	7/60-70	Chert	1/3.3	S-1
183	7/70-80	Chert	2/5.8	T-1, AS-1
73	8/0-10	Chert	1/1.1	S-1
		Fused shale	3/0.2	T-3
75	8/10-20	Chert	5/10.0	S-3, AS-2
76	8/20-30	Chert	5/3.6	S-1, T-3, AS-1
		Fused shale	2/0.5	T-2
		Metavolcanic	2/11.0	S-1, AS-1
78	8/30-40	Chert	4/2.7	P-1, S-1, T-1, AS-1
		Fused shale	5/3.6	S-1, T-4
80	8/40-50	Chert	4/4.4	P-1, S-1, T-2
		Fused shale	1/0.1	T-1
		Metavolcanic	2/38.6	P-1, T-1
82	8/50-60	Metavolcanic	1/25.2	P-1

TABLE 9: CA-LAN-2133 DEBITAGE

		Chert	3/11.1	P-1, S-2	
84	8/60-70	Metavolcanic	3/3.3	S-2, T-1	
		Fused shale	2/0.2	T-2	
112	9/10-20	Chert	1/0.8	P-1	
114	9/20-30	Chert	2/1.6	P-1, T-1	
		Fused shale	1/0.2	T-1	
116	9/30-40	Chert	3/1.8	T-1, AS-2	
		Fused shale	3/2.7	T-2, AS-1	
117	9/40-50	Chert	3/0.9	T-3	
		Fused shale	2/0.3	T-2	
		Quartzite	1/0.2	T-1	
		Metavolcanic	1/0.2	T-1	
118	9/50-60	Chert	4/5.3	P-2, S-1, T-1	
		Fused shale	2/0.4	T-1, AS-1	
120	10/0-10	Chert	3/2.1	P-1, T-2	
122	10/10-20	Chert	5/4.4	S-1, T-1, AS-2	
		Metavolcanic	1/3.3	S-1	
		Quartzite	1/0.3	T-1	
		Quartz	1/3.7	S-1	
124	10/20-30	Chert	6/3.8	T-3, AS-3	
		Metavolcanic	2/1.8	P-1, T-1	
		Fused shale	1/0.2	T-1	
		Obsidian	1/0.1	T-1	
127	10/30-40	Fused shale	3/0.5	T-3	
		Metavolcanic	1/0.7	S-1	
		Obsidian	1/0.2	T-1	
129	100/40-50	Chert	3/3.5	S-2, T-1	
		Fused shale	1/0.1	T-1	
		Quartzite	!/0.2	T-1	
132	10/50-60	Chert	3/1.3	T-2, AS=1	
		Fused shale	1/0.1	T-1	
		Quartzite	1/10.4	P-1	
133	11/0-10	Chert	1/0.6	S-1	
		Fused shale	1/0.3	T-1	
134	11/10-20	Chert	2/2.4	T-1, AS-1	
		Fused shale	2/0.2	T-2	
136	11/20-30	Fused shale	1/0.4	T-1	
137	11/30-40	Chert	1/0.4	AS-1	
		Fused shale	2/3.3	S-1, T-1	
138	11/50-60	Chert	3/0.7	T-3	
		Fused shale	1/0.4	T-1	
140	11/60-70	Fused shale	2/0.2	T-2	
142	12/0-10	Fused shale	1/0.1	T-1	

TABLE 9: CA-LAN-2133 DEBITAGE

144	12/30-40	Chert	1/3.0	S-1	
145	12/40-50	Chert	3/26.6	S-2, AS-1	
147	12/50-60	Chert	1/0.1	T-1	
162	14/0-10	Chert	2/1.6	AS-2	
165	14/10-20	Chert	1/0.1	AS-1	
		Quartzite	1/7.1	P-1	
167	14/20-30	Chert	3/0.5	T-3	
		Fused shale	1/0.1	T-1	
		Metavolcanic	1/8.0	S-1	
169	14/30-40	Metavolcanic	1/4.5	S-1	
		Chert	1/0.1	T-1	
170	14/40-50	Chert	2/20.4	AS-2	
		Fused shale	2/1.0	T-2	
173	14/50-60	Metavolcanic	1/1.4	S-1	
		Quartz	1/0.5	T-1	
149	15/0-10	Chert	2/0.4	T-2	
		Fused shale	1/1.1	T-1	
150	15/10-20	Chert	2/1.0	T-2	
158	15/30-40	Chert	1/0.9	S-1	
160	15/50-60	Chert	1/0.6	T-1	
161	15/70-80	Chert	1/2.2	AS-1	
152	16/0-10	Chert	2/0.7	T-2	
		Fused shale	1/0.1	T-1	
153	16/20-30	Chert	3/2.4	T-2, AS-1	
155	16/20-30	Chert	1/0.1	T-1	
		Fused shale	1/0.1	T-1	
157	16/30-40	Chert	2/0.9	S-1, T-1	
208	16/40-50	Chert	2/6.1	P-1, T-1	
		Fused shale	1/0.2	BTF-1	
		Quartzite	2/1.4	S-1, T-1	
210	16/50-60	Chert	4/2.7	T-2, AS-2	
		Fused shale	1/0.1	T-1	
		Quartzite	2/6.5	S-1, T-1	
212	16/60-70	Chert	3/46.5	T-1, AS-1, C-1	
		Metavolcanic	2/1.1	T-2	
		Quartzite	2/120.2	T-1, C-1	
		Fused shale	5/0.5	T-4, BTF-1	
214	16/70-80	Chert	2/6.9	S-1, T-1	
		Fused shale	1/0.1	T-1	
216	17/10-20	Chert	4/2.9	S-3, T-1	
		Metavolcanic	2/3.1	S-1, T-1	
		Quartzite	1/3.2	S-1	
		Fused shale	2/0.3	T-2	

TABLE 9: CA-LAN-2133 DEBITAGE

		Quartz	1/0.1	T-1
218	17/20-30	Chert	2/0.4	T-2
		Metavolcanic	2/16.0	P-2
		Fused shale	2/2.2	S-1, T-1
220	17/30-40	Chert	1/1.3	AS-1
		Fused shale	2/0.4	T-2
223	17/60-70	Chert	4/1.3	T-4
		Fused shale	2/0.4	T-2
		Metavolcanic	1/0.8	S-1
224	18/0-10	Chert	3/0.9	T-3
		Metavolcanic	1/3.9	P-1
		Fused shale	1/0.2	T-1
227	18/10-20	Chert	4/0.5	T-4
		Fused shale	1/0/1	T-1
229	18/20-30	Chert	4/11.1	S-1, T-1, AS-2
		Fused shale	1/0.1	T-1
187	18/30-40	Chert	5/4.1	S-2, T-3
		Quartz	1/0.1	T-1
232	18/40-50	Chert	3/1.9	S-2, T-1
		Fused shale	3/0.5	T-3
233	18/50-60	Fused shale	3/0.3	T-3
196	19/0-10	Chert	2/2.2	S-1, T-1
		Quartz	1/0/4	T-1
197	19/10-20	Quartzite	2/3.4	S-1, T-1
		Fused shale	1/0.1	T-1
		Obsidian	1/0.1	T-1
199	19/20-30	Chert	1/0.7	S-1
201	19/30-40	Chert	3/5.9	P-1, T-1, AS-1
		Metavolcanic	1/1.6	S-1
203	19/40-50	Chert	3/4.1	S-2, T-1
		Fused shale	3/1.0	T-3
		Quartzite	1/0.3	T-1
206	19/50-60	Chert	2/10.4	S-1, AS-1
		Metavolcanic	2/1.5	S-1, AS-1
		Fused shale	6/3.3	S-2, T-4
		Quartz	1/0.1	T-1
236	20/0-10	Chert	4/3.6	S-2, T-2
		Fused shale	1/0.1	T-1
238	20/10-20	Chert	4/16.1	S-2, AS-2
		Fused shale	3/0.5	T-1, AS-2
241	20/20-30	Chert	8/15.1	P-1, T-2, AS-5
243	20/30-40	Chert	1/7.5	AS-1
		Metavolcanic	1/2.1	S-1

TABLE 9: CA-LAN-2133 DEBITAGE

245	20/40-50	Chert	3/18.6	S-2, AS-1	
247	20/50-60	Chert	3/2.0	S-2, T-1	
		Fused shale	1/1.6	AS-1	
KEY:					
P - Primary	S- Secondary	T - Tertiary	AS - Angular shatter		
BTF - Biface thinning flake		C - Core			

TABLE 10: CA-LAN-2133 FAUNAL REMAINS

Cat.#/2133-	Unit/level	#/Wt. (gms)	Description
5	1/40-50	11/1.2	Small mammal (some modern)
		3/0.2	Medium mammal
		2/1.2	Large mammal (shaft fragments)
7	1/50-60	5/0.4	Small mammal (some modern)
		2/0.2	Medium mammal
		1/2.7	Large mammal (shaft fragment)
9	1/60-70	4/0.4	Small mammal
12	1/70-80	17/2.2	Small mammal (some modern)
		1/0.6	Medium mammal
14	1/80-90	2/0.6	Medium mammal
16	1/90-100	18/2.7	Small mammal (some modern)
		2/0.6	Medium mammal
		3/1.6	Large mammal (shaft fragments)
		2/0.3	Bird
17	1/100-110	3/0.3	Small mammal
		2/0.5	Medium mammal
		3/4.2	Lg mammal (shaft & immature vert frags)
19	1/110-120	17/2.1	Small mammal (shaft fragments)
		1/0.4	Large mammal (shaft fragments)
21	2/10-20	3/1.2	Large mammal (shaft fragments)
25	2/40-50	1/0.2	Small mammal
		4/1.2	Medium mammal
		2/0.9	Large mammal
		2/0.8	Bird
27	2/50-60	2/0.4	Small mammal
		3/0.7	Large mammal (1 tooth & 1 burnt shaft frags)
32	2/90-100	2/0.7	Large mammal (shaft fragments)
34	2/100-110	1/1.9	Large mammal (burnt shaft frags)
36	3/0-10	2/0.8	Large mammal (shaft fragments)
		12/0.5	Unidentifiable (pulverized)
38	3/10-20	7/1.1	Small mammal
		2/0.9	Large mammal (shaft fragments)
40	3/20-30	4/0.8	Small mammal
		1/0.4	Medium mammal
		5/2.1	Large mammal (shaft fragments)
		3/1.1	Unidentifiable
42	3/30-40	15/2.2	Small mammal
		4/0.8	Medium mammal
		3/1.7	Large mammal (shaft fragments)
		5/1.0	Unidentifiable
44	3/40-50	136/9.9	Small mammal (some modern)
		8/9.9	Large mammal

TABLE 10: CA-LAN-2133 FAUNAL REMAINS

		2/0.7	Bird
46	3/50-70	267/2.1	Small mammal (some modern, some burnt)
		21/0.9	Large mammal (shaft fragments)
		3/0.9	Bird
49	3/80-90	22/5.2	Small mammal (some burnt)
		2/2.2	Large mammal (shaft fragments)
51	3/90-100	22/1.9	Small mammal (some burnt)
		3/3.1	Large mammal (shaft fragments)
53	3/100-110	10/0.4	Small mammal
		6/4.2	Large mammal
		3/1.1	Bird
55	3/110-120	14/3.4	Small mammal (some burnt)
		4/1.9	Large mammal (shaft fragments)
57	3/120-130	19/3.7	Small mammal (some burnt)
		6/4.2	Medium mammal (burnt)
59	5/10-20	2/0.9	Large mammal
61	5/20-30	2/0.4	Large mammal
63	5/30-40	3/0.8	Large mammal
66	5/40-50	5/6.9	Large mammal (shaft & epiphysis fragments)
71	5/70-80	2/0.3	Unidentifiable
85	5/80-90	5/2.8	Large mammal
		1/0.4	Medium mammal
		2/0.2	Unidentifiable
88	5/90-100	3/0.2	Medium mammal
90	6/0-10	1/0.1	Unidentifiable
92	6/10-20	6/0.3	Small mammal
		2/0.5	Large mammal (shaft fragments)
94	6/20-30	5/3.3	Large mammal
		3/0.6	Unidentifiable
96	6/30-40	1/0.2	Unidentifiable
98	6/40-50	5/0.6	Small mammal
100	6/50-60	2/1.7	Large mammal
		14/1.8	Small mammal
103	6/60-70	29/4.4	Small mammal
		5/1.8	Medium mammal (shaft & canine tooth frags)
104	6/70-80	20/2.1	Small mammal
		3/1.2	Large mammal (shaft fragments)
		3/1.1	Bird
106	6/80-90	33/3.4	Small mammal
		2/0.8	medium mammal
		2/0.6	Bird
110	6/90-100	10/1.9	Small mammal
		3/0.9	Large mammal (shaft fragments)

TABLE 10: CA-LAN-2133 FAUNAL REMAINS

179	7/50-60	4/0.4	Small mammal
		3/3.9	Large mammal
180	7/60-70	6/0.8	Small mammal
		2/0.5	Medium mammal
182	7/70-80	1/0.3	Medium mammal
		1/0.4	Large mammal
184	7/80-90	2/0.3	Small mammal
74	8/10-20	1/1.6	Large mammal
77	8/20-30		
79	8/40-50	4/0.4	Small mammal (some burnt)
81	8/50-60	1/0.2	Small mammal
		1/1.1	Large mammal
		1/0.8	Bird
83	8/60-70	2/0.5	Bird
113	9/20-30	1/0.3	Large mammal (shaft fragments)
115	9/30-40	1/0.2	Clemmys marmorata scute
119	9/50-60	1/0.1	Small mammal
		2/0.3	Medium mammal
121	10/10-20	2/0.7	Large mammal
123	10/20-30	1/0.1	Small mammal
126	10/30-40	6/0.3	Small mammal (some modern)
128	10/40-50	4/0.4	Small mammal
		1/0.3	Medium mammal
131	10/50-60	8/1.6	Small mammal (some burnt)
135	11/10-20	2/0.3	Small mammal
139	11/60-70	1/0.1	Small mammal
141	12/0-10	1/1.1	Small mammal (prob. modern, cranial frags)
143	12/30-40	1/0.1	Small mammal (prob. modern)
146	12/50-60	2/4.7	Large mammal
163	14/0-10	1/0.4	Large mammal (burnt)
164	14/10-20	3/0.9	Large mammal (burnt)
166	14/20-30	2/0.2	Small mammal
		1/0.2	Medium mammal (burnt)
168	14/30-40	2/0.2	Small mammal
		1/0.3	Medium mammal (burnt)
		1/0.2	Unidentifiable
171	14/40-50	1/0.1	Small mammal
		2/1.5	Large mammal (burnt)
		1/0.1	Clemmys marmorata scute
172	14/50-60	3/0.3	Small mammal
194	14/60-70	2/0.2	Small mammal (prob. modern)
		1/2.5	Large mammal (burnt shaft frags)
159	15/40-50	1/1.2	Large mammal

TABLE 10: CA-LAN-2133 FAUNAL REMAINS

151	16/0-10	1/0.5	Medium mammal (burnt)
154	16/20-30	10/0.3	Small mammal
		1/0.4	Large mammal (shaft fragments)
207	16/40-50	5/0.7	Small mammal
		2/1.3	Large mammal
		2/0.5	Unidentifiable
209	16/50-60	10/1.9	Small mammal (some modern, some burnt)
		3/0.8	Medium mammal
		4/2.6	Large mammal (shaft frags, some burnt)
211	16/60-70	56/6.4	Small mammal (some burnt, some modern)
		6/6.5	Large (some burnt, shaft frags)
213	16/70-80	22/2.6	Small mammal (some burnt, some modern)
		7/5.4	Large mammal (some burnt)
215	17/10-20	1/0.1	Small mammal
		1/1.3	Large mammal (shaft fragment)
217	17/20-30	4/6.7	Large mammal (burnt shaft frags)
		1/0.2	Bird
219	17/30-40	1/0.4	Medium mammal (burnt shaft fragment)
221	17/40-50	2/0.8	Large mammal (shaft fragments)
222	17/60-70	11/1.3	Small mammal (some modern, some burnt)
		4/3.2	Large mammal (unfused long-bone articulation)
225	18/0-10	3/1.4	Large mammal (shaft fragments)
226	18/10-20	3/0.6	Small mammal (prob. modern)
		1/0.4	Large mammal (shaft fragment)
		1/0.2	Unidentifiable
228	18/20-30	3/0.2	Small mammal
230	18/30-40	3/0.2	Small mammal
		1/0.2	Unidentifiable
231	18/40-50	3/0.8	Large mammal (shaft fragments)
233	18/50-60	1/0.1	Small mammal
		1/1.1	Unidentifiable
195	19/0-10	3/0.3	Small mammal
198	19/10-20	1/0.1	Small mammal
200	19/30-40	2/0.7	Medium mammal (shaft & cranial frags)
		2/1.9	Large mammal (shaft fragments)
202	19/40-50	3/0.4	Small mammal
		3/9.4	Lg mammal (burnt cannon bone articulation frag
205	19/50-60	6/0.7	Small mammal (prob. modern)
		1/5.4	Large mammal (burnt distal tibia frag)
235	20/0-10	1/0.1	Small mammal
237	20/10-20	1/0.1	Small mammal
240	20/20-30	1/0.1	Small mammal
242	20/30-40	2/0.5	Large mammal (shaft fragments)

TABLE 10: CA-LAN-2133 FAUNAL REMAINS

244	20/40-50	1/0.2	Small mammal		
246	20/50-60	1/0.3	Small mammal		
		1/0.5	Large mammal (shaft fragments)		

TABLE 11: CA-LAN-2133 SHELLFISH REMAINS

Cat.#/2133	Unit/level	#/Wt (gm)	Description
25	2/40-50	1/1.7	Conus californicus
		1/0.1	Unidentifiable
38	3/10-20	1/0.1	Unidentifiable
42	3/10-20	1/0.1	Unidentifiable
44	3/40-50	1/0.1	Unidentifiable
46	3/50-60	3/0.3	Unidentifiable
179	7/50-60	3/0.5	Unidentifiable

TABLE 12: CA-LAN-2235 ARTIFACTS

Cat.#/2235	Unit/level	Material	Description/type
GROUNDSTONE TOOLS			
20	8/30-40	Quartzite	Type 4B mano fragment
21	8/40-50	Quartzite	Type 3C mano fragment
30	9/30-40	Metavolcanic	Type 3B mano fragment
CORE/COBBLE COMPLEX TOOLS			
84	8/20-30	Metavolcanic	Type 3 hammerstone
FLAKED STONE TOOLS			
89	Surface	Metavolcanic	Utilized flake
82	3/20-30	Chert	Atlatl point, leaf-shaped
83	8/10-20	Chert	Uniface edge
86	9/60-70	Chert	Uniface edge
87	10/0-10	Chert	Arrow point, Rose Spring
88	10/70-80	Chert	Biface fragment
MISCELLANEOUS ARTIFACTS			
81	12/40-50	Bone	Awl tip

TABLE 13: CA-LAN-2235 DEBITAGE

Cat.#/2235	Unit/level	Material	#/Wt. (gms)	Type	
56	1/0-10	Chert	1/3.1	S-1	
57	1/10-20	Chert	2/1.6	S-2	
2	1/40-50	Chert	3/6.4	S-2, T-1	
4	2/0-10	Chert	1/0.6	T-1	
5	2/10-20	Chert	2/1.2	T-1, AS-1	
		Metavolcanic	1/0.3	T-1	
6	2/20-30	Quartzite	1/15.1	S-1	
7	2/30-40	Chert	2/0.9	T-2	
		Metavolcanic	1/0.7	T-1	
59	3/0-10	Chert	3/8.8	S-2, AS-1	
8	3/20-30	Chert	4.3.4	S-1, T-2, AS-1	
9	3/30-40	Chert	8/16.4	S-1, T-5, AS-1	
10	3/40-50	Chert	1/0.4	T-1	
11	3/50-60	Chert	2/1.9	S-1, T-1	
12	3/60-70	Chert	3/4.3	T-1, AS-2	
64	6/0-10	Fused shale	1/1.7	S-1	
65	6/10-20	Chert	1/2.8	P-1	
13	6/20-30	Chert	3/15.9	P-1, S-2	
		Obsidian	1/0.2	T-1	
14	6/30-40	Chert	1/1.4	P-1	
16	6/60-70	Chert	3/2.1	3/2.1	S-1, T-2
		Metavolcanic	1/0.9	P-1	
67	8/0-10	Chert	5/5.6	P-1, T-4	
		Quartz	1/0.1	T-1	
17	8/10-20	Chert	2/4.7	S-1, T-1	
18	8/20-30	Chert	6/13.4	P-1, S-3, T-2	
19	8/30-40	Chert	7/10.4	S-3, T-4	
22	8/40-50	Chert	8/17.3	S-3, T-3, AS-2	
		Metavolcanic	2/2.1	S-1, T-1	
23	8/50-60	Chert	6/10.1	S-2, T-2, AS-2	
		Metavolcanic	1/10.1	S-1	
24	8/60-70	Chert	5/11.2	S-2, T-1, AS-1	
		Quartzite	2/12.0	S-1, T-1	
25	8/70-80	Chert	4/16.3	S-2, T-1, AS-1	
26	9/0-10	Chert	2/2.4	S-1, T-1	
27	9/10-20	Obsidian	1/0.4	T-1	
		Chert	10/11.4	P-2, S-4, T-4	
28	9/20-30	Chert	6/13.8	S-2, T-4	
29	9/30-40	Chert	4/6.7	S-2, T-1, AS-1	
32	9/40-50	Chert	7/10.0	S-3, T-3, AS-1	
33	9/50-60	Chert	3/23.7	P-1, S-2	
		Metavolcanic	1/2.2	S-1	

TABLE 13: CA-LAN-2235 DEBITAGE

34	9/60-70	Chert	14/15.2	S-4, T-8, AS-2
35	9/70-80	Chert	2/3.5	AS-2
		Metavolcanic	4/12.3	P-1, S-3
36	9/80-90	Chert	1/0.5	S-1
		Quartzite	1/1.3	S-1
		Metavolcanic	1/0.6	T-1
68	10/0-10	Chert	2/1.2	S-1, AS-1
		Fused shale	1/0.2	T-1
69	10/10-20	Chert	11/14.6	P-3, S-4, T-4
		Metavolcanic	1/0.6	T-1
70	10/20-30	Chert	7/5.4	S-3, T-4
		Metavolcanic	2/1.4	S-2
		Fused shale	2/0.9	T-2
71	10/30-40	Chert	11/9.2	P-s, S-1, T-4, AS-4
		Metavolcanic	4/6.9	P-2, S-2
		Obsidian	1/0.1	T-1
		Quartzite	2/1.2	T-2
72	10/40-50	Chert	11/7.9	S-3, T-7, AS-1
		Fused shale	2/0.8	T-2
73	10/50-60	Chert	12/21.7	S-3, T-6, AS-3
		Metavolcanic	2/2.2	S-1, T-1
		Quartzite	1/2.1	S-1
		Obsidian	2/0/2	T-2
74	10/60-70	Chert	6/6.1	S-1, T-3, AS-3
		Metavolcanic	2/0.5	T-2
		Quartzite	1/6.0	S-1
		Obsidian	1/0.4	AS-1
75	10/70-80	Chert	1/0.3	T-1
		Fused shale	1/0.1	T-1
37	11/0-10	Quartzite	2/72.1	P-1, AS-1
38	11/10-20	Chert	16/53.6	P-3, S-3, T-9, AS-1
39	11/20-30	Chert	7/15.0	P-1, T-5, AS-1
		Metavolcanic	3/6.4	P-1, S-2
41	11/30-40	Chert	9/2.8	S-3, T-6
		Obsidian	1/0.9	T-1
		Quartzite	1/0.4	T-1
43	11/40-50	Chert	8/7.9	S-2, T-4, AS-2
44	11/60-70	Chert	12/21.3	S-4, T-6, AS-2
48	11/70-80	Chert	13/13.8	S-5, T-8
		Metavolcanic	1/3.1	S-1
		Quartzite	2/4.8	S-1, T-1
50	11/80-90	Chert	15/6.9	P-1, S-2, T-10, AS-2
		Metavolcanic	1/2.1	S-1

TABLE 13: CA-LAN-2235 DEBITAGE

53	11/90-100	Chert	10/5.1	S-1, T-9	
		Metavolcanic	1/3.1	P-1	
55	11/100-110	Chert	1/2.1	S-1	
76	12/0-10	Chert	5/9.9	P-1, S-3, T-1	
		Quartzite	1/1.2	S-1	
		Metavolcanic	1/1.5	S-1	
77	12/0-10	Chert	9/30.0	P-1, S-2, T-5, AS-1	
78	12/20-30	Chert	9/7.0	S-2, T-7	
79	12/30-40	Chert	2/5.4	S-1, AS-1	
80	12/40-50	Chert	2/4.1	S-2	
KEY:					
P - Primary	S - Secondary	T- Tertiary	AS - Angular shatter		

TABLE 14: CA-LAN-2235 FAUNAL REMAINS

Cat.#/2235	Unit/level	#/Wt. (gms)	Description
58	1/20-30	1/0.1	Small mammal
1	1/40-50	1/0.4	Large mammal
61	5/0-10	2/0.3	Large mammal (weathered & burnt)
62	5/10-20	1/0.1	Small mammal
63	5/10-20	1/0.8	Large mammal (skull fragment)
40	11/20-30	3/0.3	Unidentifiable
42	11/30-40	2/0.2	Small mammal
45	11/50-60	7/1.5	Large mammal (weathered shaft fragments)
47	11/60-70	1/0.1	Small mammal
		1/0.3	Unidentifiable
49	11/70-80	1/0.1	Small mammal
51	11/80-90	2/0.4	Large mammal (weathered & burnt)
		3/0.3	Unidentifiable
52	11/90-100	1/0.3	Large mammal
54	11/100-110	2/0.4	Large mammal (burnt)

TABLE 15: CA-LAN-2234 ARTIFACTS

Cat.#/2234	Unit/level	Material	Description/type
28	3/20-30	Chert	Biface drill
7	2/10-20	Shell	Haliotis bead, square
29	6/0-10	Bone	Awl tip, burnt
30	SA #1	Quartzite	Pestle fragment

TABLE 16: CA-LAN-2234 DEBITAGE

Cat.#/2234	Unit/level	Material	#/Wt. (gms)	Type
2	1/10-20	Fused shale	2/0.3	T-2
3	1/20-30	Fused shale	1/0.2	T-1
4	1/30-40	Chert	2/1.1	T-2
6	1/50-60	Chert	1/0.4	P-1
8	3/0-10	Fused shale	1/5.6	AS-1
9	3/10-20	Chert	3/2.6	S-2, T-1
10	3/20-30	Fused shale	1/0.1	T-1
11	3/30-40	Chert	1/0.1	T-1
13	4/0-10	Chert	4/1.5	P-1, T-3
		Fused shale	1/0.1	T-1
14	4/10-20	Chert	3/0.4	T-2, AS-1
15	4/20-30	Chert	2/1.7	S-1, T-1
18	5/0-10	Fused shale	1/0/1	T-1
19	5/10-20	Fused shale	1/0.3	AS-1
21	6/0-10	Chert	5/9.1	S-2, T-3
23	6/10-20	Metavolcanic	1/1.0	S-1
		Chert	1/0.2	T-1
24	6/20-30	Chert	1/0.1	T-1
25	6/30-40	Chert	1/2.1	S-1
		Metavolcanic	1/1.4	S-1
26	6/40-50	Chert	1/0.5	T-1
		Metavolcanic	1/2.6	S-1
		Quartzite	1/9.6	S-1
27	9/0-10	Obsidian	1/0.1	T-1
KEY:				
P - Primary	S - Secondary	T - Tertiary	AS - Angular shatter	

TABLE 17: CA-LAN-2234 FAUNAL REMAINS

Cat.#/2234	Unit/level	#/Wt. (gms)	Description
1	1/0-10	1/0.4	Large mammal (burnt shaft fragment)
5	1/50-60	1/0.3	Large mammal
12	4/0-10	1/0.3	Large mammal (burnt shaft fragment)
22	4/10-20	1/0.3	Large mammal
16	4/20-30	1/0.4	Medium mammal
17	5/0-10	1/0.6	Large mammal (burnt shaft fragment)
20	6/0-10	2/0.2	Small mammal

TABLE 18: CA-LAN-2233 ARTIFACTS

Cat.#/2233	Unit/level	Material	Description/type
GROUNDSTONE TOOLS			
71	7/30-40	Quartzite	Pestle fragment
79	8/40-50	Quartzite	Type 3A mano
97	8/130-140	Quartzite	Type 7 mano
113	9/30-40	Metavolcanic	Type 3A mano
115	9/40-50	Quartzite	Type 4B mano
135	11/80-90	Quartzite	Type 4B mano
144	11/110-120	Quartzite	Untypable mano fragment
CORE/COBBLE COMPLEX TOOLS			
44	7/50-60	Quartzite	Type 2A hammerstone
FLAKED STONE TOOLS			
160	1/20-30	Chert	Biface fragment
161	7/160-170	Chert	Biface drill fragment
162	8/20-30	Chert	Biface fragment
164	8/130-140	Chert	Bifurcate-stemmed atlatl point
MISCELLANEOUS ARTIFACTS			
131	11/50-60	Schist	Incised plaque, w/ ochre
BONE ARTIFACTS			
168	7/50-60	Bone	Awl fragment
169	7/50-60	Bone	Awl fragment
170	8/160-170		Misc. worked fragment
171	11/130-140	Bone	Misc. worked fragment

TABLE 19: CA-LAN-2233 DEBITAGE

Cat.#/2233	Unit/level	Material	#/Wt. (gms)	Type
2	1/0-10	Chert	2/0.4	P-1, S-1
4	1/10-20	Chert	1/0.5	S-1
6	1/20-30	Metavolcanic	1/7.3	S-1
7	2/10-20	Chert	3/5.7	AS-3
8	2/20-30	Chert	2/3.3	T-1, AS-1
		Obsidian	1/0.1	T-1
10	3/0-10	Fused shale	2/0.9	S-1, T-1
11	3/10-20	Chert	3/1.4	T-2, AS-1
		Fused shale	2/0.3	T-2
13	4/0-10	Chert	3/0.7	T-1, AS-2
15	4/10-20	Chert	3/1.8	S-1, T-2
17	4/20-30	Chert	5/6.2	P-1, S-1, T-3
19	4/30-40	Chert	7/5.4	S-2, T-4, AS-1
21	4/40-50	Chert	10/15.6	S-2, T-6, AS-2
		Fused shale	1/0.2	T-1
23	4/50-60	Chert	5/1.9	S-1, T-3, AS-1
25	4/60-70	Chert	1/8.4	S-1, T-1
27	4/70-80	Chert	1/0.4	T-1
29	6/10-20	Chert	1/0.4	T-1
31	6/20-30	Chert	2/0.6	T-2
33	6/30-40	Chert	5/8.3	S-2, T-2, AS-1
		Quartzite	1/0.2	T-1
35	6/40-50	Chert	6/19.8	S-2, T-2, AS-2
37	6/50-60	Chert	5/5.6	P-1, S-2, T-2
39	6/60-70	Chert	4/7.8	S-2, T-2
41	6/70-80	Chert	3/0.3	T-3
43	6/80-90	Chert	4/4.1	S-1, T-3
70	7/30-40	Chert	4/0.5	T-4
72	7/40-50	Chert	1/5.1	AS-1
46	7/50-60	Chert	2/3.6	S-1, T-1
		Metavolcanic	1/5.2	S-1
48	7/60-70	Chert	2/0.6	T-3
50	7/80-90	Quartzite	1/3.4	S-1
52	7/90-100	Fused shale	1/0.3	S-1
54	7/100-110	Chert	3/3.3	S-3
56	7/110-120	Chert	2/0.7	T-1, AS-1
52	7/90-100	Fused shale	1/0.3	S-1
54	7/100-110	Chert	3/3.3	S-3
56	7/110-120	Chert	2/0.7	T-1, AS-1
58	7/130-140	Chert	9/13.4	S-5, T-2, AS-2
60	7/140-150	Chert	9/16.8	S-6, T-3
62	7/150-160	Chert	8/15.3	S-2, T-4, AS-2
		Obsidian	1/0.1	T-1
64	7/160-170	Chert	13/5.9	S-5, T-6, AS-2

TABLE 19: CA-LAN-2233 DEBITAGE

66	7/180-190	Metavolcanic	2/5.1	S-1, T-1	
74	8/0-10	Chert	3/4.6	S-2, AS-1	
76	8/20-30	Chert	3/11.0	S-2, T1	
78	8/30-40	Chert	2/3.5	T-1, AS-1	
81	8/40-50	Chert	1/0.4	T-1	
		Fused shale	1/0.3	T-1	
83	8/50-60	Chert	1/0.3	T-1	
86	8/70-80	Chert	2/0.2	T-2	
		Fused shale	1/2.8	AS-1	
		Obsidian	1/0.1	T-1	
88	8/80-90	Chert	1/4.1	AS-1	
92	8/100-110	Chert	3/3.6	S-2, AS-1	
94	8/110-120	Chert	13/19.9	S-5, T-6, AS-2	
		Metavolcanic	7/8.6	S-6, T-1	
96	8/130-140	Chert	8/5.8	S-3, T-4, AS-2	
99	8/140-150	Chert	5/8.9	P-1, S-3, T-1	
		Metavolcanic	1/7.9	S-1	
101	8/150-160	Chert	3/4.4	S-3	
		Metavolcanic	4/12.6	P-1, S-3, T-1	
103	8/160-170	Chert	4/6.1	S-2, T-2	
		Metavolcanic	5/12.1	S-5	
104	8/170-180	Chert	!/0/1	T-1	
107	9/0-10	Chert	2/0.8	S-1, T-1	
109	9/10-20	Chert	1/20.8	P-1	
110	9/20-30	Chert	!/1.6	S-1	
112	9/30-40	Chert	1/0/1	T-1	
		Metavolcanic	1/33.1	P-1	
114	9/40-50	Chert	2/5.6	S-2	
116	9/50-60	Chert	3/29.6	AS-3	
118	9/60-70	Chert	4/6.1	S-2, T-1, AS-1	
120	9/70-80	Chert	4/4.9	S-2, T-1, AS-1	
122	9/80-90	Chert	1/0.2	T-1	
124	9/90-100	Chert	1/8.2	AS-1	
126	11/10-20	Chert	1/0.3	AS-1	
127	11/20-30	Chert	1/0.4	T-1	
128	11/40-50	Chert	2/1.4	T-2	
129	11/50-60	Chert	1/0.8	AS-1	
		Quartzite	1/5.9	S-1	
132	11/60-70	Chert	3/5.4	S-1, AS-2	
		Metavolcanic	1/0.5	T-1	
134	11/70-80	Chert	1/8.1	P-1	
137	11/80-90	Chert	4/3.2	S-1, T-3	
139	11/90-100	Chert	1/0.2	T-1	
141	11/100-110	Chert	1/5.4	AS-1	
		Metavolcanic	1/1.2	S-1	

TABLE 19: CA-LAN-2233 DEBITAGE

143	11/110-120	Chert	4/2.9	T-3, AS-1	
146	11/120-130	Chert	4/0.3	T-4	
152	11/150-160	Chert	2/4.9	P-1, S-1	
154	11/160-170	Chert	2/3.3	S-1, T-1	
155	12/0-10	Chert	2/4.9	S-1, T-1	
157	12/30-40	Chert	2/2.1	S-1, AS-1	
158	12/40-50	Chert	2/4.2	S-1, AS-1	
KEY:					
P - Primary	S - Secondary	T - Tertiary	AS - Angular shatter		

TABLE 20: CA-LAN-2233 FAUNAL REMAINS

Cat.#/2233	Unit/level	#/Wt. (gms)	Description
1	1/0-10	1/0.4	Large mammal (shaft fragment)
3	1/10-20	1/0.3	Medium mammal (shaft fragment)
5	1/20-30	6/1.1	Small mammal (prob. modern)
9	2/20-30	2/0.9	Small mammal (prob. modern)
12	4/0-10	2/0-.3	Medium mammal (burnt)
		1/0.4	Large mammal (shaft fragment)
14	4/10-20	1/0.1	Small mammal
16	4/20-30	1/0.1	Small mammal
		4/2.2	Large mammal (shaft fragments)
18	4/30-40	11/0.5	Small mammal
		4/0.6	Medium mammal (shaft fragments, burnt)
		1/0.4	Large mammal (shaft fragment)
20	4/40-50	10/1.1	Small mammal some modern)
		4/3.0	Large mammal (shaft fragments)
22	4/50-60	31/3.1	Small mammal (some modern)
		1/1.1	Medium mammal (shaft fragments)
		5/2.1	Large mammal (shaft fragments)
24	4/60-70	30/2.9	Small mammal (modern)
		1/0.4	Large mammal (shaft fragments, burnt)
26	4/70-80	3/1.1	Small mammal (prob. modern)
		2/0.9	Large mammal (shaft fragments, burnt)
		3/0.4	Unidentifiable
28	6/0-10	3/0.3	Small mammal
30	6/20-30	2/0.6	Small mammal
		2/0.6	Large mammal (shaft fragments)
32	6/30-40	3/0.5	Small mammal
34	6/40-50	5/0.9	Small mammal
		6/1.9	Large mammal
		1/0.2	Unidentifiable
36	6/50-60	19/2.4	Small mammal (prob. modern)
		2/0.6	Medium mammal (burnt)
38	6/60-70	8/0.9	Small mammal
		3/2.4	Large mammal (shaft fragments, burnt)
		5/0.8	Unidentifiable
40	6/70-80	30/1.8	Small mammal (some modern)
		7/3.1	Large mammal
42	6/80-90	23/4.6	Small mammal (some modern)
67	7/0-10	1/1.2	Large mammal
68	7/20-30	1/0.4	Medium mammal
69	7/30-40	8/0.8	Small mammal
45	7/50-60	1/0.1	Small mammal
		4/0.5	Large mammal
		2/0.2	Unidentifiable
47	7/60-70	3/0.2	Small mammal

TABLE 20: CA-LAN-2233 FAUNAL REMAINS

49	7/70-80	4/0.6	Small mammal (some burnt)
51	7/90-100	2/0.3	Small mammal
		1/0.3	Large mammal (shaft fragment)
53	7/100-110	5/0.5	Small mammal
		8/0.8	Unidentifiable
55	7/110-120	7/0.8	Small mammal
		5/3.1	Large mammal
57	7/130-140	1/0.1	Small mammal
		1/0.7	Large mammal
		2/0.4	Unidentifiable
59	7/140-150	5/0.5	Small mammal
61	7/150-160	6/0.8	Small mammal
		3/1.4	Large mammal
		8/0.8	Unidentifiable
63	7/160-170	4/0.4	Small mammal
		4/1.5	Large mammal (some burnt)
		1/0.3	Unidentifiable
65	7/170-180	1/0.1	Unidentifiable
73	8/0-10	1/0.1	Small mammal
75	8/10-20	1/0.1	Small mammal
77	8/30-40	5/0.5	Small mammal
80	8/40-50	2/1.5	Large mammal (shaft fragments)
		2/0.2	Unidentifiable
82	8/50-60	3/0.3	Small mammal
84	8/60-70	2/0.2	Small mammal
85	8/70-80	2/0.6	Large mammal (shaft fragments)
		3/0.3	Unidentifiable
87	8/80-90	4/0.4	Small mammal
		2/0.6	Medium mammal (skull fragment)
		2/0.9	Large mammal (shaft fragment)
89	8/90-100	1/0.2	Small mammal
		1/0.3	Large mammal (shaft fragment, burnt)
		1/0.1	Unidentifiable
91	8/100-110	4/0.4	Small mammal
		4/3.2	Large mammal (shaft fragment, burnt)
		13/0.9	Unidentifiable
93	8/110-120	17/1.7	Small mammal (some burnt)
			Large mammal (shaft fragments)
95	8/130-140	5/0.6	Small mammal
		3/1.1	Large mammal
		9/0.8	Unidentifiable
98	8/140-150	3/0.3	Small mammal
		4/4.4	Large mammal (shaft fragments, burnt)
		1/0.1	Unidentifiable
100	8/150-160	3/0.2	Small mammal

TABLE 20: CA-LAN-2233 FAUNAL REMAINS

		1/0.4	Medium mammal
		4/5.6	Large mammal (shaft fragments, burnt)
102	8/160-170	1/0.3	Small mammal
		1/0.5	Clemmys marmorata scute
		3/1.6	Unidentifiable
105	8/180-190	2/0.1	Small mammal
106	8/190-200	1/0.1	Small mammal
108	9/10-20	2/0.2	Small mammal
111	9/30-40	2/0.1	Small mammal
117	9/60-70	12/1.5	Small mammal
		4/4.1	Large mammal (shaft & articulated ends, burnt
119	9/70-80	9/0.9	Small mammal (some modern)
		4/1.9	Large mammal (shaft fragments, burnt)
121	9/80-90	9/0.9	Small mammal
		2/4.1	Large mammal (shaft fragments)
123	9/90-100	17/1.5	Small mammal
		2/0.8	Large mammal (shaft fragments)
125	9/100-110	5/0.4	Small mammal
130	11/50-60	5/1.1	Medium mammal
133	11/70-80	5/1.4	Medium mammal (burnt)
136	11/80-90	7/0.6	Small mammal
		6/2.1	medium mammal (burnt)
138	11/90-100	8/0.8	Small mammal (some burnt)
		6/6.2	Large mammal (some skull frags; burnt)
		2/0.2	Unidentifiable
140	11/100-110	2/0.2	Small mammal
		3/0.9	Large mammal
		10/1.5	Unidentifiable
142	11/110-120	2/0.2	Small mammal
		1/0.9	Large mammal
		3/0.7	Unidentifiable
145	11/120-130	7/0.7	Small mammal
		1/2.9	Large mammal (shaft fragments, burnt)
		3/0.5	Unidentifiable
147	11/130-140	4/0.4	Small mammal (some burnt)
		1/1.2	Large mammal
		4/0.6	Unidentifiable
149	11/140-150	3/0.2	Small mammal
		2/0.3	Large mammal (shaft fragments)
		2/0.1	Unidentifiable
151	11/150-160	2/0.2	Unidentifiable
153	11/160-170	1/0.1	Small mammal
		1/0.6	Large mammal (shaft fragment)
		2/0.2	Unidentifiable

TABLE 21: CA-LAN-2242 FAUNAL AND SHELLFISH REMAINS

Cat.#/2242	Unit/level	#/Wt. (gms)	Description
2	1W/10-20	5/1.9	Large mammal
9	2/20-sterile	1/24.0	Large mammal
15	2W/10-20	4/27.0	Large mammal
		1/0.1	Small mammal
		1/0.3	Clemmys marmorata
17	2W/20-30	10/1.6	Large mammal
		10/0.3	Small mammal
		1/0.6	Clemmys marmorata
		1/2.6	Conus californicus
19	2W/30-40	1/4.2	Pectin
23	3WW/20-30	1/16.9	Large mammal

INTRODUCTION

The following presents the results of RMW's assessment of the paleontological resources of the Newhall Ranch. The study area consists of approximately 12,000 acres of hilly terrain west of Valencia, California. A series of east - west trending ridges and valleys, which become progressively more rugged in southern portion of the property, cross the site. Several large flat terraces are present along the south side of Santa Clara River. Hillsides, terraces, and valley floors are covered by grassland or chaparral. The site is bordered on the north in part by Highway 126 and undeveloped land, on the eastside the boundary is approximately one-half mile west of Interstate 5, and on the west the boundary is the Los Angeles Ventura County line, and the southern boundary by undeveloped land (Figure 1).

METHODS

The purpose of this report is to assess the known and potential paleontological resources within the study area. Pertinent geological/paleontological literature was reviewed for this study. A records search of records was done at, the Los Angeles County Museum of Natural History, (which includes the California Institute of Technology and the University of California Berkeley Museum of Paleontology locality data). A walkover survey of the property was conducted by Mr. Dave Stevens and Mr. Rod Raschke during August 1994. During the survey natural and manmade exposures of the various rock units were examined. Our efforts were concentrated in areas likely to be developed, this was generally north of Salt Canyon. In addition to our field survey, samples from 13 horizons within the Saugus Formation were sampled and screen washed to locate microvertebrate remains. Samples were taken from several different stratigraphic levels within the formation to determine if fossils are present throughout the formation or not. Samples were taken only from the Saugus Formation, because it had the most likely sediment types to contain microvertebrate fossils and it's history of producing microvertebrates near the study area. These samples consisted of fifty to one-hundred pound samples of rock that were processed through one-eighth inch screens and 20 mesh screen after being soaked for several hours in water. All but three of the samples broke down sufficiently to be processed through the screens. The results of these efforts are discussed below.

PALEONTOLOGY and STRATIGRAPHY

The Newhall Ranch study area is underlain by rocks ranging in age from the late Miocene Epoch (approximately 8 million years B.P.) to the Recent. Newhall Ranch is at the eastern margin of the Ventura structural basin. This region was studied in detail by Winterer and Durham who published their results in 1962. We used their map as the basis for our study, because they appear to have accurately reflected the geology of the region based on our limited field observations. The pre-Quaternary rock units were deposited during the final retreat of the sea from the Ventura basin. These rock units record the transition from deep marine basin to non-marine flood plain environments over a period of several million years. The Quaternary age rock units are deposits of more recent stream, river, and runoff waters. The geologic units, in ascending order, are the Modelo Formation, Towsley Formation, the Pico Formation, the Saugus Formation, Quaternary terrace deposits, Quaternary older alluvium, and Recent alluvium/colluvium.

Modelo Formation

The Modelo Formation is exposed along the southern boundary of the study parcel. Exposures of the Modelo Formation are in an area that is to remain as open space and not subject to development. Therefore, our efforts in the area of the Modelo Formation were limited to a brief examination of natural exposures. The Modelo Formation is composed primarily of sandstones and shales and represents deposition under deeper water marine conditions. A late Miocene Epoch (12 to 8 million years ago) marine unit, the Modelo Formation is known for its fish, bird, and marine mammal fossils. Mollusks, plants, and foraminifera (microscopic animal members of the marine plankton) have also been collected from this unit. A fossil walrus was collected in Gillibrand Canyon, to the southwest of the study area in Ventura County (Lander, 1988). Fossil fish scales were found in the Modelo Formation in the study area during our field survey.

Towsley Formation

Exposures of the Towsley Formation are in Rawhide Canyon and high country areas in the south central portion of the study area. Exposures of the Towsley Formation are in an area that is to remain in open space. Therefore, our efforts in the area of the Towsley Formation exposures were limited to a brief examination of a few road cuts and natural exposures. The Towsley Formation is a latest Miocene to early Pliocene (8 to 4 million years ago) marine deposit. The shales, sandstones, and conglomerates of the Towsley Formation were deposit in a gradually shallowing marine basin. Portions of this unit were deposited as submarine sediment flows, bring sand and rocks up to boulder size into the deep seas. Fossil marine vertebrates and invertebrates are known from exposures of this formation east of the study area along Interstate 14. At these occurrences the remains of fossil whales, sea cows (manatees), a distant relative of the walrus, and numerous invertebrates were collected. No fossils were located during our brief examination of the Towsley Formation.

Pico Formation

The Pico Formation is exposed in Long Canyon, Potrero Canyon, Salt Canyon, Graves Canyon, and west of Chiquito Canyon to the project boundary. The Pico Formation was deposited in a shallowing marine basin. The base of the Pico Formation was deposited in deep waters, while the top of the formation was deposited in shallow marine or lagoonal waters. At the top of this formation the Pico Formation interfingers with the overlying Saugus Formation. The siltstones, sandstones, and conglomerates of this formation span the period between 4 and 2 million years ago. These rocks are known to contain the remains of numerous invertebrates and occasional vertebrates. Immediately adjacent to the study area an extensive invertebrate fauna has been reported and there is at least one recorded vertebrate locality reported. Within the study area invertebrates were found at several localities in Potrero Canyon, Long Canyon, and Chiquito Canyon. A fragmentary fossilized bone was discovered in the transition zone between the Pico Formation and the Saugus Formation, near the mouth of Long Canyon. Screen washing of matrix from this locality produced a rodent tooth and fragmentary microvertebrate remains.

Saugus Formation

The Saugus Formation is exposed on the westside of Chiquito Canyon and northeast of Long Canyon as far east as Magic Mountain. Oil field operations have created extensive exposures of this unit, allowing for examination of large part of the unit. The Saugus Formation records deposition in the region between the late Pliocene Epoch (2 million years ago) and the early Pleistocene (1.6 million years ago to 200,000 years ago). The age of the Saugus Formation is in debate, because of the lack of age diagnostic fossils, especially in the upper portion of the formation. In the study area, the Saugus Formation interfingers with the underlying Pico Formation and contains some marine or brackish water deposits in the lower portion of the unit, before becoming exclusively non-marine in the upper portion of the formation. The marine deposits have also been referred to the Pico Formation. The assignment of these rocks to a particular formation is less important than understanding the events that surrounded their formation. The Saugus Formation records the last withdrawal of the sea from the Santa Clarita Valley approximately 2 million years ago. This gradual shallowing of the sea that had covered the region since the Miocene, some 15 million years, resulted from the rise of the Santa Susana Mountains and Simi Hills. Marine invertebrates are well known from these deposits in the Moorpark and Simi Valley areas. A diverse assemblage of marine and non-marine vertebrates including extinct horses, large cats, dogs, elephants, turtles, peccaries, deer, and sharks is known from other exposures of the Saugus Formation in Simi Valley. Grading at the Valencia Commerce Center, northeast of the study area, produced the remains of an extinct relative of the zebra and a variety of micro-vertebrates including rodents, rabbits, and lizards (Landers 1991). Fossil horse teeth were reported from the Saugus Formation near the Del Valle oil field north of the study area (Winterer and Durham 1962). During our field survey the unidentifiable vertebrate remains were located at two horizons, one near the top of the formation and the other in the transition zone between the Saugus and Pico Formations. The later appears to be a fragment of a marine mammal skull based on its size and curvature. Our screen washing efforts produced bones and teeth at 9 horizons scattered throughout the formation. These fossils include rodent teeth, a shell plate from a turtle, a possible bird bone fragment, a fragment of a tooth of a small carnivore, and several unidentifiable bone fragments. The abundance and diversity of fossils discovered is surprising considering the small size of samples processed during our screen washing activities. Four occurrences

(localities 13,13A, 14, and 25) represent significant fossil occurrences, because of the presence of abundant identifiable remains in small samples.

Quaternary terrace deposits

Quaternary age terrace deposits are exposed in the area surrounding Magic Mountain in the eastern portion of the study area and the large mesas in the site such as Airport Mesa, Potrero Mesa, etc. Quaternary terrace deposits represent the deposits of streams and runoff waters that have flowed across the region during the past 1.6 million years. As many as seven elevated terraces have been recognized in the vicinity of the study area. In the Santa Clarita River Valley, just north of the study area, a tooth of a *Bison* was collected from rocks assigned to either terrace deposits or the older Saugus Formation. *Bison* are considered age diagnostic, as they first appear in the fossil record of North America no more than 500,000 years ago and probably less than 200,000 years ago. This specimen was identified as a late form of *Bison* strongly suggesting that it came from the terrace deposits and not the Saugus Formation. No fossils were observed in these deposits within the study area.

Quaternary older alluvium

Elevated deposits that appear to be older alluvial valley fills are scattered throughout the study area, but are most obvious in Long Canyon. These most likely represent older valley fills that are now elevated above the current valley floors. This would suggest that they represent a significant span of time. No fossils were observed in these deposits during our field survey.

Quaternary alluvium

Recent alluvium covers the canyon floors within the study area. These materials are the deposits of the streams that have flowed across the region during the past 10,000 years. Recent alluvium is too young geologically to contain significant fossils. However, occasionally older alluvium is found buried beneath these younger deposits and they can contain fossils. No fossils were observed in the alluvial deposits during our survey.

PALEONTOLOGIC SENSITIVITIES AND IMPACTS

The purpose of assessing paleontological resources within a study area is to determine the potential impacts the proposed project will have on the region's paleontological resources. A way of determining impacts is to estimate the potential for the discovery of fossils. Potential for discovery is a measure of the likelihood that fossils will be discovered during excavations into a given rock unit. This potential is based on the past discovery of fossils from that rock unit. Paleontological potential does not measure the significance of individual fossils present within the study area, because it is impossible to accurately predict what individual fossils will be discovered.

To evaluate the paleontologic potential of rock units a five-tiered classification system of sensitivity for paleontological resources has been developed. The data used to define these potentials came from a review of pertinent paleontological information and literature both within the study site and the surrounding areas, discussion with professional paleontologists, and field experience in southern California. Each sensitivity rating reflects the potential for the discovery of fossil resources during site development. The five sensitivity ratings are:

NO potential.
This rating applies to igneous rocks whose molten origins preclude fossil remains being preserved.
LOW potential.
Rocks that are too young geologically to contain significant fossils, are altered, or have a poor record of fossil recovery.
MODERATE potential.
Units that fall within this rating contain sedimentary rocks with histories of producing only limited numbers of fossils at many locations.
HIGH potential.
Units that have well-established histories of containing significant fossils and/or fossils located on the study site.
INDETERMINATE potential.
This classification applies to rock units where there is little or no history of fossil discoveries because of a lack of systematic exploration of rock exposures.

Development can have both adverse and positive impacts on paleontological resources. Adverse impacts are the destruction of paleontological resources because of the increase in activity in the area. Direct adverse impacts occur from brushing, grading, trenching, and other

earthmoving activities. Indirect adverse impacts result from increased accessibility resulting in unauthorized fossil collecting by amateur collectors, especially in the open space areas. However, indirect impacts are typically insignificant. Development can have positive impacts on the region's paleontological resources, if proper measures are implemented during development. These positive impacts result when a paleontologist can monitor grading of a site and salvage exposed fossils of possible scientific significance. Similar efforts throughout southern California have resulted in the collection of thousands of important fossils and have greatly enhanced our knowledge of the history of life on Earth. However, if monitoring and salvage efforts are not implemented development can result in the destruction of many significant fossils.

The potential for significant of impacts on paleontological resources depends on the potential for the discovery of fossils in a rock unit and the amount of grading to take place in the rock unit. This is because a rock unit that has produced fossils is likely to continue to produce fossils at a similar rate and as more of the unit that is exposed by grading, the more likely fossils are to be exposed.

Based on the results of our field survey, screen washing efforts, literature review, and records search, the Newhall Ranch study area is underlain by geologic units rated from HIGH to LOW paleontologic potential. The potential for fossil production of the individual formations in the study area is discussed below. Potential impacts on paleontological resources are directly related to the potential for the discovery of fossils in a rock unit and the amount of development in a rock unit.

The Modelo Formation is well known for its well-preserved fish and bird skeletons, as well as marine mammals, mollusks, plants, and microplankton. The Modelo Formation is considered to have a HIGH paleontologic potential. Since exposures of the Modelo Formation are restricted to future open space areas, the potential for significant impacts on paleontological resources is low.

The Towsley Formation is known to produce numerous remains of invertebrates and the occasional remains of marine vertebrates. These fossils occur in locally abundant concentrations or horizons. Although this unit has been examined in only a few areas fossils appear to occur throughout the formation. Therefore, the unit is assigned a HIGH paleontological potential. Exposures of the Towsley Formation are restricted to future open space areas, therefore, the potential for significant impacts on paleontological resources is low.

The Pico Formation contains numerous invertebrates within the study area and is known to contain occasional marine vertebrates in other areas. Therefore, this unit is assigned a HIGH potential for the discovery of fossils during development. Much of the proposed development of Newhall Ranch will take place on exposures of the Pico Formation, this suggests that there is a high potential for significant impacts on paleontological resources.

The Saugus Formation has an extensive record of producing important invertebrates and vertebrate remains at several localities within and near the study area. It is assigned a HIGH paleontological potential. Large portions of the development of Newhall Ranch will take place on exposures of the Saugus Formation, suggesting a high potential for significant impacts on paleontological resources. Additional fossils from this unit would be significant in that they would aid in the determination of the age of this deposit. This information would provide information on the movement of faults in the region.

The Quaternary terrace deposits are assigned a MODERATE paleontologic potential, based on their record of fossil production in the region. Much of the development of Newhall Ranch will take place on exposures of Quaternary terrace deposits. This suggests a high potential for significant impacts on paleontological resources. Additional fossils from this unit would be significant in that they would aid in the determination of the age of this deposit. This information would provide information on the movement of faults in the region.

The Quaternary age older alluvium is assigned a MODERATE potential, based on their apparent relationship to terrace deposits. These units are underlain by older highly

fossiliferous deposits and are in areas where there is likely to be extensive grading, therefore, there is a high potential for impacts in these units.

The recent alluvial deposits are assigned a LOW potential, only because of the possibility for the discovery of older deposits buried beneath them. Regardless of the amount of development in these deposits the potential for significant impacts is low.

TABLE 1

Geologic Unit	Paleontologic Potential	Potential for Impacts
Modelo Formation	HIGH	LOW*
Towsley Formation	HIGH	LOW*
Pico Formation	HIGH	HIGH
Saugus Formation	HIGH	HIGH
Terrace Deposits	MODERATE	HIGH
Older Alluvium	MODERATE	HIGH
Young Alluvium	LOW	LOW

* exposed only in future open space, if development occurs in these areas potential for impacts is high

Based on the presence of numerous fossils in the study area and potential for the discovery of fossils in the rock units to be excavated during development, it is likely that significant fossils will be exposed during development. Unless proper mitigation measures are implemented these fossils will be destroyed by grading operations. The destruction of paleontological resources by development is a significant adverse impact on the region's paleontological resources, because fossil remains are a non-renewable resource. Development of a project of this size, with the rocks units of moderate to high potential for the discovery of fossil remains, could have significant impacts on the region's paleontological resources. The following mitigation measures are suggested to reduce adverse impacts of development on paleontological resources to a less than significant level.

MITIGATION MEASURES

The following mitigation measures are derived from the Los Angeles County guidelines for paleontological resources and CEQA guidelines for the protection of scientific resources. Both documents require that reasonable efforts be made to reduce significant impacts on paleontological resources to levels that are less than significant. These documents provide generalized mitigation measures to meet this goal and serve as the framework for the following measures. More specific measures are based on professional standards established by the Society of Vertebrate Paleontology and are accepted as adequate to meet the

requirements of Los Angeles County and CEQA. These measures have been used successfully elsewhere in southern California to help protect paleontological resources for future scientific study and public education, while allowing the timely completion of projects.

The County of Los Angeles mitigation measures include, notification of appropriate scientific/museum personnel that grading is to begin, presence of an on-site monitor at all times of original cutting of undisturbed fossil bearing rock units, diversion of grading activities to allow for salvage, collection of appropriate materials, and donation to a public non-profit educational institution.

The following measures are designed to meet these requirements and to address the specific conditions within Newhall Ranch.

1. A qualified paleontologist shall be retained to monitor, and if necessary, salvage scientifically significant fossil remains. The duration of these inspections depends on the potential for the discovery of fossils (Table 1), the rate of excavation, and the abundance of fossils.

   a) Geologic formations (like the Saugus Formation) with a HIGH potential will initially require full time monitoring during grading activities.
   b) Geologic formations (like the Quaternary terrace deposits) with a MODERATE potential will initially require half time monitoring.

   Because of the large size and long duration of this project, it is necessary to periodically review the paleontological potential assigned to each rock unit. This should be done at the end of each phase of grading. This reassessment of potential will be used to develop mitigation plans for future phases of development. If fossil production is lower than expected the duration of monitoring efforts should be reduced.

2. The paleontologist in consultation with the grading contractor, developer, and Los Angeles County inspector shall have the power to temporarily divert or direct grading efforts in the area of an exposed fossil to allow evaluation and, any necessary, salvage of exposed fossils.

3. Because of the known presence of microvertebrates in the Saugus Formation, within the study area, and the likelihood that they are present in other rock units it is necessary to periodically sample these rock units. Appropriate materials for this type of collection are samples of at least 2000 pounds of rock from likely horizons. These samples can be stockpiled to allow processing later to avoid delays in grading activities. The frequency of these samples will be determined based on field conditions.

4. Pre-grading salvage is necessary at localities 13, 13A, 14, and 23, because these occurrences appear to represent significant fossil discoveries. At least, 2000 pounds of rock should be collected at each site, stockpiled, and screen washed before grading begins at these localities.

5. Scientific specimens are to become the property of a public, non-profit educational institution, such as the Los Angeles County Museum of Natural History or similar institution. Most institutions are now requiring, as conditions for accepting the materials, that significant fossils be prepared, identified to a reasonable level, and cataloged before donation. Therefore, to meet these requirements it is recommended that prior to development an agreement should be reached with a suitable scientific repository regarding acceptance of the fossil collection.

6. Locations of recorded fossil deposits shall remain confidential and shall be disclosed only on a "need to know" basis.

7. To assure compliance with the Los Angeles County guidelines and CEQA, a final report summarizing the results the mitigation efforts is necessary. To adequately report the results of the mitigation efforts the report shall include; an itemized inventory of the fossils, pertinent geologic and stratigraphic data, field notes of the collectors, and indication of the repository. Because Newhall Ranch will be developed in phases, a final report should be prepared at the end of each phase of grading. This report should provide the information necessary to reassess the paleontological potential of each rock unit graded and should include recommendations for future monitoring efforts in those rock units.

If you have any questions or if we can be of further assistance, please contact us at the above address.

Respectfully,

Rodney Raschke
Certified Paleontologist

REFERENCES

Clark, F.E., 1983. Benthonic Foraminifera assemblages, basal Modelo Formation, Big Mountain, northern Simi Valley California, *in*: Squires, R.L. and Filewicz, M.V. (eds), Cenozoic geology of the Simi Valley area, southern California, S.E.P.M. Pacific Sec. Vol. and Guidebook, p. 203-206.

Jennings, C.W. and Strand, G.R., 1969. Geologic map of California, Olaf P. Jenkins Edition, Los Angeles Sheet: California Div. Mines and Geology.

Kew, W.S.W., 1924. Geology and oil resources of a part of Los Angeles and Ventura Counties, California, U.S. Geol. Surv. Bull. 753, 202 p.

Lander, E.B., 1988. Paleontologic resource technical report, area of proposed major modification conditional use permit 1367, City of Simi Valley, California, consulting Rept. prepared for John W. Newton and Assoc., Inc., Moorpark, California, 93021

White, D.R., 1983. Shoreface to lagoonal facies of the marine Pliocene lower Saugus Formation, northern Simi Valley, California. *in* Squires R.L. and Filewicz, M.V., eds. Cenozoic Geology of the Simi Valley area, southern California. Pacific Section Society of Economic Paleontologists and Mineralogists.

Winterer E.L. and Durham, D.L., 1962. Geology of southeastern Ventura Basin Los Angeles County California. U.S. Geological Survey Professional Paper 334-H.

Backhoe Testing Near the Asistencia de San Francisco

W and S CONSULTANTS / cultural resources management studies

12 October 2006

Mr. Jeff Johnston
Newhall Land and Farming Company
23823 Valencia Blvd.
Valencia, CA 91355

RE: Backhoe Testing Near the Asistencia de San Francisco (CA-LAN-962H)

Dear Jeff:

I am writing to report on the backhoe testing conducted in the vicinity of the Asistencia de San Francisco, which is located on the Newhall Ranch near Castaic Junction, Los Angeles County. This was performed in order to determine whether subsurface archaeological remains extended southeastward from the recorded location of the Asistencia site, into an open field that is planned for use as a debris and a water quality basin.

The backhoe test was conducted on October 4 – 5, 2006. Randy Salazar-Folkes, representing the Fernandeño-Tataviam tribe, served as Native American monitor. Archaeological monitoring was provided by Joe Simon and myself, with the backhoe operated by Gary Buzza.

As indicated on the attached map, sixteen backhoe trenches were excavated, using a three-foot bucket. Each trench was approximately 15 feet in length and (with one exception) about 5 - 6 feet deep. Spoils from each trench were examined as they were dumped, in order to identify any lithic clasts, first, and second, to determine whether the clasts were archaeological or whether any other archaeological remains were present. The location of each trench was mapped using a WAAS-corrected GPS unit.

I have also appended a copy of our excavation log. As this indicates, soil conditions varied somewhat across the field. In general terms, however, the following conditions prevailed:

(1) Groundwater was encountered between 5 and 6 feet in depth across most of the study area—the limit of our excavation depths.

(2) A dark, very highly organically enriched sandy lens was present at about 2 feet in depth in a number of trenches. This reflects the former use of this field as a cattle feedlot. (Note that the field is located along "Feedlot Road").

2242 stinson street • simi valley, california 93065 • (805) 581-3577

(3) Judging from historical accounts, this feedlot was in use into the 20th century. Based on the depth of the organically enriched lens, this indicates that substantial natural deposition of soil has occurred across the field—approximately 2 ft—in less than 100 years. The sources of this deposition are the two arroyo/barranca mouths located upslope and west of the field.

(4) The implication of this circumstance is the following: the field was originally 2 – 3 ft lower than its current groundsurface level. Given that it is currently 2 – 3 feet below the lowest portions of the recorded limits of the Asistencia site, the field was originally (historically and prehistorically) even lower than the area of historic occupation, probably roughly a half-dozen feet lower. Put another way, the originally low and wet conditions of the field explain the apparent concentration of archaeological remains in the current recorded area of the site, on higher (and drier) ground.

(5) As the above suggests, no archaeological remains of any kind, historical or prehistoric, were encountered during the backhoe testing.

Our conclusion then is that construction of the debris and water quality basins does not have the potential to impact cultural resources. We recommend that no additional archaeological work be required for the construction and use of the proposed structures.

It is worth noting further, however, that archaeological remains extend to the current southern limit of the mapped boundary of the Asistencia site. Although this represents the effective extent of the higher ground above the field, the precise southern boundary on this site has actually not been defined. Based on this last circumstance, we recommend that an archaeological monitor be present in the event any grading occurs within 50 meters of the mapped site limits.

Please feel free to call if you have any questions.

My best wishes,

David S. Whitley, Ph.D.
Owner

Attachments: Excavation Log
Map of trenches

EXCAVATION LOG
BACKHOE TESTING ADJACENT TO CA-LAN-962H
(4-5 October 2006)

Trench #	Depth	Soil Description & Comments
1	5 ft	Sandy colluvium to base
2	5 ft	Sandy colluvium to base
3	5 ft	Sandy colluvium to base
4	5 ft	Clayey sands & gravels to base
5	5 ft	Clayey sands & gravels to base
6	0 – 2 ft	Fill sands
	2 – 5 ft	Clayey sands & gravels
7	10 ft	Clayey sands & gravels to base, water circa 5-6 ft
8	5 ft	Clayey sands & gravels to base
9	0 – 2 ft	Sandy colluvium
	2 – 5 ft	Clayey sand with calcium carbonate
10	0 – 2 ft	Sandy colluvium
	2 – 5 ft	Clayey sand with calcium carbonate
11	5 ft	Clayey sand with calcium carbonate
12	5 ft	Clayey sand with calcium carbonate
13	5 ft	Clayey sand & gravels to base
14	5 ft	Clayey sand & gravels to base
15	5 ft	Clayey sand & gravels to base
16	5 ft	Clayey sand & gravels to base

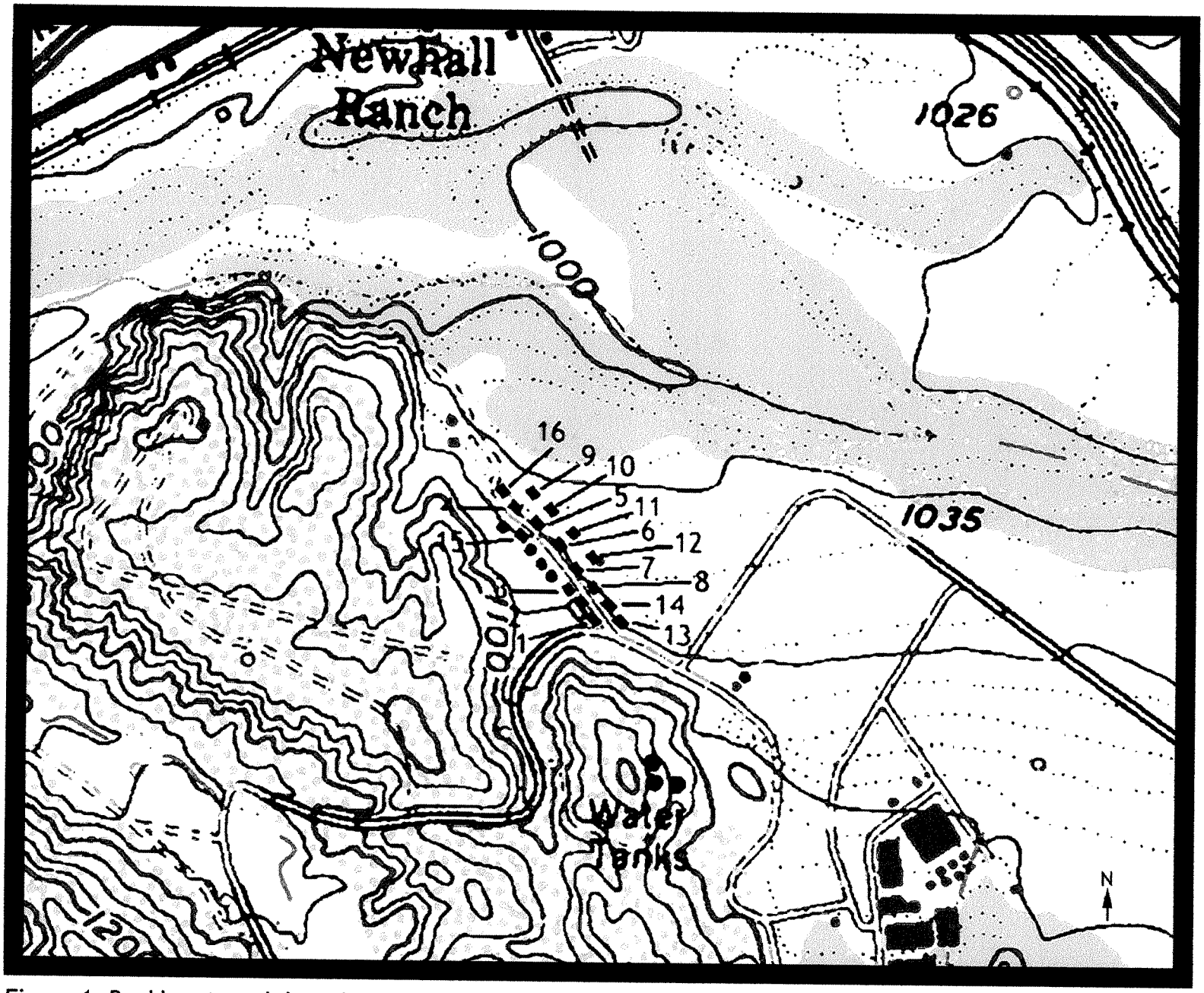


Figure 1: Backhoe trench locations on Newhall, CA. 1:24 000 USGS quadrangle.

APPENDIX 4.21

Floodplain Modifications

Mission Village TTM #61105

FLOOD EIR TECHNICAL REPORT - SANTA CLARA RIVER

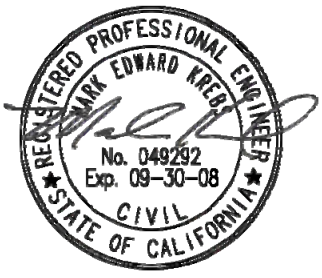
February 2007

Prepared For:

Newhall Land/ Lennar
23823 Valencia Blvd
Valencia, CA 91355

Prepared By:

Pacific Advanced Civil Engineering, Inc. (PACE)
17520 Newhope Street, Suite 200
Fountain Valley, CA 92708



Contact Person:

Mark Krebs, P.E.
David Jaffe, Ph.D., P.E.

PACE #8613E

Table of Contents

1 Introduction 1-1

1.1 Project Description 1-2

1.1.1 Project Site 1-2
1.1.2 Proposed Drainage Improvements – Project and Santa Clara River 1-3
1.1.3 Proposed On-Site Drainage Improvements 1-9

1.2 Materials and Documents Incorporated by Reference 1-11

1.3 Definitions 1-12

2 Methodology 2-1

2.1 Hydrology Background and Methodology 2-1

2.1.1 Los Angeles County Criteria 2-1
2.1.2 Explanation of the County Capital Flood 2-2
2.1.3 Method of Drainage Analysis 2-3
2.1.4 Explanation of Design Hydrology 2-4

2.2 Santa Clara River Hydraulics 2-5

2.3 Santa Clara River Fluvial Mechanics 2-9

2.3.1 Sediment Data Collection 2-9
2.3.2 Fluvial Analysis Components 2-10

3 Existing Conditions 3-1

3.1 Drainage Areas and Watercourses 3-1

3.1.1 Santa Clara River 3-1
3.1.2 On-Site Drainages 3-7
3.1.3 Off-Site Drainages 3-8

3.2 Flood Hazards 3-8

3.3 River and Floodplain Existing Conditions 3-9

4 Project Conditions 4-1

4.1 Alteration of Existing Drainage Patterns 4-1

4.1.1 Santa Clara River 4-1
4.1.2 On-site drainage 4-6
4.1.3 Proposed Floodplain Modifications 4-6
4.1.3.1 Consistency with the Newhall Ranch EIR 4-6
4.1.3.2 Modification of County Floodway Map/Consistency with County Capital discharge requirements 4-8
4.1.3.3 FEMA 100-Year Floodplain 4-8

4.2 Housing or Structures within a 100-Year Flood Hazard Area 4-10

4.3 Whether Runoff Volumes Would Exceed Existing or Planned Systems 4-11

4.4 Exposure to Significant Risk of Loss, Injury, or Death 4-12

4.5 Whether Substantial Alteration of an Existing Drainage Pattern Would Result In Substantial Erosion or Situation and Harmful Increases in Erosion 4-13

4.5.1 Santa Clara River 4-13

4.5.2 On-Site Drainage Discharge Points....4-13
4.5.3 Utility Corridor Analysis....4-14
4.5.4 Impact on Floodplain and Habitat Area....4-18

List of Tables

Section 2

Table 2.1: Percent Impervious for Selected Land Uses....2-5
Table 2.2: Santa Clara River Existing Conditions Discharge by Return Period....2-7
Table 2.3: Hydraulic Roughness Coefficients....2-8

Section 3

Table 3.1: Discharge, Velocity and Flow Area Changes by Cross-Section for Q2 and Q1003-3....3-3
Table 3.2: Existing Drainages and Runoff Quantities....3-7
Table 3.3: Existing Conditions River Discharge Stations 32265 to 22195 Downstream of Castaic Creek Confluence....3-8
Table 3.4: Floodplain Area for Difference Discharges – Existing Conditions....3-9

Section 4

Table 4.1: Project-Related Changes in Discharge Below the Specific Plan Site....4-1
Table 4.2: Change (Proposed-Existing) in Acreage of Velocities 4FPS by Return Period....4-2
Table 4.3: Existing and Proposed Water Surface Elevation by Station for the 100-Year Discharge, Santa Clara River Stations STA 35245 to STA 14315....4-6
Table 4.4: Santa Clara River Summary of Maximum Proposed Toe-down & Freeboard (ft)....4-6
Table 4.5: Existing vs. Proposed Condition On-Site Hydrology Comparison 50-Year Event (cfs)....4-7
Table 4.6: Pre- and Post-Development Floodplain/Stream Area....4-11
Table 4.7: Post-Development Site Runoff Summary....4-13
Table 4.8: Modeled Q_{cap} Velocity Along the Utility Corridor (FPS)....4-19
Table 4.9: Change (Proposed-Existing) in Acreage of Vegetation by Type Exposed to Velocities....4-20
Table 4.10: Acreage Inundated by Habitat Type During Different Return Events....4-22

List of Acronyms

ACOE	Army Corps of Engineers
AG	Agricultural and Other Development Uses
AD	Agricultural Drain
AS	Alluvial Scrub
CDFG	California Department of Fish and Game
CRW	Southern California Cottonwood/Willow Riparian Forest
CRWU	Southern California Cottonwood/Willow Upland Forest
CWA	Federal Clean Water Act
CSS	Costal Sage Scrub
ES	Elderberry Scrub
FEMA	Federal Emergency Management Agency
G	Grassland
G/D	Disturbed Grassland
GBSR	Riparian Great Basin Scrub
GR	Riparian Grassland
LACDPW	Los Angeles County Department of Public Works
LOW	Live Oak Woodland
LOW/MC	Like Oak Woodland/Mixed Chaparral
MC	Mixed Chaparral
MFS	Mule Fat Scrub
MFS/D	Disturbed Mule Fat Scrub
RWQCBLAR	Regional Water Quality Control Board, Los Angeles Region
SMFS	Successional Mule Fat Scrub
SS	Scalebroom Scrub
SWRCB	State Water Resources Control Board
WRP	Water Reclamation Plant
WRW	Southern Willow Riparian Woodland
WS	Southern Willow Scrub
N/C	Not Coded

1 Introduction

This technical report is submitted in connection with the Mission Village Tentative Tract Map #61105 project and other related improvements, including flood and erosion control in and adjacent to the Santa Clara River, various drainage improvements and construction of the Commerce Center Drive Bridge ("the Project"). The Project would implement a portion of the approved Newhall Ranch Specific Plan, located in northern Los Angeles County, California. The approved Specific Plan was the subject of extensive environmental review in the previously certified Newhall Ranch EIR (March 1999) (State Clearinghouse No. 1995011015) and the related Revised Additional Analysis (May 2003). The Project was assessed at a program-level environmental analysis for the Specific Plan and at a project-level environmental analysis for the Specific Plan's Water Reclamation Plant (WRP).

As part of that prior review, the previously certified Newhall Ranch EIR (Section 4.2, Flood) and the certified Revised Additional Analysis (Section 2.3, Floodplain Modifications) assessed the hydrology and hydraulics of the Santa Clara River corridor as a result of proposed floodplain modifications associated with build-out of the entire Newhall Ranch Specific Plan. In addition to evaluating the hydrological impacts of the Newhall Ranch Specific Plan, another objective of the analysis was to determine if predicted Project improvements (*i.e.*, "floodplain modifications") would cause significant impacts to the nature, amount and location of the aquatic/riparian habitats in the River corridor, the Specific Plan site, and the downstream reaches in Ventura County. The proposed floodplain modifications included three bridge crossings over the River, buried soil cement bank protection placement along portions of the banks in the River corridor of the Specific Plan, and removal of mostly agricultural acreage from the floodplain by raising the land areas and installing elevated bank protection. The prior analysis, referenced above, evaluated impacts on flows, floodplain and habitat areas, velocities, water depths, and sediment scouring/deposition patterns for a range of storm flows within the River (2-year through 100-year flood flows). The prior analysis determined that the proposed Specific Plan improvements would alter velocities in the River. However, the impacts were only expected during infrequent flood events (*e.g.*, 50-year and 100-year flood events), and those impacts were only anticipated to reach the buried banks. The prior analysis (Section 2.3) also found that the Specific Plan would cause an increase in water velocities, water depth, changes in sediment transport, and changes in the flooded areas. However, these hydraulic effects were found to be minor in magnitude and event. These effects were also found to be insufficient to alter the amount, location and nature of aquatic and riparian habitats in the Specific Plan area and downstream in Ventura County. The prior analysis (Section 2.3) further determined that, under the Specific Plan, the River would still retain sufficient width to allow natural fluvial processes to continue. As a result, the prior analysis (Section 2.3) concluded that the mosaic of habitats in the River that support various sensitive species would be maintained, and the population of the species within and adjacent to the River corridor would not be significantly affected.

Because of the prior environmental analysis (EIR, Section 4.2 and Revised Additional Analysis, Section 2.3), this report will focus on the analysis of the Project's specific improvements, both on-site and in and adjacent to the River corridor. The analysis in this report is facilitated by the project-specific planning conducted for the Project's tentative subdivision map, which is the mechanism used to implement portions of the

approved Newhall Ranch Specific Plan. This report will review project-specific design plans, analyze those plans against existing conditions, confirm consistency with prior design assumptions and the impact analysis provided in the previously certified EIR, inclusive of the Revised Additional Analysis, and, where necessary, update the previous analysis to reflect proposed Project conditions.

1.1 Project Description

1.1.1 Project Site

The Project lies within a contributing drainage of 2,650 acres of the overall 1,634 square-mile Santa Clara River basin watershed (PSOMAS, Mission Village Drainage Concept Report). The northerly River bank forms the northern boundary of the Project site, and the Newhall Ranch Specific Plan, more or less, forms the eastern boundary of the Project site. The Project site is located east of the proposed Landmark VTTM #53108 project site on the River's south bank upstream of the River's confluence with Castaic Creek on the north bank of the River (Figure 1.1).

Tributaries draining into or adjacent to the Project site, including Lion Canyon Creek on the project's west end (RS 30095) and Castaic Creek, which enters the River downstream of the Project site (RS 31585) on the opposite bank (Figure 1.2). The Lion Canyon Creek drainage is approximately 608 acres, with a total stream length of approximately 6050 feet. The Castaic Creek watershed, the largest of the tributary watersheds, is approximately 16.8 square miles below the dam.

Other tributaries adjacent or in the vicinity of the Project site include San Martinez Grande Canyon Creek (RS 17510), as well as drainage from the adjacent landfill (RS 24115).

The Project site, which consists of approximately 1,250 acres, is currently undeveloped, and is within the boundaries of the approved Newhall Ranch Specific Plan. Approximately 200 acres of the project boundary are within the Santa Clara River. The Specific Plan describes the type and intensity of development proposed for the Project site. The Project consists of 5,040 multi-family units, 291 single-family detached units, and a maximum of 1,299,000 square feet of retail/commercial uses. The Project also includes an elementary school, community and neighborhood parks, private recreational facilities, library and various trail and road improvements. Site preparation will include a cut and fill grading operation with fill being imported to the site from a location south of the site within the Specific Plan area. The Project also includes approximately 1,700 LF of buried soil cement bank protection on the south bank of the River. Construction of the Commerce Center Drive Bridge over the River requires 600 LF of concrete bank protection at the southerly bridge abutment and stormdrain outlets to the Santa Clara River. The Mission Village TTM #61105 project proposes the construction of the Commerce Center Drive Bridge over the Santa Clara River. The northerly bank protection at the Commerce Center Drive Bridge has been evaluated as part of the CALTRANS/LA County Department of Public Works Project (State Route 126 widening and

FILE: \\pacefs01\swprojects\8613E\6-GIS\mxds\8613E_MissionVillageVicinityMap_111506.mxd

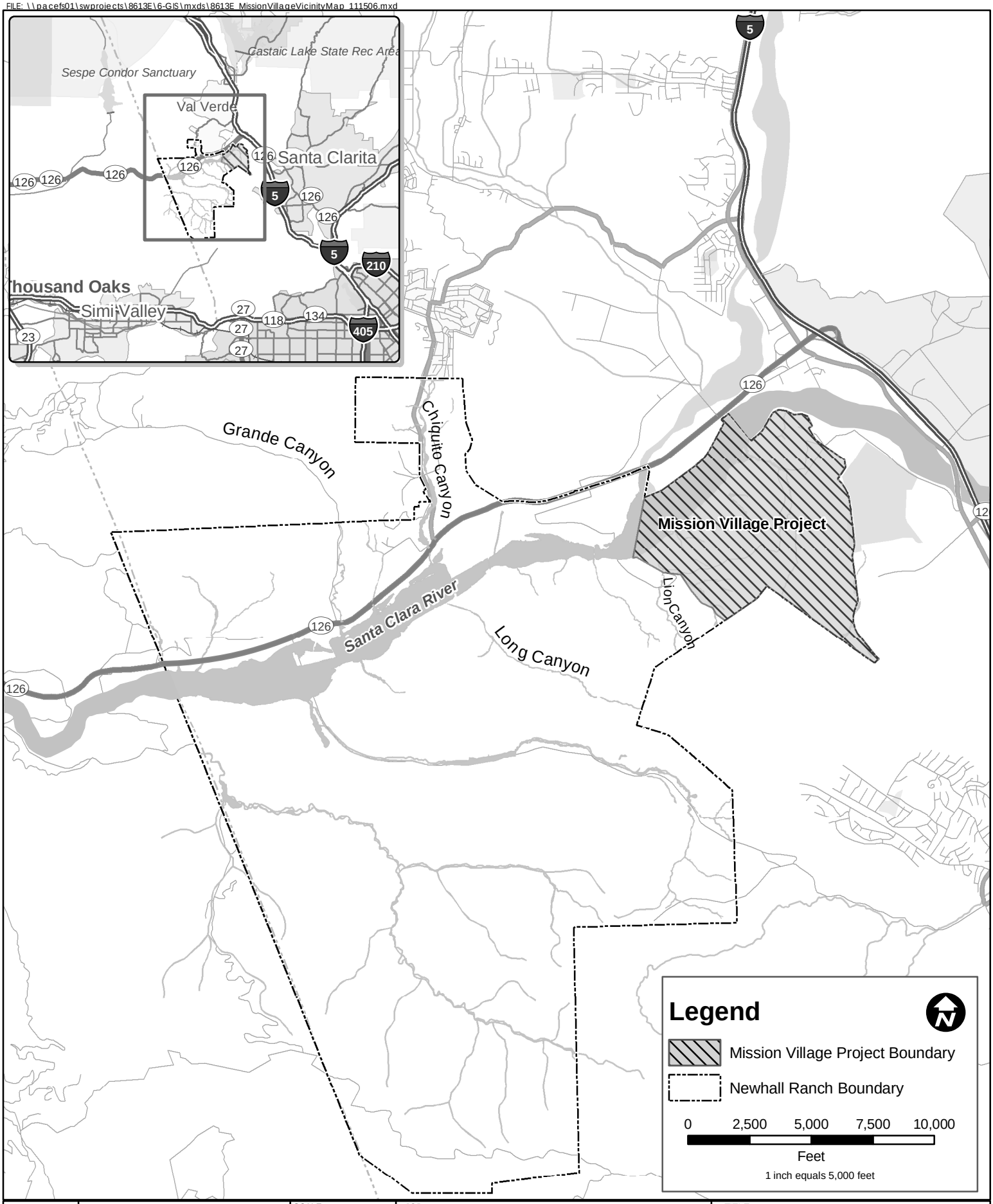


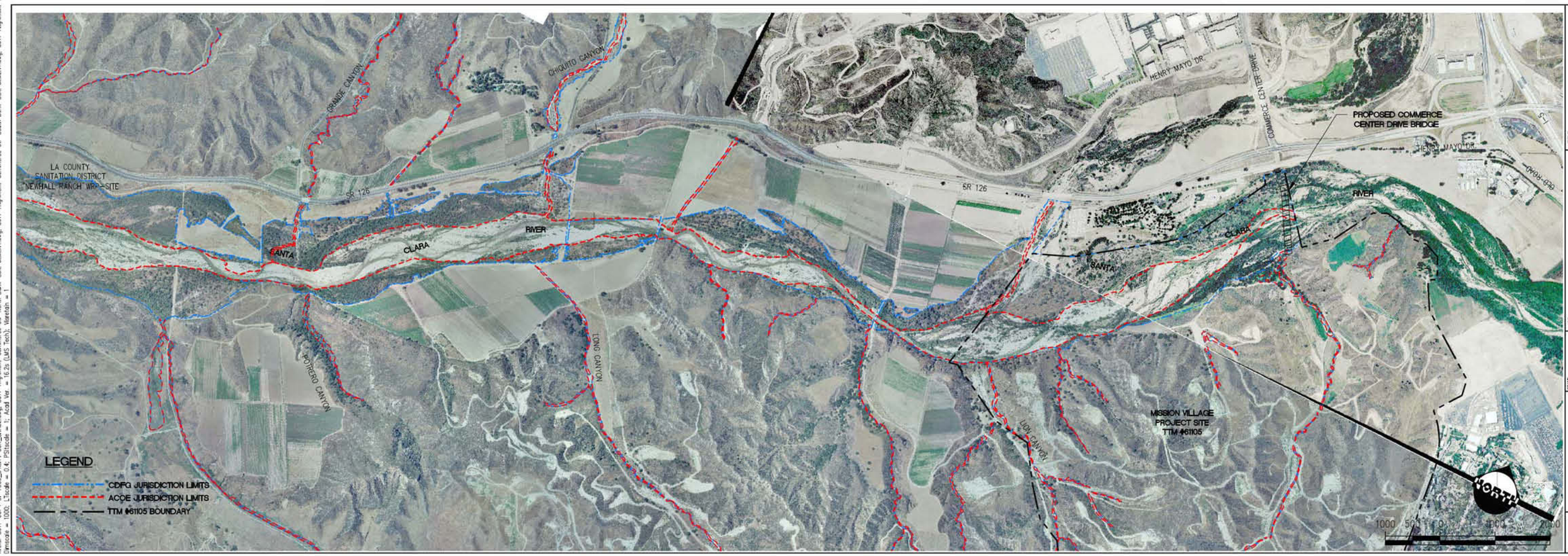
FIGURE 1

PACE
PACIFIC ADVANCED CIVIL ENGINEERING, INC.
17520 NEWHOPE STREET, SUITE 200
FOUNTAIN VALLEY, CA 92708
PH (714) 481-7300 FAX (714) 481-7299

SCALE	1"= 5000'
DESIGNED	PC
DRAWING	PC
CHECKED	MW
DATE	11/15/06
JOB NO.	8613-E

JOB: MISSION VILLAGE
LOS ANGELES CO CA

TITLE: VICINITY MAP



ACOE & CDFG
JURISDICTIONAL
LIMITS

MISSION VILLAGE
TTM #61105

LOS ANGELES COUNTY CA

SCALE 1"= 1000'
DESIGNED MKK
DRAWN JEP
CHECKED MKK
DATE NOVEMBER 2006
JOB NO. 8613-J

PACE
PACIFIC ADVANCED
CIVIL ENGINEERING

FIGURE
1.2

Xrefs: 8611-COPY OF 7906_UTILITY CDP_SMAE.dwg; 8611-Alignment-Commerce Ctr-North Bank-SOIL CDMENT.dwg; 8611-Alignment-Commerce Ctr-South Bank-SOIL CDMENT.dwg; 8611-Alignment-Sonoma
Dimscale = 1000, Ltscale = 0.4, Plotscale = 1, Acad Ver = 16.0s (LMS Tech), Version = 11

P:\8611E\Engineering\Cdcad\Exhibits\DRI EXHIBITS\Fig-1.2 JURISDICTIONAL LIMITS.dwg – Tab: AERIAL By: mwheeler on Feb. 23, 2007 at 03:39 pm

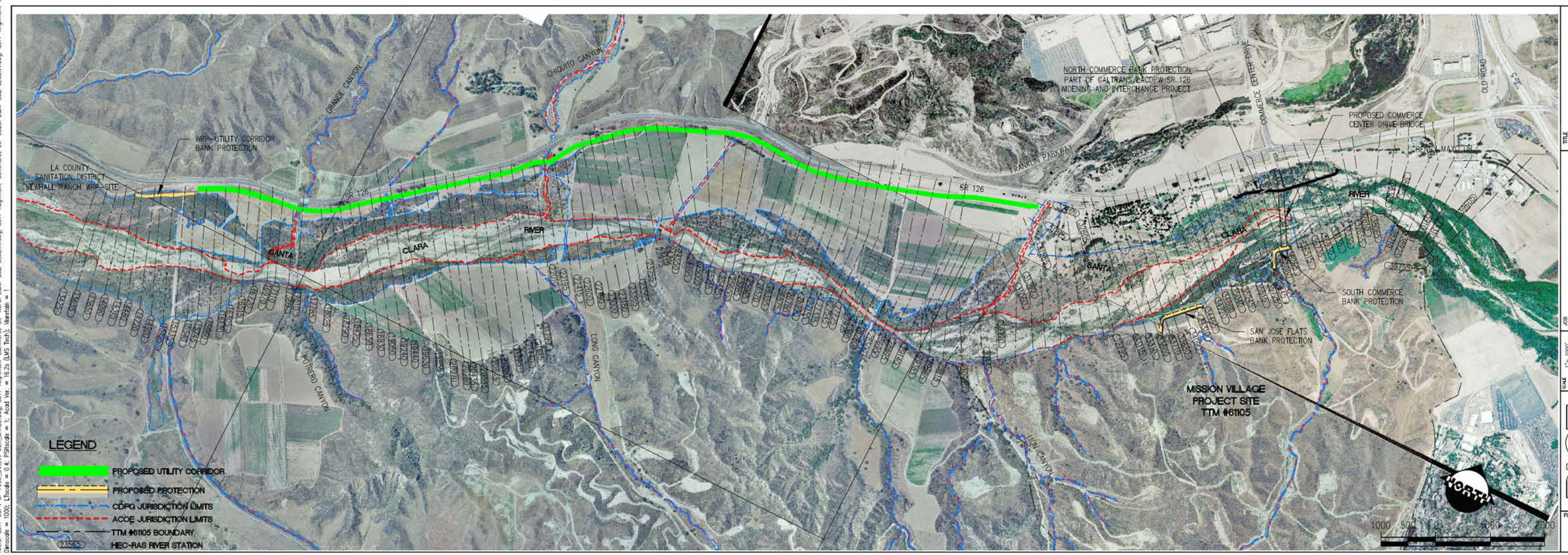
A full-size reproduction of this figure can be found at Impact Sciences.

Commerce Center Drive interchange project). Therefore, the northerly bank protection at the proposed Commerce Center Drive Bridge is part of both the existing condition and proposed condition river hydraulic models for this Mission Village EIR Technical Report. The proposed project also includes 16,000 LF of graded utility corridor along the north bank of the Santa Clara River from the Castaic Creek confluence down stream to 2000 ft west of the San Martinez Grande Canyon Creek confluence. The utility corridor includes multiple wet and dry utilities for the Mission Village project to be installed along the south side of State Route 126. The utility corridor river bank stabilization consist of geotextile reinforced vegetated slopes and some rip-rap rock protection. The rock rip-rap will be placed at the outlets of the Chiquito and San Martinez tributary confluences, at existing storm drain outlets from SR126 and at locations of the river where back scour is anticipated. As stated previously, the buried soil cement bank protection at the Newhall Ranch proposed water reclamation plant was included as part of the approved Newhall Ranch Specific Plan. The bridge would include bridge abutments, piers, and soil cement on the north and south side of the bridge (Figure 1.3). These and other proposed Project-related drainage features are described below in Sections 1.1.2 and 1.1.3.

1.1.2 Proposed Drainage Improvements – Project and Santa Clara River

The proposed improvements on the Project site that would provide flood protection and erosion control and that would occur in and adjacent to the River and its tributaries include:

- Bank stabilization;
- Various stormwater drainage outlet structures;
- Various improvements at San Jose Flats (south bank Sta. 34495 to 33500), including approximately 1,100 LF of Soil Cement river bank protection (this is a reduction of approximately 300 LF of bank protection from the Newhall Ranch Specific Plan EIR);
- Construction of the Commerce Center Drive Bridge and related bridge abutments and piers as well as exposed concrete and rip-rap bank protection on the south side of the river (approximately 600 LF on the South bank). As stated previously, the bridge and the north bank have been analyzed and approved as part of the Natural River Management Plan and SR 126/Commerce Center Interchange EIR/EIS. For the purpose of this Mission Village project river analysis this northerly bank protection (± 2000 LF) is considered part of the existing pre-project conditions. The Mission Village project will be constructed after/or concurrent with the completion of the SR 126 widening and bank protection project.
- Non structural bank protection on north bank of the River within the graded fill slope for 16,000 LF of *Utility Corridor Bank*.



PROPOSED BANK PROTECTION & RIVER IMPROVEMENT

MISSION VILLAGE
TTM #61105
LOS ANGELES COUNTY, CA

PACE
PACIFIC ADVANCED CIVIL ENGINEERING

FIGURE 1.3

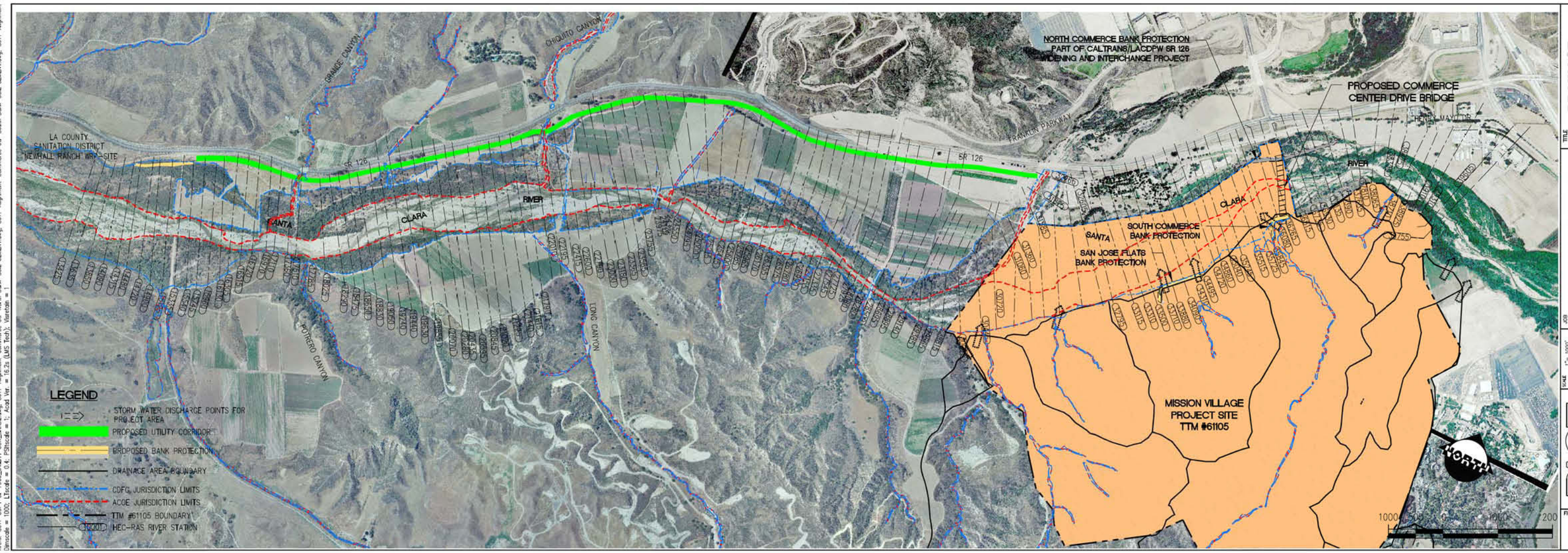
A full-size reproduction of this figure can be found at Impact Sciences.

There is an additional alternative which has recently been proposed where the Newhall Ranch Full Build-out scenario would include replacement of the westerly 2000 LF of Utility Corridor non-structural bank protection with a structural type alternative. This alternative is necessary as the Newhall Ranch Full Build-out bank protection plan (approved by LACDPW 4-18-06) includes soil cement bank protection that extends southward approximately 1,000 feet into the River to facilitate the proposed Potrero Bridge. In the event Potrero Bridge and/or this projecting bank protection are eliminated there may be a future need for soil cement or other hardened bank protection along this reach of the Utility Corridor. Therefore, an alternate within the Mission Village DCR project as defined herein, the subject 2,000 linear feet of northerly river bank (STA 17360 to STA 15540) will be considered soil cement. The hydraulic top and toe analysis for this alternate is the same as the non-hardened solution just as the horizontal alignment of the Utility Corridor protection is the same for each alternative. The River and vegetation impacts from this structural alternative are within the limits of the non-structural alternative as defined in this analysis.

Bank stabilization is comprised of soil cement, rip-rap and reinforced concrete. Additionally, a form of biotech stabilization, turf reinforcement mats (TRM's) or similar protection would be utilized along portions of the utility corridor. Improvement locations are shown in Figures 1.3 and 1.4. Most of the soil cement would be buried however some portions may be exposed and rip-rap may be grouted or not grouted. Flood control improvements evaluated in this report are similar to those identified in the previously approved Newhall Ranch Specific Plan. Minor deviations from the Specific Plan were considered and evaluated in this report. The HEC-RAS models used in this analysis were revised to reflect these minor changes. For example, the bank protection at San Jose Flats has been reduced in length and direction slightly modified.

The Project's drainage facilities that would occur in or adjacent to the River corridor include:

1. *Stormwater Drainage Outlets/Energy Dissipaters*
   a. To reduce storm flow velocities and prevent erosion at stormwater discharge points into the River, energy dissipaters consisting of either rip-rap or other larger reinforced concrete standard impact-type energy dissipaters would be constructed at storm system outlets into the River. These energy dissipaters would slow the rate of flow of runoff into the River to prevent erosion of the stream channel. Additional dissipaters would be located at the outlet of Chiquito Creek, San Martinez Grande, Lion Canyon Creek and other locations as shown on Figure 1.4. Dissipaters will be designed based upon storm drain outlet hydraulic conditions, such as discharge, velocity and culvert size, and location within the River. The Chiquito dissipater will be located below a three barrel 14'x14', 100 foot long culvert extension with stilling basin and 10 foot drop structure. The Grande utility corridor



A full-size reproduction of this figure can be found at Impact Sciences.

extension will include a 200 foot rip-rap dissipater structure. The Lion Canyon outlet structure will include approximately 300 LF of bank stabilization at the River confluence (refer to the following discussion "Soil Cement/Bank Stabilization"). The unnamed on-site drainages to the river will include the required energy dissipation structures as well. All of these structures would require 200 feet of rip rap structure or less when they terminate at the River.

b. Drainage from the Project would pass through storm drain outlets that discharge to the River. Approximately eight outlet structures would be constructed in conjunction with the project development. Please refer to the PSOMAS Mission Village Drainage Concept report dated October, 2006 and the summary in Section 1.1.3 below.

2. *Soil Cement/Bank Stabilization*

The Project would include buried soil cement along the River adjacent to and downstream of the Project site. In total, approximately 4,900 linear feet (LF) of River bank would be provided with soil cement concrete or rip rap bank protection (2,000 LF of which would be pre-project as part of existing condition analysis). This would include a total of approximately 3,700 LF fronting the Project site; 1,700 LF on the south bank of the river and 2,000 LF (pre-project) fronting the Project site on the north bank of the river. Approximately 1,200 LF of buried soil cement; will be downstream of the project, on the north bank, east of the WRP (Figure 1.4*)*. Of the approximately 3,700 feet total fronting the Project site, approximately 600 LF comprise the section at south Commerce Center Drive Bridge (which will be exposed concrete bank protection), and approximately 1,100 LF comprise the San Jose Flats region bank protection, which will be buried soil cement. The bank protection is required to protect water quality improvement and the Commerce Center Drive Bridge. The installation of soil cement bank protection in the vicinity of the approved Newhall Ranch Water Reclamation Plant (WRP) will likely be installed prior to implementation of the Project, and was previously evaluated as part of the Project-specific impact analysis for the WRP, which was provided in the previously certified Newhall Ranch EIR (SCH No. 95011015) and it has not been included as part of the Mission Village hydraulic analysis. Similarly, the bank protection at the north bank of the river at the Commerce Center Drive Bridge has been evaluated as part of the Natural River Management Plan and Project Specific SR126 widening and Commerce Center Drive interchange project and is considered as part of the existing condition for the purpose of this Mission Village EIR Technical Report.

Figure 1.4 depicts soil cement bank protection extending downstream (west) of the Commerce Center Drive Bridge about 400 feet along the southern bank of the River and about 800 feet

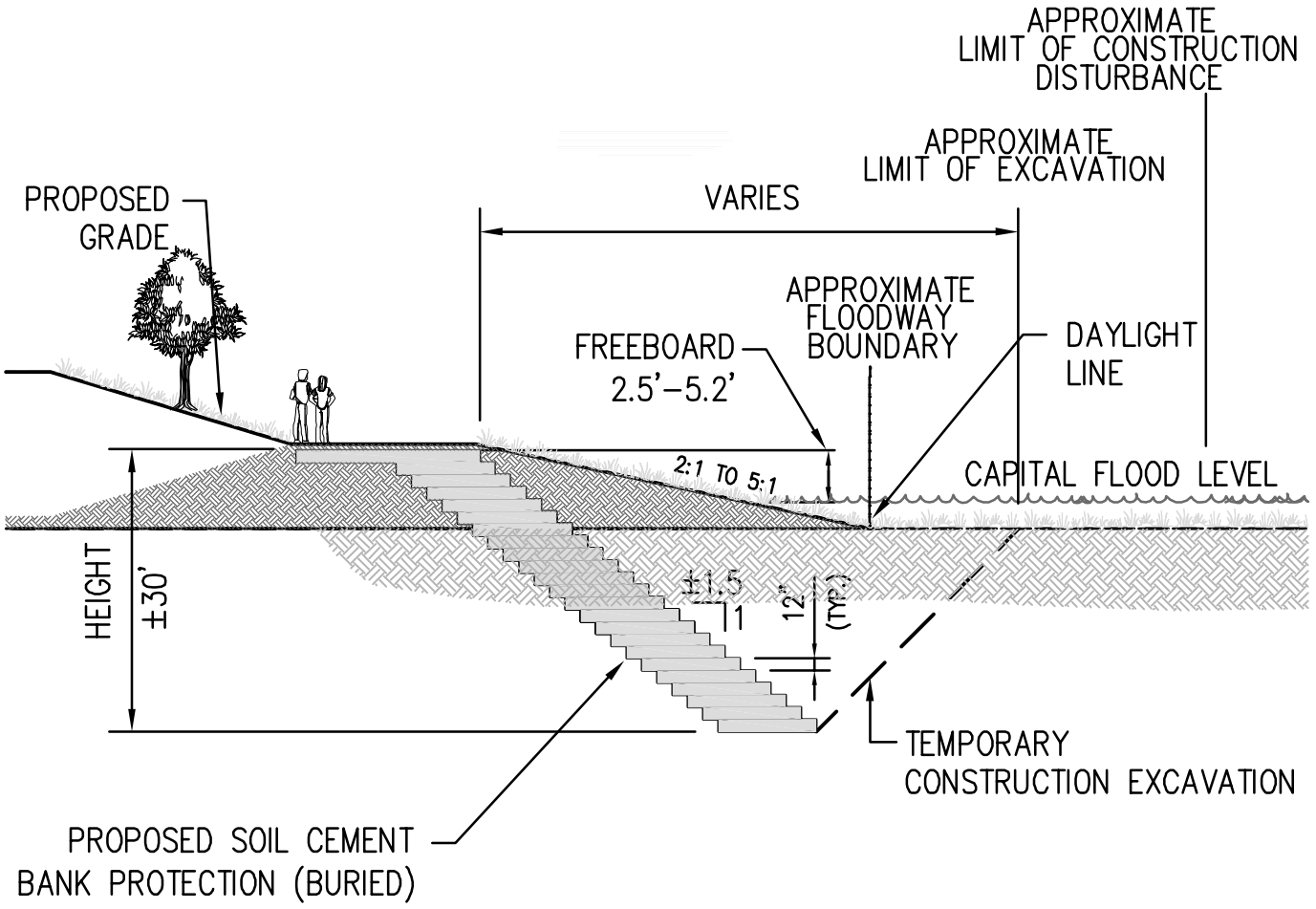
downstream along the northern bank of the River. This protection on the northern bank is primarily associated with the Highway 126 widening project. Approximately 1,100 LF of soil cement bank stabilization are shown at San Jose Flats. Additionally approximately 1,200 LF of soil cement bank stabilization is downstream of the Project site designed to protect the WRP. The bank stabilization related to the WRP was approved and analyzed at a project-level with the Newhall Ranch EIR.

A conceptual design for the Lion Canyon Creek outlet to the River is included in the PSOMAS on-site Drainage Concept Report for the Mission Village project. A portion of this River outlet will be below the River capital flood water/end and subjected to the erosive forces of the River. Soil cement or other erosive protection methods will need to be utilized to protect the proposed Lion Canyon Channel and outlet structure. This includes approximately 300 linear feet of slope erosion protection which will ultimately be part of the River bank protection plans and is now included as part of the on-site DCR. There will be no impact to the River hydraulics from the Lion Canyon outlet erosion protection as it is located behind the capital floodplain or within ineffective flow portion of the floodplain.

The majority of the Mission Village Project frontage on the south bank of the Santa Clara River does not require river bank stabilization. The proposed project development has been placed back from the river to meet geotechnical slope stability requirements and so as to eliminate the need for river bank protection. In addition the majority of the river frontage at Mission Village includes naturally occurring bluffs which are composed of erosive resistant bedrock material.

Most of the proposed bank protection would consist of buried soil cement to provide scour and freeboard flood control protection. In determining the design of the bank protection, several factors were considered, including: (1) flood control stability and durability of bank protection; (2) bank protection maintenance considerations; (3) environmental compatibility with the native area, resource enhancement concepts, and aesthetic considerations; and (4) prior success in construction and cost of construction. Soil cement bank protection provides a stable riverbank protection material, in terms of both surface erosion and structural stability. Additionally, soil cement bank protection will be mostly buried. The exposed top portion of the soil cement will be compatible with the native earth re-vegetated resource area. A typical soil cement cross-section is shown in Figure 1.5.

Soil cement is a highly compacted mixture of soil, cement, and water. As the cement hydrates, it hardens into a strong, durable, low-permeability material. Among the benefits to soil cement is that it may provide a more pleasant visual appearance, similar to



PACE
PACIFIC ADVANCED
CIVIL ENGINEERING
17520 NEWHOPE STREET, SUITE 200
FOUNTAIN VALLEY, CA 92708
PH (714) 481–7300 FAX (714) 481–7299

SCALE	N.T.S.
DESIGNED	
DRAWN	JEP
CHECKED	D.J.
DATE	MAY 2006
JOB NO.	8611E

MISSION VILLAGE

TYPICAL SOIL CEMENT CROSS SECTION

FIGURE
1.5

Xrefs:
P:\8611E\Engineering\GlobalExhibits\EIR EXHIBITS\FIG-1.5 TYPICAL SOIL CEMENT X-SECTION.dwg By: mwheeler Date: Sep. 06, 2006 Time: 09:29 am

that of a natural arroyo, as opposed to the visual harshness of traditional rip-rap. Construction projects like the proposed Project, generally utilize an on-site central batch plant whereby material can be directly excavated from the channel. Excavated material is then transported to a plug mill to separate the native material, if required, and then proceed by conveyor to a batch plant. The overriding benefit to a batch plant operation is that it allows quality control of the design mix being generated through computer management. The percentage by weight for the cement content can range from eight to twelve percent, depending on native material clay content. High clay content increases the cement requirement. Soil cement mix from the batch plant has a water content of approximately 90% when ready for application. The soil cement mixture is applied in 6"-9" lifts, equal in width to the spreading equipment, which is generally eight to nine feet wide. A roller will then compact the soil cement after each lift is applied. Soil cement bank protection slopes can be constructed very steep, usually 1h:1v, which reduces the right-of-way requirements compared to other alternatives with milder side slopes Following the final lift application, the exposed channel face can be trimmed to generate a clean surface and remove any soil cement that was not compacted.

3. *Utility Corridor Slope Protection*

Turf Reinforcement Mat (TRM) or a similar geotextile vegetation reinforced bank stability protection along the Newhall Ranch utility corridor would be provided. Approximately 9,000 LF of TRMs and an additional 7,000 LF of similar protection methodologies will be installed along the southern edge of the Utility Corridor from the western end of the Project site to the easterly end of the previously approved Newhall Ranch WRP. Figure 1.4 depicts the location where this slope protection would be installed.

TRMs are designed to reinforce vegetation at the root and stem allowing vegetation to be used as erosion control in areas where flow conditions exceed the ability of natural vegetation to remain rooted. This includes applications with high slopes or stream banks where grouted rip-rap and concrete channels are aesthetically undesirable.

TRM products are constructed of two basic materials that perform different functions: (1) permanent netting designed to provide permanent structure and strength to the vegetation at the root and stem level; and (2) degradable natural and synthetic fiber netting that provides erosion control immediately after installation by holding seed and soil particles in place and trapping moisture on the soil surface. A combination of the two can be used to provide erosion control, vegetation establishment and reinforcement at one location. TRMs are secured to the soil surface using a predetermined staple pattern and either wire soil staples or biodegradable stakes.

The portion of the Utility Corridor from the Grande confluence (STA 17360) westerly approximately 2,000 feet (STA 15540) is proposed to be stabilized with TRM's. As an alternate within the Mission Village project as defined herein, the subject 2,000 linear feet of northerly river bank (STA 17360 to STA 15540) should be considered with soil cement in this document and the EIR. For evaluation purposes, the top of the soil cement (horizontal and vertical alignment) would remain as shown in the Mission Village Utility Corridor analysis within this document and as shown in the Mission Village Drainage Concept Report (currently under review by LACDPW). The toe of the soil cement would be based on the approved Newhall Ranch Santa Clara River Fluvial Analysis. The impacts of the alternatives are included in Section 4.1.3 of this analysis.

Newhall Land is currently in discussions with several of the utility agencies who will have infrastructure in the Utility Corridor. Prior to the project final map recordation, Newhall Land will finalize a maintenance agreement with an agency or some other entity (public or private – Home Owners Association, Center for Natural Land Management, Joint Power Authority, Landscape Maintenance District, etc.) for acceptance of the maintenance responsibility for grading and slope protection along the Utility Corridor.

With the TRM (bio-engineered) slope protection along the Utility Corridor it is anticipated that there will be some limited maintenance activities related to vegetation replacement, removal of non-native species, removal of non-healthy plants, grading, replacement and/or repair of the TRM's. All of this work will take place within the limits of the project disturbance limits as analyzed in the project EIR. As part of the maintenance entity agreement Newhall Land will provide a Utility Corridor maintenance easement for repair activities along the Utility Corridor to the limits of project disturbance.

In the unlikely event that maintenance or repair beyond that described above is necessary and would include impacts outside the project disturbance limits (maintenance easement) analyzed in the project EIR's the appropriate permits and approvals would have to be obtained.

4. *Commerce Center Drive Bridge*

The Commerce Center Drive Bridge over the River is to be located at RS 36515, approximately 2,250 feet upstream of the Castaic Creek discharge to the River (Figure 1.4). The bridge's proposed span is approximately 1,200 LF with eleven piers within the River along the span. Bridge abutments are approximately

120 LF of River length on both banks consisting of reinforced concrete transitioning to soil cement through approximately 2,000 LF of River length on the north bank and 600 LF of River length on the south bank. As stated previously, the northerly bank protection at the Commerce Center Drive Bridge has been evaluated as part of the CALTRANS/LA County Department of Public Works Project (State Route 126 widening and Commerce Center Drive interchange project; Sate Clearing house #2003101127) and is therefore not considered to be a part of the Mission Village project.

1.1.3 Proposed On-Site Drainage Improvements

At Project build-out, runoff from the six drainage areas that drain through or onto the Project site, as defined by the PSOMAS Mission Village Drainage Concept Report (October 2006) (Figure 1.6), would continue to flow through the Project site. Runoff from the developed portions of the Project would be channeled through the proposed stormwater conveyance system and discharged to the River after passing through various debris and water quality basins. (*Refer to*, PSOMAS Mission Village Drainage Concept Report, October 2006). As required in the Los Angeles County Department of Public Works memorandum entitled, "*Level of Flood Protection and Drainage Protection Standards*," all on-site drainage systems carrying runoff from developed areas are to be designed for the 25-year Design Storm (Urban Flood), while storm drains under major and secondary highways, open channels (main channels), debris carrying systems, and sumps are to be designed for the Capital Flood.

Runoff from the developed portions of the Project would be conveyed through the Project site using a combination of grading, storm drainpipes, vegetated swales, catch basins, retention/detention basins, water quality basins, outlet structures, and debris basins. The proposed on-site drainage improvements are described below. The locations of such improvements are also illustrated in the PSOMAS Mission Village Drainage Concept Report and in Figure 1.7, which also depicts the post-development drainage patterns of the Project site.

Project on-site drainage facilities include:

- *Storm Drains*
  Storm drains (pipes and reinforced concrete boxes) designed for either the 25-year or 50-year Capital storm would consist of both privately maintained systems (Homeowner's Associations, Assessment Districts etc.) and publicly maintained systems (County of Los Angeles). The minimum publicly-maintained mainline pipe size is 18-inch connector pipes for clear flows.

- *Open Channels*
  Existing condition open channels consist of rectangular and trapezoidal concrete channels, and are designed for either the 25-

Xrefs: 8611-COPY OF 7906_UTILITY COR_SHADE.dwg; 8611-Alignment-Commerce Ctr-North Bank-SOIL CEMENT.dwg; 8611-COPY OF NR-7104-HEC-SECS-FIG 01.dwg; NR-acoe_2004 (FIG 1.2).dwg; NR-
Dimscale = 1; LTscale = 0.4; PSltscale = 1; Acad Ver. = 16.2s (LMS Tech); Visretain = 1

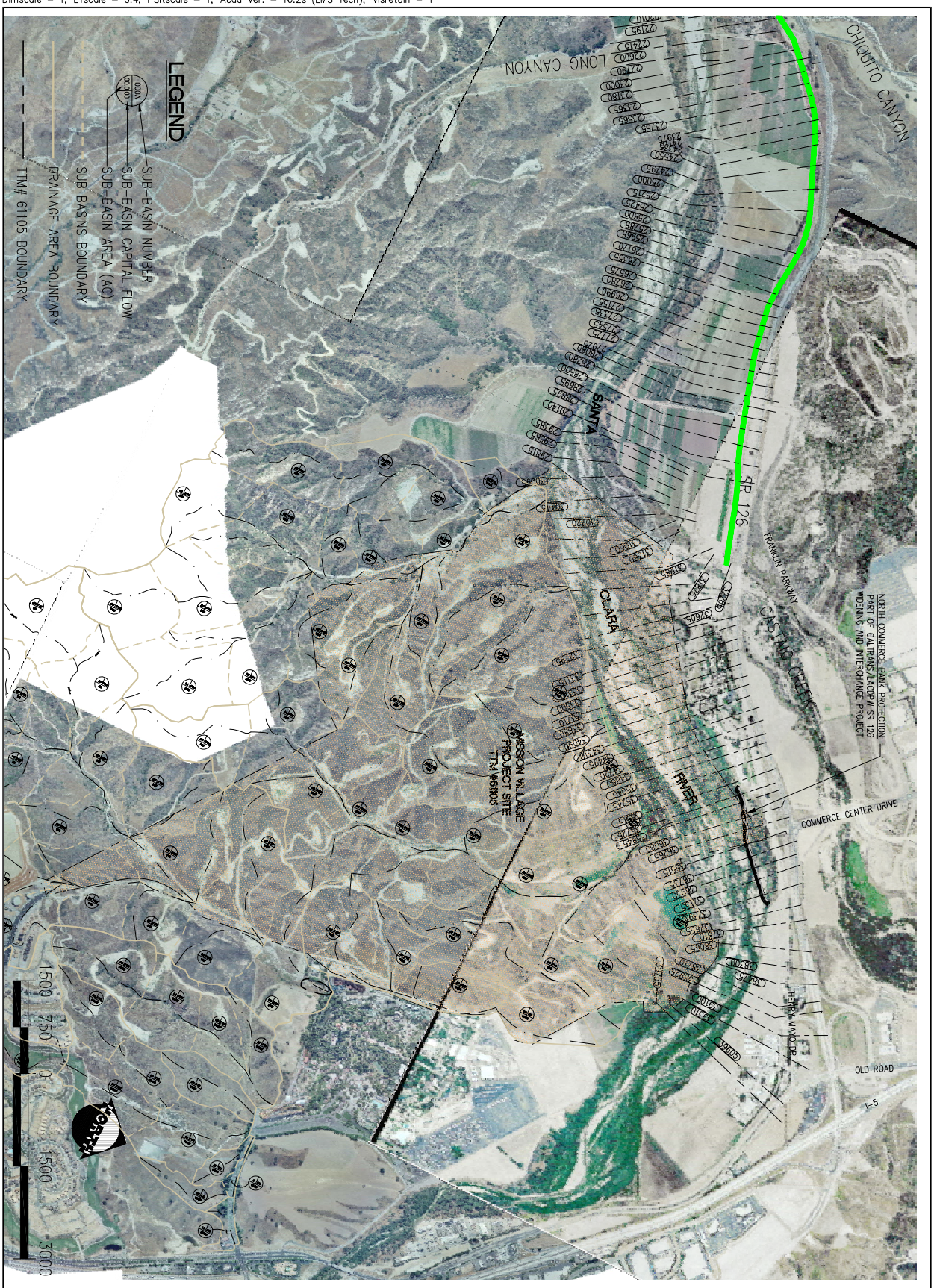


FIGURE 1.6

PACE
PACIFIC ADVANCED CIVIL ENGINEERING
17520 NEWHOPE STREET, SUITE 200
FOUNTAIN VALLEY, CA 92708
PH (714) 481-7300 FAX (714) 481-7299

SCALE	1"= 1500'
DESIGNED	MEK
DRAWN	JEP
CHECKED	MEK
DATE	NOVEMBER 2006
JOB NO.	8613-E

JOB
MISSION VILLAGE
TTM# 61105
LOS ANGELES COUNTY CA

TITLE
ON-SITE EXISTING CONDITIONS SUB BASINS (FROM PSOMAS DRAINAGE CONCEPT)

P:\8611E\Engineering\GlobalExhibits\EIR EXHIBITS\Fig-1.6 EXISTING PSOMAS SUB BASINS.dwg - Tab: AERIAL By: jpreston on Nov. 17, 2006 at 02:30 pm

FIGURE 1.2

PACE
PACIFIC ADVANCED CIVIL ENGINEERING
17520 NEWHOPE STREET, SUITE 200
FOUNTAIN VALLEY, CA. 92708
PH (714) 481-7300 FAX (714) 481-7299

SCALE	1"= 1500'
DESIGNED	MEK
DRAWN	JEP
CHECKED	MEK
DATE	NOVEMBER 2006
JOB NO.	8613-E

JOB
MISSION VILLAGE
TTM# 61105
LOS ANGELES COUNTY CA

TITLE
ON-SITE PROPOSED CONDITIONS SUB BASINS (FROM PSOMAS DRAINAGE CONCEPT)

year or 50-year Capital storm, depending on the source of the runoff. The channels sized for the 50-year Capital storm would have greater capacity than those sized for the 25-year storm. There are two existing open channels; one on the east side of Magic Mountain Theme Park and one on the west side. Proposed project open channels would consist of more naturalized conveyance system. For example, Lion Canyon will have low (2 – 4 ft) drop structures made of rip rap or soil cement and minimal side slope protection (see below).

- *Lion Canyon Creek Restoration*
  Lion Canyon has been proposed for a Creek restoration-project which will include re-grading and stabilization of the creek bed and bank. The design concept is based upon stream geomorphologic principals and equilibrium slope concepts. There will be the need for frequent drop structures (approximately 25 to 40 total) within the 4000 LF of Lion Canyon Creek within Mission Village. The grade control (or drop structures) will typically be a maximum of three feet in vertical height. The creek side slopes will typically be unarmored. The Creek restoration design will reduce the velocities in the over bank areas such that it will not be necessary to armor the banks. There will be armoring placed as necessary where velocities increase at contracted portion of the creek such as at road crossings.

  As previously mentioned, the PSOMAS on-site DCR includes a conceptual design for the Lion Canyon Creek and outlet to the River. Soil cement or other erosive protection methods will need to be utilized to protect the proposed Lion Canyon Channel and outlet structure including approximately 300 linear feet of slope erosion protection.

- *Low Flow Pipes and Outlets*
  To reduce pollution impacts from the low flow runoff, a series of pipes and outlets would be provided to intercept first flush runoff from developed portions of the Project. Pollutants expected to be generated on the Project site, their potential water quality impacts, and water quality control are discussed in the Geosyntec Water Quality Technical Report for the Project. Additionally, the PSOMAS Drainage Concept Report provides a Standard Urban Stormwater Mitigation Plan (SUSMP) for the Project site.

- *Catch Basins*
  Catch basins would be provided to intercept flows beyond the 10- and 25-year storms and at strategic locations to minimize flooding at street intersections and at sump locations.

- *Debris Basins*
  To reduce debris discharged through and from the Project site, debris basins are proposed to intercept flows from undeveloped

upland areas prior to discharge into the on-site storm system (Figure 1.4).

- *Treatment BMPs*
  In order to comply with Storm Water Pollution Prevention Plans (SWPPPs) mandated by the State of California, treatment BMPs including ponds, vegetated swales and bioretention areas will be constructed where necessary to ensure that urban runoff from the Project site will meet or exceed water quality criteria.

1.2 Materials and Documents Incorporated by Reference

The following is a list of references used in this report. The documents referred to, referenced or cited in this report are incorporated by reference and are available for public review at the Los Angeles County Department of Regional Planning, 320 West Temple Street, Room 1382, Los Angeles, California 90012.

- Center for Watershed Protection. *The Practice of Watershed Protection* (2000).
- Chow, VT. *Open Channel Hydraulics* (pg *165* and pg *185).* McGraw Hill Civil Engineering Series (1959).
- *Federal Emergency Management Agency (FEMA) Flood Insurance Map 065043-0340* (October 20, 2002).
- Los Angeles County Department of Public Works. *Hydrology Manual* (December 1991) and *Sedimentation Manual* (June 1993).
- Los Angeles County Department of Public Works. *Hydrology Manual & Appendix*, 1991.
- Los Angeles County Department of Public Works. *Development Planning for Storm Water Management, A Manual for the Standard Urban Storm Water Mitigation Plan (SUSMP)* (September 2002).
- Los Angeles County of Public Works. *Level of Flood Protection and Drainage Protection Standards* (1986).
- Los Angeles County Department of Public Works. Santa Clara River Enhancement and Management Plan, *Flood Protection Report* (June 1996 Final Draft)
- Pacific Advanced Civil Engineering. *Santa Clara River Bank Protection for Landmark Village VTTM# 53108 - Drainage Concept Report* (November, 2006)
- Pacific Advanced Civil Engineering. *Newhall Ranch River Fluvial Study Phase 1 Final Draft* (March 9, 2006)
- Pacific Advanced Civil Engineering. *Newhall Ranch Santa Clara River HEC-RAS Modeling Study* (December, 2005).
- PSOMAS. *Mission Village Drainage Concept Report* (December 2005).
- PSOMAS. *Surveyed topography data for River Village (Mission Village)*, dated 1999.
- United States Army Corps of Engineers. *Santa Clara River Adopted Discharge Frequency Values* (adopted May 3, 1994 by the United States Army Corps of Engineers, the Ventura County Flood Control Department and the Los Angeles County Department of Public Works).
- Valencia Company. *Natural River Management Plan (Permitted Projects and*

Activities under the United States Corps of Engineers 404 Permit, California Department of Fish and Game 1603 Agreement and 2081 Permit (November 1998).

- Sikand. *Newhall Ranch Specific Plan Master Drainage Concept, Santa Clara River* (April 2001).
- Sikand. *Newhall Ranch Santa Clara River HEC-RAS Study* (June, 28 2000).
- Sikand. *Supplemental Report for Newhall Ranch Santa Clara River HEC-RAS Study* (July 2000).
- Simons, Li & Associates. *Summary Report, Fluvial Study of Santa Clara River and the Tributaries* (November 1990).
- Revised Additional Analysis to the Newhall Ranch Specific Plan and Water Reclamation Plant Final EIR (SCH No. 95011015), Volume VIII, May 2003, including Section 2.3, Floodplain Modifications.

1.3 Definitions

The following terms and acronyms are defined below, and are used in this report:

100-year storm	Precipitation event corresponding to a flood that has a 1/100, or one percent, chance of occurring in any given year.
ACOE	Army Corps of Engineers
Runoff (Qbb)	Runoff from burned areas that are laden with burned vegetation, fines, rocks, mud and other debris.
Capital Flood (Qcap)	The runoff resulting from a theoretical storm based on Los Angeles County Department of Public Works methodology. The "model" storm is derived from 50-year frequency rainfall values, which occur in a time sequence patterned after actual major extra-tropical storms occurring in the Los Angeles Region. The calculations of runoff are also based on the soil types and percent of impervious surfaces in a watershed area, and on the assumption that some undeveloped portions of the watershed are burned, resulting in significant amounts of debris and sediment being added to the runoff.
CDFG	California Department of Fish and Game
Clear Runoff (Qc)	Runoff that is absent of fines (finely crushed or powdered material), mud, rocks, vegetation, and other debris.
Coefficient of Runoff	Variable in the rational and modified rational method runoff formula, which is dependent upon soil type, rainfall intensity, and the percent of imperviousness.
CWA	Federal Clean Water Act
Detention Basin	Physical flood control structure that captures storm flows

	and temporarily stores these flows in man-made surface depressions and, therefore, not available for producing surface runoff during storm events. See also "Water Quality Detention Basins."
Depression Storage	Runoff that is captured by and settles in a natural or manmade depression and does not continue downstream.
Erosion	The wearing away of land surfaces by water, wind, and ice.
FEMA	Federal Emergency Management Agency
First Flush	First flush is defined in Los Angeles County as the runoff volume generated from the first 0.75-inches of rainfall in a 24-hour period.
Floodplain	Total area subject to inundation by a 100-year flood.
Impervious	A description of a soil that will not permit water to flow through it.
Infiltration	The penetration of water through the ground surface into sub-surface soil or the penetration of water from the soil into sewer or other pipes through defective joints, connections, or manhole walls.
Interception	That portion of precipitation captured by vegetation. Intercepted precipitation is disposed of by drip, stem flow, or evaporation (or sometimes sublimation, in the case of snow, sleet, hail, or freezing rain).
LACDPW	Los Angeles County Department of Public Works
Peak Flow	Peak discharge rate measured in cubic feet per second (cfs).
Percolation	The downward flow or filtering of water through pores or spaces in rock or soil.
Q	Discharge rates measured in cubic feet per second.
Q50bb	Peak runoff from a 50-year rainfall intensity storm from undeveloped areas that is laden with burned vegetation, fines, rocks, and other debris.
Q50c	Peak runoff from a 50-year rainfall intensity storm from developed areas or from undeveloped areas that are not assumed to be burned or bulked.
River	Santa Clara River

Runoff	The portion of rainfall, melted snow, or irrigation water that flows across the ground surface rather than filtrating into the soil.
RWQCBLAR	Regional Water Quality Control Board, Los Angeles Region
Sedimentation	Deposition of waterborne sediments due to a decrease in water velocity and a corresponding reduction in the size and amount of sediment, which can be carried by the flowing water.
Sump	An area from which there is no surface flow outlet.
SUSMP	Standard Urban Stormwater Mitigation Plan
SWPPP	Storm Water Pollution Prevention Plans
SWRCB	State Water Resources Control Board
Transpiration	The process by which water vapor is lost to the atmosphere from living plants.
Velocity	The rate or speed at which surface runoff water flows either over land or through a channel, measured in feet per second (fps).
Watershed	All land and water within the confines of a drainage divide.
Waters of the U.S.	Although the definition is subject to change, "Waters of the U.S." is defined as follows: All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; all interstate waters including interstate wetlands; and all other waters, such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters: (1) which are or could be used by interstate or foreign travelers for recreational or other purposes; or (2) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (3) which are used or could be used for industrial purposes by industries in interstate commerce. Also included are all impoundments of waters otherwise defined as waters of the United States under the definition; tributaries of waters identified above;

	the territorial seas; and wetlands adjacent to waters (other than waters that are themselves wetlands) identified above. (33 C.F.R. §328.3(a) (2004).) Under the U.S. Army Corps of Engineers' definition, "Waters of the United States" are defined by the "ordinary high water mark," which can be identified by physical characteristics, such as channel scouring, bank "shelving," areas cleared of terrestrial vegetation, litter and debris, or other indications that may be appropriate.
Wetlands	Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. (33 C.F.R. §328.3(b) (2004).)

2 Methodology

Two development scenarios are addressed in this report:

1. Existing;
2. Existing with Project.

Brief summaries of the hydrologic and hydraulic methodology used in this report are presented as background information. The methodology was used to calculate pre- and post-development runoff quantities, the capacities of proposed improvements, and the effects of development on the River.

A third scenario, not addressed in this report, is a cumulative build-out scenario. This scenario was previously evaluated in the certified Newhall Ranch EIR, as revised by the Revised Additional Analysis, Vol. VIII (May 2003). As indicated earlier in this report, the flood protection improvements proposed in conjunction with the Project are consistent with those shown and analyzed in the build-out scenario for the Newhall Ranch Specific Plan.

2.1 Hydrology Background and Methodology

2.1.1 Los Angeles County Criteria

The Flood Control Division of the Los Angeles County Department of Public Works (LACDPW) regulates storm runoff protection. The LACDPW issued a 1986 memorandum entitled, “Level of Flood Protection and Drainage Protection Standards,” for development projects in Los Angeles County. The memorandum established Los Angeles County policy on levels of flood protection and requires that the following facilities be designed for the Capital Flood: all facilities not under State of California jurisdiction that intercept flood waters from natural drainage courses; all areas mapped as floodways; all facilities that are constructed to drain natural depressions or sumps; and all culverts under major and secondary highways. All facilities in developed areas that are not covered by the Capital Flood protection conditions must be designed for the Urban Flood, or runoff from a 25-year frequency design storm. Because the Project would also intercept flood flows from natural areas, the Project's storm drainage facilities that accept these flows must be sized and designed for the Capital Flood.

In addition to meeting this required level of flood protection, all development in the River watershed must meet standards adopted by the LACDPW for the River and its major tributaries. (*Refer to*, County Sedimentation Manual, pp. 2-2 to 2-6). Further, properties adjacent to the River that include improvements along and across a segment of the River (including the Project) must meet the standards adopted in the Newhall Ranch EIR and Revised Additional Analysis, Volume VIII (May 2003).

2.1.2 Explanation of the County Capital Flood

In 1931, the Los Angeles County Flood Control District (LACFCD) (now, the Flood Control Division of the County's Department of Public Works) began development of a comprehensive plan of flood control facilities to collect and convey flows from the mountainous canyons, the alluvial fans, and the urbanized coastal plain.

The major needs in designing the system were: reduction of damage due to high canyon flows, conveyance of large volumes of water in a major storm, and the ability to meet future flood control needs. The design of the flood protection system for the County is based on the Department of Public Works' Capital Flood hydrology.

The Department's Capital Flood (or Q_{CAP}) hydrology is based on a "design," or theoretical storm event that is derived from 50-year frequency rainfall values and is patterned after actual major extra-tropical storms observed in the Los Angeles region. The 50-year frequency design storm is assumed to occur over a period of four days, with maximum rainfall occurring on the fourth day.

Analysis of recorded major storms reveals that, during the 24-hour period of maximum rainfall, rainfall intensity typically increases during the first 70 to 90 percent of the period and decreases in the remaining time. Furthermore, approximately 80 percent of the amount of the 24-hour rainfall occurs within the same 70 to 90 percent of the period. In developing the Q_{CAP}, the 50-year frequency design storm is assumed to fall on saturated soils. In converting rainfall to runoff, rainfall that is not lost due to the hydrologic processes of interception, evaporation, transpiration, depression storage, infiltration, or percolation is assumed to be surface runoff. The effect of snowfall or snow melt on rainfall-runoff relationships is a consideration in only a very limited portion of the County (i.e., the higher elevations) where snowfall accumulates in winter.

Another assumption made in developing a Capital Flood design flow rate is that some natural portions of the watershed have been burned by fire. When a watershed burns, the soil infiltration rate decreases due to the loss of vegetation and physical changes in the soil. The County has run field infiltrometer tests to quantify the effect that burning has on the coefficient of runoff. The effect of burning the watershed can increase the design runoff rate from 10 percent to 20 percent.

The final factor in adjusting the Capital Flood design flow rate is referred to as a bulking factor. In the area where a watershed is burned, the runoff would carry with it a large layer of eroded topsoil. This sediment, along with the associated burned trees and brush, is referred to as debris. In order to account for these quantities of debris, the design flow rate is artificially increased using a prescribed bulking factor, which is a function of not only soil type, but also the steepness of the terrain and the size of the drainage basin. The bulking factors for larger drainage basins range

from about 1.20 to 1.50 or from 20 to 50 percent over and above the burned flow rate.

In September, 2003, LACDPW revised the hydrologic method that accounts for fire effects on runoff computations. In the previous practice, a completely burned watershed was assumed. The current policy was updated to employ a statistical approach that relates historical fire data and vegetation recovery rates to changes in runoff coefficient of soil. A fire factor (*FF*) has been developed to represent the effectively burned percentage of a given watershed. This factor is used to adjust runoff coefficients for Q_{CAP} hydrology. The *FF* adjusts the coefficient by indexing between an unburned and completely burned soil coefficient for a given soil. This method has yet to be officially adopted by the County.

In this report, the former Capital discharge is used for analysis and comparison. In design stages, the updated 2003 Capital discharge will be employed as this updated version is anticipated to be adopted by the County between now and approval of the Project. Because the 2003 Capital discharge rate is lower than the pre-2003 discharge rate, using the updated discharge values in the design phase will result in reduced calculated flood flows and a reduced calculated potential for flood-related impacts. Using the pre-2003 Capital discharge is more conservative in determining impacts. Any changes in design of bank protection resulting from utilizing the updated Capital discharge will only reduce the top of bank protection elevation and toe of the bank protection depth. Final design of bank protection will adhere to LACDPW Q_{CAP} design standards.

In summary, the County's Q_{CAP} is based on a theoretical four-day storm event occurring right after the watershed has been burned with the resulting flow rate being increased again by a bulking factor, thereby yielding a peak flow rate that is 32 to 80 percent higher than a 50-year storm over an unburned-unbulked drainage basin. The probability of the occurrence of all the theoretical assumptions identified in the County's Capital Flood is extremely small, and yields greater design flows than the Federal Insurance Administration's methodology for calculating the 100-year and 500-year floods. As a result, the County's methodology is more conservative than that of the Federal Emergency Management Agency (FEMA).

2.1.3 Method of Drainage Analysis

The engineering term for the method used to properly size pipes and channels is "hydraulic analysis." To determine the proper sizes of pipes and channels, assumptions must be made regarding the amount of rainfall to design for and the amount and type of development that would take place in a drainage basin. An estimate must also be made of how often that amount of rainfall could be surpassed. This is referred to as the event exceedence probability, or its reciprocal value — return period. For example, a storm that has a 10 percent exceedence probability is a storm that has a 10 percent chance of meeting or exceeding a particular volume of rain in any given year. The reciprocal of this number is also known as a 10-year return period storm. An important concept to keep in mind is

that a pipe or channel is designed for a discharge (measured in cubic feet per second), not a volume (measured in cubic feet or acre-feet). A dam or a lake is designed for storing or containing a fixed volume of water. A pipe of a fixed size, on the other hand, can carry discharges, depending on the pressure placed on the water.

In designing a storm drain system, the size of a pipe that would safely carry a predicted discharge must be calculated. A 1-foot square box that is 1-foot deep (a cubic-foot) can hold 7.5 gallons of water. Based on this fact, the amount of stormwater passing through a pipe or channel in one second can be calculated by multiplying the cross sectional area of the flow in the pipe (in square feet) by the velocity of storm flows through the pipe in feet per second. This three-dimensional rate of flow is measured in cubic feet per second, or cfs.

With the above concepts in mind, the effects of development on natural ground can be considered. Buildings, driveways, patios, sidewalks, and roads all create new impervious cover to the natural ground and prevent water from infiltrating into the ground. The water that would normally infiltrate the ground would therefore run off at a higher than normal rate. Therefore, the surface discharge from developed areas will be greater than that from undeveloped areas.

LACDPW requires that all designs utilize exceedence probability calculations for design and analysis. By employing this methodology herein, this report ensures consistency with County design standards.

2.1.4 Explanation of Design Hydrology

(a) Effects of Soil Type and Amount of Imperviousness on Runoff Rates

The rate of runoff is directly related to the type of soil on the site. Certain soil types accept water faster (are more permeable) than other soils. Therefore, the types of soils present on a site are used in the calculations of runoff. Different soil types have very different water infiltration rates. If sandy soil (highly permeable) is paved over, the coefficient of runoff (C) would greatly increase, whereas if clay soil (not highly permeable) is paved over, runoff values would go up, but by a smaller percent of the total when compared to sandy soil (because sandy soils conduct water faster). In small storms, some soils can absorb 100 percent of the rainfall. For example, soil type 015 (Tujunga Fine Sandy Loam) can completely absorb a 0.5-inch per hour (in/hr) storm and almost completely absorb a 1.0 in/hr storm, thereby yielding extremely low runoff rates. For a 200 acre parcel with soil types 015 (Tujunga Fine Sandy Loam) and 012 (Ramona Clay Loam), radically different runoff quantities for the same rainfall events occur. For an intense storm, *I=1.0 in/hr*, and the very pervious soil type 015 (Tujunga Fine Sandy Loam), the runoff rate would be 20 cfs. For the same size parcel on a very impervious soil, such as soil type 012 (Ramona Clay Loam), the runoff rate would be 168 cfs.

(b) Effects of Burning and Bulking

In an undeveloped watershed, Capital Flood flow rates assume a burned condition, which causes the coefficient of runoff to increase. Further, after increasing the coefficient of runoff for burning, the flow rate is then multiplied by a bulking factor, which is used to account for the amount of mud and debris that would be contained within the flow from the burned watershed. In the case of the Project, the increase in runoff, or flow rates, due to an increase in the coefficient of runoff (C) to account for burning is from 10 to 20 percent. Application of the bulking factor to account for debris production would increase runoff quantities by 20 to 50 percent over and above the burned flow rate.

(c) Effects of Development

As previously noted, development places impervious materials over soils had previously infiltrated stormwater. Once the impervious materials are placed over the soil, little direct infiltration occurs and runoff increases. Because development does not typically completely cover the ground surface, portions of each developed parcel (e.g., front, side, and rear yards, landscaping, open space, etc.) remain permeable to stormwater. Percent imperviousness for each land use (existing and proposed) on the Project site is presented in Table 2.1.

Table 2.1: Percent Impervious for Selected Land Uses

Land Use	Percent Imperviousness (%)
Agricultural[3]	15
Transportation	100
Single Family Residential	42
Multi Family Residential	68
Commercial	92
Open Space	0

Values are from GeoSyntec Consultants (2005).

2.2 Santa Clara River Hydraulics

The floodplain conditions of the River were modeled using River Analysis System (RAS) software developed by the U.S. Army Corps of Engineers (U.S. ACOE) Hydrologic Engineering Center (HEC). Inputs to the HEC-RAS model include channel geometry, boundary conditions, hydraulic roughness, and hydrology. HEC-GeoRAS is a HEC-developed pre-/post-processor to the hydraulic model HEC-RAS and was used to compile and store a three-dimensional representation of the land surface for defining channel and floodplain geometry. A Triangular Irregular Network (TIN) was created from surveyed 2-foot topographic data using the ArcInfo program Topogrid. The TIN was used to extract geometric data for hydraulic analysis. The original River modeling prepared by Sikand Engineering and utilized in the Newhall Ranch Revised Additional Analysis, Volume VIII (May 2003) used the HEC-RAS predecessor hydraulic model, HEC-2. The HEC-2 geometric data input methodology utilized proprietary hydraulic modeling software BOSS, which follows a very similar data input methodology as

described above. The original HEC-2 model was converted and input into HEC-RAS.

The HEC-RAS model was used to provide current state of the art one-dimensional hydraulic water surface profile modeling data output. The output data from HEC-RAS is capable of being utilized by Graphic Information System (GIS) software in a variety of methods, which facilitate more detailed evaluation of the modeling output data such as water surface elevation, floodplain limit, velocity, depth of flow, and other hydraulic parameters.

The Newhall Ranch HEC-RAS model was submitted and approved by LACDPW in the Newhall Ranch Santa Clara River HEC-RAS Modeling study (December, 2005) prepared by PACE. The report included the capital discharge run with Manning's values of 0.025, 0.060 and 0.085 for the existing and proposed conditions. The proposed condition includes proposed soil cement bank protection including: 1) the previously approved (Newhall Ranch Specific Plan EIR) WRP soil cement, 2) buried soil cement protection on the north bank of the river east of the proposed WRP (not a part of Newhall Ranch SPECIFIC PLAN EIR and therefore now included as part of the Landmark Village and Mission Village EIR document as well), 3) bank protection between Potrero and Grande confluences on the north and south banks, 4) Homestead bank protection, 5) Landmark Village Soil Cement bank protection, 6) Castaic Junction Soil Cement bank protection (not a part of Newhall Ranch),7) Mission Village Soil Cement bank protection on both the north and south banks, and 8) Commerce Center Drive/HWY 126 Widening bank protection. Three bridges are included in the model: 1) Commerce Center Drive Bridge, 2) Long Canyon Bridge, and 3) Potrero Canyon Bridge. Design data for the bridges was the latest available at the time of this report. The approved model was used for both the approved fluvial study conducted by PACE (Newhall Ranch River Fluvial Study Phase 1 Final Draft dated March 9, 2006) and this Mission Village EIR Technical Study.

It is important to note that the HEC-RAS study, as well as the fluvial study, covers the Santa Clara River corridor from I-5 to an area generally west of the Ventura County/Los Angeles County line, of which the Mission Village project is a part. The Mission project is comprised of 1) buried soil cement protection on the north bank of the river east of the proposed WRP, 2) TRMs on the north bank along the southern edge of the utility corridor, 3) San Jose Flats bank protection, and 4) Mission Village bank protection at Commerce Center Drive on the south bank. As stated previously the north bank protection at the Commerce CALTRANS/ LA County Department of Public Works Project (State Route 126 widening and Commerce Center Drive interchange project; State Clearing house #2003101127) and will be constructed prior or concurrent with Mission Village and therefore has been included as part of the Mission Village existing condition model. The studies that include areas outside of the Mission project consider impacts to the Mission project from all of the proposed Newhall Ranch improvements and they act as boundary conditions both in terms of maximum flow and physical extent.

The numerical modeling prepared for Mission Village is consistent with that prepared for the Newhall Ranch Specific Plan Program EIR. Discharges include the 0.5 (2-year), 0.2 (5-year), 0.1 (10-year), 0.05 (20-year), 0.02 (50-year), and

0.01 (100-year) annual probability return periods. The numerical modeling includes velocity distributions for nearly 150 River cross-sections. A portion of these cross-sections are illustrated in Figure 1.4. Manning's roughness values for the model bed were taken from analysis of aerial photography of the river, and vary horizontally along each model cross-section. The proposed conditions analysis was conducted by modifying the existing conditions model such that bank protection, described below, was placed within the model as encroaching levees. The impacts of the bridge are included as a part of the numerical modeling analysis.

The Project models for the River were created by modifying existing cross-section geometrics of the River to simulate the hydraulic effects of the proposed Project soil cement and erosion protection, including the Commerce Center Drive Bridge abutments and piers. The encroachment due to the soil cement was conservatively approximated with levees as a part of the geometry in the hydraulic model. The modeling of the proposed Commerce Center Drive Bridge span, soil cement, pier spacing, and abutment locations are substantially consistent with the Newhall Ranch Revised Additional Analysis, Volume VIII (May 2003). For modeling and impact analysis consideration, these conservative bridge configurations would have the greatest impact on River hydraulics. It should be pointed out that the present analysis is based on the Project-specific design details, not assumptions from the previous Newhall Ranch Specific Plan evaluation.

Existing Santa Clara River discharge rates for the 2-, 5-, 10-, 20-, 50-, and 100-year storm events were obtained from a 1994 U.S. ACOE study entitled, Santa Clara River Adopted Discharge Frequency Values. The revised Q_{CAP} values are provided by LACDPW. This study is based upon a frequency analysis of stream flow data along the Santa Clara River and, therefore, approximates River flows from observed data. These values are presented in Table 2.2. It is important to note that these values include discharges from upstream tributaries and direct runoff from the watershed. Additionally, the approved Newhall Ranch HEC-RAS and fluvial studies use the revised Q_{CAP} discharge as shown in Table 2.2, while the previous analysis including the ML maps and Specific Plan EIR use the older Q_{CAP} discharges also shown in the table.

Six of the seven recurrence intervals included in the analysis were obtained from the 1994 study; the other two from the Los Angeles County Capital Flood, is referenced from the previously published LACDPW ML Maps 43-ML-24 and 43-ML-25 of floodplain and floodway.

Table 2.2 Santa Clara River Existing Conditions Discharge By Return Period (cfs)

Location	Station	2-year	5-year	10-year	20-year	50-year	100-year	Q_{CAP-SP}	Q_{CAP}
DS Commerce Center Drive	35245	1,720	5,240	9,490	15,600	27,500	40,300	138,000	116,236
At Castaic Cr. Confluence	32265	2,527	8,232	14,942	24,157	41,141	58,207	163,000	140,776
DS Chiquito Cr. Confluence	22195	2,558	8,333	15,123	24,453	41,646	58,922	165,000	141,426
At Grande Cyn. Cr. Confluence	17360	2,581	8,408	15,263	24,675	42,025	59,457	166,500	141,426
DS Protrero Cr. Confluence	15125	2,600	8,480	15,400	24,900	42,400	60,000	168,000	142,475

DS - downstream; Q_{CAP-SP} *-* Q_{CAP} *used for the Specific Plan EIR*

The following hydraulic modeling parameters apply to the two scenarios analyzed in this report:

1. Bank stations;
2. Hydraulic roughness; and
3. Boundary conditions.

As stated previously, build-out or cumulative condition parameters are not addressed in this report, because they were analyzed previously in the certified Newhall Ranch EIR, as revised by the Revised Additional Analysis, and there have been no significant changes to the Specific Plan or its circumstances that would warrant a reanalysis of the prior program-level assessment conducted for the entire Specific Plan area (which includes the Project site).

1. Bank Stations: The bank station locations are approximated as the water surface elevation level of the runoff from an existing scenario 2-year storm event. The 2-year return interval approximates a typical ordinary high water mark.

2. Hydraulic Roughness: Discharge is calculated using hydraulic roughness coefficients in the Manning's equation. Manning's roughness coefficient values are employed in Manning's equation of the form:

$$Q = \frac{1.49}{n} AR^{\frac{2}{3}} S^{\frac{1}{2}}$$

where *Q* is the discharge in cfs, *n* is Manning's roughness coefficient, *A* is the flow area, *R* is the hydraulic radius, and *S* is the energy slope.

For this report, the Manning's roughness coefficients were estimated from local condition observations of in-stream and floodplain vegetation, mapped by field biologists (Impact Sciences, 2002). Table 2.3 shows the variation of Manning's roughness coefficients based on vegetation and how those compare to published values. It is important to note that LACDPW bank protection design criteria require use of *n=0.085* and *0.025* for final design of bank protection top and toe elevation, respectively.

Table 2.3: Hydraulic Roughness Coefficients		
Vegetation/Land Use	**Manning's Roughness Coefficient [used in this study]**	**Reference Manning's Coefficient (Chow 1959)**
Sand with no vegetation	0.025	0.025-0.033
Sand with Sporadic Growth/Grass Pasture	0.035	0.03-0.05
Scattered Brush/Heavy Weeds/Light Brush and Trees	0.05	0.035-0.07
Dense trees	0.15	0.11-0.20

3. Boundary Conditions: Boundary conditions represent the flow conditions at the limits of the hydraulic analysis. In this study, boundary conditions reflect normal depth and an approximate channel slope of 0.5 percent at the upstream boundary and critical depth at the downstream boundary. The input hydrology is the flow rate data for the return periods as documented in Table 2.2. The Q cap used is that of the Specific plan.

The proposed Project model was created by modifying existing condition cross-section geometries to simulate the proposed Project soil cement and bridges. The encroachment due to the soil cement was approximated with levees in the hydraulic model (model levees set at equivalent elevation on slope of channel invert).

2.3 Santa Clara River Fluvial Mechanics

An evaluation of the existing and proposed fluvial characteristics and long-term stability of Santa Clara River between Interstate 5 and an area generally west of the Los Angeles/Ventura County line in the vicinity of the Newhall Ranch Specific Plan was previously prepared by PACE (Newhall Ranch River Fluvial Study Phase 1 Final Report [March 6, 2006]) and approved by LACDPW. Development along the River within the study area has the potential to modify the fluvial mechanics of the River, and the PACE fluvial analysis evaluates impacts from build-out of Newhall Ranch from (1) fluvial modifications of the river bed from single hypothetical storm events, and (2) changes in the floodplain fluvial operation over the long-term. It is important to note that the HEC-RAS and fluvial study covers an area from I-5 to generally west of the Ventura County/Los Angeles County line and is not just limited to the Mission project site, as noted above.

2.3.1 Sediment Data Collection

Sediment data collection for the Santa Clara River along the study reach was conducted by Allan E. Seward Engineering Geology Inc. Eighteen samples were collected at six different locations positioned along River subreaches. All sampling was conducted using grab samples of the upper foot of the active or recently active portion of the bed. No fine material is included in the sediment analysis because fine material is generally transported as wash load. A review of the raw gradation curves indicates that most samples are comprised of poorly graded sands with

gravels and silts. The D50 values for all samples ranged from 0.25 to 4.67 mm with an average of 0.8 mm. Additionally, previous studies noted above also found similar sandy characteristics.

2.3.2 Fluvial Analysis Components

Modifications to the river bed are measured as bed adjustment in feet. Positive adjustment indicates aggradation and negative adjustment indicates degradation. Several types of adjustment are considered in the PACE study including general adjustment, long-term adjustment, and other scour. General adjustment is scour that occurs in an individual discharge event and is calculated as the difference between sediment inflow and outflow of a given River reach. Long-term adjustment consists of fluvial processes that occur over several years. Other scour is made up of local scour, bend scour, low-flow incisement, and bedform formation.

General adjustment was estimated in this study using the US Army Corps of Engineers (ACOE) SAM steady-state, zero-dimensional numerical model. SAM is utilized to provide a first approximation of sediment transport potential for subreaches within Santa Clara River. The SAM numerical model is built upon hydraulic and fluvial representations of the study bed. The hydraulic component includes representations of bed characteristics and discharge. The fluvial component includes representation of bed gradation and sediment transport functions. SAM's hydraulic component utilized average cross-section data imported from HEC-2 numerical models of the river converted from HEC-RAS numerical models. The conversion process modifies the original numerical model, as discussed in Chapter 4 of the PACE study, so some differences in numerical models are created. Both the existing and proposed conditions HEC-RAS models are the same as those approved in the PACE HEC-RAS study of Santa Clara River. River subreaches that make up the SAM model are determined by examining the hydraulic parameters of the individual HEC-RAS cross-sections and identifying correlations between those hydraulic parameters and the longitudinal position in the channel.

Representation of sediment grain size distribution in SAM is percent finer data obtained from sieve analysis of channel sediment samples. At each sample location, multiple samples are collected and the average data is input into the model. Sediment transport equations used in all SAM modeling were chosen with the assistance of the Army Corps' SAM.AID subroutine. The SAM.AID subroutine determines the most representative transport function based on the hydraulic parameters and percent finer data by comparing model data with peer-reviewed sediment transport studies. The study found that Meyer-Peter and Muller (MPM) was the representative transport function for all subreaches for both existing and proposed conditions because it produced adjustment values within physical reason.

SAM was run for all River reaches and bed stability was estimated based on the change in potential transport between adjacent channel

subreaches for the QCAP discharge. General adjustment was also calculated using the equation specified in the Los Angeles County Hydrology and Sedimentation Manual (LACH&SM).

Long-term adjustment was calculated based on historical records in the form of topographic data. Topographic data dating from 1930, 1947, 1963, 1999, 2004 and 2005, was digitized. Cross-sections were cut at the locations of select HEC-RAS sections for each of the above referenced years from historical topography. At least one cross-section was chosen for each subreach. Areas of the 1947, 1963, 1999, 2004 and 2005 sections are calculated and the areas of the 1947, 2004 and 2005 bed are used to calculate the average change in bed elevation over time. The 1930 topography is not used to calculate average change in bed because the trends in bed change that occurred during this year occurred immediately following the failure of the St. Francis Dam upstream of the project site. Several events within the available historical record (1930 to present) have had an impact on the River bed and fluvial mechanics. Within the project reach, the failure of the Dam appears to have resulted in the abrupt scour of the bed. The sectional analysis finds that some historical sections (SRD2, SRD3, SRE1, SRE2) show little change between 1947 and 2005 suggesting an approximate equilibrium state for these subreaches. Between 1947 and 2005, 0.5, 0.7, 1.0, and 0.8 feet, respectively, of cumulative degradation appears to have occurred on these sections. Upstream sections SRA1 to SRC3 show continuous degradation over the period of record from 1947 to the present. Three sections, SRC4, SRD1 and SRE3 aggraded cumulatively between 1947 and 2005 by 1.9, 1.4, and 3.1 feet on average, respectively. While it is unclear why the observed aggradation occurred, it is presently believed to be the result of the fires of the summer of 2004 and the heavy rains of the 2004/2005 rainy season. This combination had the potential to produce high sediment runoff loading into the River. Degradation seems to be more prevalent on the upper half of the study reach while mild fluctuations are more apparent on the lower half. This appears to result from the relatively steep, narrow, winding upper portion of the study reach versus the relatively flat, wide, braided channel in the lower portion of the study reach of the River. Agricultural activities occurred, primarily in downstream sections but in upstream sections as well, so some of the observed channelization may have resulted from these activities.

Other scour considered in this study is comprised of four sub-categories: local scour, bend scour, low-flow incisement, and bedform height. Local scour occurs in the vicinity of flow obstructions including piers and abutments. Bend scour occurs because of velocity gradients around curves in fluvial systems. Three distinct bends are located in the study reach. Low flow incisement is included to represent thalweg or low flow channel depth. On-site inspection and review of historic data of this feature suggest a thalweg depth of approximately two feet. Finally, bedform height represents the dunes and anti-dunes that develop in active soft-bottomed channels during flow events. In this study, bedform height has been limited after Kennedy (1963).

General adjustment, long-term adjustment, and other scour are summed to determine total potential bed adjustment following LACH&SM methodology (Newhall Ranch River Fluvial Study - Phase 1 Final Draft, Figure 7.1 A-D). For cross-sections where SAM modeling predicts aggradation, the general adjustment contribution to total bed adjustment is not included for degradation calculations.

Freeboard is considered for the purposes of this report to be the additional height required above the top of a levee or other bank protection to prevent overtopping. Freeboard elevation is calculated in this study based on LACH&SM Chapter 5A-3, and includes LACFCDDM calculations.

3 Existing Conditions

3.1 Drainage Areas and Watercourses

The Santa Clara River traverses the northern portion of the Mission Village Project site, which is located within a contributing drainage of 2,690 acres out of the 1,634 square mile Santa Clara River watershed basin (PSOMAS, Mission Village Drainage Concept Report). This area represents less than 1 percent of the Santa Clara River basin and consists primarily of agricultural and vacant property. Rainfall in the tributary area is an annual average of 17-inches and generally occurs in the winter months. Runoff flows to and through seven contributing drainage areas on the site via sheet flows and natural concentrated flows.

3.1.1 Santa Clara River

The reach of the Santa Clara River adjacent to, and downstream of, the Project site has perennial surface flows primarily created by tertiary treated effluent discharges from two upstream water reclamation plants operated by the County Sanitation Districts of Los Angeles County. Natural flows in the River usually only occur in the winter due to storm runoff. The flows vary significantly from year-to-year.

The reach of the River within and adjacent to the Project site has multiple channels (braided). This kind of system is characterized by high sediment loads, bank erodibility, and intense and intermittent runoff conditions. Combined with the relatively flat gradient of the River at this point (less than one percent), the River has a potential to aggrade (deposit sediment) at low flow velocities.

Velocities and water surface elevations in the River vary from section-to-section based on various hydraulic and hydrologic parameters. In general, velocity and depth along the River will increase with higher discharge. An example of these relationships is provided in Table 3.1. This data indicates that velocities measured in feet per second (fps), more than double, on average, from the 2-year to the 100-year event, while the cross-sectional flow area increases about ten fold for the same the 2-year to the 100- year event. Similarly, discharge increases almost 23 times from the 2-year to the 100-year event. Velocity and cross-sectional flow area rate of increases do not correspond to the rate of discharge increases because the wide River channel allows flood flows to spread out with increasing discharge.

TABLE 3.1: DISCHARGE, VELOCITY AND FLOW AREA CHANGES BY CROSS SECTION FOR Q_2 AND Q_{100}

STATION	EVENT	FLOW Q (CFS)	VELOCITY (FPS)	FLOW AREA A (FT^2)	Q_{100}/Q_2	A_{100}/A_2
39755	Q100	40300	12.49	3226.02		
	Q2	1720	3.83	449.51	23.4	7.2
39605	Q100	40300	14.46	2786.9		
	Q2	1720	5.09	337.6	23.4	8.3
39310	Q100	40300	13.04	3091.6		
	Q2	1720	5.93	290.0	23.4	10.7
39100	Q100	40300	16.06	2509.8		
	Q2	1720	3.56	483.4	23.4	5.2
38925	Q100	40300	11.39	3558.1		
	Q2	1720	5.64	304.7	23.4	11.7
38710	Q100	40300	8.73	4659.1		
	Q2	1720	3.71	463.6	23.4	10.0
38475	Q100	40300	12.80	3147.3		
	Q2	1720	6.08	283.1	23.4	11.1
38300	Q100	40300	16.59	2429.7		
	Q2	1720	5.94	289.6	23.4	8.4
38065	Q100	40300	9.48	4253.0		
	Q2	1720	3.19	539.6	23.4	7.9
37810	Q100	40300	12.99	3102.3		
	Q2	1720	4.71	365.4	23.4	8.5
37655	Q100	40300	13.43	2999.9		
	Q2	1720	5.01	343.5	23.4	8.7
37390	Q100	40300	13.41	3004.6		
	Q2	1720	4.46	385.9	23.4	7.8
37135	Q100	40300	9.61	4193.0		
	Q2	1720	4.76	361.7	23.4	11.6
36930	Q100	40300	7.62	5287.8		
	Q2	1720	2.92	588.3	23.4	9.0
36735	Q100	40300	6.91	5839.0		
	Q2	1720	4.46	385.9	23.4	15.1
36515	Q100	40300	5.50	7327.6		
	Q2	1720	2.55	674.1	23.4	10.9
36358	Q100	40300	4.87	8271.9		
	Q2	1720	1.95	880.9	23.4	9.4
36239	Q100	40300	5.31	7590.3		
	Q2	1720	2.51	686.6	23.4	11.1
36080	Q100	58207	12.21	4875.0		
	Q2	2527	6.37	396.5	23.0	12.3
35845	Q100	58207	8.77	6633.5		
	Q2	2527	5.04	501.3	23.0	13.2
35725	Q100	58207	8.84	6700.6		
	Q2	2527	4.21	600.8	23.0	11.2
35515	Q100	58207	9.92	7257.8		
	Q2	2527	3.10	814.9	23.0	8.9
35245	Q100	58207	8.26	8407.5		
	Q2	2527	1.87	1348.5	23.0	6.2
35040	Q100	58207	8.59	6776.4		
	Q2	2527	3.82	662.0	23.0	10.2
34860	Q100	58207	11.90	4889.6		
	Q2	2527	4.97	508.9	23.0	9.6
34720	Q100	58207	13.20	4408.5		
	Q2	2527	6.22	406.3	23.0	10.8
34495	Q100	58207	8.16	7136.3		
	Q2	2527	4.78	528.6	23.0	13.5

TABLE 3.1 (CONTUNUED)

STATION	EVENT	Q (CFS)	VELOCITY (FPS)	FLOW AREA A (FT^2)	Q_{100}/Q_2	A_{100}/A_2
34310	Q100	58207	6.71	8670.58		
	Q2	2527	5.37	470.36	23.0	18.4
34090	Q100	58207	5.63	10339.8		
	Q2	2527	4.36	580.1	23.0	17.8
33880	Q100	58207	4.84	12034.4		
	Q2	2527	4.32	585.0	23.0	20.6
33710	Q100	58207	4.71	12351.1		
	Q2	2527	4.03	626.4	23.0	19.7
33500	Q100	58207	4.39	13269.0		
	Q2	2527	2.82	896.5	23.0	14.8
33310	Q100	58207	4.75	12259.7		
	Q2	2527	5.23	483.1	23.0	25.4
33115	Q100	58207	6.36	9149.2		
	Q2	2527	2.60	973.6	23.0	9.4
32795	Q100	58207	10.48	5553.5		
	Q2	2527	5.97	423.4	23.0	13.1
32605	Q100	58207	11.52	5055.2		
	Q2	2527	5.75	439.3	23.0	11.5
32265	Q100	58922	15.41	3823.1		
	Q2	2558	3.97	643.9	23.0	5.9
31875	Q100	58922	7.49	7869.5		
	Q2	2558	3.24	789.7	23.0	10.0
31585	Q100	58922	7.37	7998.6		
	Q2	2558	3.40	752.6	23.0	10.6
31360	Q100	58922	7.71	7642.4		
	Q2	2558	3.02	848.4	23.0	9.0
31060	Q100	58922	5.72	10293.5		
	Q2	2558	6.03	424.0	23.0	24.3
30720	Q100	58922	4.35	13538.5		
	Q2	2558	4.49	569.8	23.0	23.8
30445	Q100	58922	3.85	15328.0		
	Q2	2558	4.89	523.0	23.0	29.3
30095	Q100	58922	3.83	15435.1		
	Q2	2558	2.32	1104.9	23.0	14.0
29815	Q100	58922	4.45	13345.3		
	Q2	2558	1.79	1428.3	23.0	9.3
29565	Q100	58922	4.50	13227.4		
	Q2	2558	1.33	1919.3	23.0	6.9
29385	Q100	58922	5.43	10963.6		
	Q2	2558	1.52	1686.6	23.0	6.5
29140	Q100	58922	8.64	6819.6		
	Q2	2558	3.62	706.3	23.0	9.7
28895	Q100	58922	15.61	3774.1		
	Q2	2558	7.86	325.5	23.0	11.6
28695	Q100	58922	25.81	2283.1		
	Q2	2558	4.76	537.7	23.0	4.2
28500	Q100	58922	21.85	2696.9		
	Q2	2558	6.48	394.5	23.0	6.8
28280	Q100	58922	14.46	4074.3		
	Q2	2558	3.44	744.3	23.0	5.5
28080	Q100	58922	12.28	4797.1		
	Q2	2558	5.68	450.4	23.0	10.7
27925	Q100	58922	11.84	4985.0		
	Q2	2558	4.54	562.9	23.0	8.9

TABLE 3.1 (CONTUNUED)

STATION	EVENT	Q (CFS)	VELOCITY (FPS)	FLOW AREA A (FT^2)	Q_{100}/Q_2	A_{100}/A_2
27725	Q100	58922	16.45	3581.37		
	Q2	2558	5.09	502.11	23.0	7.1
27545	Q100	58922	19.42	3034.2		
	Q2	2558	5.35	478.4	23.0	6.3
27335	Q100	58922	13.94	4226.1		
	Q2	2558	4.65	550.5	23.0	7.7
27155	Q100	58922	15.42	3879.1		
	Q2	2558	4.33	591.4	23.0	6.6
26990	Q100	58922	16.60	3550.0		
	Q2	2558	6.18	414.1	23.0	8.6
26780	Q100	58922	17.96	3331.7		
	Q2	2558	5.27	485.2	23.0	6.9
26575	Q100	58922	8.84	6668.1		
	Q2	2558	4.24	603.8	23.0	11.0
26355	Q100	58922	9.72	6411.1		
	Q2	2558	5.23	488.8	23.0	13.1
26170	Q100	58922	13.44	4883.0		
	Q2	2558	5.98	428.0	23.0	11.4
25965	Q100	58922	17.18	3508.5		
	Q2	2558	4.01	638.0	23.0	5.5
25785	Q100	58922	9.37	6816.1		
	Q2	2558	2.91	880.3	23.0	7.7
25600	Q100	58922	9.79	6984.6		
	Q2	2558	4.01	638.1	23.0	10.9
25425	Q100	58922	11.47	5518.2		
	Q2	2558	4.11	622.5	23.0	8.9
25215	Q100	58922	11.58	5377.9		
	Q2	2558	6.90	370.7	23.0	14.5
25000	Q100	58922	14.10	4272.0		
	Q2	2558	5.36	477.1	23.0	9.0
24795	Q100	58922	13.88	4518.9		
	Q2	2558	6.05	423.0	23.0	10.7
24550	Q100	58922	15.17	5034.8		
	Q2	2558	4.22	605.8	23.0	8.3
24335	Q100	58922	14.04	5304.5		
	Q2	2558	5.40	473.8	23.0	11.2
24115	Q100	58922	12.93	5544.4		
	Q2	2558	5.88	435.2	23.0	12.7
23975	Q100	58922	14.01	5584.8		
	Q2	2558	4.57	559.9	23.0	10.0
23755	Q100	58922	12.64	6112.3		
	Q2	2558	5.35	477.7	23.0	12.8
23565	Q100	58922	11.15	6878.8		
	Q2	2558	7.81	327.7	23.0	21.0
23365	Q100	58922	9.79	7598.0		
	Q2	2558	5.39	474.3	23.0	16.0
23180	Q100	58922	12.57	7071.4		
	Q2	2558	5.97	428.6	23.0	16.5
23000	Q100	58922	16.41	3589.9		
	Q2	2558	3.47	737.8	23.0	4.9
22790	Q100	58922	6.78	8688.7		
	Q2	2558	5.90	433.4	23.0	20.0
22600	Q100	58922	12.78	6378.9		
	Q2	2558	4.63	552.6	23.0	11.5

TABLE 3.1 (CONTUNUED)

STATION	EVENT	Q (CFS)	VELOCITY (FPS)	FLOW AREA A (FT^2)	Q_{100}/Q_2	A_{100}/A_2
22415	Q100	58922	11.40	6766.1		
	Q2	2558	6.19	413.3	23.0	16.4
22195	Q100	59457	12.33	4822.0		
	Q2	2581	6.78	380.6	23.0	12.7
22010	Q100	59457	16.14	3683.2		
	Q2	2581	4.02	642.5	23.0	5.7
21790	Q100	59457	15.88	3745.0		
	Q2	2581	3.99	647.1	23.0	5.8
21615	Q100	59457	12.98	4607.3		
	Q2	2581	5.82	443.3	23.0	10.4
21440	Q100	59457	14.63	4065.2		
	Q2	2581	5.47	471.4	23.0	8.6
21225	Q100	59457	14.76	4270.8		
	Q2	2581	5.68	454.6	23.0	9.4
21020	Q100	59457	12.33	5479.6		
	Q2	2581	4.54	568.2	23.0	9.6
20845	Q100	59457	11.58	6079.1		
	Q2	2581	5.81	444.3	23.0	13.7
20595	Q100	59457	10.49	7086.3		
	Q2	2581	4.39	587.3	23.0	12.1
20435	Q100	59457	8.93	8695.4		
	Q2	2581	2.96	873.0	23.0	10.0
20280	Q100	59457	11.68	6518.8		
	Q2	2581	6.20	416.3	23.0	15.7
20070	Q100	59457	15.87	3937.9		
	Q2	2581	5.16	500.6	23.0	7.9
19855	Q100	59457	13.97	4384.3		
	Q2	2581	5.02	514.0	23.0	8.5
19630	Q100	59457	10.88	6278.6		
	Q2	2581	4.65	555.2	23.0	11.3
19440	Q100	59457	9.02	7627.1		
	Q2	2581	3.93	657.3	23.0	11.6
19240	Q100	59457	10.88	6140.3		
	Q2	2581	5.86	440.8	23.0	13.9
19050	Q100	59457	7.65	8794.9		
	Q2	2581	4.27	604.8	23.0	14.5
18830	Q100	59457	8.72	8804.4		
	Q2	2581	5.54	465.9	23.0	18.9
18650	Q100	59457	7.72	9802.3		
	Q2	2581	5.91	436.8	23.0	22.4
18475	Q100	59457	6.89	11311.5		
	Q2	2581	5.31	486.1	23.0	23.3
18290	Q100	59457	6.80	11250.5		
	Q2	2581	6.32	408.3	23.0	27.6
18025	Q100	59457	5.08	12735.9		
	Q2	2581	3.72	693.6	23.0	18.4
17785	Q100	59457	5.06	11816.4		
	Q2	2581	2.86	904.0	23.0	13.1
17510	Q100	59457	8.59	6922.5		
	Q2	2581	4.29	601.8	23.0	11.5
17360	Q100	59457	10.50	5689.1		
	Q2	2581	4.50	573.8	23.0	9.9
17110	Q100	59457	11.83	5062.5		
	Q2	2581	4.53	569.7	23.0	8.9

TABLE 3.1 (CONTUNUED)

STATION	EVENT	Q (CFS)	VELOCITY (FPS)	FLOW AREA A (FT^2)	Q_{100}/Q_2	A_{100}/A_2
16970	Q100	59457	12.20	4928.29		
	Q2	2581	3.84	672.05	23.0	7.3
16720	Q100	59457	11.52	5309.7		
	Q2	2581	6.52	395.9	23.0	13.4
16515	Q100	59457	14.04	4595.7		
	Q2	2581	5.84	442.0	23.0	10.4
16305	Q100	59457	10.50	7049.3		
	Q2	2581	5.18	497.9	23.0	14.2
16130	Q100	59457	11.73	7145.7		
	Q2	2581	3.96	651.2	23.0	11.0
15960	Q100	59457	12.95	6468.5		
	Q2	2581	6.68	386.2	23.0	16.7
15745	Q100	59457	9.00	8605.0		
	Q2	2581	7.14	361.3	23.0	23.8
15540	Q100	59457	9.38	7870.7		
	Q2	2581	4.55	567.1	23.0	13.9
15335	Q100	59457	6.45	9227.9		
	Q2	2581	6.52	395.6	23.0	23.3
15125	Q100	60000	5.53	10882.4		
	Q2	2600	3.01	862.8	23.1	12.6
14900	Q100	60000	5.93	11850.9		
	Q2	2600	2.25	1157.3	23.1	10.2
14720	Q100	60000	5.52	12068.9		
	Q2	2600	4.98	522.1	23.1	23.1
14480	Q100	60000	8.60	7915.5		
	Q2	2600	4.64	559.8	23.1	14.1
14315	Q100	60000	9.02	6650.7		
	Q2	2600	4.37	594.8	23.1	11.2
14090	Q100	60000	8.42	7122.4		
	Q2	2600	5.00	519.7	23.1	13.7
13850	Q100	60000	6.70	8950.5		
	Q2	2600	6.20	419.3	23.1	21.3
13635	Q100	60000	12.93	6795.2		
	Q2	2600	4.11	633.2	23.1	10.7
13425	Q100	60000	15.12	3968.3		
	Q2	2600	4.32	601.6	23.1	6.6
				MAXIMUM=	23.4	29.3
				MINIMUM=	23.0	4.2
				AVERAGE=	23.1	12.1

3.1.2 On-Site Drainages

Flows discharge from the Project to the River from approximately eight on-site areas (over 100 sub-basins). The acreage for each of the existing drainage sub-basins is provided in Table 3.2- PSOMAS. There are currently two existing drainage or erosion/sedimentation control improvements located within the Project site. The existing drainage infrastructure is two open channel facilities; PD 1052 that runs through Magic Mountain Theme Park and a second open channel that runs along Old Road. The Old Road drainage will be replaced by an RCB (MTD 1764 by Metropointe Engineers) upon relocation of the existing Old Road concrete channel prior to this project. Both of these channels discharge into the Santa Clara River.

Table 3.2: Existing On-site Drainages and Runoff Quantities

Sub basins	Area (AC)	Qbb (cfs)	Q/A (cfs/Ac)
1-23 series	743.8	1406	1.89
30-50 series	533.9	994	1.86
50 series	357.1	450	1.26
60 series	169.3	397	2.34
70 series	24.5	69	2.82
75 series	17.3	49	2.83
80 series	58.8	106	1.80
90 series	95.8	200	2.09
100 series	82.2	174	2.12
120 series	12.5	31	2.48
500 series	102.7	257	2.50
600 series	402.1	1265	3.15
610 series	19.8	61	3.08
620 series	21.6	60	2.78
622 series	6.0	21	3.50
S	2647.4	5,540	2.09

Notes:
bb: Burned and bulked flow
This was calculated by Sikand in the Newhall Ranch Specific Plan Master Hydrology and

Project Site runoff quantities for the Capital Flood for each of the six existing drainages defined by PSOMAS are provided in Table 3.2. Under existing conditions, combined flows from the Project site to the River total 5,540 cfs. Existing flow rates from observed data for the River at the Project site during 2-, 5-, 10-, 20-, 50-, 100-year and Capital storm events are compiled in Table 3.3.

Table 3.3: Existing Conditions River Flows Stations 32265 to 22195 Downstream of Castaic Creek Confluence	
Recurrence Interval	**Flow (Discharge) Rate (cfs)**
2-Year[1]	2,527
5-Year[1]	8,232
10-Year[1]	14,942
20-Year[1]	24,157
50-Year[1]	41,141
100-Year[1]	58,207
Capital Flood[3]	163,000
Capital Flood[2]	140,776

[1]*Existing flows from United States Army Corps of Engineers, Santa Clara River Adopted Discharge Frequency Values. Adopted May 3, 1994 by the United States Army Corps of Engineers, the Ventura County Flood Control Department*

[2]*LADPW Published Capital Flood Design Flows*

[3]Q_{CAP} *used in the SPEIR*

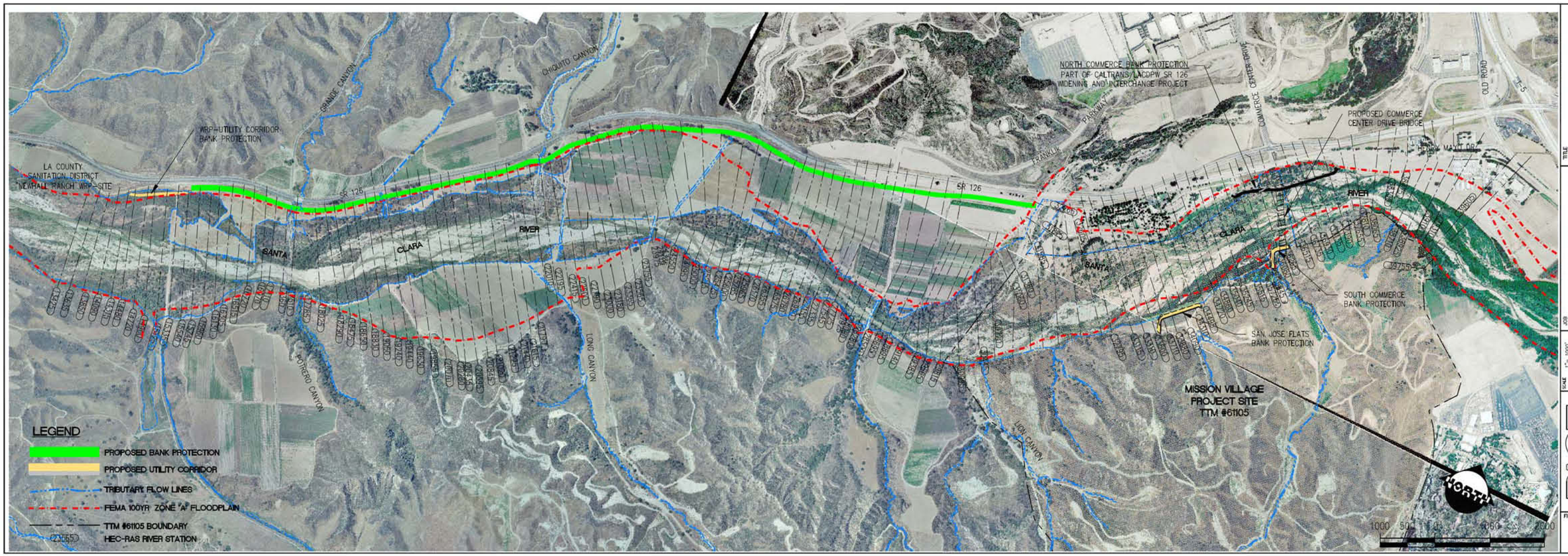
3.1.3 Off-Site Drainages

The total contributing drainage area that drains the onsite and offsite Mission Village watershed is approximately 2,690 acres (PSOMAS, Mission Village Drainage Concept Report, October 2006). This runoff flows to and through the Project site via sheet flows and natural concentrated flows. The revised Capital Flood on the River is 140,776 cfs at the Castaic Creek confluence. The Project site peak existing (burned and bulked) flow rate is approximately 186,100 cfs for the existing condition and 4,866 cfs for the proposed project condition. Therefore, Capital Flood flows from the Project site are approximately four percent of the River Capital Flood discharge rate.

In addition to the 2,690 acre drainage area, there are four jurisdictional drainages located in the vicinity of the Project, excluding the Santa Clara River. These include Castaic Creek, Chiquito Canyon Creek, San Martinez Grande Canyon Creek and Potrero Canyon Creek.

3.2 Flood Hazards

A portion of the Project site lies within the 100-year floodplain of the River and within the FEMA 100-year floodplain identified by FEMA Flood Insurance Rate Map (FIRM) No. 065043-0340 B (October 24, 2002) and 065043-0345 B (October 24, 2002) for the unincorporated areas of Los Angeles County. The FEMA 100-year floodplain is shown in Figure 3.1, and the FIRM is included in the Appendix. The 100-year floodplain boundaries are based on historical runoff records as measured with stream gauges. Mapping the 100-year floodplain is important because FEMA and the Federal Insurance Administration (FIA) use it to establish standards for flood insurance coverage. Under FIA criteria, the 100-year flood elevation is the “base flood” and any land that is outside of this 100-year, or base flood, elevation would be considered reasonably safe and free from flood hazard. The Capital flood is a discharge used by LACDPW for design



A full-size reproduction of this figure can be found at Impact Sciences.

purposes in Los Angeles County, as described above. All bank protection in Newhall Ranch will be designed to County Capital flood criteria.

Table 3.4 run shows the areas of each existing floodplain and stream for eight storm events. The existing velocities for the 2-, 5-, 10-, 20-, 50-, 100-year and Capital flood events are shown in Figure 3.2A-G run.

Table 3.4: River Floodplain Area for Different Discharges – Existing Conditions

Flood Event (years)	Area of Floodplain (AC)
2	230.6
5	303.7
10	357.6
20	510.6
50	728.8
100	804.2
CAP	979.3

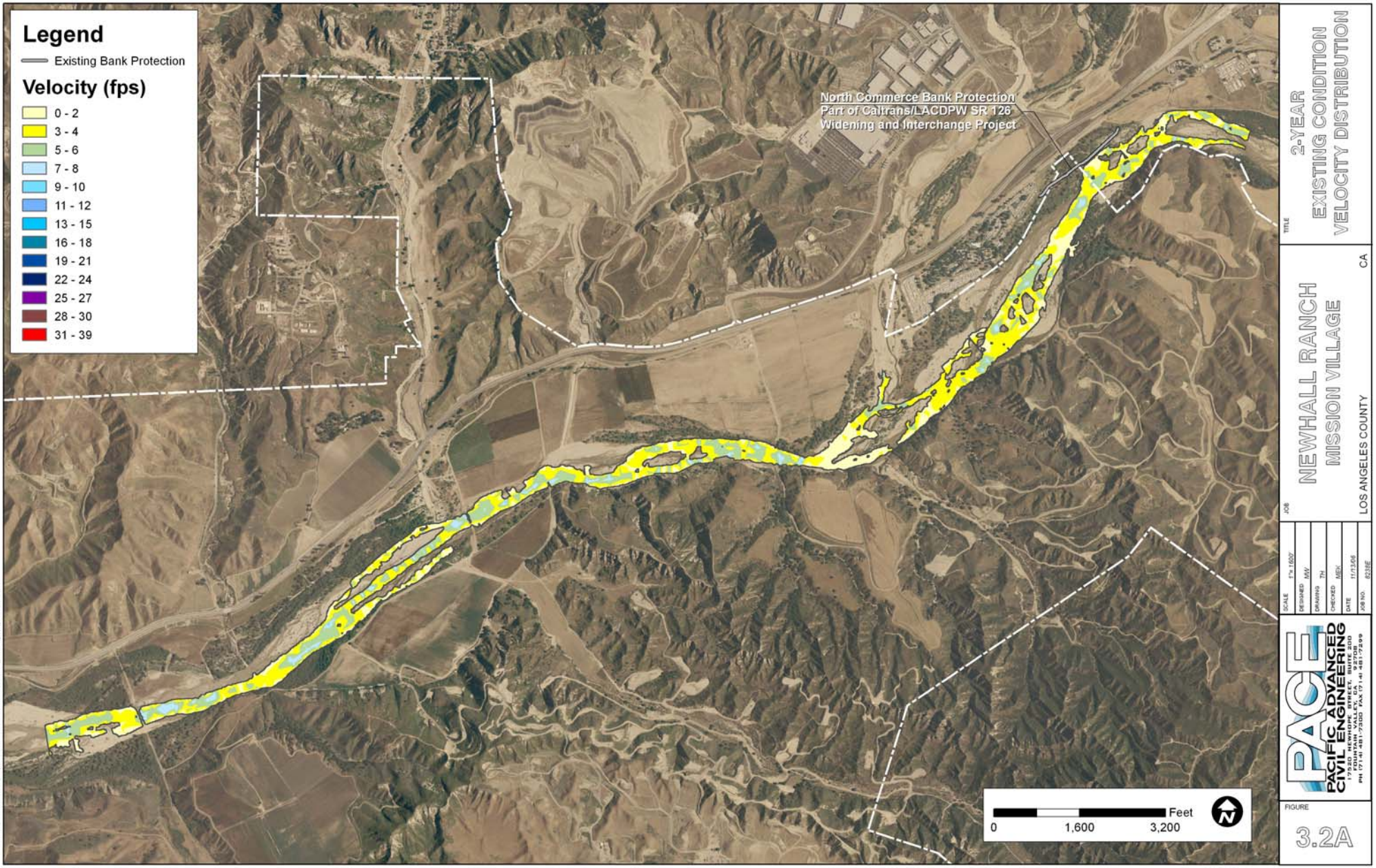
3.3 River and Floodplain Existing Conditions

The difference in elevation between the active channel bottom and the 100-year floodplain along the margins of the River varies greatly at the Project site. This difference ranges from approximately 5.5 to 19.6 feet and is dependent upon the width of the River channel at a particular location. For example, in wider portions of the River channel where flows widen with corresponding low velocities, there is only a small elevation difference between the channel bottom and the adjacent floodplain boundary. In contrast, the channel is often deep where it is narrower, creating a large elevation difference between the channel bottom and the floodplain boundary.

The existing River channel contains a variety of vegetation types. The active River channel is mostly barren due to annual scouring. However, vegetation types on the adjacent terraces vary based on elevation relative to the active channel bottom and the frequency of flooding. The following series of vegetation types occur along a vertical gradient from the channel bottom to the highest River terrace on the floodplain: emergent herbaceous, woody shrubs, and trees.

The substrate of the River channel (i.e., top layer of the River bottom) is primarily sand, which is actively eroded and deposited in flood events. Previous studies (Simons and Li) by the Los Angeles County Flood Control District have demonstrated that sediment deposition and scouring along the upper Santa Clara River are generally in equilibrium, and that there are no major trends of channel degradation or aggradation. However, some localized areas may experience either greater scouring or deposition.

The existing conditions hydraulics for the River from west of I-5 to an area generally west of the Ventura County/Los Angeles County line is presented in the Newhall Ranch Santa Clara River HEC-RAS Modeling study (PACE, December,



TITLE
2-YEAR
EXISTING CONDITION
VELOCITY DISTRIBUTION

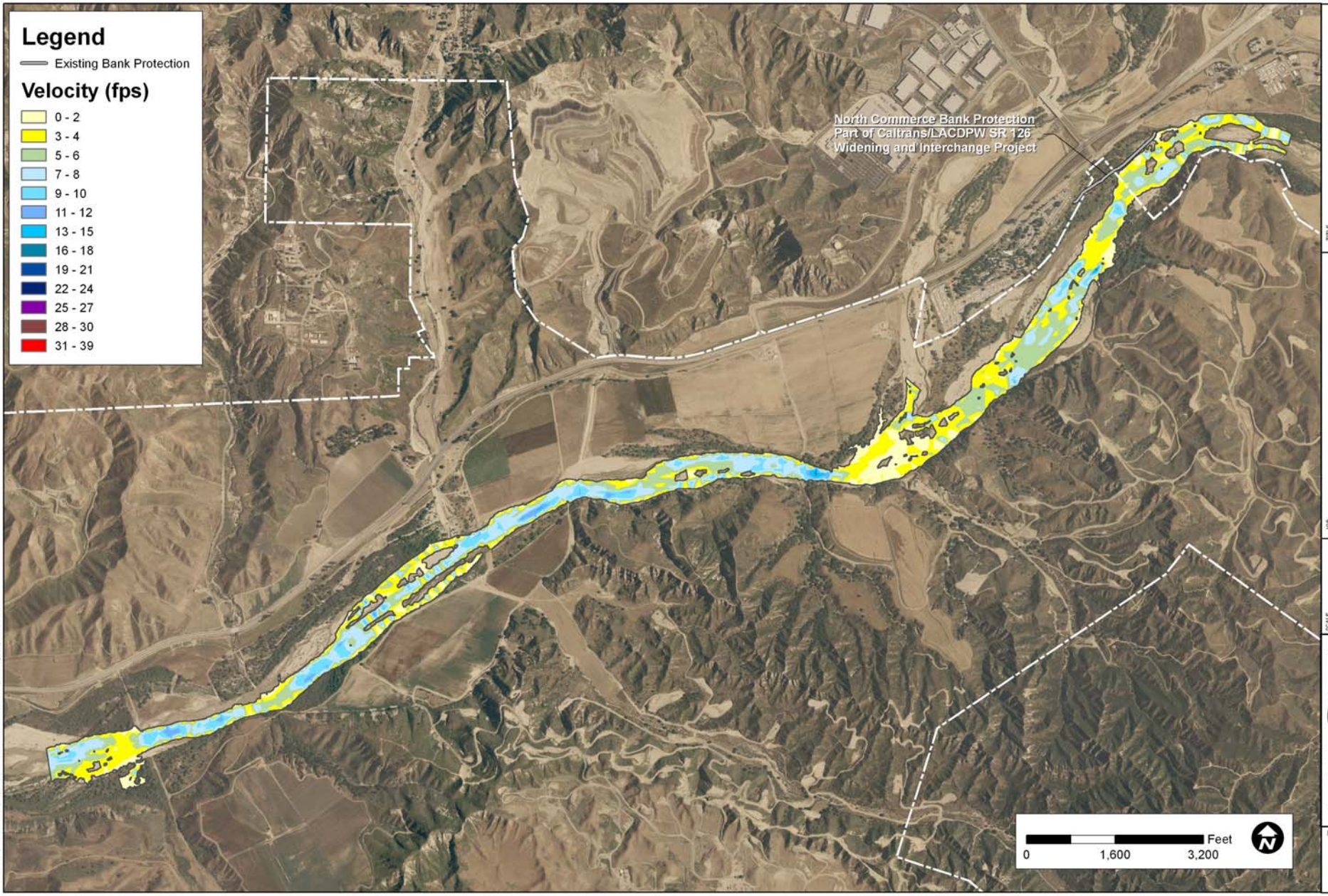
JOB
NEWHALL RANCH
MISSION VILLAGE
LOS ANGELES COUNTY
CA

SCALE 1" = 1600'
DESIGNED MW
DRAWING TH
CHECKED MEK
DATE 11/13/06
JOB NO. 6238E

PACE
PACIFIC ADVANCED CIVIL ENGINEERING
17320 NEWHOPE STREET, SUITE 200
FOUNTAIN VALLEY, CA 92708
PH (714) 481-7290 FAX (714) 481-7299

FIGURE
3.2A

FILE: \\pacefs01\swprojects\6s11E\6-GIS\mxds\6s11E_Existing2yr_110606.mxd



TITLE
5-YEAR
EXISTING CONDITION
VELOCITY DISTRIBUTION

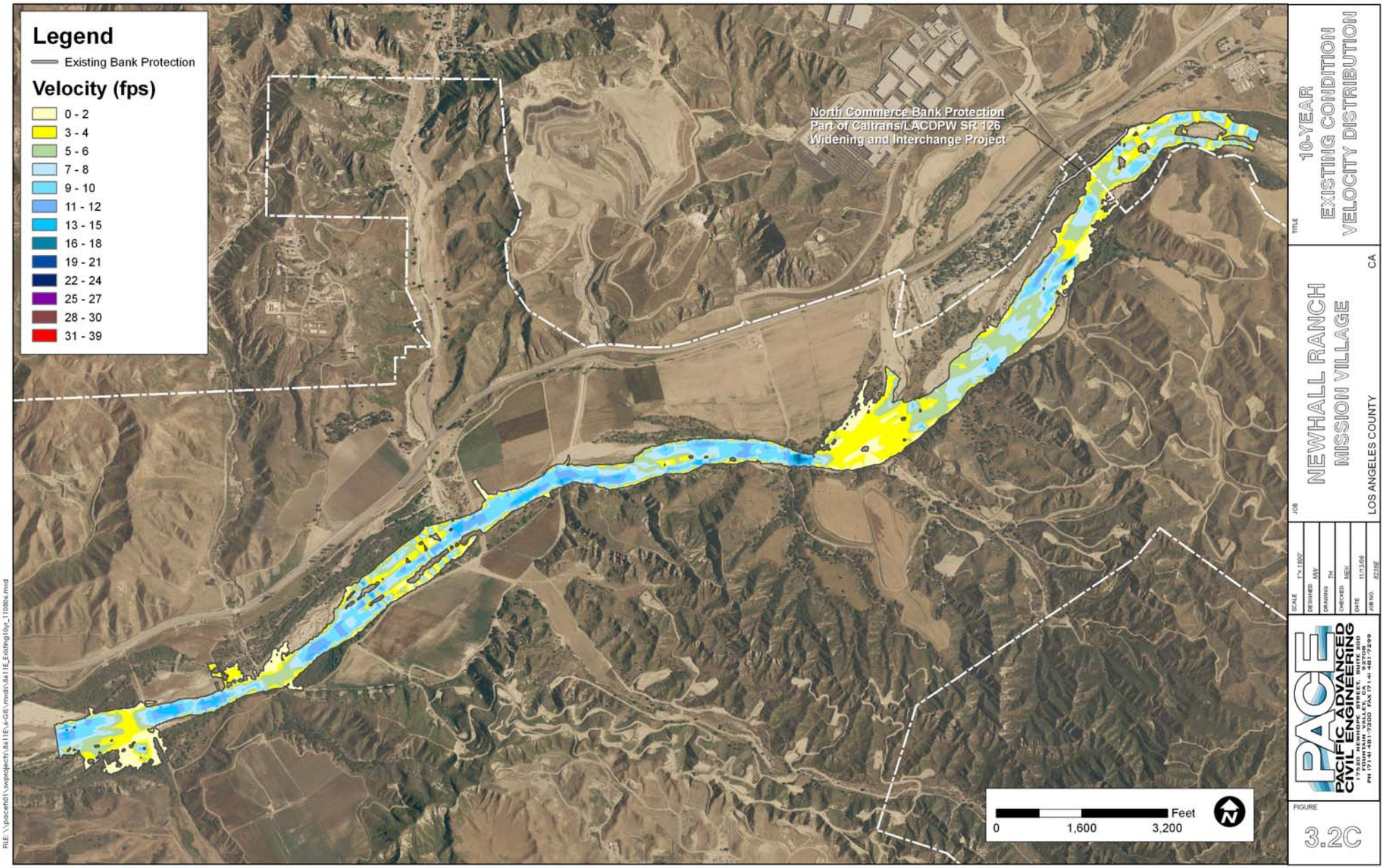
JOB
NEWHALL RANCH
MISSION VILLAGE
LOS ANGELES COUNTY
CA

SCALE 1" = 1600'
DESIGNED MAY
DRAWING TH
CHECKED MEK
DATE 11/13/06
JOB NO. 6238E

PACE
PACIFIC ADVANCED CIVIL ENGINEERING
17320 NEWHOPE STREET, SUITE 200
FOUNTAIN VALLEY, CA 92708
PH 714 481 7290 FAX 714 481 7299

FIGURE
3.2D

FILE: \\pacefs01\swprojects\8s11E\d-G6\mxds\8s11E_Existing5yr_110606.mxd



TITLE
10-YEAR
EXISTING CONDITION
VELOCITY DISTRIBUTION

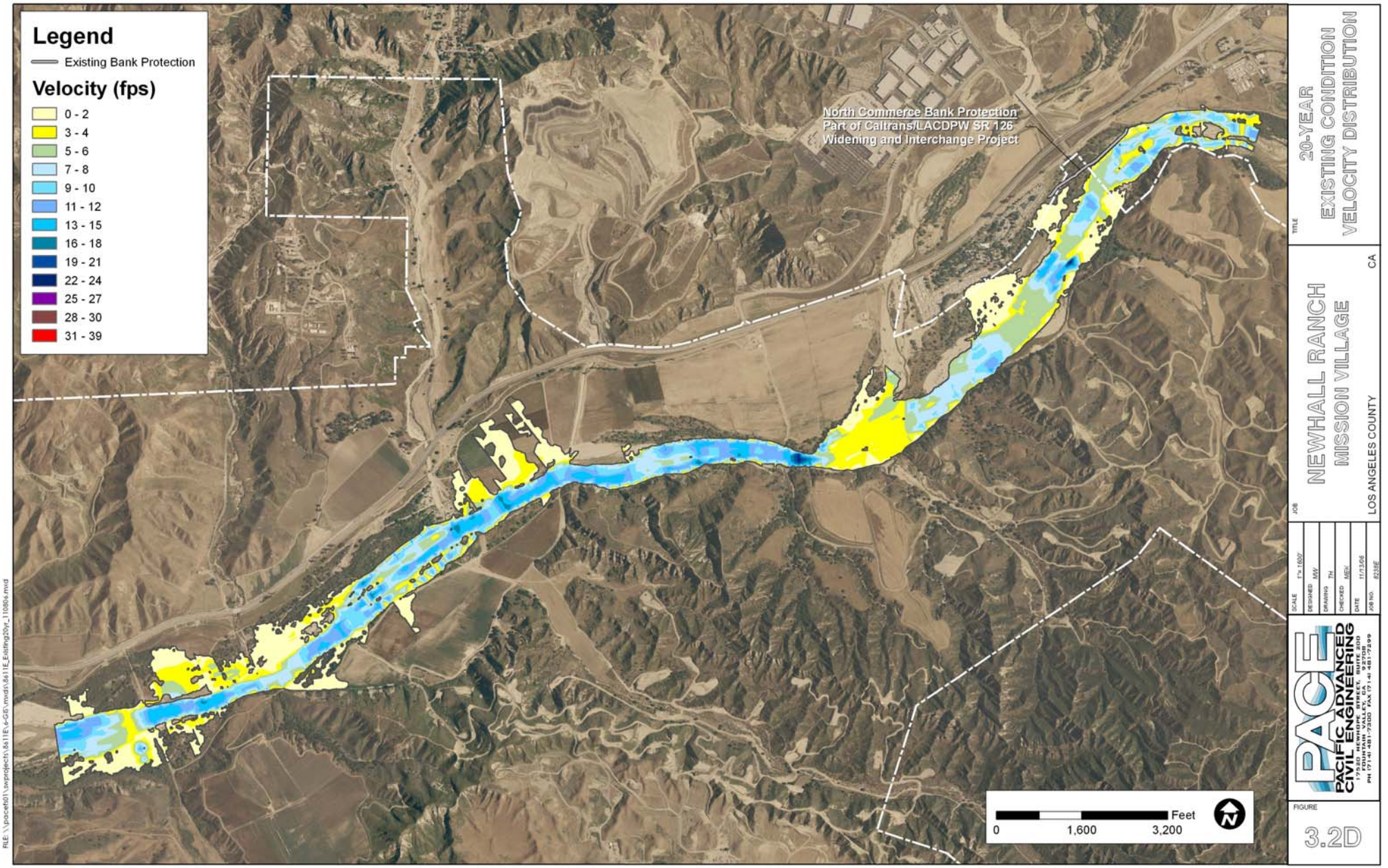
JOB
NEWHALL RANCH
MISSION VILLAGE
CA
LOS ANGELES COUNTY

SCALE 1"= 1600'
DESIGNED MW
DRAWING TH
CHECKED MEK
DATE 11/13/06
JOB NO. 6238E

PACE
PACIFIC ADVANCED CIVIL ENGINEERING
17320 NEWHOPE STREET, SUITE 200
FOUNTAIN VALLEY, CA 92708
PH (714) 481-7290 FAX (714) 481-7299

FIGURE
3.2C

FILE: \\pace01\swprojects\6s11E\6-G6\mxds\6s11E_Existing10yr_11060s.mxd



TITLE
20-YEAR
EXISTING CONDITION
VELOCITY DISTRIBUTION

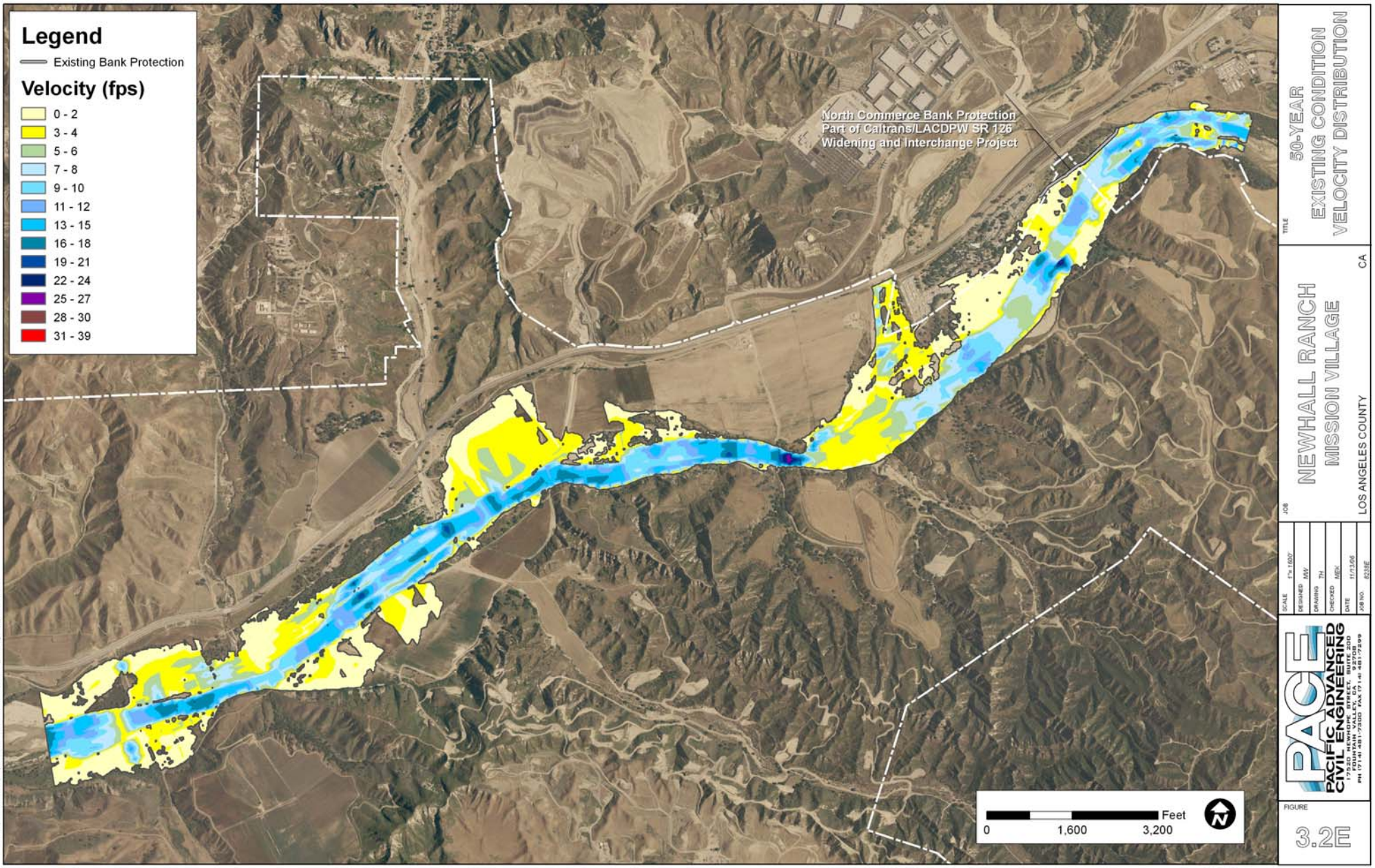
JOB
NEWHALL RANCH
MISSION VILLAGE
LOS ANGELES COUNTY
CA

SCALE 1" = 1600'
DESIGNED MW
DRAWING TH
CHECKED MEK
DATE 11/13/06
JOB NO. 6238E

PACE
PACIFIC ADVANCED CIVIL ENGINEERING
17320 NEWHOPE STREET, SUITE 200
FOUNTAIN VALLEY, CA 92708
PH (714) 481-7290 FAX (714) 481-7299

FIGURE
3.2D

FILE: \\pacefs01\swprojects\6s11E\d-G6\mxds\6s11E_Existing20yr_11080s.mxd



TITLE
50-YEAR
EXISTING CONDITION
VELOCITY DISTRIBUTION

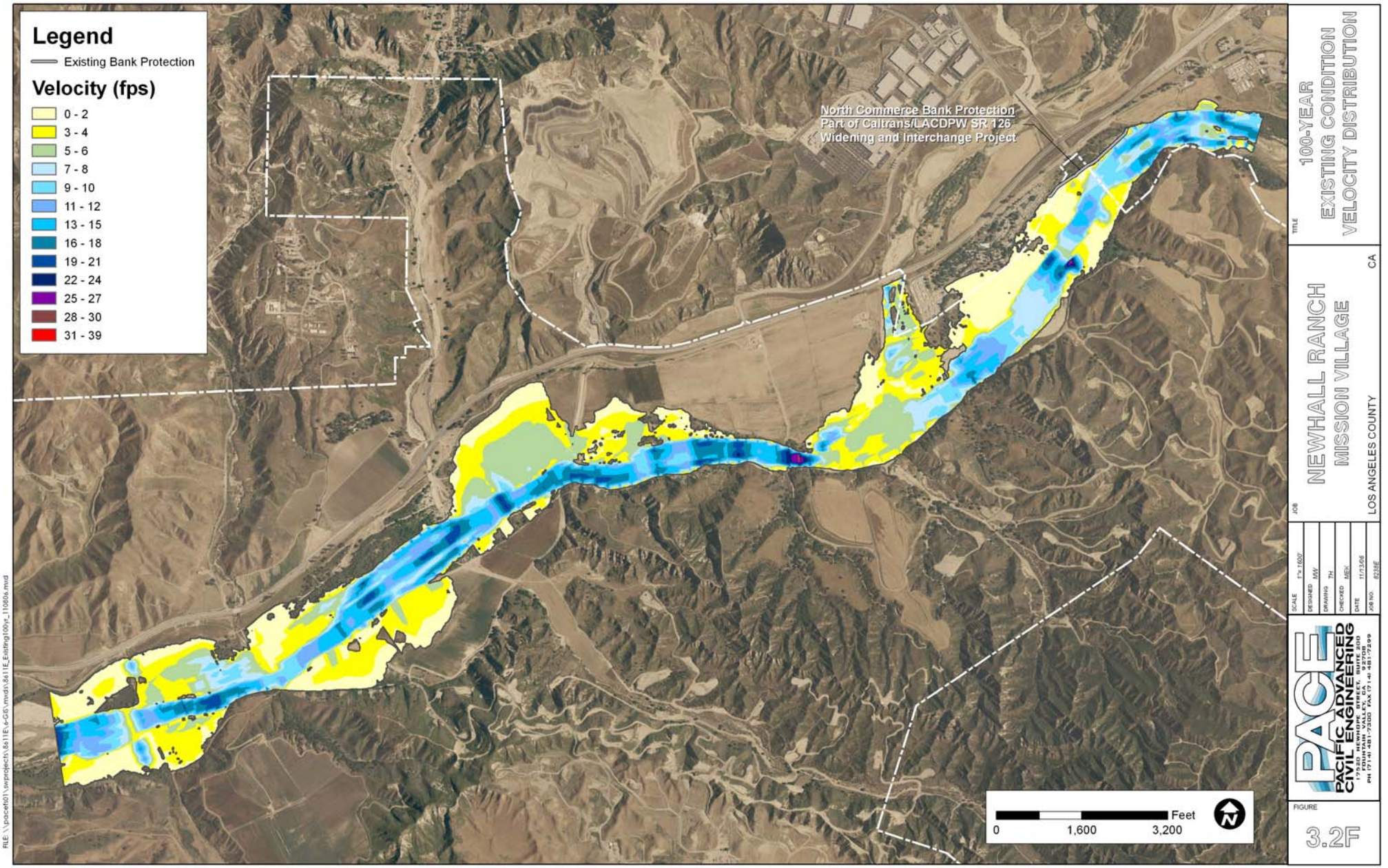
JOB
NEWHALL RANCH
MISSION VILLAGE
CA
LOS ANGELES COUNTY

SCALE 1" = 1600'
DESIGNED MAY
DRAWING TH
CHECKED MEK
DATE 11/13/06
JOB NO. 6238E

PACE
PACIFIC ADVANCED CIVIL ENGINEERING
17320 NEWHOPE STREET, SUITE 200
FOUNTAIN VALLEY, CA 92708
PH (714) 481-7200 FAX (714) 481-7299

FIGURE
3.2E

FILE: \\pacefs01\swprojects\6s11E\d-G6\mxds\6s11E_Existing50yr_11080s.mxd



TITLE
100-YEAR
EXISTING CONDITION
VELOCITY DISTRIBUTION

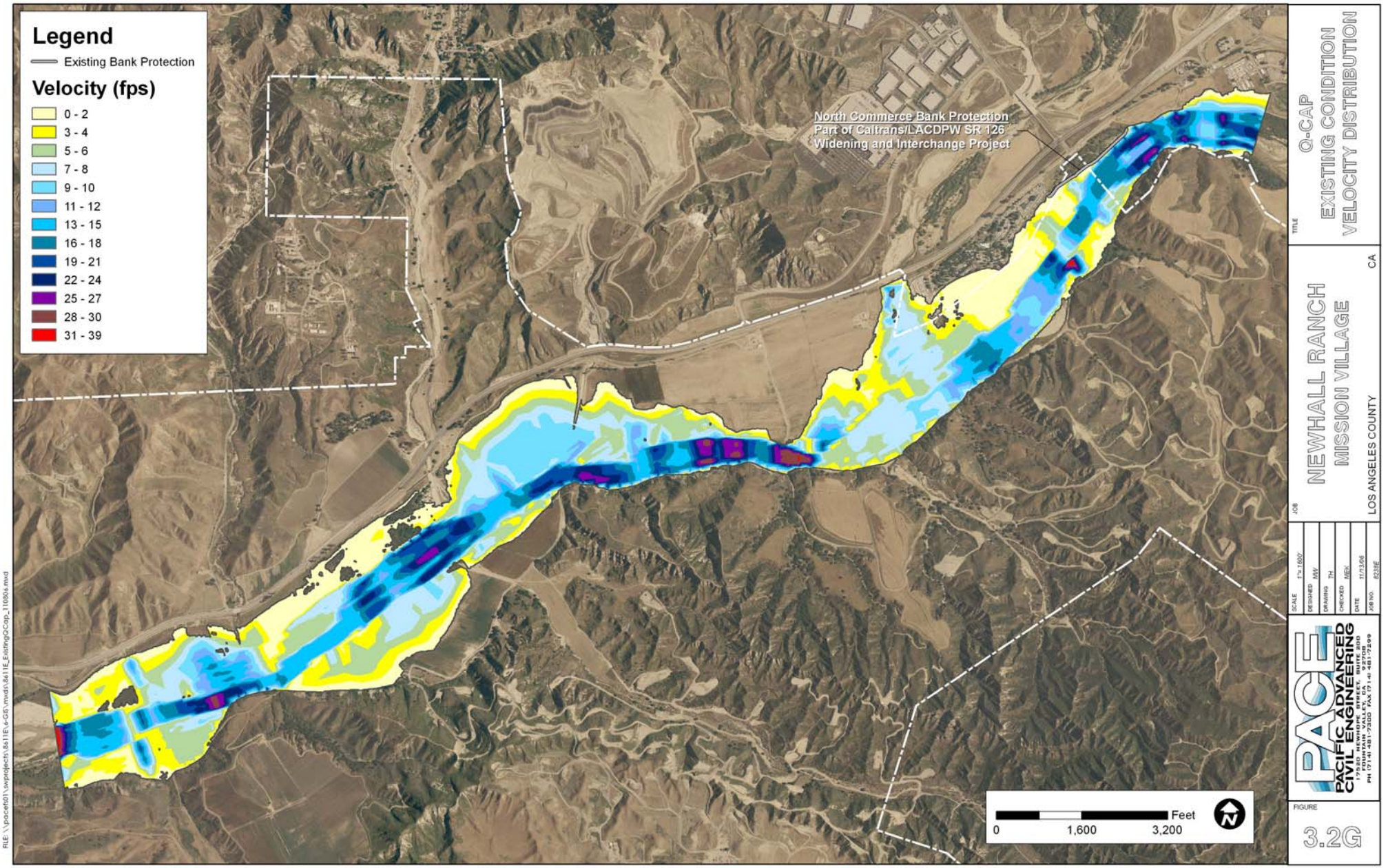
JOB
NEWHALL RANCH
MISSION VILLAGE
LOS ANGELES COUNTY
CA

SCALE	1" = 1600'
DESIGNED	MW
DRAWING	TH
CHECKED	MEK
DATE	11/13/06
JOB NO.	6238E

PACE
PACIFIC ADVANCED CIVIL ENGINEERING
17320 NEWHOPE STREET, SUITE 200
FOUNTAIN VALLEY, CA 92708
PH (714) 481-7290 FAX (714) 481-7299

FIGURE
3.2F

FILE: \\pacefs01\swprojects\8s11E\d-G6\mxds\8s11E_Existing100yr_110606.mxd



TITLE
Q-CAP
EXISTING CONDITION
VELOCITY DISTRIBUTION

JOB
NEWHALL RANCH
MISSION VILLAGE
CA
LOS ANGELES COUNTY

SCALE 1" = 1600'
DESIGNED MAY
DRAWING TH
CHECKED MEK
DATE 11/13/06
JOB NO. 6238E

PACE
PACIFIC ADVANCED CIVIL ENGINEERING
17320 NEWHOPE STREET, SUITE 200
FOUNTAIN VALLEY, CA 92708
PH 714 481 7290 FAX 714 481 7299

FIGURE
3.2G

FILE: \\pacefs01\swprojects\6s11E\d-G6\mxds\6s11E_ExistingQCap_110806a.mxd

2005 The model examined the existing conditions hydrology for the 0.025, 0.060 and 0.085 Manning's values. Existing conditions sediment transport was studied in the Newhall Ranch River Fluvial Study Phase 1 Final Draft (PACE, March, 2006). Both reports have been approved by LACDPW. As noted above, the fluvial study used the same HEC-RAS model as that presented in the hydraulic study. For the existing condition SAM was run for all River reaches and bed stability was estimated based on the change in potential transport between adjacent channel subreaches for the QCAP discharge. General adjustment was also calculated using the equation specified in the Los Angeles County Hydrology and Sedimentation Manual (LACH&SM). The LACH&SM general adjustment calculation is based only on existing conditions flow mean velocity. In most circumstances, adjustment predicted by the LACH&SM is greater (more scour) than that predicted by SAM. SAM results predict general adjustment from -2.9 to +2.3 feet, and LACH&SM methodology predicts general adjustment from -2.1 to -8.1 feet, both outside of curves (PACE, March, 2006, Table 4.4). In the PACE report the outside of the curve values and inside of curve values are considered separately, as per LACDPW criteria, since outsides of curves tend to degrade while insides of curves tend to aggrade. A general trend in general adjustment for the study reach as indicated by SAM modeling is not apparent for either the existing condition. Calculations of bend scour vary from 0.0 to 11.3 feet for the existing condition and the bedform height ranges from 0.5 to 8.3 feet.

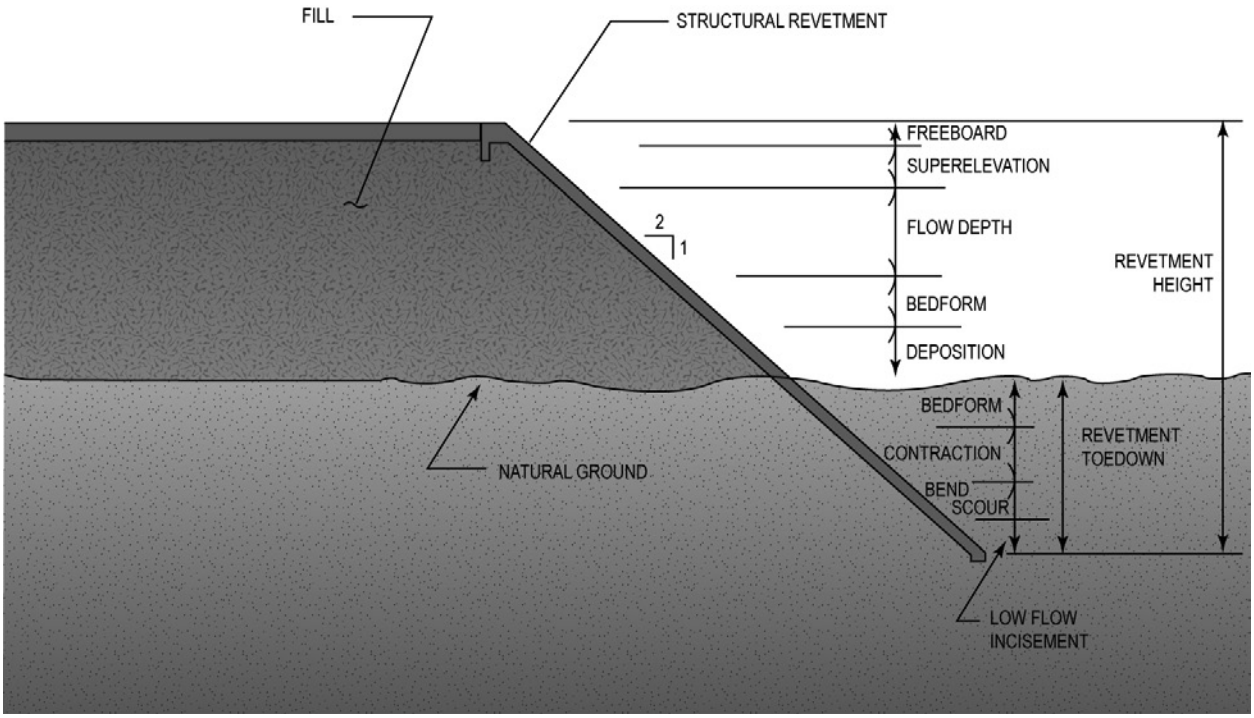
General adjustment, long-term adjustment, and other scour are summed to determine total potential bed adjustment following LACH&SM methodology (illustrated conceptually in Figure 3.3). The existing condition is predicted to have a combined bed adjustment of approximately -6.9 to -19.7 feet for the outside of curved reaches and -6.2 to -15.4 feet for the inside of curved and straight reaches. A comparison of total bed adjustment estimated by both the summed methodology and the LACFCDDM methodology shows that the more intensive LACH&SM methodology using SAM for general adjustment and historical analysis for long-term adjustment predicts a shallower toe-down for both the existing conditions than does the LACFCDDM methodology except for sections in the vicinity of subreach SRA2 and SRC2. In subreach SRA2 section 43820, very high long-term adjustment causes LACH&SM calculations of this section to exceed LACFCDDM calculations by 1.4 feet for both outside of curved reaches and straight or inside of curved reaches in the existing conditions. In SRC2 section 29140, higher general adjustment and higher bedform height cause LACH&SM calculations of this section to exceed LACFCDDM calculations by 0.6 feet in outside curved reaches and 1.2 feet in straight and inside of curved reaches for the existing condition. LACH&SM methodology utilizing SAM calculations predicts a deeper toe-down than does the LACFCDDM at these locations methodology because the LACFCDDM does not account for the effects of local degradation as effectively.

As stated previously, the existing condition HEC-RAS model for this Mission Village EIR Technical Report includes the northerly river bank protection (± 2,000 LF) associated with the Commerce Center Drive and SR126 Interchange project.

Figures 3.2A – 3.2G show the existing condition floodplain boundary and velocity zone plots for the 2, 5, 10, 20, 50, 100 and capital storm events. These values are compared in Table A.1 and others in this report.

As there are no project related impacts in the vicinity of Castaic Creek, the floodplain and velocity profile of Castaic Creek are not included in this analysis. The reader should refer to the Landmark Village EIR Technical Report or the Newhall Ranch Habitat Management plan EIR/EIS River Technical Report for detailed Castaic Creek confluence floodplain and velocity data.

Figure 3.3: Conceptual Representation of Toe-down and Freeboard Components.



4 Project Conditions

The impacts of Project implementation are discussed below. In summary, the Project includes the construction of approximately 2,900 LF of soil cement bank protection, which is primarily necessary to protect the Commerce Center Drive Bridge and WRP. In addition, approximately, 16,000 LF of TRMs, or similar protection methodologies, would be installed downstream of the Project site along the northern edge of the River to Project's water quality basin Utility Corridor from Castaic Creek to the WRP. The impacts of installing bridge piers, abutments (Commerce Center Drive Bridge), the 600 LF of bank protection at the southern end of the bridge and erosion protection along the River are analyzed in this section. This analysis focuses on the Project's hydrologic and hydraulic impacts on the River.

4.1 Alteration of Existing Drainage Patterns

4.1.1 Santa Clara River

Portions of the River corridor (from a hydrological perspective) will be encroached upon with the placement of the buried soil cement, TRMs, bridge abutments and piers, storm drain outlets and energy dissipaters proposed by the Project. Project impacts are expected to include habitat removal and disturbance, localized erosion, localized increased sedimentation, and habitat modification as a result of changes to River velocity and water surface elevation due to Project improvements. The Project will not impact overall discharge in the River because no discharge is diverted from or to the River as a result of the Project (Table 4.1). Therefore, no impacts will occur as a result of discharge changes.

Table 4.1: Project-Related Changes in Discharge Below the Specific Plan Site

Location - Downstream of the Specific Plan Site Below RS 15125	Discharge for Different Return Periods (cfs)						
	2-year	5-year	10-year	20-year	50-year	100-year	CAP
Existing Conditions	2,600	8,480	15,400	24,900	42,400	60,000	142,175
Proposed Conditions	2,600	8,480	15,400	24,900	42,400	60,000	142,175
Net Change	0	0	0	0	0	0	0

Source: Sikand Engineering (2000b). The above noted changes are considered to be "conservative" in that the predicted discharges under proposed conditions do not include the effect of the timing of flows from the Specific Plan site.

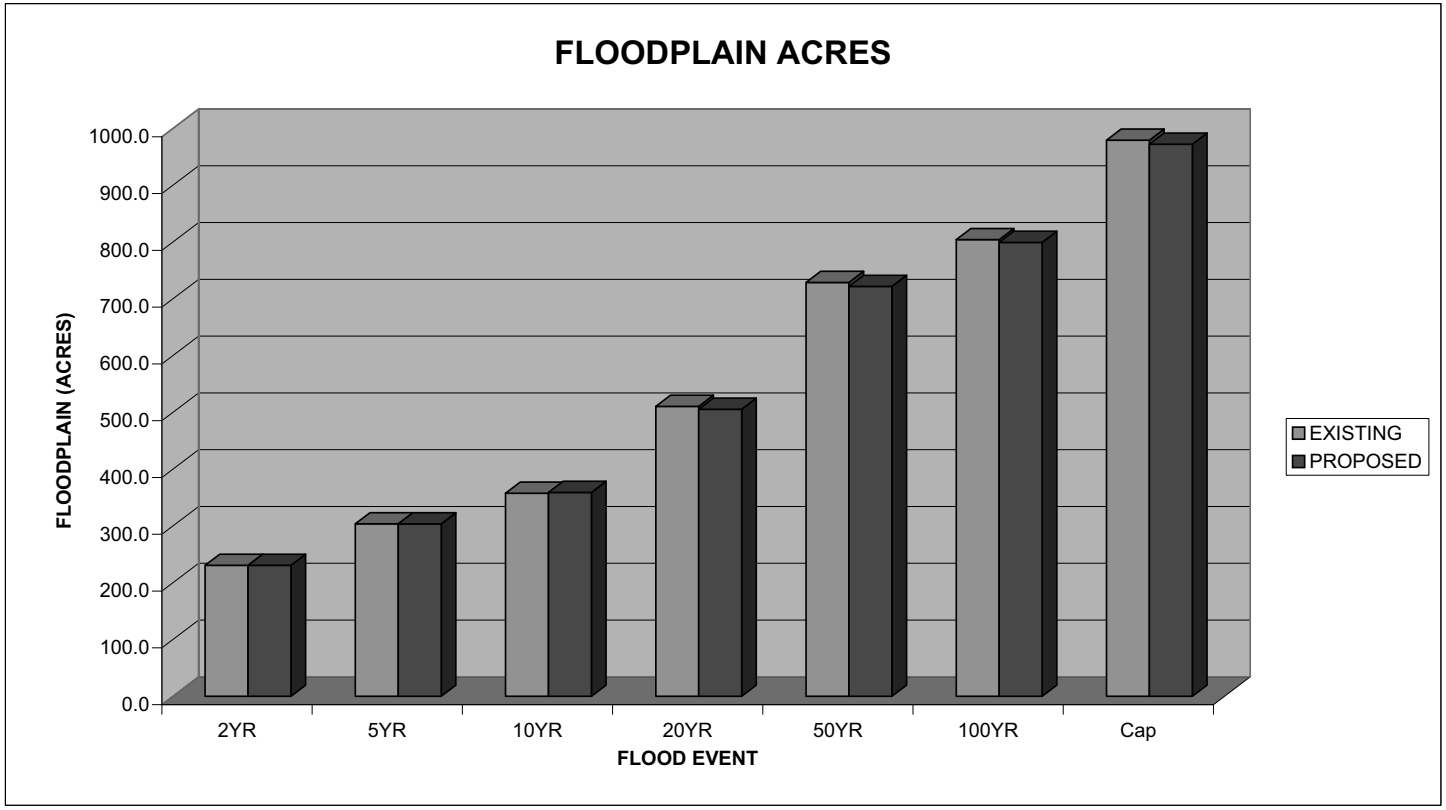
4.1.1A Changes to Velocity and Floodplain Acreage

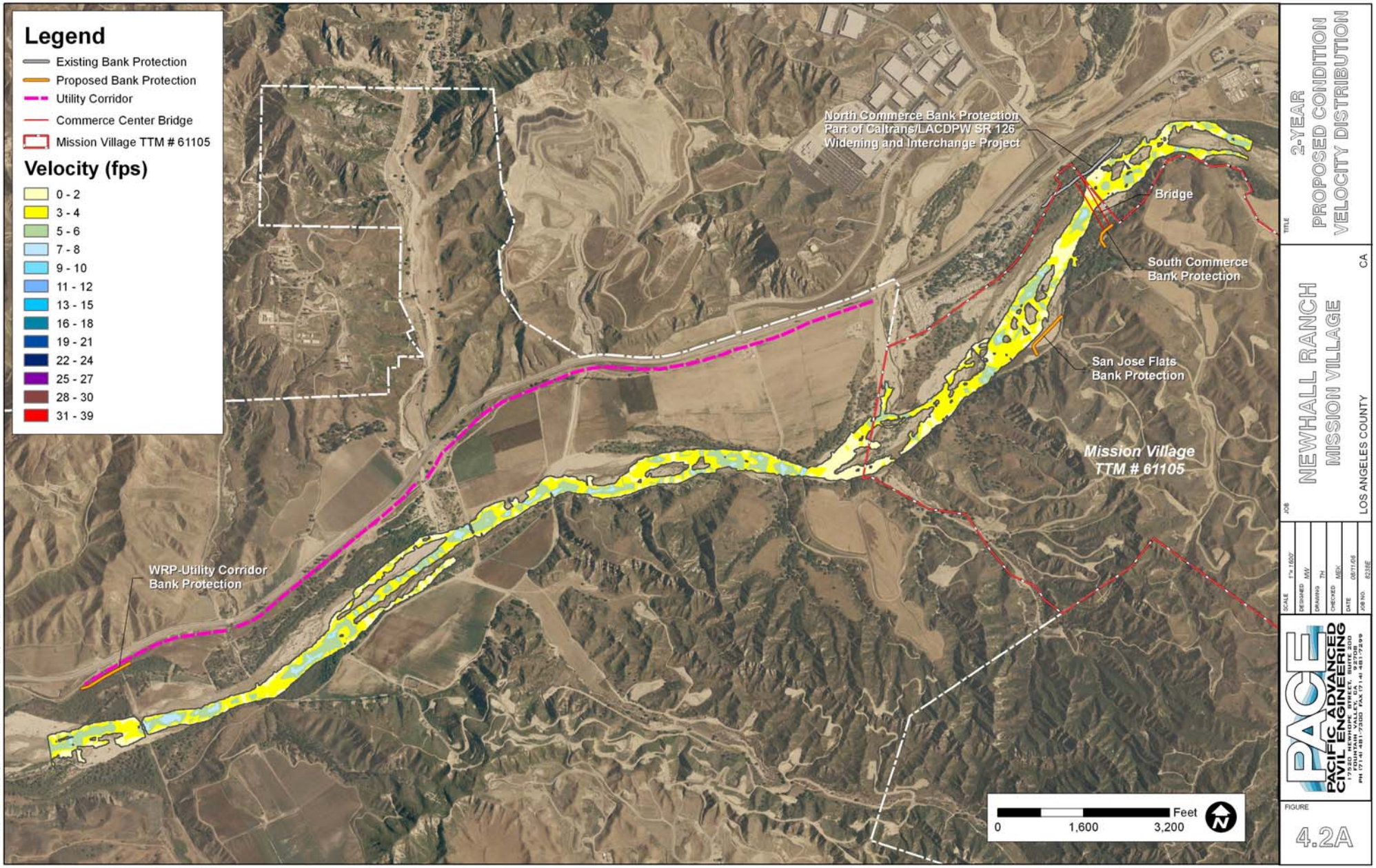
Figure 4.1 compares the changes in floodplain acreage between the existing and proposed conditions for the Mission Village River Study reach for the 2- through 100-year and Capital events. The figure shows that for the 2, 5 and 10 year events no loss of floodplain area is expected. The 20, 50, 100 and Capital events all have a floodplain area loss of 1% or less. Figure 4.2A-G shows the floodplain and velocity distribution profile for the Mission Village proposed conditions for the 2- through 100-year and Capital events. The figures can be compared directly to Figure 3.2A-G to show the difference between both the size and shape of the floodplain for the various events, and also the change in velocity distribution for the various events, between the existing and proposed conditions. These differences are quantified in Figure 4.3A-D, which

FIGURE 4.1: MISSION VILLAGE FLOODPLAIN ACREAGE COMPARISON

Floodplain Area Analysis

Flood Frequency	Existing Area	Proposed Area	Delta	Delta %
YR	(AC)	(AC)	(AC)	(AC)
2	230.6	230.6	0.0	0.0%
5	303.7	303.7	0.0	0.0%
10	357.6	359.1	1.5	0.4%
20	510.6	505.5	-5.1	-1.0%
50	728.8	721.9	-6.9	-1.0%
100	804.2	799.4	-4.8	-0.6%
CAP	979.3	972.2	-7.1	-0.7%





TITLE: 2-YEAR PROPOSED CONDITION VELOCITY DISTRIBUTION

JOB: NEWHALL RANCH MISSION VILLAGE CA

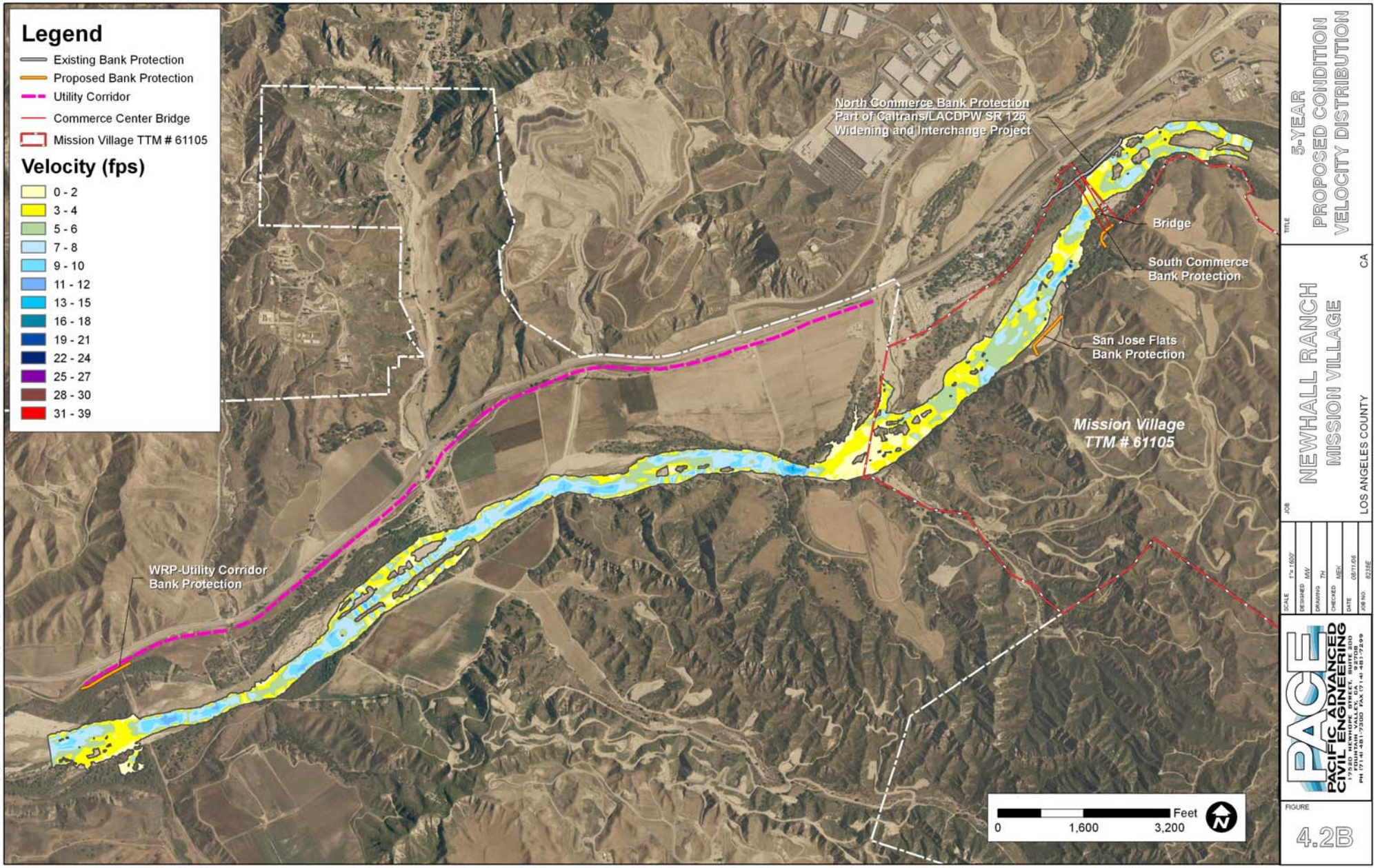
LOS ANGELES COUNTY

SCALE	1" = 1600'
DESIGNED	MW
DRAWING	TH
CHECKED	MEK
DATE	06/11/08
JOB NO.	6238E

PACE
PACIFIC ADVANCED CIVIL ENGINEERING
17320 NEWHOPE STREET, SUITE 200
FOUNTAIN VALLEY, CA 92708
PH (714) 481-7290 FAX (714) 481-7299

FIGURE 4.2A

FILE: \\pacefs01\swprojects\6s11E\6-GIS\mxds\6s11E_Proposed2yr_110806.mxd



TITLE: 5-YEAR PROPOSED CONDITION VELOCITY DISTRIBUTION

JOB: NEWHALL RANCH MISSION VILLAGE CA

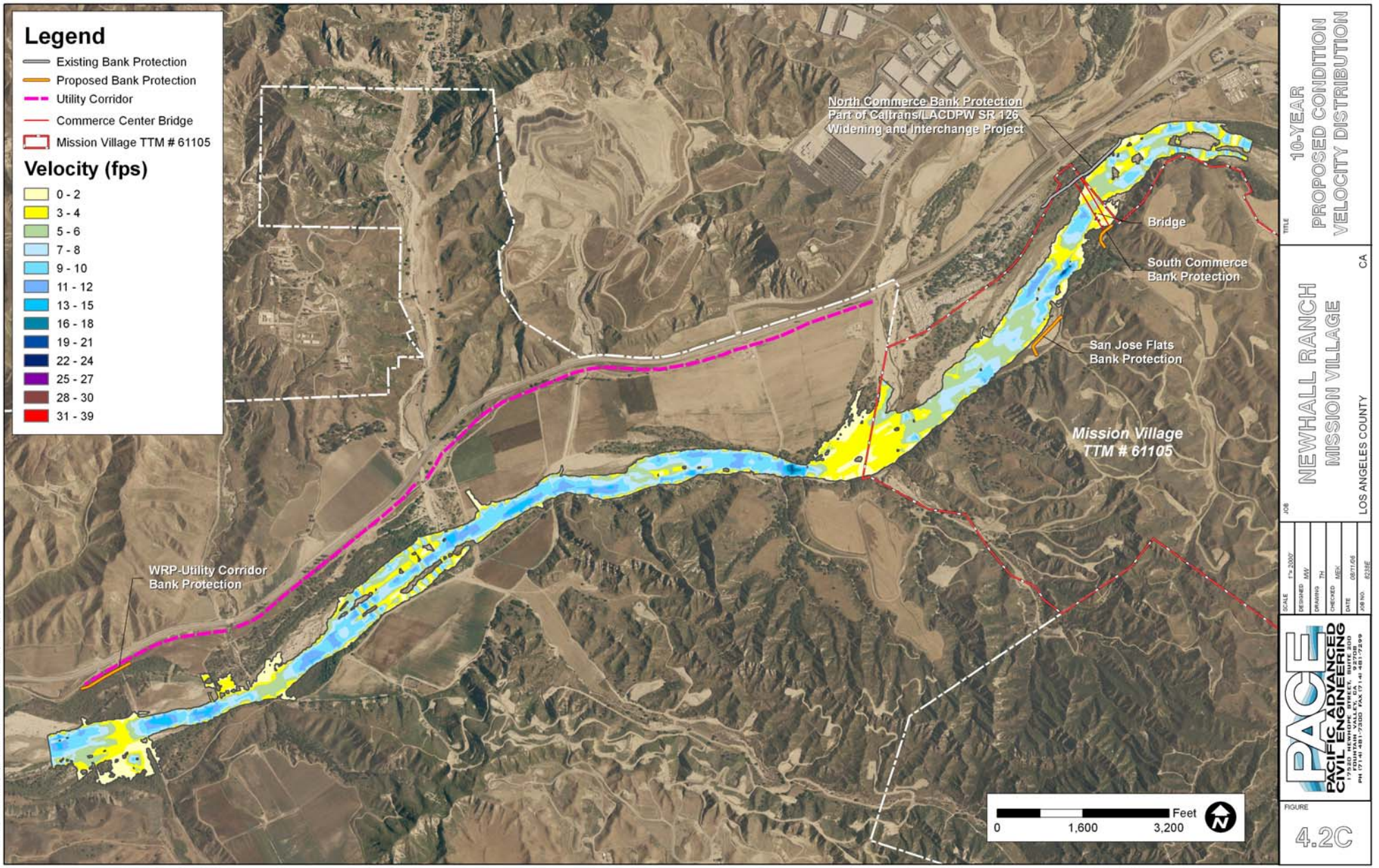
LOS ANGELES COUNTY

SCALE	1" = 1600'
DESIGNED	MW
DRAWING	TH
CHECKED	MEK
DATE	06/11/06
JOB NO.	623SE

PACE
PACIFIC ADVANCED CIVIL ENGINEERING
17320 NEWHOPE STREET, SUITE 200
FOUNTAIN VALLEY, CA 92708
PH 714 481 7290 FAX 714 481 7299

FIGURE 4.2B

FILE: \\pacefs01\swprojects\623E\4-GIS\mxds\623E_Proposed5yr_110606.mxd



TITLE
10-YEAR
PROPOSED CONDITION
VELOCITY DISTRIBUTION

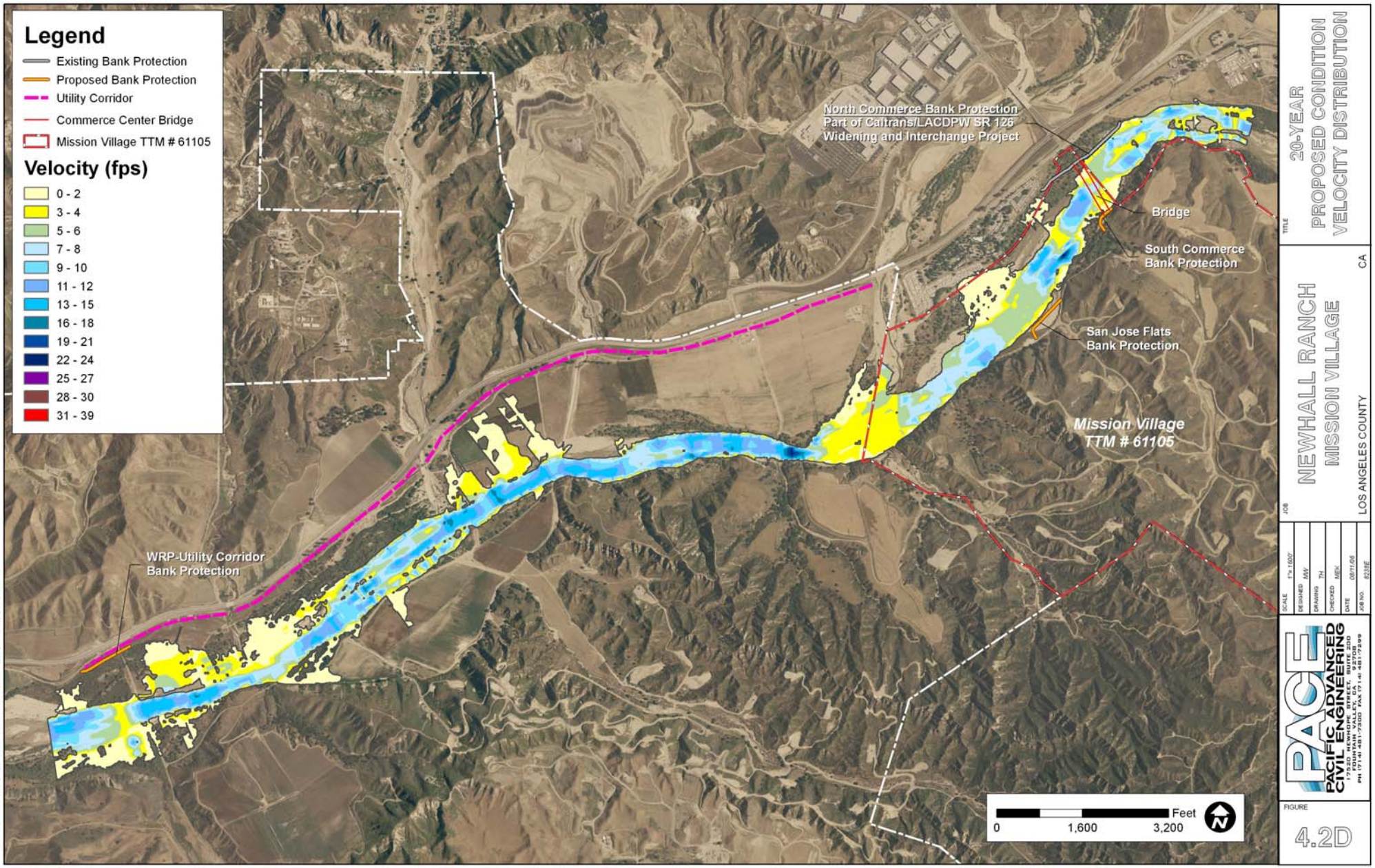
JOB
NEWHALL RANCH
MISSION VILLAGE
CA
LOS ANGELES COUNTY

SCALE	1" = 2000'
DESIGNED	MW
DRAWING	TH
CHECKED	MEK
DATE	06/11/08
JOB NO.	6238E

PACE
PACIFIC ADVANCED CIVIL ENGINEERING
17320 NEWHOPE STREET, SUITE 200
FOUNTAIN VALLEY, CA 92708
PH 714 481 7290 FAX 714 481 7299

FIGURE
4.2C

FILE: \\pacefs01\swprojects\6s11E\6-G6\mxds\6s11E_Proposed10yr_110806.mxd



TITLE: 20-YEAR PROPOSED CONDITION VELOCITY DISTRIBUTION

JOB: NEWHALL RANCH MISSION VILLAGE CA

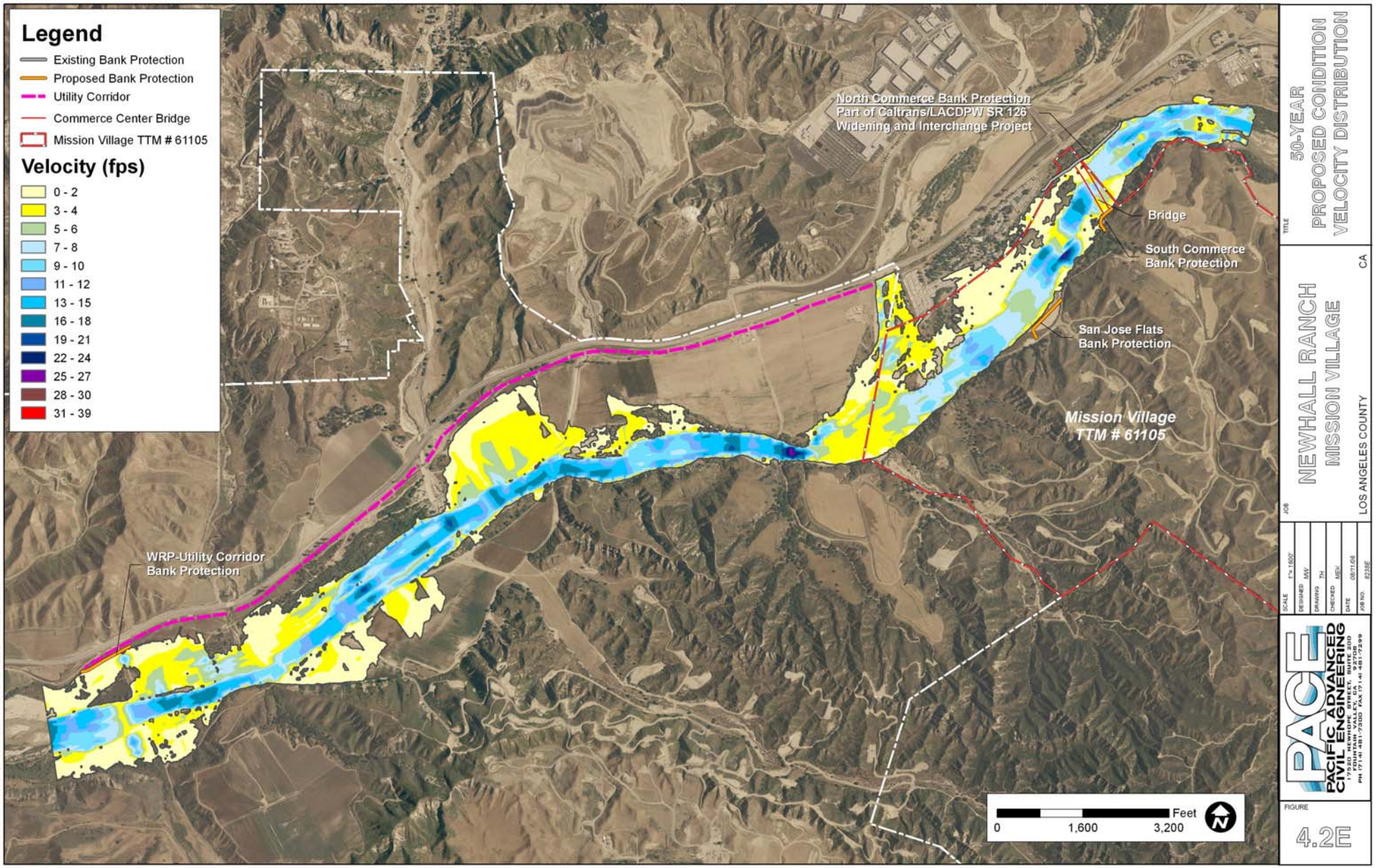
LOS ANGELES COUNTY

SCALE	1" = 1600'
DESIGNED	MAY
DRAWING	TH
CHECKED	MEK
DATE	06/11/06
JOB NO.	6238E

PACE
PACIFIC ADVANCED CIVIL ENGINEERING
17320 NEWHOPE STREET, SUITE 200
FOUNTAIN VALLEY, CA 92708
PH 714.481.7300 FAX 714.481.7399

FIGURE 4.2D

FILE: \\pace01\swprojects\6s11E\6-G6\mxds\6s11E_Proposed20yr_110806.mxd



TITLE: 50-YEAR PROPOSED CONDITION VELOCITY DISTRIBUTION

JOB: NEWHALL RANCH MISSION VILLAGE CA

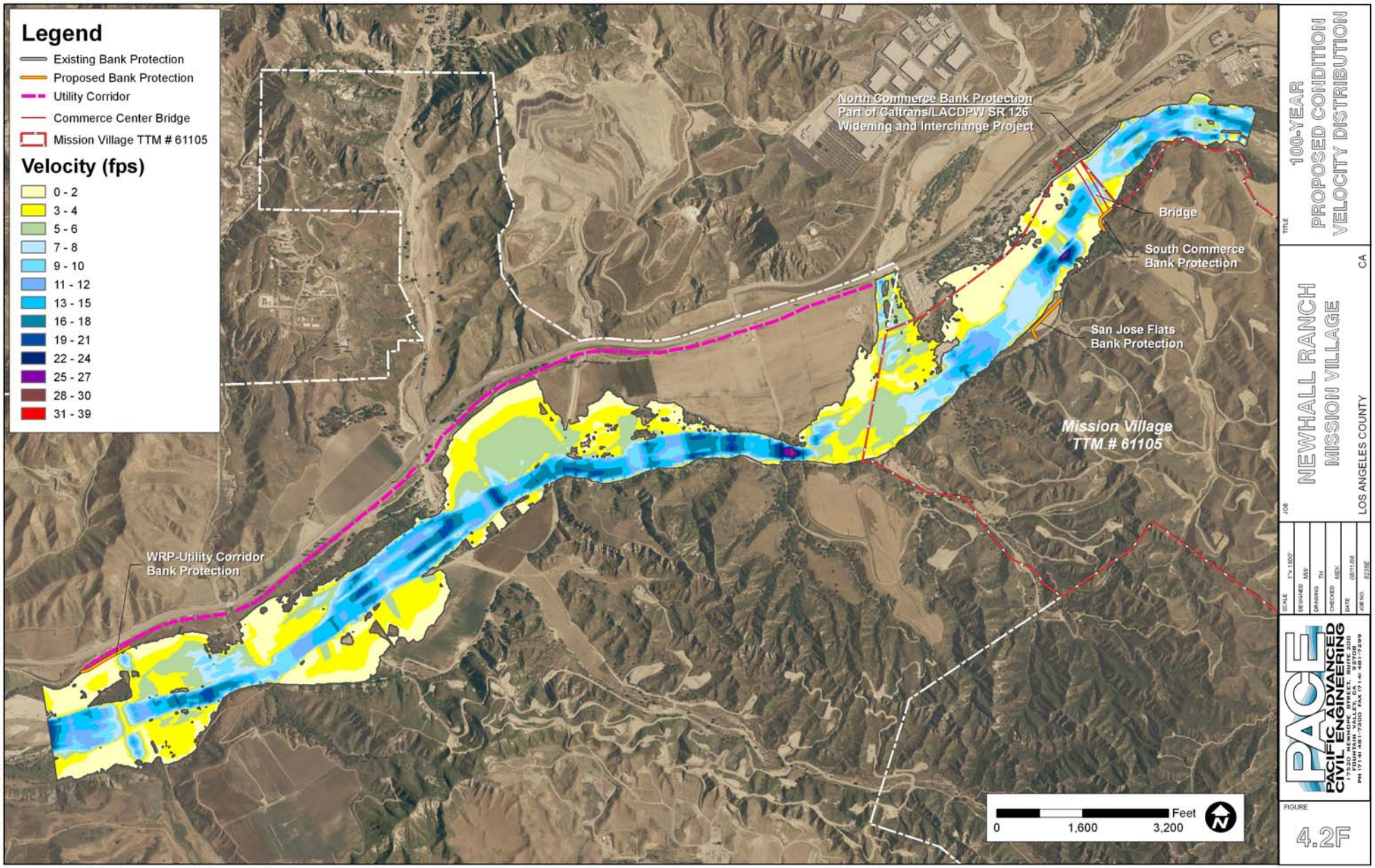
LOS ANGELES COUNTY

SCALE: 1" = 1600'
DESIGNED: MAY
DRAWING: TH
CHECKED: MEK
DATE: 06/17/06
JOB NO: 6238E

PACE
PACIFIC ADVANCED CIVIL ENGINEERING
17320 NEWHOPE STREET, SUITE 200
FOUNTAIN VALLEY, CA 92708
PH (714) 481-7290 FAX (714) 481-7299

FIGURE 4.2E

FILE: \\pace01\swprojects\6s11E\d-G6\mxds\6s11E_Proposed50yr_110806.mxd



TITLE: 100-YEAR PROPOSED CONDITION VELOCITY DISTRIBUTION

JOB: NEWHALL RANCH MISSION VILLAGE CA

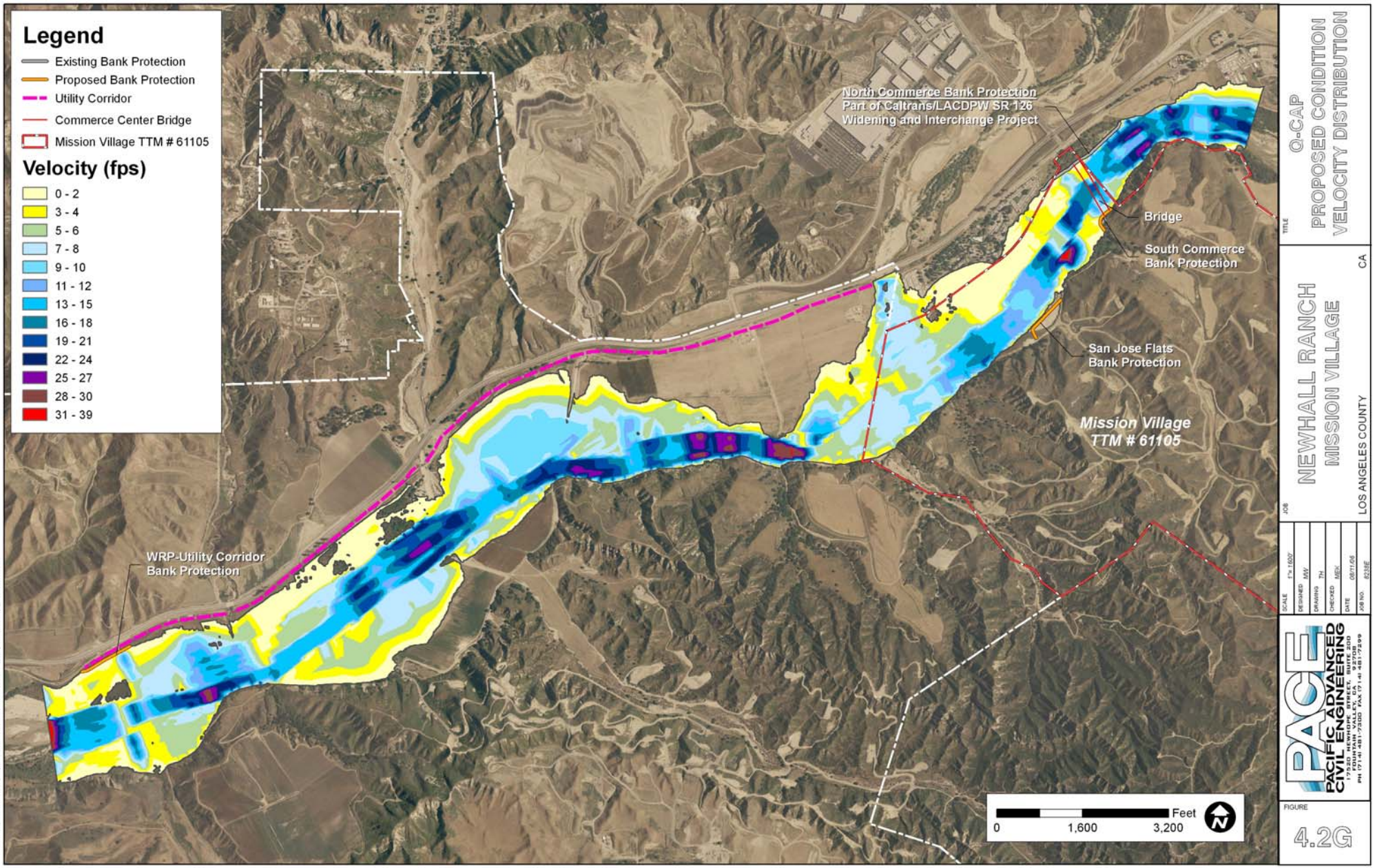
LOS ANGELES COUNTY

SCALE	1"= 1600'
DESIGNED	MW
DRAWING	TH
CHECKED	MEK
DATE	08/17/06
JOB NO.	623BE

PACE
PACIFIC ADVANCED CIVIL ENGINEERING
17320 NEWHOPE STREET, SUITE 200
FOUNTAIN VALLEY, CA 92708
PH (714) 481-7290 FAX (714) 481-7299

FIGURE 4.2F

FILE: \\pace01\swprojects\&s11E\d-G6\mxd\&s11E_Proposed100yr_110606.mxd



TITLE: Q-CAP PROPOSED CONDITION VELOCITY DISTRIBUTION

JOB: NEWHALL RANCH MISSION VILLAGE CA

LOS ANGELES COUNTY

SCALE	1" = 1600'
DESIGNED	MW
DRAWING	TH
CHECKED	MEK
DATE	06/11/06
JOB NO.	6238E

PACE
PACIFIC ADVANCED CIVIL ENGINEERING
17320 NEWHOPE STREET, SUITE 200
FOUNTAIN VALLEY, CA 92708
PH 714 481 7290 FAX 714 481 7299

FIGURE 4.2G

FILE: \\pacefs01\swprojects\6s11E\d-G6\mxds\6s11E_ProposedQCap_110806.mxd

breaks down the floodplain area by velocity range for both the proposed and existing conditions. As with Figure 4.1, these figures shows that for the 2, 5 and 10 year events there is no change in floodplain area and minimal (<1%) change in velocity profile acreage. For the remaining events, a change in floodplain and velocity acreage between the pre and post-project is expected. However, these changes are quite small, all being 1% or less change in floodplain and velocity area for the range of discharges from the 10, 100 and Capital return periods.

The total area of floodplain where discharge velocities would be over 4 fps during a 100-year storm would be increased by 2.4 acres (± 0.5%) as a result of the proposed Mission Village Project through the installation of flood protection and bridge/roadway infrastructure.

Table 4.2 run provides a summary of floodplain acreage where Project-related increases or decreases in discharge velocities in excess of 4 fps would occur. Per Table 4.2 results, the area of floodplain subject to flows in excess of 4 fps would be reduced by approximately 0.8, 0.4, 0.5, 0.3, and 4.8 acres as a result of the proposed Project during the 2, 5, 10, 20-year and Capital storm events, respectively. The 50 and 100-year events result in 1.1 and 2.4 acres of increased acres of floodplain with velocity greater than 4 fps. The floodplain area with velocities greater than 4 fps is important as it can be assumed that minimal loss of vegetation would occur where velocity is less than 4 fps. Figures 4.4A-D where the changes in floodplain acreage with velocity in excess of 4 fps would be relative to currently mapped vegetation areas within the River floodplain.

TABLE 4.2: CHANGE (PROPOSED-EXISTING) OF FLOODPLAIN AREA WITH VELOCITIES >4FPS BY RETURN PERIOD (Acres)

Velocity	2-YR	5-YR	10-YR	20-YR	50-YR	100-YR	CAP
>4 FPS	-0.9	-0.5	-0.5	-0.4	1.1	2.5	-4.8

Note: negative values represent reduction of area of floodplain and positive values represent increases.

Where, increases in velocity in excess of 4 fps would occur along the Project site and have the potential of causing erosion. However, the Project-related increases in velocity would be mitigated by installation of buried soil cement bank protection on the River corridor. Based on the above it is clear that no significant impacts to river fluvial or vegetation area would occur as a result of the proposed project impacts to the floodplain or related floodplain velocities (see section 4.5.4 of this report for further analysis).

Table 4.3 shows that during the Capital flow storm event, Project-related improvements would result in 13 locations where there is at least a one inch increase in water surface elevation (none of which exceed one foot) and 4 locations where there is a decrease in water surface elevations (none of which exceeds one foot). These increases are localized, and as such, are not significant to water surface elevations on the River as a whole. Additionally, no significant impacts to water surface elevation will occur upstream or downstream of the Project.

TABLE 4.3: EXISTING AND PROPOSED WATER SURFACE ELEVATION CHANGES BY STATION
Qcap and n=0.060 (Referenced from DCR Table 3)

RIVER STATION	WSE EXIS	WSE PROP	Delta	RIVER STATION	WSE EXIS	WSE PROP	Delta	RIVER STATION	WSE EXIS	WSE PROP	Delta
39755	1010.7	1010.7	**0.0**	30445	960.5	960.5	**0.0**	**21615**	905.0	905.0	**0.0**
39605	1010.0	1010.0	**0.0**	30095	960.1	960.1	**0.0**	**21440**	903.5	903.6	**0.0**
39310	1008.4	1008.4	**0.0**	29815	959.6	959.6	**0.0**	**21225**	902.1	902.1	**0.0**
39100	1007.8	1007.8	**0.0**	29565	959.3	959.3	**0.0**	**21020**	901.2	901.2	**0.0**
38925	1007.1	1007.1	**0.0**	29385	958.8	958.8	**0.0**	**20845**	900.4	900.4	**0.0**
38710	1006.2	1006.2	**0.0**	**29140**	957.8	957.8	**0.0**	**20595**	899.2	899.2	**0.0**
38475	1003.7	1003.7	**0.0**	**28895**	952.4	952.4	**0.0**	**20435**	898.4	898.4	**0.0**
38300	1002.8	1002.8	**0.0**	**28695**	951.1	951.1	**0.0**	**20280**	897.0	897.1	**0.0**
38065	1001.4	1001.4	**0.0**	**28500**	948.7	948.7	**0.0**	**20070**	896.1	896.1	**0.0**
37810	998.3	998.3	**0.1**	**28280**	947.4	947.4	**0.0**	**19855**	895.2	895.2	**0.0**
37655	997.0	997.1	**0.1**	**28080**	946.5	946.5	**0.0**	**19630**	894.5	894.5	**0.0**
37390	995.8	995.9	**0.2**	**27925**	945.0	945.0	**0.0**	**19440**	893.9	893.9	**0.0**
37135	993.9	994.2	**0.3**	**27725**	941.9	941.9	**0.0**	**19240**	893.3	893.3	**0.0**
36930	992.9	993.2	**0.4**	**27545**	940.6	940.6	**0.0**	**19050**	892.9	892.9	**0.0**
36735	991.7	992.2	**0.6**	**27335**	939.4	939.4	**0.0**	**18830**	892.3	892.3	**0.0**
36515	990.7	991.4	**0.8**	**27155**	937.4	937.4	**0.0**	**18650**	891.9	891.9	**0.0**
36374	N/A	991.0	**-**	**26990**	936.6	936.6	**0.0**	**18475**	891.6	891.6	**0.0**
Bridge - Commerce Center Drive - F				**26780**	935.5	935.5	**0.0**	**18290**	891.2	891.2	**0.0**
36240	N/A	989.2	**-**	**26575**	934.6	934.6	**0.0**	**18025**	890.6	890.6	**0.0**
36080	988.0	988.0	**0.0**	**26355**	933.2	933.2	**0.0**	**17785**	889.9	889.9	**0.0**
35845	986.9	986.9	**0.0**	**26170**	932.2	932.2	**0.0**	**17510**	887.7	887.7	**0.0**
35725	986.0	986.0	**0.0**	**25965**	930.6	930.6	**0.0**	**17360**	885.3	885.2	**-0.1**
35515	984.7	984.7	**0.0**	**25785**	929.2	929.3	**0.0**	**17110**	882.7	882.9	**0.3**
35245	982.8	982.8	**0.0**	**25600**	928.4	928.4	**0.0**	**16970**	880.1	880.0	**-0.1**
35040	981.3	981.3	**0.0**	**25425**	927.8	927.8	**0.0**	**16720**	877.3	877.4	**0.0**
34860	980.0	980.0	**0.0**	**25215**	925.8	925.9	**0.1**	**16515**	875.8	875.8	**0.0**
34720	979.0	978.9	**-0.1**	**25000**	924.3	924.4	**0.2**	**16305**	874.7	874.7	**0.0**
34495	977.4	977.4	**-0.1**	**24795**	922.8	923.0	**0.2**	**16130**	873.6	873.6	**0.0**
34310	976.3	976.2	**0.0**	**24550**	921.9	922.0	**0.1**	**15960**	872.7	872.7	**0.0**
34090	975.0	975.0	**0.0**	**24335**	920.4	920.4	**0.0**	**15745**	871.7	871.8	**0.0**
33880	973.6	973.6	**0.0**	**24115**	919.1	919.1	**0.0**	**15540**	870.8	870.8	**0.0**
33710	972.6	972.6	**0.0**	**23975**	918.2	918.2	**0.0**	**15335**	869.6	869.6	**0.0**
33500	971.3	971.3	**0.0**	**23755**	917.1	917.1	**0.0**	**15125**	868.2	868.2	**0.0**
33310	970.4	970.4	**0.0**	**23565**	916.2	916.2	**0.0**	**14900**	866.7	866.8	**0.1**
33115	969.6	969.6	**0.0**	**23365**	915.3	915.4	**0.0**	**14720**	865.8	865.8	**0.0**
32795	967.8	967.8	**0.0**	**23180**	914.8	914.8	**0.0**	**14480**	864.5	864.5	**0.0**
32605	966.6	966.6	**0.0**	**23000**	914.4	914.4	**0.0**	**14315**	863.7	863.7	**0.0**
32265	965.0	965.0	**0.0**	**22790**	913.8	913.8	**0.0**	14090	862.3	862.3	**0.0**
31875	963.2	963.2	**0.0**	**22600**	913.2	913.2	**0.0**	13850	861.1	861.1	**0.0**
31585	962.4	962.4	**0.0**	**22415**	912.4	912.4	**0.0**	13635	859.9	859.9	**0.0**
31360	961.7	961.7	**0.0**	**22195**	910.6	910.6	**0.0**	13425	859.1	859.1	**0.0**
31060	961.2	961.2	**0.0**	**22010**	908.8	908.8	**0.0**				
30720	960.8	960.8	**0.0**	**21790**	906.1	906.1	**0.0**				

(1) Exist. Cond. water surface elevations and velocities are based on "n" value of 0.060 for entire width of the river for the existing Mission Village condition ("SR 126 HWY Widening" Soil Cement Bank Protection is existing levee for the project.)

(2) Prop. Cond. water surface elevations and velocities are based on "n" value of 0.060 for entire width of the river for the proposed Mission Village project improvements.

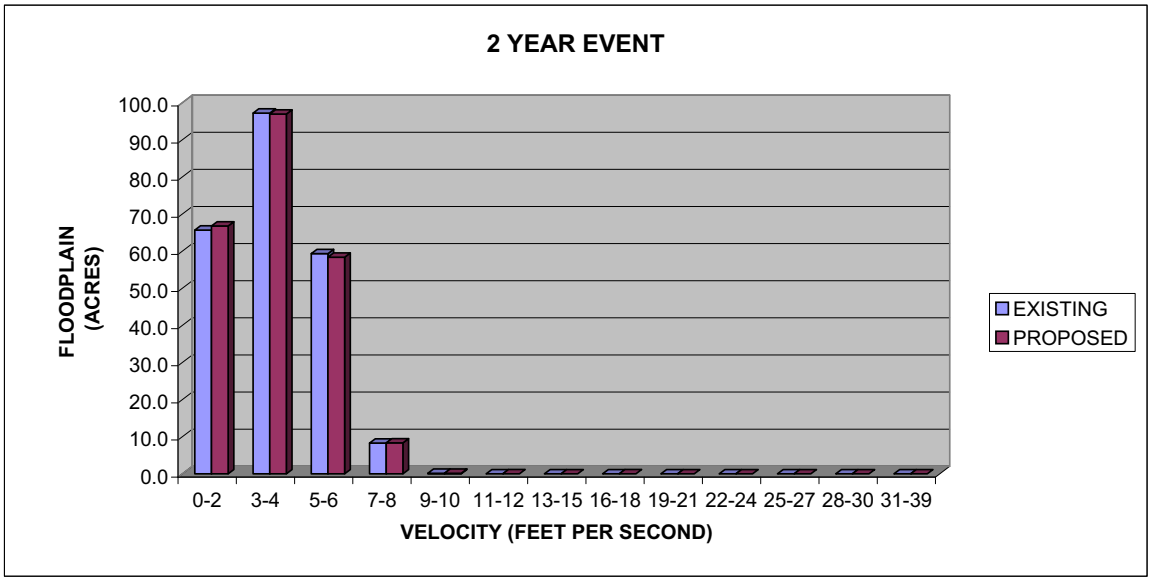
HEC-RAS Sections in bold for Mission Village Project Improvement Reaches

HEC-RAS Sections 36374 and 36240 are Proposed Bridge Sections

FIGURE 4.3a: MISSION VILLAGE FLOODPLAIN AREA BY VELOCITY IMPACTS STATISTICS

2 YEAR - Floodplain Area by Velocity

Velocity (fps)	Existing Area (AC)	Proposed Area (AC)	Delta (AC)	Delta % (%)
0-2	65.7	66.8	1.1	1.7%
3-4	97.2	96.9	-0.3	-0.3%
5-6	59.3	58.4	-1.0	-1.6%
7-8	8.3	8.3	0.1	0.7%
9-10	0.1	0.2	0.0	2.7%
11-12	0.0	0.0	0.0	0.0%
13-15	0.0	0.0	0.0	0.0%
16-18	0.0	0.0	0.0	0.0%
19-21	0.0	0.0	0.0	0.0%
22-24	0.0	0.0	0.0	0.0%
25-27	0.0	0.0	0.0	0.0%
28-30	0.0	0.0	0.0	0.0%
31-39	0.0	0.0	0.0	0.0%
	230.6	**230.6**	**0.0**	**0.0%**



5 YEAR - Floodplain Area by Velocity

Velocity (fps)	Existing Area (AC)	Proposed Area (AC)	Delta (AC)	Delta % (%)
0-2	50.3	51.6	1.2	2.4%
3-4	85.7	84.9	-0.8	-1.0%
5-6	85.4	83.7	-1.7	-2.0%
7-8	56.5	57.4	1.0	1.7%
9-10	21.2	21.4	0.2	1.0%
11-12	3.7	3.7	0.0	0.0%
13-15	0.7	0.8	0.0	4.5%
16-18	0.1	0.1	0.0	7.4%
19-21	0.0	0.0	0.0	0.0%
22-24	0.0	0.0	0.0	0.0%
25-27	0.0	0.0	0.0	0.0%
28-30	0.0	0.0	0.0	0.0%
31-39	0.0	0.0	0.0	0.0%
	303.7	**303.7**	**0.0**	**0.0%**

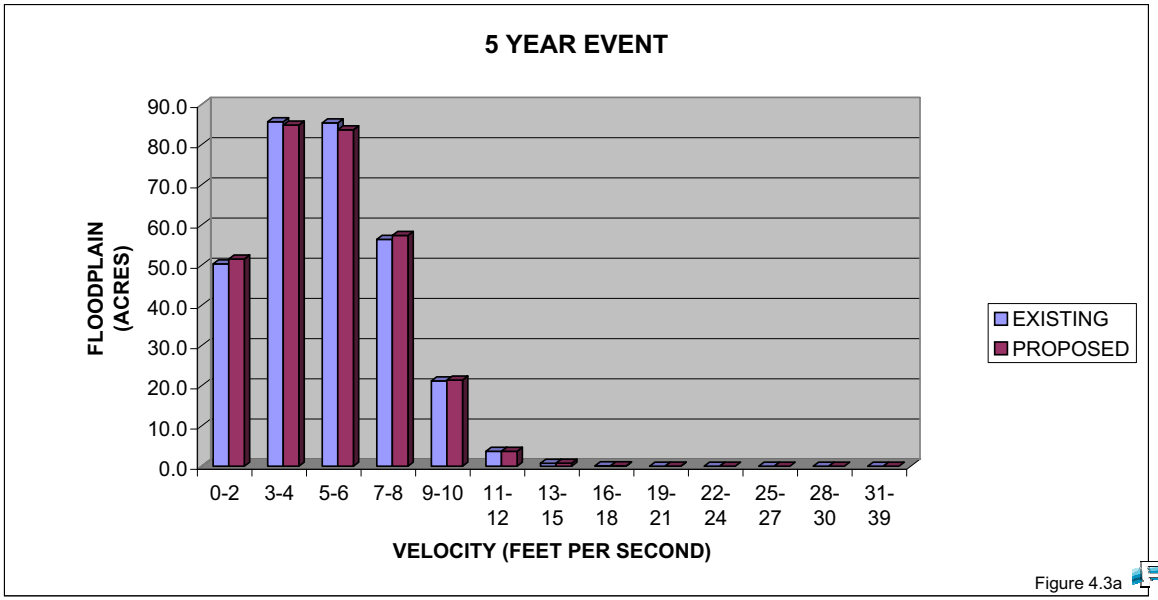
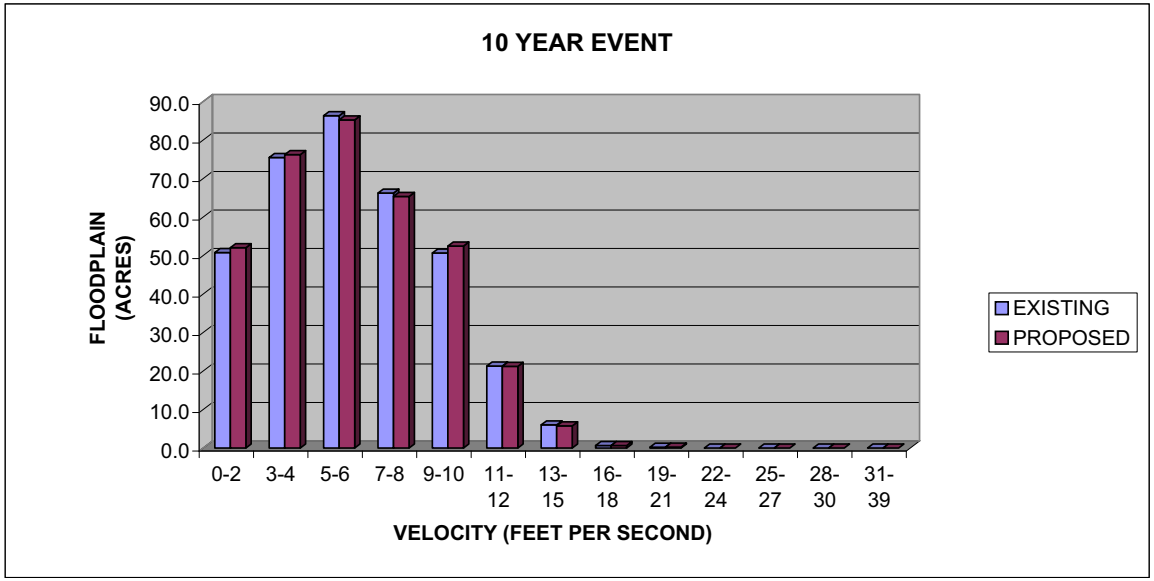


FIGURE 4.3b: MISSION VILLAGE FLOODPLAIN AREA BY VELOCITY IMPACTS STATISTICS

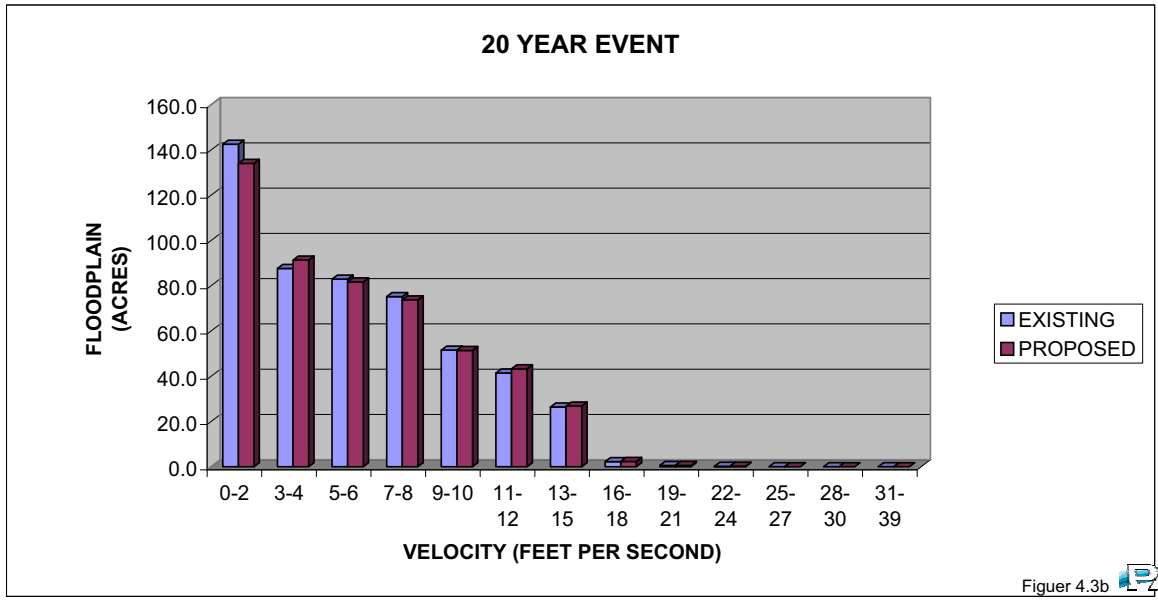
10 YEAR - Floodplain Area by Velocity

Velocity (fps)	Existing Area (AC)	Proposed Area (AC)	Delta (AC)	Delta % (%)
0-2	50.8	52.0	1.2	2.4%
3-4	75.5	76.2	0.8	1.0%
5-6	86.3	85.2	-1.1	-1.3%
7-8	66.2	65.3	-0.9	-1.3%
9-10	50.6	52.5	1.8	3.6%
11-12	21.3	21.2	-0.1	-0.4%
13-15	6.0	5.8	-0.3	-4.2%
16-18	0.6	0.6	0.0	-1.2%
19-21	0.2	0.2	0.0	6.4%
22-24	0.0	0.0	0.0	0.5%
25-27	0.0	0.0	0.0	0.0%
28-30	0.0	0.0	0.0	0.0%
31-39	0.0	0.0	0.0	0.0%
	357.6	**359.1**	**1.5**	**0.4%**



20 YEAR - Floodplain Area by Velocity

Velocity (fps)	Existing Area (AC)	Proposed Area (AC)	Delta (AC)	Delta % (%)
0-2	142.5	134.1	-8.5	-5.9%
3-4	87.6	91.3	3.7	4.2%
5-6	82.9	81.6	-1.3	-1.5%
7-8	75.2	73.7	-1.5	-1.9%
9-10	51.5	51.4	-0.1	-0.2%
11-12	41.4	43.3	1.9	4.5%
13-15	26.4	26.8	0.4	1.5%
16-18	2.3	2.4	0.1	4.4%
19-21	0.6	0.6	0.0	7.7%
22-24	0.2	0.2	0.0	10.9%
25-27	0.0	0.0	0.0	0.0%
28-30	0.0	0.0	0.0	0.0%
31-39	0.0	0.0	0.0	0.0%
	510.6	**505.5**	**-5.1**	**-1.0%**

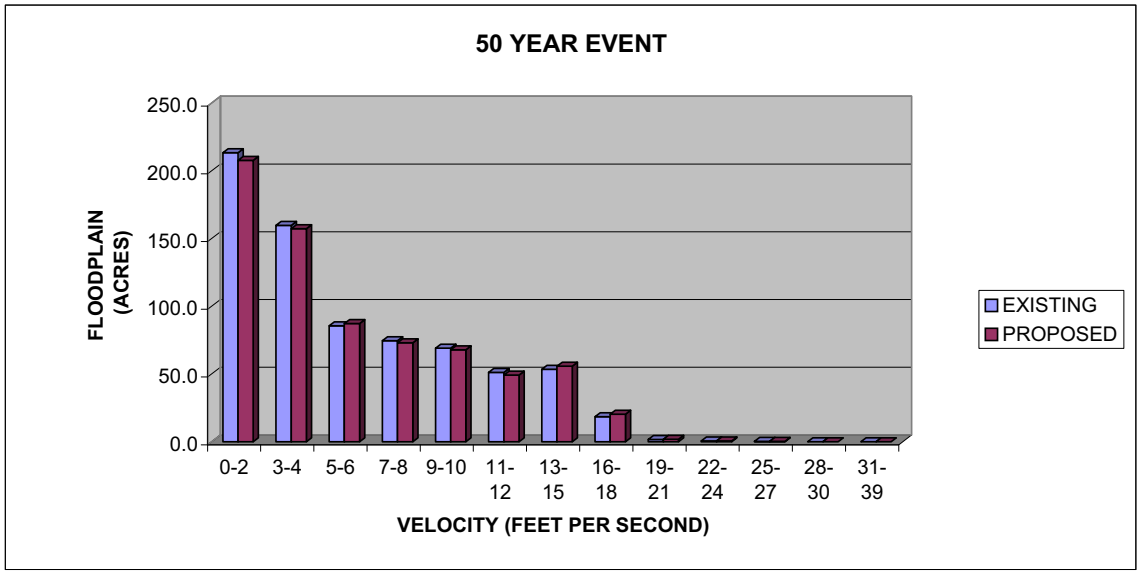


Figuer 4.3b

FIGURE 4.3c: MISSION VILLAGE FLODDPLAIN AREA BY VELOCITY IMPACTS STATISTICS

50 YEAR - Floodplain Area by Velocity

Velocity (fps)	Existing Area (AC)	Proposed Area (AC)	Delta (AC)	Delta % (%)
0-2	213.4	207.8	-5.6	-2.6%
3-4	159.7	157.4	-2.3	-1.5%
5-6	85.7	87.3	1.6	1.8%
7-8	74.6	73.2	-1.5	-1.9%
9-10	69.2	67.9	-1.3	-1.9%
11-12	51.3	49.3	-2.0	-3.8%
13-15	53.6	55.9	2.3	4.2%
16-18	18.6	20.3	1.7	9.3%
19-21	1.8	1.9	0.1	8.1%
22-24	0.6	0.7	0.1	10.5%
25-27	0.3	0.3	0.0	7.2%
28-30	0.0	0.0	0.0	0.0%
31-39	0.0	0.0	0.0	0.0%
	728.8	**721.9**	**-6.9**	**-1.0%**



100 YEAR - Floodplain Area by Velocity

Velocity (fps)	Existing Area (AC)	Proposed Area (AC)	Delta (AC)	Delta % (%)
0-2	184.7	183.1	-1.6	-0.9%
3-4	174.7	169.1	-5.6	-3.2%
5-6	131.5	134.4	3.0	2.3%
7-8	67.3	67.2	-0.1	-0.1%
9-10	65.9	63.5	-2.5	-3.8%
11-12	60.5	58.8	-1.7	-2.8%
13-15	66.3	69.2	2.8	4.3%
16-18	39.3	40.0	0.7	1.9%
19-21	11.8	11.6	-0.2	-1.6%
22-24	1.4	1.6	0.2	15.9%
25-27	0.7	0.8	0.1	10.1%
28-30	0.1	0.2	0.0	11.6%
31-39	0.0	0.1	0.1	0.0%
	804.2	**799.4**	**-4.8**	**-0.6%**

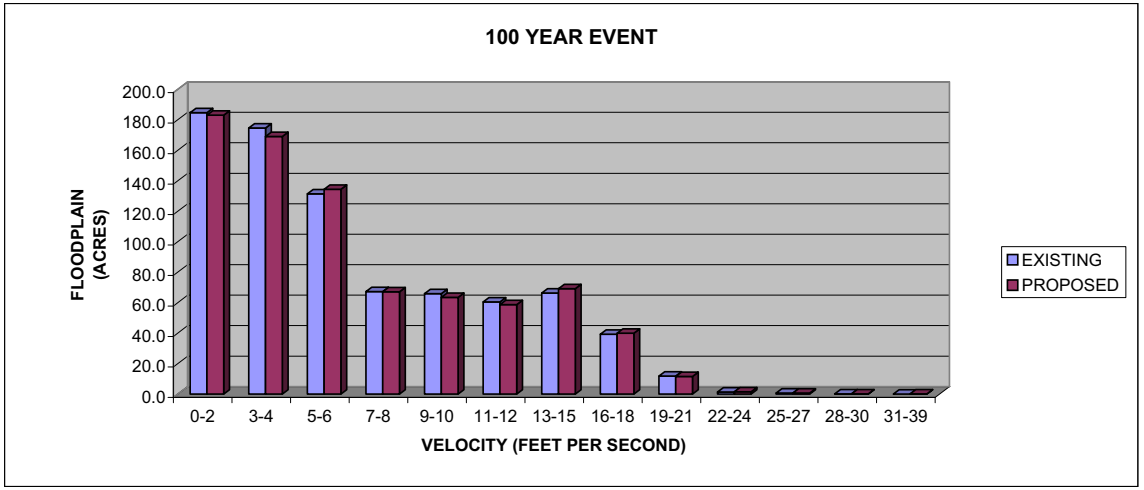


FIGURE 4.3d: MISSION VILLAGE FLODDPLAIN AREA BY VELOCITY IMPACTS STATISTICS

Qcap - Floodplain Area by Velocity

Velocity (fps)	Existing Area (AC)	Proposed Area (AC)	Delta (AC)	Delta % (%)
0-2	168.32	164.47	-3.8	-2.3%
3-4	126.35	127.90	1.6	1.2%
5-6	154.04	148.64	-5.4	-3.5%
7-8	146.16	146.09	-0.1	0.0%
9-10	85.95	84.81	-1.1	-1.3%
11-12	50.57	50.30	-0.3	-0.5%
13-15	90.31	91.75	1.4	1.6%
16-18	71.25	68.18	-3.1	-4.3%
19-21	41.88	44.89	3.0	7.2%
22-24	26.69	26.87	0.2	0.7%
25-27	11.97	12.00	0.0	0.3%
28-30	5.10	5.37	0.3	5.3%
31-39	0.74	0.91	0.2	22.8%
40-49	0.17	0.22	0.0	**25.7%**
	979.3	**972.2**	**-7.1**	**-0.7%**

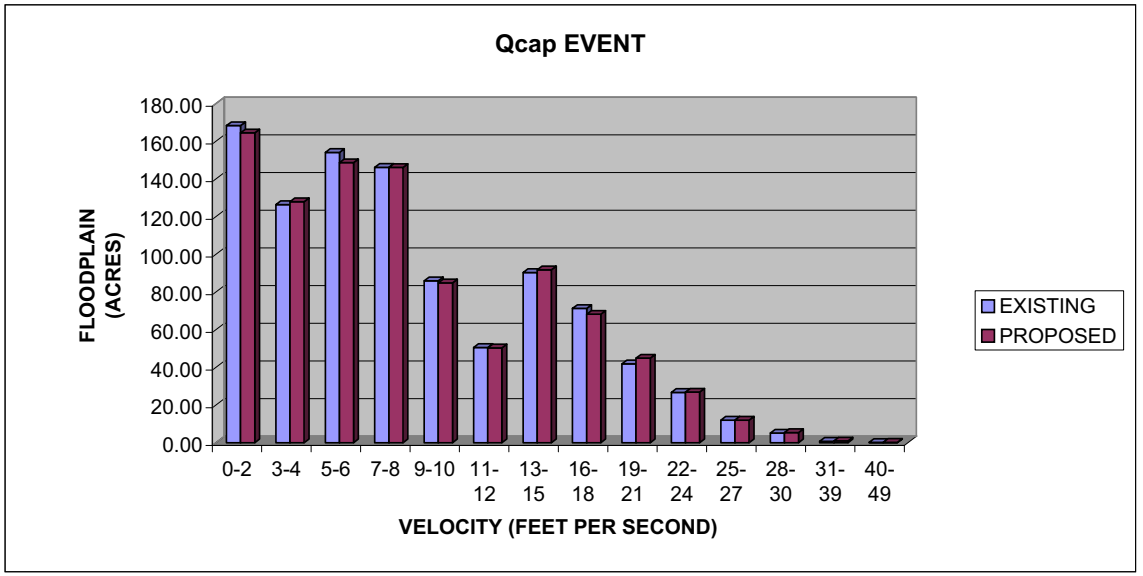
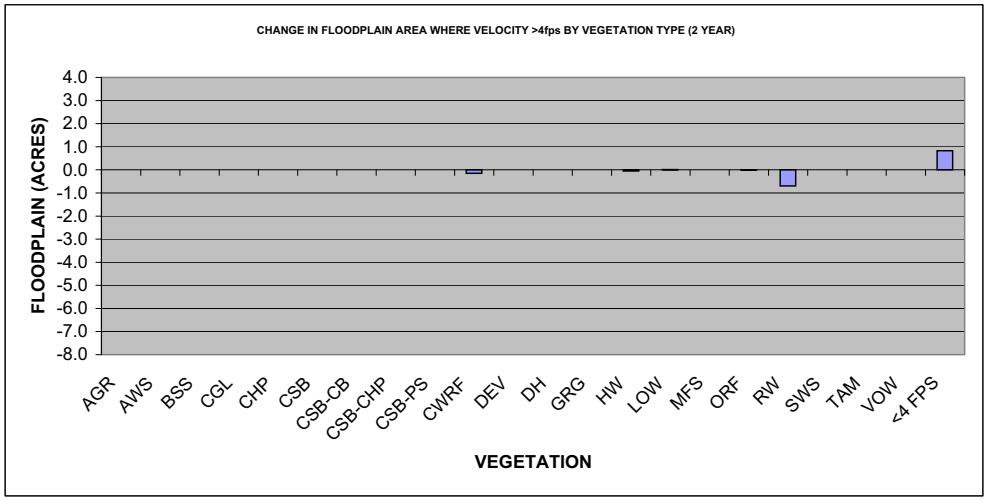


FIGURE 4.4a: MISSION VILLAGE CHANGE IN FLOODPLAIN AREA WHERE VELOCITY >4fps BY VEGETATION TYPE

Vegetation Type	2 YEAR			
	EXISTING	PROPOSED	DELTA	DELTA %
AGR	0.1	0.1	0.0	0.5%
AWS	0.0	0.0	0.0	0.0%
BSS	0.0	0.0	0.0	0.0%
CGL	0.0	0.0	0.0	0.0%
CHP	0.0	0.0	0.0	0.0%
CSB	0.0	0.0	0.0	0.0%
CSB-CB	0.0	0.0	0.0	0.0%
CSB-CHP	0.0	0.0	0.0	0.0%
CSB-PS	0.0	0.0	0.0	0.0%
CWRF	9.6	9.4	-0.2	-1.6%
DEV	0.0	0.0	0.0	0.0%
DH	0.6	0.6	0.0	0.0%
GRG	0.0	0.0	0.0	0.0%
HW	26.4	26.4	-0.1	-0.2%
LOW	0.0	0.0	0.0	0.0%
MFS	0.0	0.0	0.0	0.0%
ORF	0.1	0.1	0.0	-6.7%
RW	30.0	29.3	-0.7	-2.3%
SWS	1.0	1.0	0.0	0.4%
TAM	0.0	0.0	0.0	0.0%
VOW	0.0	0.0	0.0	0.0%
<4 FPS	162.9	163.7	0.8	0.5%
TOTAL	230.6	230.6	0.0	0.0%



AGR	Agriculture
AWS	Arrowweed scrub
BSS	Big sagebrush scrub
CGL	California annual grassland
CHP	Undifferentiated chaparral
CSB	California sagebrush
CSB-CB	California sagebrush-California buckwheat
CSB-CHP	California sagebrush-undifferentiated chaparral
CSB-PS	California sagebrush-purple sage
CWRF	Cottonwood willow riparian forest
DEV	Developed
DH	Disturbed land
GRG	Giant reed
HW	Herbaceous wetlands
LOW	Live oak woodland
MFS	Mulefat
ORF	Southern coast live oak riparian forest
RW	River wash
SWS	Southern willow scrub
TAM	Tamarisk scrub
VOW	Valley oak woodland

Vegetation Type	5 YEAR			
	EXISTING	PROPOSED	DELTA	DELTA %
AGR	0.4	0.3	0.0	-0.9%
AWS	0.0	0.0	0.0	0.0%
BSS	0.0	0.0	0.0	0.0%
CGL	0.0	0.0	0.0	0.0%
CHP	0.0	0.0	0.0	0.0%
CSB	0.0	0.0	0.0	0.0%
CSB-CB	0.0	0.0	0.0	0.0%
CSB-CHP	0.0	0.0	0.0	0.0%
CSB-PS	0.1	0.1	0.0	0.0%
CWRF	26.4	26.0	-0.4	-1.5%
DEV	0.0	0.0	0.0	0.0%
DH	1.7	1.7	0.0	-0.3%
GRG	1.2	1.2	0.0	0.0%
HW	59.9	60.2	0.3	0.4%
LOW	0.1	0.1	0.0	-1.0%
MFS	0.0	0.0	0.0	0.0%
ORF	0.2	0.2	0.0	0.3%
RW	74.3	73.9	-0.4	-0.5%
SWS	3.1	3.1	0.0	-0.6%
TAM	0.3	0.3	0.0	-1.2%
VOW	0.0	0.0	0.0	0.0%
<4 FPS	136.1	136.5	0.5	0.4%
TOTAL	303.7	303.7	0.0	0.0%

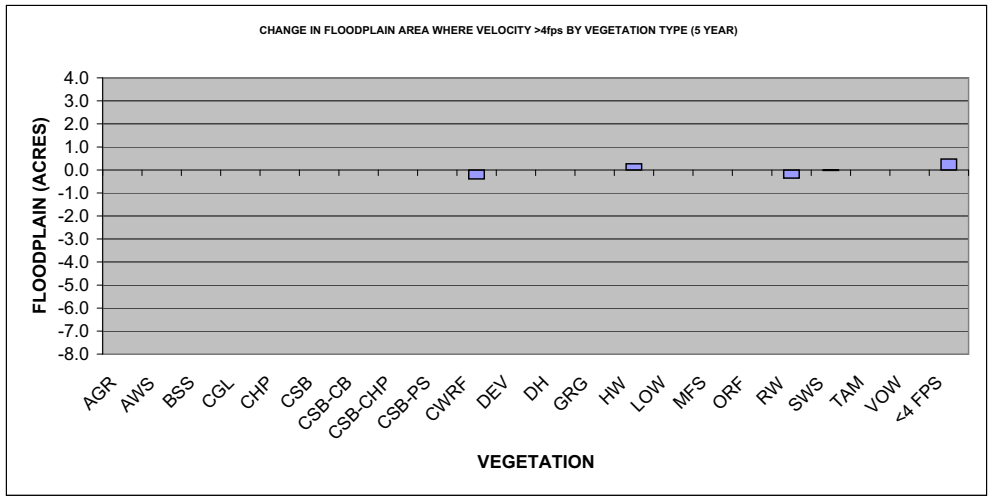
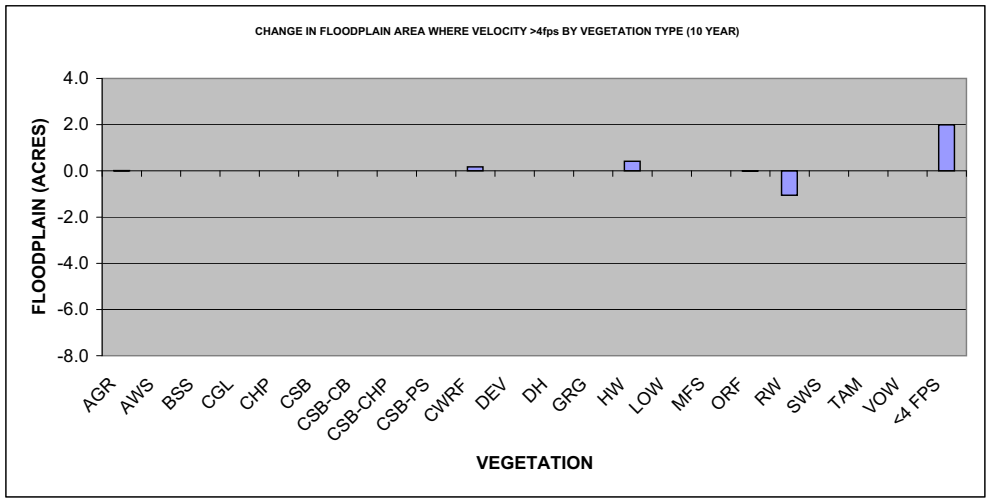


FIGURE 4.4b: MISSION VILLAGE CHANGE IN FLOODPLAIN AREA WHERE VELOCITY >4fps BY VEGETATION TYPE

Vegetation Type	10 YEAR			
	EXISTING	PROPOSED	DELTA	DELTA %
AGR	0.7	0.7	0.0	1.3%
AWS	0.0	0.0	0.0	0.0%
BSS	0.0	0.0	0.0	0.0%
CGL	0.0	0.0	0.0	0.0%
CHP	0.0	0.0	0.0	0.0%
CSB	0.0	0.0	0.0	0.0%
CSB-CB	0.0	0.0	0.0	0.0%
CSB-CHP	0.0	0.0	0.0	0.0%
CSB-PS	0.2	0.2	0.0	0.0%
CWRF	37.7	37.8	0.2	0.4%
DEV	0.0	0.0	0.0	0.0%
DH	2.1	2.1	0.0	0.0%
GRG	2.2	2.2	0.0	0.0%
HW	79.7	80.1	0.4	0.5%
LOW	0.1	0.1	0.0	-0.7%
MFS	0.0	0.0	0.0	0.0%
ORF	0.2	0.2	0.0	-5.3%
RW	102.7	101.6	-1.1	-1.0%
SWS	4.6	4.6	0.0	0.1%
TAM	1.1	1.1	0.0	0.0%
VOW	0.0	0.0	0.0	0.0%
<4 FPS	126.2	128.2	2.0	1.6%
TOTAL	357.6	359.1	1.5	0.4%



AGR	Agriculture
AWS	Arrowweed scrub
BSS	Big sagebrush scrub
CGL	California annual grassland
CHP	Undifferentiated chaparral
CSB	California sagebrush
CSB-CB	California sagebrush-California buckwheat
CSB-CHP	California sagebrush-undifferentiated chaparral
CSB-PS	California sagebrush-purple sage
CWRF	Cottonwood willow riparian forest
DEV	Developed
DH	Disturbed land
GRG	Giant reed
HW	Herbaceous wetlands
LOW	Live oak woodland
MFS	Mulefat
ORF	Southern coast live oak riparian forest
RW	River wash
SWS	Southern willow scrub
TAM	Tamarisk scrub
VOW	Valley oak woodland

Vegetation Type	20 YEAR			
	EXISTING	PROPOSED	DELTA	DELTA %
AGR	4.6	4.7	0.1	2.3%
AWS	0.0	0.0	0.0	0.0%
BSS	0.0	0.0	0.0	0.0%
CGL	0.0	0.0	0.0	0.0%
CHP	0.0	0.0	0.0	0.0%
CSB	0.0	0.0	0.0	0.0%
CSB-CB	0.0	0.0	0.0	0.0%
CSB-CHP	0.0	0.0	0.0	0.0%
CSB-PS	0.3	0.3	0.0	0.0%
CWRF	50.0	50.6	0.6	1.2%
DEV	0.0	0.0	0.0	0.0%
DH	2.8	2.8	0.0	0.0%
GRG	2.5	2.5	0.0	0.7%
HW	95.5	95.9	0.4	0.4%
LOW	0.2	0.2	0.0	0.0%
MFS	0.8	0.9	0.1	8.4%
ORF	0.2	0.2	0.0	-5.4%
RW	116.1	114.5	-1.6	-1.4%
SWS	6.3	6.3	0.0	0.0%
TAM	1.1	1.1	0.0	0.0%
VOW	0.0	0.0	0.0	0.0%
<4 FPS	230.2	225.4	-4.7	-2.0%
TOTAL	510.6	505.5	-5.1	-1.0%

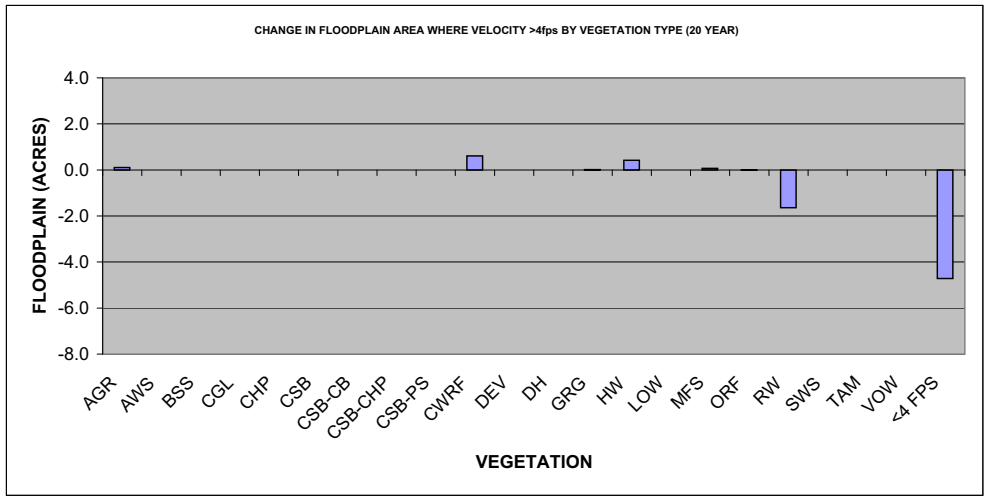
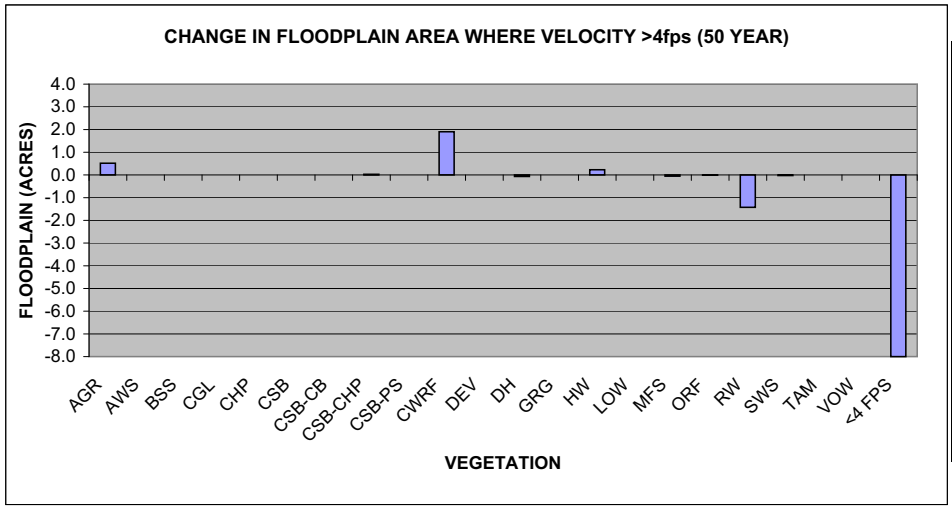


FIGURE 4.4c: MISSION VILLAGE CHANGE IN FLOODPLAIN AREA WHERE VELOCITY >4fps BY VEGETATION TYPE

Vegetation Type	50 YEAR			
	EXISTING	PROPOSED	DELTA	DELTA %
AGR	18.9	19.4	0.5	2.7%
AWS	0.0	0.0	0.0	0.0%
BSS	0.0	0.0	0.0	0.0%
CGL	0.0	0.0	0.0	0.0%
CHP	0.0	0.0	0.0	0.0%
CSB	0.0	0.0	0.0	0.0%
CSB-CB	0.0	0.0	0.0	0.0%
CSB-CHP	0.0	0.0	0.0	0.0%
CSB-PS	0.5	0.5	0.0	0.0%
CWRF	70.5	72.4	1.9	2.7%
DEV	0.0	0.0	0.0	0.0%
DH	4.4	4.3	-0.1	-1.5%
GRG	2.5	2.5	0.0	0.0%
HW	105.9	106.1	0.2	0.2%
LOW	0.3	0.3	0.0	0.0%
MFS	3.3	3.2	-0.1	-1.7%
ORF	0.3	0.2	0.0	-4.1%
RW	139.8	138.4	-1.4	-1.0%
SWS	8.3	8.3	0.0	-0.3%
TAM	1.1	1.1	0.0	0.0%
VOW	0.0	0.0	0.0	0.0%
<4 FPS	373.2	365.2	-8.0	-2.1%
TOTAL	728.8	721.9	-6.9	-1.0%



AGR	Agriculture
AWS	Arrowweed scrub
BSS	Big sagebrush scrub
CGL	California annual grassland
CHP	Undifferentiated chaparral
CSB	California sagebrush
CSB-CB	California sagebrush-California buckwheat
CSB-CHP	California sagebrush-undifferentiated chaparral
CSB-PS	California sagebrush-purple sage
CWRF	Cottonwood willow riparian forest
DEV	Developed
DH	Disturbed land
GRG	Giant reed
HW	Herbaceous wetlands
LOW	Live oak woodland
MFS	Mulefat
ORF	Southern coast live oak riparian forest
RW	River wash
SWS	Southern willow scrub
TAM	Tamarisk scrub
VOW	Valley oak woodland

Vegetation Type	100 YEAR			
	EXISTING	PROPOSED	DELTA	DELTA %
AGR	51.1	51.7	0.6	1.2%
AWS	0.0	0.0	0.0	0.0%
BSS	0.0	0.0	0.0	0.0%
CGL	0.1	0.1	0.1	133.6%
CHP	0.0	0.0	0.0	0.0%
CSB	0.0	0.0	0.0	0.0%
CSB-CB	0.0	0.0	0.0	0.0%
CSB-CHP	0.1	0.1	0.0	0.0%
CSB-PS	0.5	0.5	0.0	0.0%
CWRF	94.1	96.3	2.2	2.3%
DEV	0.0	0.0	0.0	0.0%
DH	8.7	8.8	0.0	0.0%
GRG	3.5	3.4	-0.1	-2.4%
HW	111.5	111.9	0.4	0.3%
LOW	0.4	0.4	0.0	0.4%
MFS	5.4	5.4	0.0	0.6%
ORF	0.3	0.3	0.0	-1.8%
RW	159.0	158.3	-0.8	-0.5%
SWS	8.9	8.9	0.0	-0.1%
TAM	1.3	1.3	0.0	0.6%
VOW	0.0	0.0	0.0	0.0%
<4 FPS	359.5	352.2	-7.3	-2.0%
TOTAL	804.2	799.4	-4.8	-0.6%

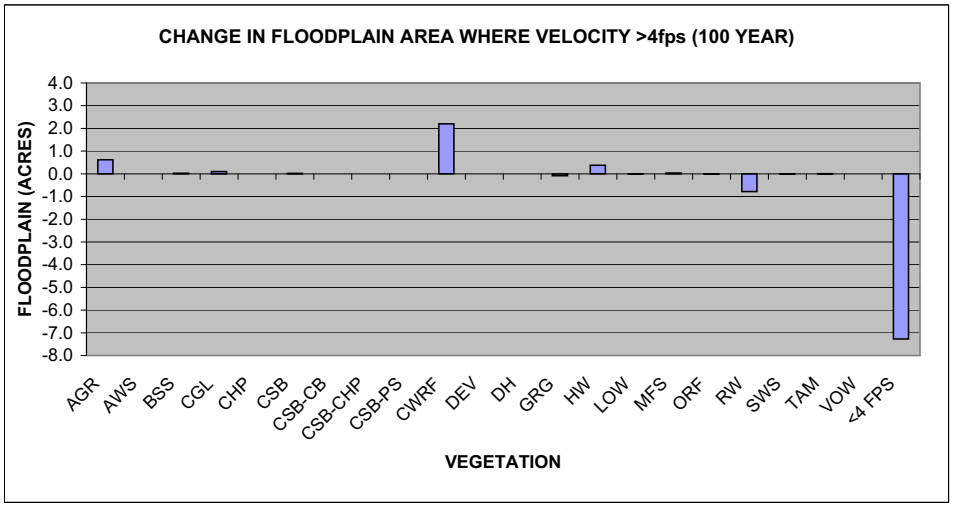
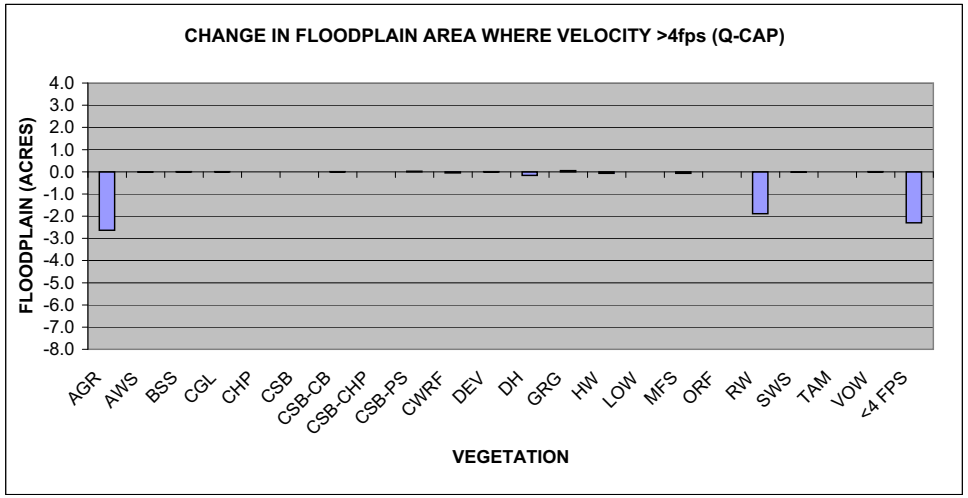


FIGURE 4.4d: MISSION VILLAGE CHANGE IN FLOODPLAIN AREA WHERE VELOCITY >4fps BY VEGETATION TYPE

Vegetation Type	CAP EVENT			
	EXISTING	PROPOSED	DELTA	DELTA %
AGR	131.1	128.5	-2.6	-2.0%
AWS	0.7	0.7	0.0	-2.2%
BSS	1.1	1.1	0.0	0.8%
CGL	2.8	2.8	0.0	0.2%
CHP	0.0	0.0	0.0	0.0%
CSB	0.1	0.1	0.0	-4.9%
CSB-CB	0.0	0.0	0.0	0.0%
CSB-CHP	0.2	0.2	0.0	-0.3%
CSB-PS	1.2	1.2	0.0	2.1%
CWRF	175.0	174.9	-0.1	0.0%
DEV	0.6	0.6	0.0	1.1%
DH	21.5	21.3	-0.2	-0.8%
GRG	6.1	6.1	0.0	0.8%
HW	120.2	120.2	-0.1	-0.1%
LOW	0.6	0.6	0.0	-0.2%
MFS	13.2	13.1	-0.1	-0.5%
ORF	0.3	0.3	0.0	-0.9%
RW	197.8	195.9	-1.9	-1.0%
SWS	10.2	10.2	0.0	-0.2%
TAM	1.9	1.9	0.0	0.0%
VOW	0.0	0.0	0.0	0.0%
<4 FPS	294.7	292.4	-2.3	-0.8%
TOTAL	979.3	972.2	-7.1	-0.7%



AGR	Agriculture
AWS	Arrowweed scrub
BSS	Big sagebrush scrub
CGL	California annual grassland
CHP	Undifferentiated chaparral
CSB	California sagebrush
CSB-CB	California sagebrush-California buckwheat
CSB-CHP	California sagebrush-undifferentiated chaparral
CSB-PS	California sagebrush-purple sage
CWRF	Cottonwood willow riparian forest
DEV	Developed
DH	Disturbed land
GRG	Giant reed
HW	Herbaceous wetlands
LOW	Live oak woodland
MFS	Mulefat
ORF	Southern coast live oak riparian forest
RW	River wash
SWS	Southern willow scrub
TAM	Tamarisk scrub
VOW	Valley oak woodland

4.1.1B Changes to Water Surface Elevation

Changes on the Santa Clara River in the form of alterations of water surface elevations and velocities, as reported in Newhall Ranch Santa Clara River HEC-RAS Modeling study (PACE, December, 2005. Newhall Land owns both sides of the River for the majority of the study reach. However, at the portion of the Santa Clara River where the existing Travel Village development is located (at approximately River stations 35725 through 31585) Newhall Land does not own this property on the north bank (Travel Village). The bank protection on the south bank of the River within Mission Village and across from the Travel Village development is at the edge of the floodplain limits and therefore does not impact the River water surface or velocity. In addition, there are no increases in water surface elevation on the Travel Village property due to the Mission Village Bank Protection project, located downstream of Travel Village.

The Mission Village Proposed Bank Protection creates minor changes in water surface elevation and velocity in the River. A detailed analysis and review of the existing vs. proposed condition flow depth and velocity along the bank of the River in the over bank area is presented in the Newhall Ranch Santa Clara River HEC-RAS Modeling study (PACE, December, 2005). The analysis shows non-scouring or minimal scour velocities in this reach and therefore to meet the environmental requirements of the project, it is proposed to utilize vegetative and geotextile type bank protection in this area.

As shown in table 4.3, for most of the project reach changes to water the 100-year surface elevation are less than one foot. Increases in water surface elevation are few and minimal.

The previously mapped (ML Map # 43-ML-23) Capital Floodplain and Floodway are based upon higher flow rate (Qcap old = 168,000cfs) vs. revised Capital Flood rate (Qcap new = 142,475cfs). This does not represent a change in hydrology of the River, but rather in analysis criteria as established by Los Angeles County.

4.1.1C Floodplain Impacts Associated with Aggradation or Degradation

SAM results for the proposed condition predict the general adjustment from -1.6 and +2.1 feet. LACH&SM methodology predicts general adjustment, as defined above, from -1.8 to -7.6 feet for the proposed condition. The general trend in general adjustment for the study reach as indicated by SAM modeling is not apparent for either the existing or proposed condition. Additionally, little change is expected between the existing and proposed conditions general adjustment.

Local scour ranges from 0.0 to 17.4 feet in the proposed conditions at the various river crossings. Results of calculations of bend scour vary from 0.0 to 8.9 feet for the proposed condition. For the proposed condition, the bedform height ranges from 0.5 to 8.0 feet. Changes between the existing and proposed conditions are a reflection primarily of the change in velocity brought about by the proposed condition. These changes tend

Table 4.4: Santa Clara River Summary of Maximum Proposed Toe-down & Freeboard (ft)

Subreach	HEC-RAS Section	Z_{99} [2]	Outside Curved Reach		Straight-Inside Curved Reach		WSE	Outside Curved Reach		Straight-Inside Curved Reach	
			Maximum Total Degradation [3]	Proposed Toe-down Elevation [1,4]	Maximum Total Degradation [3]	Proposed Toe-down Elevation [1,4]		Maximum Total Freeboard [3]	Proposed Top of Levee Elevation [1]	Maximum Total Freeboard [3]	Proposed Top of Levee Elevation [1]
SRA1	46195	1035.0	14.0	1021.0	14.0	1021.0	1063.1	3.1	1066.3	3.1	1066.3
	46020	1032.0	14.0	1018.0	14.0	1018.0	1062.0	3.0	1065.0	3.0	1065.0
	45545	1030.0	14.0	1016.0	14.0	1016.0	1057.9	3.4	1061.3	3.4	1061.3
	45030	1025.0	14.0	1011.0	14.0	1011.0	1054.2	3.0	1057.3	3.0	1057.3
	44585	1022.0	14.0	1008.0	14.0	1008.0	1050.6	3.2	1053.8	3.2	1053.8
	44210	1020.0	14.0	1006.0	14.0	1006.0	1047.8	2.9	1050.8	2.9	1050.8
SRA2	43820	1018.0	15.4	1002.6	15.4	1002.6	1042.1	3.9	1046.0	3.9	1046.0
	43610	1017.0	17.0	1000.0	17.0	1000.0	1038.3	4.0	1042.2	4.0	1042.2
	43410	1016.0	15.8	1000.2	15.8	1000.2	1035.8	3.6	1039.4	3.6	1039.4
	43200	1014.0	16.3	997.7	16.3	997.7	1033.2	3.5	1036.7	3.5	1036.7
	42975	1012.0	15.5	996.5	15.5	996.5	1031.0	2.9	1033.8	2.7	1033.7
	42815	1011.0	15.5	995.5	15.5	995.5	1029.7	2.5	1032.2	2.5	1032.2
	42590	1010.0	21.0	989.0	14.7	995.3	1028.4	2.5	1030.9	2.5	1030.9
	42430	1008.0	21.0	987.0	15.3	992.7	1027.5	2.5	1030.0	2.5	1030.0
	42215	1006.0	21.0	985.0	14.7	991.3	1026.7	2.5	1029.2	2.5	1029.2
	41940	1005.0	15.0	990.0	11.9	993.1	1025.6	2.5	1028.1	2.5	1028.1
	41730	1004.0	15.0	989.0	12.0	992.0	1024.6	2.5	1027.1	2.5	1027.1
	41460	1002.0	15.0	987.0	11.9	990.1	1023.2	2.5	1025.7	2.5	1025.7
SRA3	41280	1001.0	12.5	988.5	12.5	988.5	1021.8	2.5	1024.3	2.5	1024.3
	41080	1000.0	14.0	986.0	14.0	986.0	1020.5	2.5	1023.0	2.5	1023.0
	40825	999.5	21.0	978.5	14.0	985.5	1019.3	2.5	1021.8	2.5	1021.8
	40585	998.0	18.0	980.0	12.5	985.5	1018.3	2.5	1020.8	2.5	1020.8
	40335	996.0	15.0	981.0	10.0	986.0	1017.4	2.5	1019.9	2.5	1019.9
	40130	995.0	15.0	980.0	10.0	985.0	1016.6	2.5	1019.1	2.5	1019.1
	39945	994.0	15.0	979.0	10.0	984.0	1015.9	2.5	1018.4	2.5	1018.4
	39755	994.0	12.5	981.5	12.5	981.5	1014.6	2.5	1017.1	2.5	1017.1
	39605	993.0	14.0	979.0	14.0	979.0	1013.7	2.5	1016.2	2.5	1016.2
	39310	992.0	18.0	974.0	12.5	979.5	1012.2	2.5	1014.7	2.5	1014.7
	39100	990.0	14.0	976.0	14.0	976.0	1011.1	2.5	1013.6	2.5	1013.6
	38925	989.5	10.0	979.5	10.0	979.5	1010.3	2.5	1012.8	2.5	1012.8
SRA4	38710	988.0	10.0	978.0	10.0	978.0	1009.2	2.5	1011.7	2.5	1011.7
	38475	986.0	12.5	973.5	12.5	973.5	1007.0	2.6	1009.5	2.6	1009.5
	38300	985.5	14.0	971.5	14.0	971.5	1005.8	2.5	1008.3	2.5	1008.3
	38065	984.0	10.0	974.0	10.0	974.0	1004.1	2.5	1006.6	2.5	1006.6
	37810	983.0	14.0	969.0	14.0	969.0	1001.4	2.8	1004.2	2.8	1004.2
	37655	982.0	14.0	968.0	14.0	968.0	999.9	2.6	1002.5	2.6	1002.5
	37390	981.0	14.0	967.0	14.0	967.0	998.5	2.5	1001.0	2.5	1001.0
	37135	980.0	12.5	967.5	12.5	967.5	996.8	2.5	999.3	2.5	999.3
	36930	978.0	14.0	964.0	14.0	964.0	995.7	2.5	998.2	2.5	998.2
	36735	977.0	12.5	964.5	12.5	964.5	994.6	2.5	997.1	2.5	997.1
	36515	975.0	15.0	960.0	10.0	965.0	993.6	2.5	996.1	2.5	996.1
	36265	974.0	15.0	959.0	10.0	964.0	992.3	2.5	994.8	2.5	994.8
SRB1	36080	973.0	22.9	950.1	22.0	951.0	990.6	2.5	993.1	2.5	993.1
	35845	971.0	15.0	956.0	10.0	961.0	989.1	2.5	991.6	2.5	991.6
	35725	970.0	15.0	955.0	10.0	960.0	988.3	2.5	990.8	2.5	990.8
	35515	969.0	18.0	951.0	12.5	956.5	986.9	2.5	989.4	2.5	989.4
	35245	968.0	18.0	950.0	12.5	955.5	985.0	2.5	987.5	2.5	987.5
	35040	967.0	21.0	946.0	14.0	953.0	983.6	2.5	986.1	2.5	986.1
	34860	966.0	21.0	945.0	14.0	952.0	982.3	2.5	984.8	2.5	984.8
	34720	965.5	21.0	944.5	14.0	951.5	981.3	2.5	983.8	2.5	983.8
	34495	964.0	18.0	946.0	12.5	951.5	979.7	2.5	982.2	2.5	982.2
	34310	963.0	18.0	945.0	12.5	950.5	978.4	2.5	980.9	2.5	980.9
	34090	962.0	18.0	944.0	12.5	949.5	977.0	2.5	979.5	2.5	979.5
SRB2	33880	960.0	18.0	942.0	12.5	947.5	975.7	2.5	978.2	2.5	978.2
	33710	959.0	18.0	941.0	12.5	946.5	974.6	2.5	977.1	2.5	977.1
	33500	958.0	18.0	940.0	12.5	945.5	973.3	2.5	975.8	2.5	975.8
	33310	957.0	18.0	939.0	12.5	944.5	972.3	2.5	974.8	2.5	974.8
	33115	956.0	15.0	941.0	10.0	946.0	971.4	2.5	973.9	2.5	973.9
	32795	954.0	15.0	939.0	10.0	944.0	969.7	2.5	972.2	2.5	972.2
	32605	952.0	15.0	937.0	10.0	942.0	968.7	2.5	971.2	2.5	971.2
SRC1	32265	950.0	18.0	932.0	12.5	937.5	967.2	2.5	969.7	2.5	969.7
	31875	949.0	15.0	934.0	10.0	939.0	965.6	2.5	968.1	2.5	968.1
	31585	946.0	15.0	931.0	10.0	936.0	964.7	2.5	967.2	2.5	967.2
	31360	944.0	15.0	929.0	10.0	934.0	963.9	2.5	966.4	2.5	966.4
	31060	942.0	12.0	930.0	8.0	934.0	963.2	2.5	965.7	2.5	965.7
	30720	940.0	12.0	928.0	8.0	932.0	962.5	2.5	965.0	2.5	965.0
	30445	938.0	12.0	926.0	8.0	930.0	962.1	2.5	964.6	2.5	964.6
	30095	936.0	12.0	924.0	8.0	928.0	961.5	2.5	964.0	2.5	964.0
	29815	935.0	12.0	923.0	8.0	927.0	960.8	2.5	963.3	2.5	963.3
	29565	934.0	12.0	922.0	8.0	926.0	960.3	2.5	962.8	2.5	962.8
	29385	933.0	12.0	921.0	8.0	925.0	959.6	2.5	962.1	2.5	962.1
SRC2	29140	932.0	12.0	920.0	9.1	922.9	958.4	2.5	960.9	2.5	960.9
	28895	930.0	21.0	909.0	14.0	916.0	953.8	4.8	958.6	4.7	958.5
	28695	928.0	15.0	913.0	15.0	913.0	952.9	2.5	955.4	2.5	955.4
	28500	927.5	14.7	912.8	14.7	912.8	950.5	3.1	953.5	2.9	953.4
	28280	926.0	21.0	905.0	14.0	912.0	949.8	2.5	952.3	2.5	952.3
	28080	925.0	15.0	910.0	10.0	915.0	949.1	2.5	951.6	2.5	951.6
	27925	924.0	10.3	913.7	10.3	913.7	948.1	2.5	950.6	2.5	950.6
	27725	923.0	14.0	909.0	14.0	909.0	946.1	2.9	949.0	2.9	949.0
	27545	922.0	15.0	907.0	15.0	907.0	944.3	3.1	947.4	3.1	947.4
	27335	921.0	14.1	906.9	14.1	906.9	943.0	2.7	945.7	2.6	945.6
	27155	920.5	14.0	906.5	14.0	906.5	941.5	2.9	944.4	2.8	944.2
SRC3	26990	920.0	21.0	899.0	14.0	906.0	940.4	2.5	942.9	2.5	942.9
	26780	918.0	21.0	897.0	14.0	904.0	939.3	2.5	941.8	2.5	941.8
	26575	917.0	21.0	896.0	14.0	903.0	938.5	2.5	941.0	2.5	941.0
	26355	916.0	18.0	898.0	12.5	903.5	937.6	2.5	940.1	2.5	940.1
	26170	915.0	18.0	897.0	12.5	902.5	936.9	2.5	939.4	2.5	939.4
	25965	914.0	21.0	893.0	14.0	900.0	936.2	2.6	938.8	2.5	938.7
	25785	913.5	21.0	892.5	14.0	899.5	935.5	2.7	938.2	2.5	938.0
	25600	912.5	21.0	891.5	14.0	898.5	934.8	2.5	937.3	2.5	937.3
	25425	911.0	21.0	890.0	14.0	897.0	934.1	2.5	936.7	2.5	936.6
	25215	910.0	15.0	895.0	10.0	900.0	933.3	2.5	935.8	2.5	935.8
	25000	909.0	15.0	894.0	10.0	899.0	932.5	2.5	935.0	2.5	935.0
SRC4	24795	908.0	15.0	893.0	10.0	898.0	931.5	3.7	935.2	3.4	934.9
	24550	906.0	18.0	888.0	12.5	893.5	930.1	3.6	933.6	3.3	933.4
	24335	905.0	21.0	884.0	14.0	891.0	928.5	3.9	932.4	3.6	932.1
	24115	904.0	21.0	883.0	14.0	890.0	927.0	3.8	930.8	3.5	930.5
	23975	903.5	21.0	882.5	14.0	889.5	926.1	3.5	929.7	3.3	929.4
	23755	902.0	21.0	881.0	14.0	888.0	924.7	3.2	927.9	3.1	927.8
	23565	900.0	21.0	879.0	14.0	886.0	923.6	3.7	927.3	3.4	927.0
	23365	900.0	21.0	879.0	14.0	886.0	922.4	3.5	925.9	3.2	925.6
	23180	899.0	21.0	878.0	14.0	885.0	921.5	3.2	924.6	3.0	924.4
	23000	898.0	21.0	877.0	14.0	884.0	920.0	3.3	923.3	3.0	923.0
	22790	897.5	26.8	870.7	23.0	874.5	917.5	3.1	920.6	3.0	920.5
	22600	896.0	21.0	875.0	14.0	882.0	915.8	3.2	919.0	2.9	918.7
	22415	895.5	21.0	874.5	14.0	881.5	914.4	3.2	917.6	2.9	917.4

1 - Phase 1 Analysis, see end note

2 - Minimum 1999 Bed Elevation

3 - Toe-down and Freeboard based on max of LA County Hydrology & Sedimentation Manual (with SAM general aggradation) and LA County Design Manual, as per Hydrology & Sedimentation Manual

4 - Values at bridges are approxmiate. Final design of levee at bridge locations will include detailed bridge analysis

Table 4.4: (Continued) Santa Clara River Summary of Maximum Proposed Toe-down & Freeboard (ft)

Subreach	HEC-RAS Section	Z_{99} [2]	Outside Curved Reach		Straight-Inside Curved Reach		WSE	Outside Curved Reach		Straight-Inside Curved Reach	
			Maximum Total Degradation [3]	Proposed Toe-down Elevation [1,4]	Maximum Total Degradation [3]	Proposed Toe-down Elevation [1,4]		Maximum Total Freeboard [3]	Proposed Top of Levee Elevation [1]	Maximum Total Freeboard [3]	Proposed Top of Levee Elevation [1]
SRD1	22195	894.0	15.0	879.0	10.0	884.0	913.1	2.5	915.6	2.5	915.6
	22010	892.0	18.0	874.0	12.5	879.5	911.4	2.5	913.9	2.5	913.9
	21790	891.5	21.0	870.5	14.0	877.5	909.9	2.6	912.6	2.5	912.4
	21615	892.0	21.0	871.0	14.0	878.0	908.9	2.6	911.5	2.5	911.4
	21440	890.0	18.0	872.0	12.5	877.5	907.8	2.5	910.3	2.5	910.3
	21225	888.0	21.0	867.0	14.0	874.0	906.7	2.5	909.2	2.5	909.2
	21020	887.0	21.0	866.0	14.0	873.0	905.6	2.5	908.1	2.5	908.1
	20845	886.0	18.0	868.0	12.5	873.5	904.7	2.5	907.2	2.5	907.2
	20595	885.0	15.0	870.0	10.0	875.0	903.6	2.5	906.1	2.5	906.1
	20435	884.0	15.0	869.0	10.0	874.0	902.8	2.5	905.3	2.5	905.3
	20280	883.7	18.0	865.7	12.5	871.2	901.8	2.5	904.3	2.5	904.3
	20070	882.0	21.0	861.0	14.0	868.0	900.6	2.5	903.1	2.5	903.1
SRD2	19855	880.5	21.0	859.5	14.0	866.5	899.6	3.0	902.6	2.9	902.5
	19630	880.0	21.0	859.0	14.0	866.0	898.6	2.9	901.5	2.9	901.5
	19440	878.0	15.0	863.0	10.0	868.0	897.9	3.0	900.8	3.0	900.8
	19240	877.5	18.0	859.5	12.5	865.0	896.9	3.4	900.3	3.4	900.2
	19050	876.0	21.0	855.0	14.0	862.0	896.2	4.1	900.3	4.1	900.3
	18830	874.0	15.0	859.0	10.0	864.0	895.4	4.1	899.4	4.0	899.4
	18650	873.5	15.0	858.5	10.0	863.5	894.7	4.0	898.7	4.0	898.7
	18475	872.0	13.6	858.4	8.0	864.0	894.3	3.4	897.6	3.4	897.6
	18290	871.5	14.1	857.4	8.0	863.5	893.6	3.2	896.8	3.2	896.8
	18025	870.0	8.0	862.0	8.0	862.0	892.9	3.1	895.9	3.1	895.9
	17785	868.0	8.0	860.0	8.0	860.0	892.0	3.2	895.2	3.2	895.2
SRD3	17510	868.0	10.0	858.0	10.0	858.0	890.4	2.5	892.9	2.5	892.9
	17360	868.0	12.5	855.5	12.5	855.5	888.3	2.5	890.8	2.5	890.8
	17110	864.0	14.0	850.0	14.0	850.0	885.5	2.5	888.0	2.5	888.0
	16970	863.7	14.0	849.7	14.0	849.7	884.0	2.5	886.5	2.5	886.5
	16720	863.5	14.0	849.5	14.0	849.5	882.3	2.5	884.8	2.5	884.8
	16515	862.0	14.0	848.0	14.0	848.0	881.2	2.5	883.7	2.5	883.7
	16305	860.0	10.0	850.0	10.0	850.0	880.4	2.5	882.9	2.5	882.9
	16130	860.0	12.5	847.5	12.5	847.5	879.4	2.5	881.9	2.5	881.9
	15960	859.0	12.5	846.5	12.5	846.5	878.6	2.5	881.1	2.5	881.1
	15745	858.0	10.0	848.0	10.0	848.0	877.6	2.5	880.1	2.5	880.1
	15540	857.5	10.0	847.5	10.0	847.5	876.7	2.5	879.2	2.5	879.2
	15335	856.0	12.5	843.5	12.5	843.5	874.8	2.5	877.3	2.5	877.3
SRE1	15125	854.0	26.1	827.9	26.1	827.9	872.0	2.5	874.5	2.5	874.5
	14900	853.0	14.0	839.0	14.0	839.0	869.7	2.5	872.2	2.5	872.2
	14720	852.0	21.0	831.0	14.0	838.0	868.4	2.5	870.9	2.5	870.9
	14480	850.5	21.0	829.5	14.0	836.5	866.9	2.5	869.4	2.5	869.4
	14315	850.0	15.0	835.0	10.0	840.0	866.0	2.5	868.5	2.5	868.5
	14090	850.0	15.0	835.0	10.0	840.0	864.8	2.5	867.3	2.5	867.3
	13850	848.0	15.0	833.0	10.0	838.0	863.6	2.5	866.1	2.5	866.1
	13635	846.0	18.0	828.0	12.5	833.5	862.5	2.5	865.0	2.5	865.0
	13425	845.0	21.0	824.0	14.0	831.0	861.8	2.5	864.3	2.5	864.3
	13190	844.0	15.0	829.0	10.0	834.0	861.1	2.5	863.6	2.5	863.6
SRE2	13030	843.0	15.0	828.0	10.0	833.0	860.6	4.2	864.8	4.1	864.8
	12835	842.0	10.0	832.0	10.0	832.0	860.0	4.7	864.7	4.6	864.7
	12615	841.0	10.0	831.0	10.0	831.0	859.3	5.2	864.6	5.2	864.6
	12395	840.0	10.0	830.0	10.0	830.0	858.7	5.1	863.8	5.1	863.8
	12195	839.0	10.0	829.0	10.0	829.0	858.1	4.2	862.3	4.2	862.3
	11995	837.0	10.0	827.0	10.0	827.0	857.3	4.1	861.4	4.1	861.4
	11780	836.0	10.0	826.0	10.0	826.0	856.6	4.0	860.5	4.0	860.5
	11605	835.5	10.0	825.5	10.0	825.5	855.8	4.0	859.8	4.0	859.8
	11405	834.0	10.0	824.0	10.0	824.0	854.6	3.9	858.6	3.9	858.6
	11180	833.0	12.5	820.5	12.5	820.5	852.7	3.9	856.6	3.9	856.6
SRE3	11015	831.5	14.0	817.5	14.0	817.5	850.2	3.8	854.0	3.8	854.0
	10835	831.0	14.0	817.0	14.0	817.0	848.1	3.7	851.8	3.7	851.8
	10575	830.0	14.0	816.0	14.0	816.0	846.1	3.8	849.9	3.8	849.9
	10390	828.0	14.0	814.0	14.0	814.0	845.1	3.1	848.2	3.1	848.2
	10225	827.5	12.5	815.0	12.5	815.0	844.1	3.1	847.2	3.1	847.2
	10000	826.0	10.0	816.0	10.0	816.0	842.6	3.1	845.7	3.1	845.7
	9820	824.0	14.0	810.0	14.0	810.0	841.4	3.1	844.5	3.1	844.5
	9595	823.8	10.0	813.8	10.0	813.8	839.9	3.1	843.0	3.1	843.0
	9385	823.0	18.0	805.0	12.5	810.5	838.6	3.1	841.7	3.1	841.7
	9220	822.0	18.0	804.0	12.5	809.5	837.6	3.1	840.7	3.1	840.7
	9025	821.0	18.0	803.0	12.5	808.5	836.6	3.1	839.7	3.1	839.7

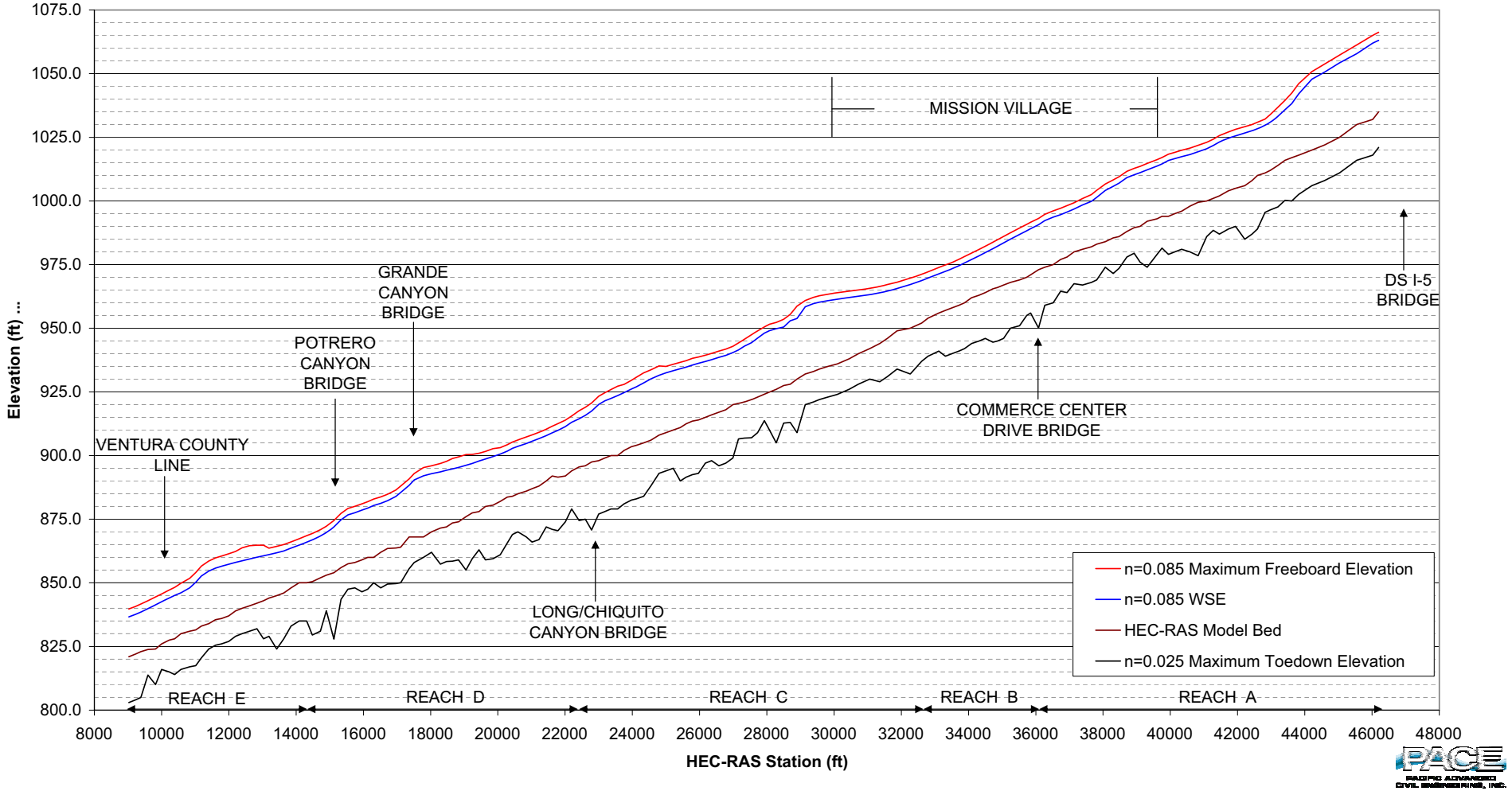
1 - Phase 1 Analysis, see end note

2 - Minimum 1999 Bed Elevation

3 - Toe-down and Freeboard based on max of LA County Hydrology & Sedimentation Manual (with SAM general aggradation) and LA County Design Manual, as per Hydrology & Sedimentation Manual

4 - Values at bridges are approxmiate. Final design of levee at bridge locations will include detailed bridge analysis

Figure 4.5: Santa Clara River Proposed Conditions Outside Curved Reach Maximum Toedown & Freeboard Summary



to be very localized, primarily at crossings, and are not expected to impact fluvial mechanics on the River as a whole.

General adjustment, long-term adjustment, and other scour are summed to determine total potential bed adjustment following LACH&SM methodology. Calculations for the proposed condition predict that the combined bed adjustment ranges from approximately -6.7 to -26.2 feet for both the outside of curved reaches and for the inside of curved and straight reaches.

A comparison of total bed adjustment estimated by both the summed methodology and the LACFCDDM methodology shows that the more intensive LACH&SM methodology using SAM for general adjustment and historical analysis for long-term adjustment predicts a shallower toe-down for proposed conditions than does the LACFCDDM methodology except for sections in the vicinity of subreach, SRB1 and SRE1. In SRB1 section 36080 and SRE1 section 15125, the presence of proposed bridges causes LACH&SM calculations of this section to greatly exceed LACFCDDM calculations, by more than 10 feet. LACH&SM methodology utilizing SAM calculations predicts a deeper toe-down than does the LACFCDDM at these locations methodology because the LACFCDDM does not account for the effects of local degradation as effectively. Only minor differences are expected between the existing and proposed condition with the largest differences being local to bridge crossings.

Freeboard is considered for the purposes of this report to be the additional height required above the top of a levee or other bank protection to prevent overtopping. Freeboard elevation is calculated in this study based on LACH&SM Chapter 5A-3, and includes LACFCDDM calculations. The freeboard for the River ranges from approximately 2.5 to 5.2 feet for both outside of curved and straight or inside of curved reaches in the proposed condition. Maximum total toe-down, total freeboard, toe-down elevation and freeboard elevation are presented in Table 4.4 and Figure 4.5. It should be noted that the fluvial study findings confirm the of the velocity distribution data above and the vegetation data below concerning the minimal change to erosion expected by the construction of the proposed project.

These changes are not considered significant and it is expected that various Newhall related impacts will be localized, and, with respect to implementation of the proposed improvements, that the fluvial mechanics of the River will remain essentially the same after construction of the Mission Village flood protection improvements. The River is expected continue to behave fluvially as it did prior to construction of these proposed improvements.

Impacts associated with erosion and sediment deposition and, therefore, streambed modification within the River are evaluated as a function of in-stream velocities, which are indicators for potential riverbed scouring. This is discussed in detail in Section 4.5.1.

4.1.2 On-site drainage

Implementation of the Project (with the associated storm drain system) would affect the previously described on-site natural tributary drainage channels. While existing discharges from the Project site are not concentrated into centralized outlet structures (as proposed by the Project), surface water flows naturally form paths of least resistance and concentrate at existing topographic depressions or cut channels that serve as concentrated discharge locations. Therefore, while the Project includes development of the storm drain system and will have predefined outlets, this condition will not significantly alter existing drainage patterns. The Project also includes the use of energy dissipaters at the storm drain outlets to the River. Installation of these improvements will dissipate the energy that could cause erosion at the Project outlets.

The PSOMAS Drainage Concept compares the existing and proposed developed condition hydrology, and concludes that a net decrease of Q_{CAP}=*-791 cfs* is expected to occur in the proposed Project condition, as presented in Table 4.5 from PSOMAS. The apparent cause of the reduction of the peak discharge is a function of the reduction of the time of concentration for the project. That is, the increase in imperviousness reduces the time of concentration for various sub-basins. As a result the hydrograph of water discharged from the Project site is flatter and broader, reducing the peak. This small change (<1%) shows that the existing and proposed Project condition are substantially consistent. It is important to note that the existing condition is the 50-year burned and bulked discharge, also defined as the Capital discharge. The proposed Project condition, in contrast, is the burned and unbulked discharge. In the proposed Project condition, water from off-site discharging through the Project will pass through sediment basins that act to remove or unbulk sediment from the water. While the volume of water is the same for both the existing condition and proposed Project condition, the existing condition discharge is laden with sediment while the proposed Project condition discharge has had sediment removed.

Table 4.5: Existing vs. Proposed Condition On-site Hydrology Comparison Capital Event (CFS)

Existing[1]	Proposed[2]	Delta
5657	4866	-791

1. Burned and bulked 2. Burned or Design

4.1.3 Proposed Floodplain Modifications

4.1.3.1 Consistency with the Newhall Ranch EIR

The Newhall Ranch Specific Plan proposed utilization of innovative techniques to meet the requirements of flood control while maintaining the natural resources within the Santa Clara River. The Project will implement these techniques as part of its flood control improvements. Traditional flood control techniques in use in Los Angeles County rely on reinforced concrete or grouted rock rip-rap to minimize erosion while

maximizing the volume of flood flows carried by the drainage. While exceedingly efficient as a flood control technique, this approach retains none of the natural resource value.

In contrast, the Conceptual Backbone Drainage Plan of the Newhall Ranch Specific Plan provides drainage and flood control protection to developed uses while preserving the River as a natural resource. The Drainage Plan utilizes several criteria that are to be implemented by projects that develop within the Specific Plan area. The primary criteria are as follows:

- Flood corridor must allow for the passage of Los Angeles County Capital Flood discharge without the permanent removal (maintenance) of natural River vegetation (except at bridge crossings);

- The banks of the River will generally be established outside of the "waters of the United States" as defined by federal laws and regulations and as determined by the delineation completed by the ACOE in August 1993;

- Where the ACOE delineation width is insufficient to contain the Capital Flood flow, the flood corridor will be widened by an amount sufficient to carry the Capital Flood flow without the necessity of permanently removing vegetation or significantly increasing velocity; and

- Soil cement and other project bank protection will occur only where necessary to protect against erosion adjacent to the proposed development. Where existing bluffs are determined to be stable and there is no adjacent proposed development, no bank protection will be built.

The improvements proposed by the Project are consistent with these criteria. Most of the flood protection associated with the Project is buried bank stabilization to stabilize River and creek banks. As illustrated in this report, the design and location of the flood protection improvements is sufficient to carry the Capital Flood discharge and adheres to FEMA requirements. The location of areas where soil cement would be provided is depicted on Figure 1.4 and is outside of the ACOE jurisdictional limits. Finally, only areas where flood protection is necessary are proposed for improvements.

At limited locations on the Project site, such as at outlet structures, access ramps, or bridge abutments, grouted rip-rap or reinforced concrete would be used to minimize erosion. In the Project area, approximately 17 percent of the River corridor would be protected with flood protection improvements, while 83 percent of the River corridor would remain in a natural state. Approximately 4 percent of the area is proposed for flood protection improvements that would consist of buried

bank stabilization, approximately 12 percent would consist of TRM's (those areas along the utility corridor) and 1 percent would be reinforced concrete or rip rap with exposed conditions.

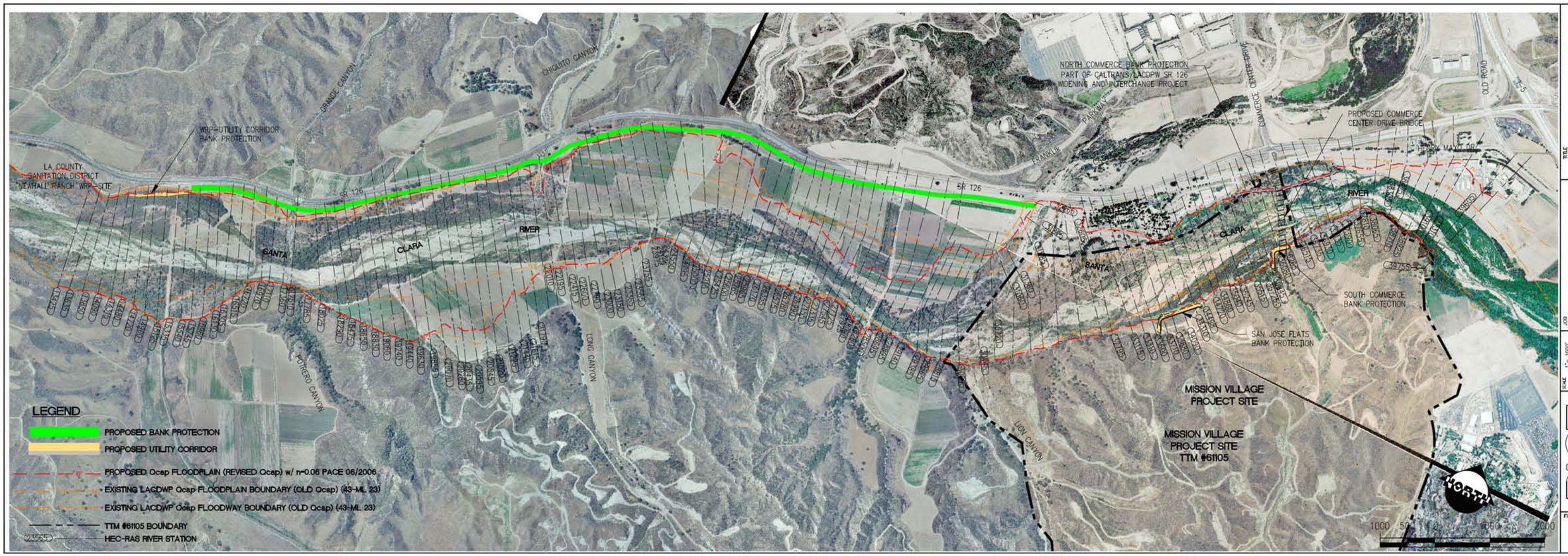
Buried soil cement, now employed on numerous projects within the Santa Clarita Valley, is a modern flood control technique used to protect against erosion while maintaining natural vegetation and soft banks. Figure 1.5 depicts a typical cross-section for buried soil cement. As shown, this approach uses soil cement, primarily consisting of on-site materials, generally installed in locations set back from the riparian corridor, which is then buried and re-vegetated with native plant species. This type of flood protection allows for the creation of a large river corridor with significant buffers, which maintains the natural habitat presently found along the River. In conclusion, this report confirms the project's consistency with the Newhall Ranch Specific Plan.

4.1.3.2 Modification of County Floodway Map/Consistency with County Capital discharge requirements

Los Angeles County has mapped its floodplain and flood way for the River under its Q_{CAP} requirements (Figure 4.6). All projects developed within the unincorporated areas of the County of Los Angeles are required to comply with the County's Q_{CAP} requirements. The project design is consistent with the Capital discharge requirements since design modeling is based on the Capital discharge. Finally, if the Project is approved at the project-level, the County's Map Floodway will be changed to correspond with Project improvements.

4.1.3.3 FEMA 100-Year Floodplain

The Project would necessitate encroachments into the existing FEMA 100-year floodplain. These encroachments were all discussed in detail in the Newhall Ranch Specific Plan EIR. These encroachments would require FEMA review and approval in the form of the Conditional Letter of Map Revision/Letter of Map Revision (CLOMR/LOMR) floodplain map revision process. In the overall 1,250 acre site, only approximately 5.5 acres of the Project development acreage is within existing FEMA – PACE proposed 100 year floodplain. This developed region consists of the proposed Commerce Center Drive Bridge and the SR 126 widening bank protection area at the north end of the bridge. In summary, the FEMA 100-year floodplain line corresponds to an existing elevation where flooding could occur in a 100-year storm. To meet the FEMA requirements, the Project proposes the raising of the development footprint to an elevation above the existing FEMA maximum flooding elevation. Additionally, the Project incorporates buried soil cement at the southern bank of Commerce Center Drive Bridge, at San Jose Flats and at the WRP as well as bank stabilization along the River corridor to protect the site from erosion.



TITLE
EXISTING 100YR FLOODPLAIN
FLOODWAY BOUNDARY LINES
PROPOSED FLOODPLAIN LINES

JOB
MISSION VILLAGE
LOS ANGELES COUNTY CA

SCALE 1" = 1000'
DESIGNED MCK
DRAWN JCP
CHECKED MCK
DATE NOVEMBER 2006
JOB NO. 8613-E

PACE
PACIFIC ADVANCED CIVIL ENGINEERING
180 NEWPORT CENTER DRIVE, SUITE 200
NEWPORT BEACH, CA 92660
PH (714) 641-3000 FAX (714) 641-7299

FIGURE
4.6

A full-size reproduction of this figure can be found at Impact Sciences.

Encroachment impacts were evaluated using floodplain and habitat engineering and analyzed on the basis of depth and velocity, as described below. Additionally, some banks located out of the floodplain will require stabilization because of the need to protect for the Q_{CAP} discharge.

The bank stabilization and erosion protection would provide adequate protection to the developed areas from flood hazards. Additionally, the locations and dimensions of this bank stabilization, erosion protection and bridge abutments are such that neither would impede or redirect flood flows within the River. Therefore, a modification to the FEMA flood hazard boundary is appropriate to correspond to the location of the flood protection improvements.

The Commerce Center Drive Bridge is proposed to be constructed across the River, near the eastern end of the Project site (Figure 1.4). Commerce Center Drive Bridge is to include abutments, rip-rap transitions to soil cement, and approaches that would reduce the width of the 100-year floodplain. Table 4.6 details the area change between each flood event's proposed and existing condition. It can be seen in the 4.2 A-G run that the existing active River channel width, which carries the 2- through 10-year flood events, would be completely spanned by the bridge and remain unaffected. The 20-, 50-, 100-year and Q_{CAP} events would be impacted by the narrowing of the channel resulting in localized increases in velocity and water surface elevation. This bank stabilization, located at both ends of the Commerce Center Drive Bridge, is consistent with the bank stabilization improvements described in the Newhall Ranch Specific Plan. Finally, flooding up to and including the 100-year and Q_{CAP} events would be contained within the north and south bridge abutments.

Table 4.6: Pre- and Post-Development Floodplain/River Area (AC)

Storm Event	Existing Conditions Acreage	Post Development	DELTA (%)
2-Year	230.6	230.6	0.0%
5-Year	303.7	303.7	0.0%
10-Year	357.6	359.1	0.4%
20-Year	510.6	505.5	-1.0%
50-Year	728.8	721.9	-1.0%
100-Year	804.2	799.4	-0.6%
CAP	979.3	972.2	-0.7%

Although soil cement or other erosive protection methods will need to be utilized to protect the proposed Lion Canyon Channel and outlet structure, there will be no resulting impacts to the River hydraulics as it is located behind the

capital floodplain or within ineffective flow portion of the floodplain.

The Utility Corridor soil cement alternative STA 17360 to STA 15540 will not increase the impacts as described in Table 4.6 above. The proposed alternative horizontal alignment is outside of the 2, 5, 10, 20 and 50 year floodplain limits. The proposed impacts from the alternative are included with Table 4.6 impact values. The area of permanent impact from the soil cement would be slightly increased (2,000 LF x ± 20 feet width or approximately 40,000 square feet).

4.2 Housing or Structures within a 100-Year Flood Hazard Area

Consistent with the approved Newhall Ranch Specific Plan, a portion of the project tract map site, which consists of residential lots, internal roads and other development, is within the existing FEMA 100-year floodplain (Figure 3.1). This portion of the proposed development is situated on existing agricultural lands within the floodplain area. However, this portion of the proposed development would be filled and, thereby elevated, so that the developed topography would no longer be within the existing FEMA 100-year floodplain. As additional flood protection, the Project's southern boundary proposes buried soil cement, which would stabilize the elevated bank and protect the proposed development from flood hazards. The buried soil cement is designed to act as a non-erodible boundary to contain flood waters during a Capital Flood discharge. Figure 3.1 illustrates the existing FEMA 100-year floodplain zone, proposed development within that area and the proposed soil cement bank protection.

Because a portion of the Project development is within the existing FEMA 100-year floodplain, adjustments to the FEMA published maps, (FIRMs), are required. These adjustments are administered by FEMA, and revisions to the mapping are made by applicants applying for a Letter of Map Revisions -- based on Fill (LOMR-F). LOMR-Fs are documents issued by FEMA that remove property and/or structures from special flood hazard areas. It is a common accepted practice, both nationwide and within Los Angeles County, to process revisions to the FEMA floodplain maps (*i.e.*, LOMR-Fs). The issuance of a LOMR-F would eliminate the property and/or structures from the applicable FEMA 100-year map. Any property and/or structures that are elevated above the FEMA 100-year floodplain zone are considered reasonably safe and free from flood hazard. Figure 4.7A-G depicts the proposed final FEMA 100-year floodplain zone, consistent with the proposed developed topography and soil cement bank protection.

The Commerce Center Drive Bridge is proposed to be constructed across the River, near the eastern end of the Project site (Figure 1.4). Commerce Center Drive Bridge is to include abutments, rip-rap transitions to soil cement, and approaches that would reduce the width of the 100-year floodplain. Table 4.6 details the area change between each flood event's proposed and existing condition. It can be seen in the 4.7A-G run that the existing active River channel width, which carries the 2- through 20-year flood events, would be completely spanned by the bridge and remain unaffected. The 50-, 100-year and Q_{CAP}

events would be impacted by the narrowing of the channel resulting in localized increases in velocity and water surface elevation. This bank stabilization, located at both ends of the Commerce Center Drive Bridge, is consistent with the bank stabilization improvements described in the Newhall Ranch Specific Plan. Finally, flooding up to and including the 100-year and Q_{CAP} events would be contained within the north and south bridge abutments. As a result no impacts are anticipated due to the location of the proposed bridge.

4.3 Whether Runoff Volumes Would Exceed Existing or Planned Systems

The Project would increase the amount of runoff from the Project areas covered by roads, buildings, paved parking areas, and other relatively impermeable or impervious features (refer to Table 2.1 for the assumed percent imperviousness for each land use proposed for the Project site). Specifically, impervious surfaces on the Project site would increase the amount of clear flow runoff from the site. Burned and bulked runoff and debris volumes, however, would be reduced because the developed portions of the Project site would be covered with impervious surfaces and non-erodible vegetation, and because debris basins are proposed just upstream of the Project site that would reduce the amount of debris and sediment in the runoff.

The post-development runoff quantities are provided in Table 4.7 (PSOMAS) and the discharge is predicted to total 4,866 cfs for the Project site during a 50-year storm, which is a 791 cfs reduction in 50-year flows when compared to pre-development conditions. This reduction in the discharge is largely due to Project debris basins that would capture upstream bulk flows and allow debris to settle out from the runoff before it enters the storm system through the developed portion of the site.

The LACDPW defined criteria for design of flood control systems establish the more severe hydrologic conditions (e.g., burned and bulked) as the basis of impact evaluation (refer to Sections 2.1.1 and 2.1.2 of this report). The 50-year total runoff from the Project site essentially would be the same under existing and proposed Project conditions because, despite the increase in imperviousness, the sediment basins reduce the bulking. Therefore, the Project would not result in a significant increase in on-site or downstream flooding impacts.

Table 4.7: Post-Development Site Runoff Conditions Summary

Drainage Area	Acreage	Debris Producing Acreage	Q50[1] (cfs)	Q50bb[2](cfs)	[3]Debris Volume (cy)	Q/A (cfs/Ac)
1-28 series	637.2	512.6	1049	1425	20482	20,482
60 series	175.8	17.5	316	319	440	440
80 series	117.5	0	231	231	0	0
95-119 series	464	121.8	776	838	4994	4994
120 series	12.5	12.5	29	39	684	684
130 series	31.4	0	32	32	0	0
140 series	20.6	20.6	33	45	1127	1127
150 series	13	13	26	35	711	711
160 series	16.3	16.3	30	41	892	892
170 series	6.1	6.1	17	23	334	334
190 series	32.9	32.9	55	75	1800	1800
200 series	424.8	424.8	740	940	11300	11,300
400 series	138.7	0	220	220	0	0
500 series	107.7	90.7	211	221	4263	4263
600 series	406.9	170.9	851	969	6152	6152
610 series	18.1	18.1	41	56	990	990
620 series	26.7	5.7	68	76	514	514
Totals	***2,650**	**1,464**	**4,745**	**5,585**	**54,301**	**54,301**

[1]*Q50 - 50-year rainfall intensity clear and burned flow*

[2]*Q50bb - 50-year rainfall intensity burned and bulked flow*

3Debris Volume – Debris Producing acreage is multiplied by the area's debris producing rate. (range: 30-55 cy/ac) (Debris Producing rates were taken from the LACDPW Sedimentation manual see appendix for reference sheets.

** The increase in acreage was due to the widening of Magic Mtn. Parkway. (See Section 4.1)*

4.4 Exposure to Significant Risk of Loss, Injury, or Death

Although the site is presently subject to some debris and mud flows, adequate building setbacks from natural slopes and debris control facilities proposed in upstream areas of the Project site would protect the proposed development from debris and mudflow hazards.

As designed, the proposed southerly bridge bank protection and the proposed Commerce Center Drive Bridge would increase the water surface elevation of the River primarily upstream of the proposed Commerce Center Drive Bridge. An increase in water surface elevation greater than one foot does not occur at any section as can be seen in the Qcap, n=0.060 run as presented in Table 4.3. A discussion of water surface elevation change based on the approved Newhall Ranch Santa Clara River HEC-RAS Modeling study is included in 4.1.1B, above. All increases in water levels would dissipate, returning to a pre-project condition,

prior to the end of the proposed project area as indicated by HEC-RAS numerical modeling, because encroachments into the floodplain are only minimal. Therefore, increases in flood water elevations due to Project-related improvements would be limited to the applicant's property, in areas where no development is planned, or would be mitigated with the installation of flood protection. Therefore, the Project improvements would not expose people or structures to a significant risk of loss, injury or death involving flooding.

4.5 Whether Substantial Alteration of an Existing Drainage Pattern Would Result In Substantial Erosion or Situation and Harmful Increases in Erosion

4.5.1 Santa Clara River

Erosion is not anticipated to be a concern on developed portions of the Project site because the site would be covered with impermeable or impervious surfaces and landscaping would minimize the potential for erosion from undeveloped areas. Potential for erosion within the River and the major tributaries impacted by the Project can be evaluated by reviewing changes to hydraulic shear stress or flow velocities, in conjunction with potentially erodible materials. In Los Angeles County, velocities are the preferred indicator for potential streambed erosion. Because the riverbed is composed of alluvial materials, the non-erodible velocities (velocities below which no erosion would occur) range from 2.5 feet per second (fine gravels under clear flow conditions) to 5.0 feet per second (alluvial silts transporting colloidal materials) (Chow, 1959). Therefore, a representative velocity of 4.0 feet per second was determined to be the appropriate indicator for potential erosion.

A potentially significant erosion impact would arise if a significant amount of a floodplain area were in the 0-4-foot per second range, but as a result of the Project (including the Commerce Center Drive Bridge and downstream bank protection); the area would be subjected to velocities greater than 4 feet/second (Figure 4.8). The changes in acreage for a given velocity range are shown in Figure 4.9A-D run. Additionally, the approved Newhall Ranch River Fluvial Study Phase 1 Final Draft (PACE, March, 2006) found that large changes in bed elevation during a Capital event are not expected except at proposed bridge piers.

4.5.2 On-Site Drainage Discharge Points

The Los Angeles MS4 Permit notes that increased volume, velocity, and discharge duration of stormwater runoff from developed areas could potentially accelerate downstream erosion and impair stream habitat. As a result, the Permit stipulates that “Permittees shall control post-peak stormwater runoff in Natural Drainage Systems to prevent accelerated stream erosion and protect stream habitat.” The following discussion supports the conclusion that there are no significant downstream impacts potentially accelerating erosion or significantly impacting stream habitat:

FIGURE 4.8: MISSION VILLAGE FLOODPLAIN AREA BY VELOCITY IMPACTS STATISTICS

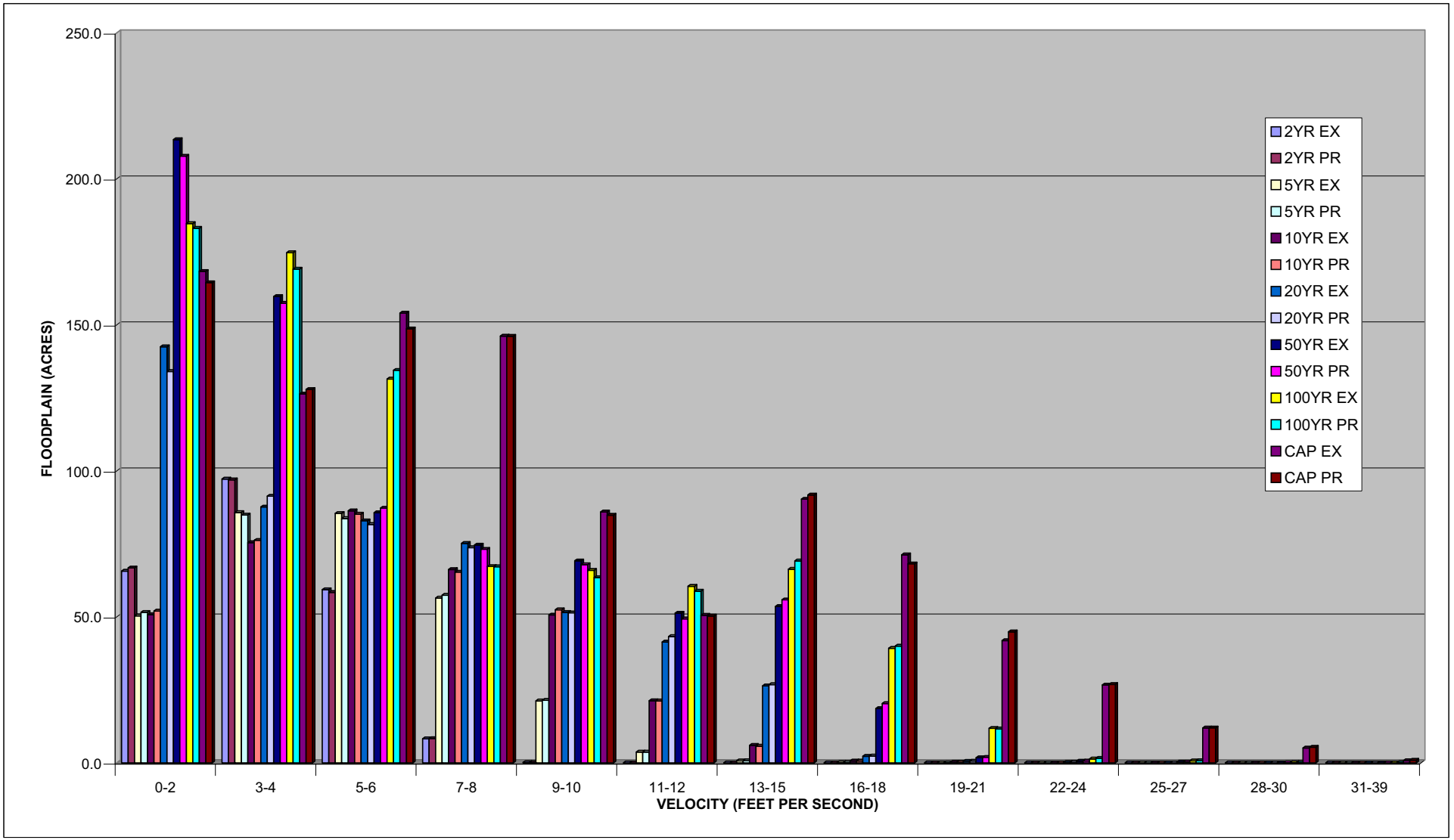
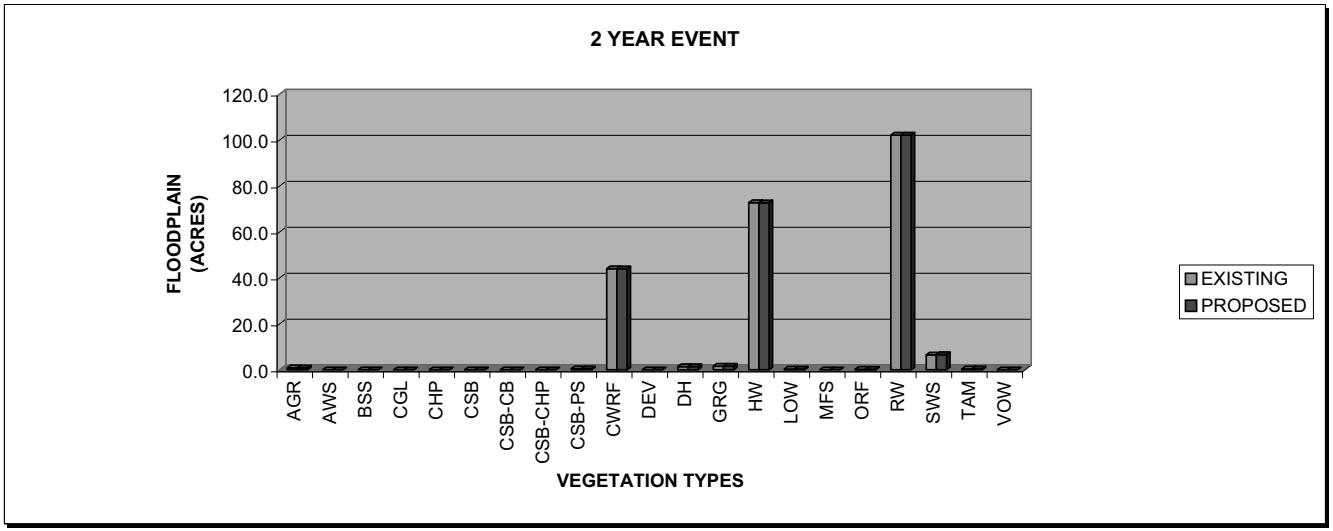


FIGURE 4.9a: MISSION VILLAGE FLOODPLAIN OVERALL VEGETATION COMPARISONSATION COMPARISONS

2 YEAR - Floodplain Overall Vegetation

Vegetation	EXISTING	PROPOSED	DELTA	DELTA %
TYPE	(AC)	(AC)	(AC)	(%)
AGR	0.9	0.8	0.0	-2.7%
AWS	0.0	0.0	0.0	0.0
BSS	0.0	0.0	0.0	0.0
CGL	0.0	0.0	0.0	0.0
CHP	0.0	0.0	0.0	0.0
CSB	0.0	0.0	0.0	0.0
CSB-CB	0.0	0.0	0.0	0.0
CSB-CHP	0.0	0.0	0.0	0.1
CSB-PS	0.5	0.5	0.0	0.0
CWRF	44.0	43.9	-0.1	0.0
DEV	0.0	0.0	0.0	0.0
DH	1.4	1.4	0.0	0.0
GRG	1.6	1.6	0.0	0.0
HW	72.7	72.6	-0.1	0.0
LOW	0.3	0.3	0.0	0.0
MFS	0.0	0.0	0.0	0.3
ORF	0.2	0.2	0.0	0.0
RW	102.1	102.1	0.0	0.0
SWS	6.5	6.6	0.1	0.0
TAM	0.4	0.4	0.0	0.0
VOW	0.0	0.0	0.0	0.0
TOTAL	**230.6**	**230.6**	**0.0**	**0.0%**



5 YEAR - Floodplain Overall Vegetation

Vegetation	EXISTING	PROPOSED	DELTA	DELTA %
TYPE	(AC)	(AC)	(AC)	(%)
AGR	1.1	1.1	0.0	-3.0%
AWS	0.0	0.0	0.0	0.0
BSS	0.0	0.0	0.0	0.0
CGL	0.0	0.0	0.0	0.0
CHP	0.0	0.0	0.0	0.0
CSB	0.0	0.0	0.0	0.0
CSB-CB	0.0	0.0	0.0	0.0
CSB-CHP	0.0	0.0	0.0	0.0
CSB-PS	0.5	0.5	0.0	0.0
CWRF	63.0	63.0	0.0	0.0
DEV	0.0	0.0	0.0	0.0
DH	2.2	2.2	0.0	0.0
GRG	2.4	2.4	0.0	0.0
HW	94.2	94.1	-0.1	0.0
LOW	0.4	0.4	0.0	0.0
MFS	0.2	0.2	0.0	0.1
ORF	0.2	0.3	0.0	0.0
RW	130.9	130.8	-0.1	0.0
SWS	7.4	7.6	0.1	0.0
TAM	1.1	1.1	0.0	0.0
VOW	0.0	0.0	0.0	0.0
TOTAL	**303.7**	**303.7**	**0.0**	**0.0%**

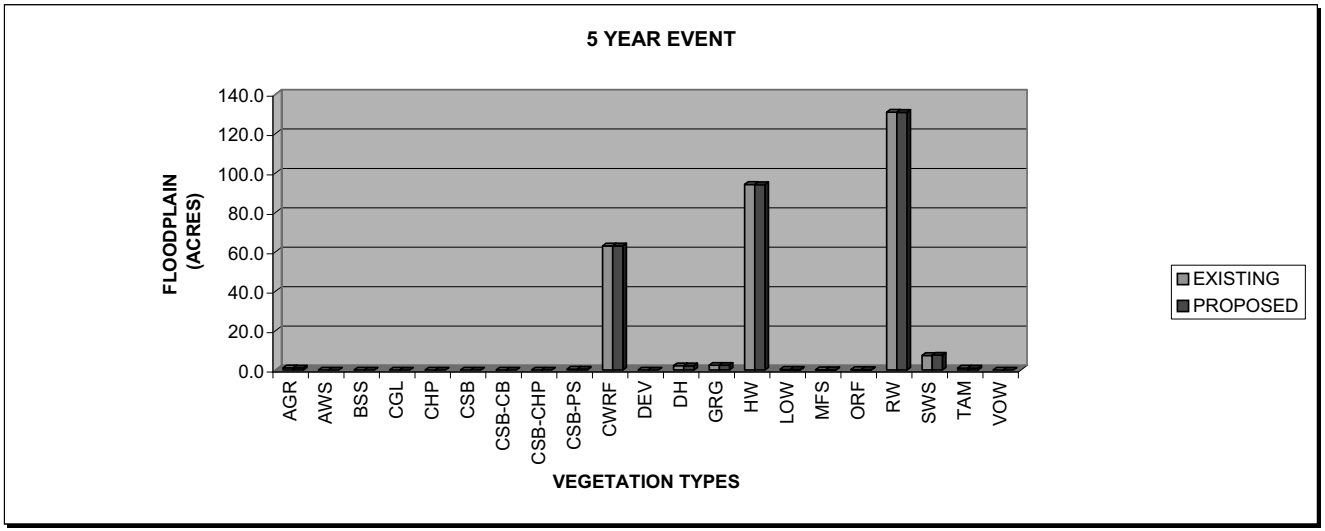
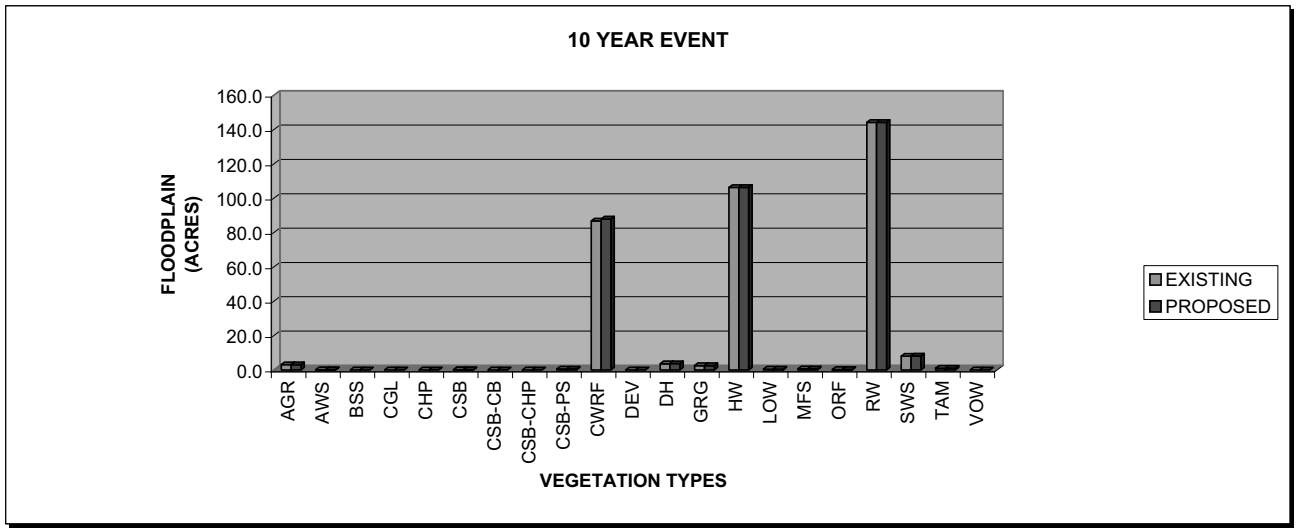


FIGURE 4.9b: MISSION VILLAGE FLOODPLAIN OVERALL VEGETATION COMPARISONS

10 YEAR - Floodplain Overall Vegetation

Vegetation Type	EXISTING (AC)	PROPOSED (AC)	DELTA (AC)	DELTA % (%)
AGR	3.1	3.1	0.0	0.6%
AWS	0.1	0.1	0.0	-0.1
BSS	0.0	0.0	0.0	0.0
CGL	0.0	0.0	0.0	0.0
CHP	0.0	0.0	0.0	0.0
CSB	0.0	0.1	0.1	1.9
CSB-CB	0.0	0.0	0.0	0.0
CSB-CHP	0.0	0.0	0.0	0.6
CSB-PS	0.5	0.5	0.0	0.0
CWRF	86.8	87.9	1.1	0.0
DEV	0.0	0.0	0.0	0.0
DH	3.6	3.7	0.0	0.0
GRG	2.5	2.5	0.0	0.0
HW	106.3	106.3	0.0	0.0
LOW	0.5	0.5	0.0	0.0
MFS	0.6	0.6	0.0	0.0
ORF	0.3	0.3	0.0	0.1
RW	144.1	144.2	0.1	0.0
SWS	8.0	8.2	0.1	0.0
TAM	1.1	1.1	0.0	0.0
VOW	0.0	0.0	0.0	-0.2
TOTAL	**357.6**	**359.1**	**1.5**	**0.4%**



20 YEAR - Floodplain Overall Vegetation

Vegetation Type	EXISTING (AC)	PROPOSED (AC)	DELTA (AC)	DELTA % (%)
AGR	46.0	46.6	0.7	1.4%
AWS	0.6	0.6	0.0	-0.1
BSS	0.0	0.0	0.0	-0.1
CGL	0.1	0.1	0.0	0.0
CHP	0.0	0.0	0.0	0.0
CSB	0.2	0.2	0.0	-0.1
CSB-CB	0.0	0.0	0.0	0.0
CSB-CHP	0.1	0.1	0.0	-0.1
CSB-PS	0.6	0.6	0.0	0.0
CWRF	144.0	139.5	-4.5	0.0
DEV	0.2	0.2	0.0	0.0
DH	9.1	9.1	0.0	0.0
GRG	3.0	2.7	-0.3	-0.1
HW	117.0	117.3	0.3	0.0
LOW	0.7	0.7	0.0	0.0
MFS	6.9	6.9	0.0	0.0
ORF	0.3	0.3	0.0	0.0
RW	171.8	170.7	-1.1	0.0
SWS	9.0	9.0	0.0	0.0
TAM	1.1	1.1	0.0	0.0
VOW	0.0	0.0	0.0	0.0
TOTAL	**510.6**	**505.5**	**-5.1**	**-1.0%**

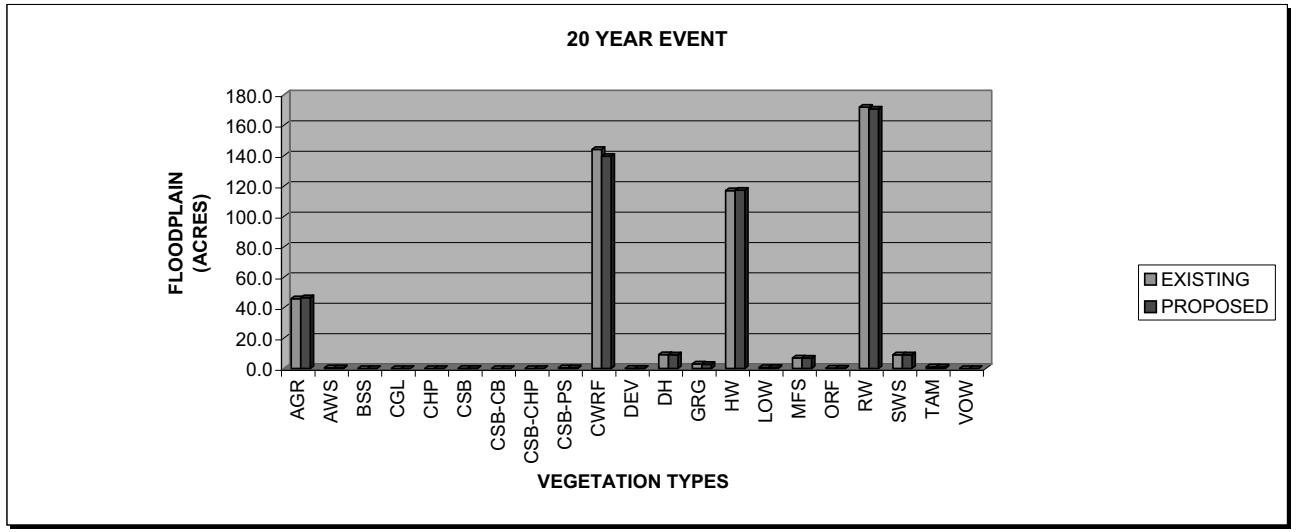
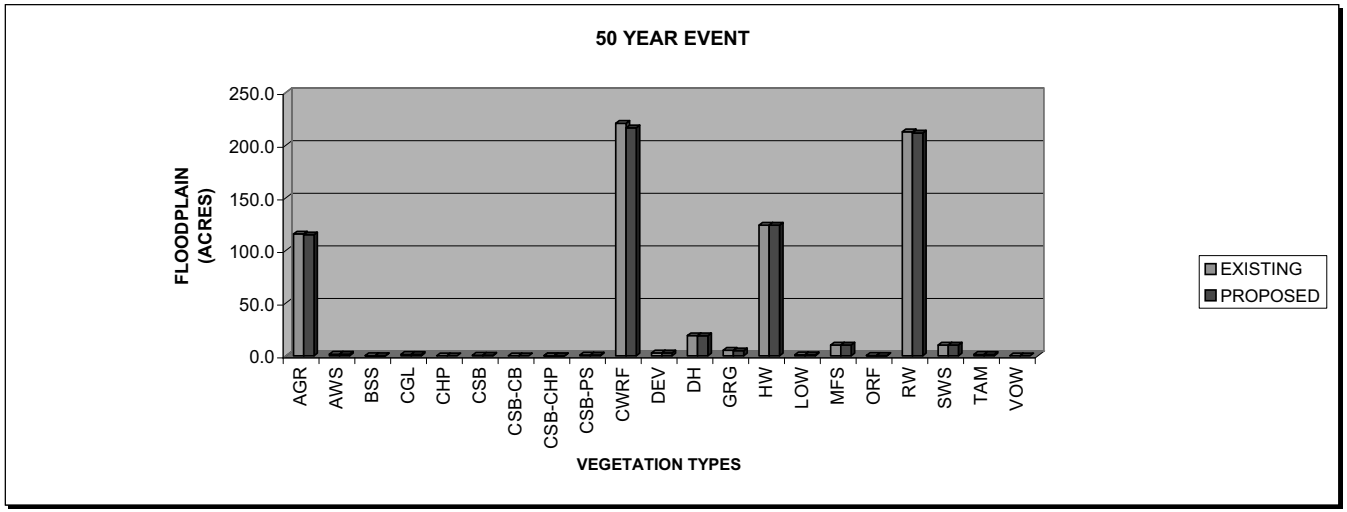


FIGURE 4.9c: MISSION VILLAGE FLOODPLAIN OVERALL VEGETATION COMPARISONS

50 YEAR - Floodplain Overall Vegetation

Vegetation Type	EXISTING (AC)	PROPOSED (AC)	DELTA (AC)	DELTA % (%)
AGR	115.7	115.0	-0.8	-0.7%
AWS	1.6	1.6	0.0	0.0
BSS	0.3	0.3	0.0	0.0
CGL	1.4	1.4	0.0	0.0
CHP	0.0	0.0	0.0	0.0
CSB	0.7	0.6	0.0	0.0
CSB-CB	0.0	0.0	0.0	0.0
CSB-CHP	0.1	0.1	0.0	0.0
CSB-PS	0.8	0.8	0.0	0.0
CWRF	220.9	216.6	-4.3	0.0
DEV	2.7	2.7	0.0	0.0
DH	19.2	19.0	0.0	0.0
GRG	5.3	4.8	-0.5	-0.1
HW	124.1	124.1	0.0	0.0
LOW	0.9	0.9	0.0	0.0
MFS	10.2	10.2	0.0	0.0
ORF	0.3	0.3	0.0	0.0
RW	212.8	211.7	-1.1	0.0
SWS	10.3	10.3	0.0	0.0
TAM	1.4	1.4	0.0	0.0
VOW	0.0	0.0	0.0	0.0
TOTAL	**728.8**	**721.9**	**-6.9**	**-1.0%**



100 YEAR - Floodplain Overall Vegetation

Vegetation Type	EXISTING (AC)	PROPOSED (AC)	DELTA (AC)	DELTA % (%)
AGR	144.3	143.4	-0.9	-0.7%
AWS	2.1	2.1	0.0	0.0
BSS	0.4	0.4	0.0	0.0
CGL	4.2	4.2	0.0	0.0
CHP	0.0	0.0	0.0	0.0
CSB	1.1	1.1	0.0	0.0
CSB-CB	0.0	0.0	0.0	0.0
CSB-CHP	0.2	0.2	0.0	0.0
CSB-PS	0.9	0.9	0.0	0.0
CWRF	247.7	244.9	-2.8	0.0
DEV	4.1	4.1	0.0	0.0
DH	23.6	23.0	0.0	0.0
GRG	5.7	5.5	-0.2	0.0
HW	125.7	125.7	0.0	0.0
LOW	1.0	1.0	0.0	0.0
MFS	13.0	13.0	0.0	0.0
ORF	0.3	0.3	0.0	0.0
RW	217.7	217.4	-0.3	0.0
SWS	10.8	10.8	0.0	0.0
TAM	1.4	1.4	0.0	0.0
VOW	0.0	0.0	0.0	0.0
TOTAL	**804.2**	**799.4**	**-4.8**	**-0.6%**

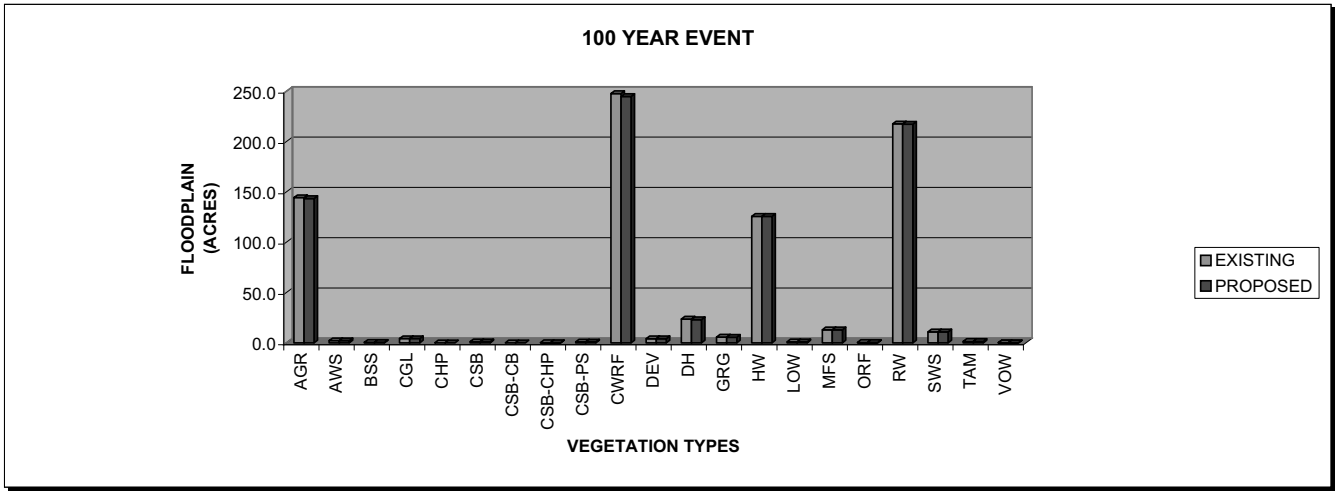
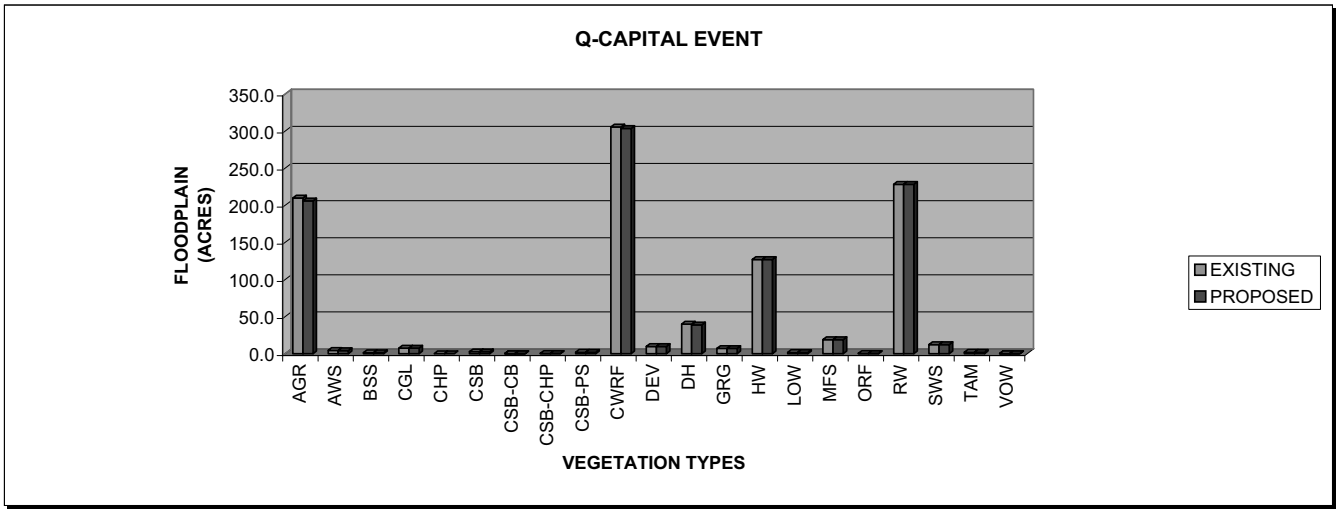


FIGURE 4.9d: MISSION VILLAGE FLOODPLAIN OVERALL VEGETATION COMPARISONS

CAP - Floodplain Overall Vegetation

	EXISTING	PROPOSED	DELTA	DELTA %
Type	(AC)	(AC)	(AC)	(%)
AGR	209.8	205.8	-4.0	-1.9%
AWS	4.4	4.1	-0.2	-0.1
BSS	1.3	1.3	0.0	0.0
CGL	7.4	7.4	0.0	0.0
CHP	0.0	0.0	0.0	0.2
CSB	2.5	2.5	0.0	0.0
CSB-CB	0.0	0.0	0.0	0.0
CSB-CHP	0.3	0.3	0.0	0.0
CSB-PS	1.8	1.8	0.0	0.0
CWRF	305.4	303.5	-2.0	0.0
DEV	9.6	9.6	0.0	0.0
DH	39.8	38.8	-1.0	0.0
GRG	7.1	7.1	0.0	0.0
HW	126.8	126.8	0.0	0.0
LOW	1.6	1.5	0.0	0.0
MFS	18.8	18.9	0.0	0.0
ORF	0.3	0.3	0.0	0.0
RW	228.1	228.1	0.0	0.0
SWS	12.2	12.2	0.0	0.0
TAM	1.9	1.9	0.0	0.0
VOW	0.1	0.0	0.0	0.0
TOTAL	**979.3**	**972.2**	**-7.1**	**-0.7%**



- In natural riverine systems such as Santa Clara River and its tributaries, frequent discharges (on the order of the average annual and 2-year flows) dictate stream geomorphology. Extended and frequent discharges at these critical flow rates would potentially impact stream health. The Project proposes to install water quality design features, which will capture runoff from small, frequent storms and release flows to the River at non-erosive rates. That is, water from the basins would be released a rate substantially less than existing discharges associated with two-year storms, therefore, erosive impacts to the River would be reduced to a less than significant level.

- To reduce storm flow velocities during smaller, more frequent flows (i.e., 2-year storm events) and to prevent erosion at stormwater discharge points into the River, the Project incorporates energy dissipaters consisting of either rip-rap or larger standard impact type energy dissipaters at affected storm system outlets in the River. These energy dissipaters would slow the rate of flow of runoff into the River in order to prevent erosion of the stream channel.

- Energy dissipaters and water quality basins used to reduce erosion risk in smaller events will also reduce erosion risk in larger events. It should be noted, however, that erosive forces in the River associated with less frequent, large events (100-year discharge) have erosive impacts that far exceed the erosive impacts of the Project.

4.5.3 Utility Corridor Analysis

The proposed utility corridor is comprised of two parts: the westerly extension of the utility corridor (9,000 LF protected with TRM's) and the easterly extension of the utility corridor (7,000 LF from upstream of Chiquito Canyon to Castaic Creek) which requires no stabilization as it is several hundred feet outside of the 100-year and the Capital event floodplains. Mission Village and Landmark Village River Drainage Concept Reports submitted to LACDPW Nov. 2006 both support the use of TRM's on the westerly extension of the utility corridor, rather than exposed or buried soil cement.

A hydraulic analysis of the westerly extension of the utility corridor (protected with TRM's) is described below. This analysis evaluated water velocities in the reach between the Project site and the WRP on the northern edge of the River corridor, STA 32265 to STA 15540. A uniform distance from the SR126 and the rail right-of-way area to the southern edge of the utility corridor was established for the entire reach. The horizontal location of the corridor is proposed to be approximately 67 feet from the rail right-of-way area to the edge of the utility corridor. At this location, a vertical levee was created in HEC-RAS to represent the boundary between the River and the utility corridor. The levee affected the hydraulic geometry of 33 cross-sections in the reach downstream from Mission Village west to the WRP. A primary simulation was run in HEC-RAS, the Q_{CAP} flood event (140,793 cfs) and the 100-year event

(58,207 cfs) under a mixed flow regime and a mixed Manning's *n* conditions n=0.060 and n=0.025. For the Capital Event, when the water surface elevation was high enough to reach the northerly bank, the water velocities at the levee over bank of the Utility Corridor were low, ranging from 3.4 to 7.3 fps for n=0.06 and 4.8 to 7.6 fps for n=0.025 (Table 4.9). For the 100-year event with n=0.060 only five of the 34 sections even had floodplain adjacent to the proposed Utility Corridor and the velocity ranges from 1.9 to 2.8 fps (non-erosive velocities). These modeled velocities would not require hardened bank protection. In this case, approximately 9,000 linear feet of TRM will be permanently placed on the bank to ensure protection from erosion.

TABLE 4.8: PROPOSED QCAP VELOCITIES ALONG THE UTILITY CORRIDOR (FPS)
(Referenced from Mission Village DCR Table 9)

HEC-RAS River Section No.	Channel Vel.(1) (fps)	Overbank Vel.(1) (fps)	Channel Vel.(2) (fps)	Overbank Vel.(2) (fps)	Channel Vel.(3) (fps)	Overbank Vel.(3) (fps)
32265	7.2		5.8		16.0	
31875	6.7		6.2		9.8	
31585	6.1		6.1		13.8	
31360	6.5		6.2		14.7	
31060	5.9		5.2		12.8	
30720	5.1		4.4		6.9	
30445	5.0		3.9		5.4	
30095	5.7		4.0		4.9	
29815	6.6		4.7		5.6	
29565	6.5		4.6		5.5	
29385	7.5		5.5		6.6	
29140	8.8		7.5		9.0	
28895	19.7		17.1		17.1	
28695	13.5		12.8		26.1	
28500	14.9		11.9		25.0	
28280	14.1		10.1		23.6	
28080	13.1		9.2		18.3	
27925	14.3		9.7		14.7	
27725	17.1		10.9		16.5	
27545	15.9		10.3		17.0	
27335	14.0		9.4		12.8	
27155	15.3		10.3		15.4	
26990	12.1		9.1		15.5	
26780	11.1		8.0		18.1	
26575	9.5		6.7		10.0	
26355	10.5		7.6		12.6	
26170	10.9		8.2		13.8	
25965	11.8		8.4		15.9	
25785	11.9		8.2		12.8	
25600	10.6		7.9		14.3	
25425	8.5		6.5		14.7	
25215	10.6		7.5		11.8	
25000	**10.1**	**5.6**	7.8		14.2	
24795	**9.9**	**6.5**	**8.6**	**3.4**	**13.6**	**4.2**
24550	**8.3**	**6.5**	**6.3**	**4.1**	**16.3**	**7.7**
24335	**10.3**	**7.2**	**8.4**	**4.2**	**10.9**	**4.4**
24115	**9.5**	**7.3**	**7.7**	**4.7**	**15.3**	**5.4**
23975	8.9		7.0		16.1	
23755	8.6		6.8		14.3	
23565	**8.5**	**6.9**	7.4		10.9	

(1) Prop. Cond. Velocity are based on Qcap and "n" value of 0.060 for entire width of the river.
(2) Prop. Cond. Velocity are based on Q100 and "n" value of 0.060 for entire width of the river.
(3) Prop. Cond. Velocity are based on Qcap and "n" value of 0.025 for entire width of the river.
Prop. Cond. Velocities (1), (2) and (3) are average velocity of flow in right overbank
Prop. Cond. Overbank Velocities are velocity of flow in right overbank (approx. 200 feet from FP)
Velocity in bold for sections where FP reaches the Utility Corridor Bank

TABLE 4.8: (CONTINUED)
(Referenced from Mission Village DCR Table 9)

HEC-RAS River Section No.	Channel Vel.(1) (fps)	Overbank Vel.(1) (fps)	Channel Vel.(2) (fps)	Overbank Vel.(2) (fps)	Channel Vel.(3) (fps)	Overbank Vel.(3) (fps)
23365	**8.2**	**6.9**	**7.3**	**5.2**	**15.0**	**7.4**
23180	**7.9**	**6.1**	**6.7**	**4.4**	**16.4**	**6.7**
23000	**6.2**	**5.0**	**4.7**	**3.8**	15.0	
22790	6.6		5.2		8.3	
22600	7.9		6.5		12.1	
22415	8.6		6.5		9.8	
22195	10.3		7.7		12.4	
22010	12.2		9.1		15.3	
21790	13.7		9.1		16.0	
21615	11.3		8.1		12.3	
21440	11.4		8.0		15.1	
21225	10.5		8.8		11.6	
21020	**9.1**	**3.8**	6.6		17.8	
20845	**8.7**	**4.7**	**6.7**	**1.8**	11.3	
20595	**9.0**	**4.6**	**6.7**	**1.6**	9.6	
20435	**9.3**	**4.2**	**6.8**	**1.1**	8.6	
20280	**10.7**	**5.3**	**10.0**	**1.6**	11.4	
20070	**8.7**	**4.3**	7.4		17.4	
19855	**8.3**	**4.3**	7.1		14.2	
19630	**7.9**	**2.7**	6.5		13.9	
19440	**7.3**	**2.2**	6.0		8.8	
19240	**7.5**	**2.3**	6.7		11.5	
19050	6.7		5.8		13.1	
18830	6.8		6.1		11.0	
18650	6.8		5.8		14.6	
18475	**6.1**	**4.5**	4.9		9.4	
18290	**6.6**	**4.0**	5.4		9.2	
18025	6.5		4.7		6.6	
17785	7.38		5.33		7.1	
17510	11.18		8.28		11.0	
17360	14.02		9.80		13.2	
17110	**13.6**	**6.8**	10.7		18.9	
16970	**15.7**	**6.4**	12.5		18.3	
16720	**11.5**	**6.9**	8.1		19.7	
16515	**10.4**	**7.2**	**8.0**	**3.8**	14.7	
16305	**9.1**	**7.1**	6.6		16.1	
16130	9.0		7.0		11.2	
15960	7.6		5.6		12.6	
15745	7.0		5.1		8.5	
15540	**7.4**	6.5	5.6		9.0	

(1) Prop. Cond. Velocity are based on Qcap and "n" value of 0.060 for entire width of the river.
(2) Prop. Cond. Velocity are based on Q100 and "n" value of 0.060 for entire width of the river.
(3) Prop. Cond. Velocity are based on Qcap and "n" value of 0.025 for entire width of the river.
Prop. Cond. Velocities (1), (2) and (3) are average velocity of flow in right overbank
Prop. Cond. Overbank Velocities are velocity of flow in right overbank (approx. 200 feet from FP)
Velocity in bold for sections where FP reaches the Utility Corridor Bank

4.5.4 Impact on Floodplain and Habitat Area

The proposed improvements associated with the Specific Plan would alter the existing boundary of the River floodplain at the Project site, as shown in Figure 3.1. A summary of the changes in the floodplain area and velocity due to the development of the Project are shown in Figure 4.1 and Table 4.9.

TABLE 4.9: CHANGE (PROPOSED-EXISTING) IN ACREAGE OF VEGETATION BY TYPE EXPOSED TO VELOCITIES > 4FPS BY RETURN PERIOD

Vegetation	2-YR	5-YR	10-YR	20-YR	50-YR	100-YR	CAP
AGR	0.0	0.0	0.0	0.1	0.5	0.6	-2.6
AWS	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BSS	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CGL	0.0	0.0	0.0	0.0	0.0	0.1	0.0
CHP	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CSB	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CSB-CB	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CSB-CHP	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CSB-PS	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CWRF	-0.2	-0.4	0.2	0.6	1.9	2.2	-0.1
DEV	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DH	0.0	0.0	0.0	0.0	-0.1	0.0	-0.2
GRG	0.0	0.0	0.0	0.0	0.0	-0.1	0.0
HW	-0.1	0.3	0.4	0.4	0.2	0.4	-0.1
LOW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MFS	0.0	0.0	0.0	0.1	-0.1	0.0	-0.1
ORF	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RW	-0.7	-0.4	-1.1	-1.6	-1.4	-0.8	-1.9
SWS	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VOW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>4 FPS	-0.9	-0.5	-0.5	-0.4	1.1	2.5	-4.8
<4 FPS	0.8	0.5	2.0	-4.7	-8.0	-7.3	-2.3
TOTAL	**0.0**	**0.0**	**1.5**	**-5.1**	**-6.9**	**-4.8**	**-7.1**

AGR	Agriculture	DH	Disturbed land
AWS	Arrowweed scrub	GRG	Giant reed
BSS	Big sagebrush scrub	HW	Herbaceous wetlands
CGL	California annual grassland	LOW	Live oak woodland
CHP	Undifferentiated chaparral	MFS	Mulefat
CSB	California sagebrush	ORF	Southern coast live oak riparian forest
CSB-CB	California sagebrush-California buckwheat	RW	River wash
CSB-CHP	California sagebrush-undifferentiated chaparral	SWS	Southern willow scrub
CSB-PS	California sagebrush-purple sage	TAM	Tamarisk scrub
CWRF	Cottonwood willow riparian forest	VOW	Valley oak woodland
DEV	Developed		
N/C	Not Coded		

For higher frequency floods the proposed floodplain modifications are very minor so minimally hinder flows or reduce the floodplain area (Figure 4.1). During more infrequent floods the River flows would be confined within the bank protection stabilizations. This would limit the area of the

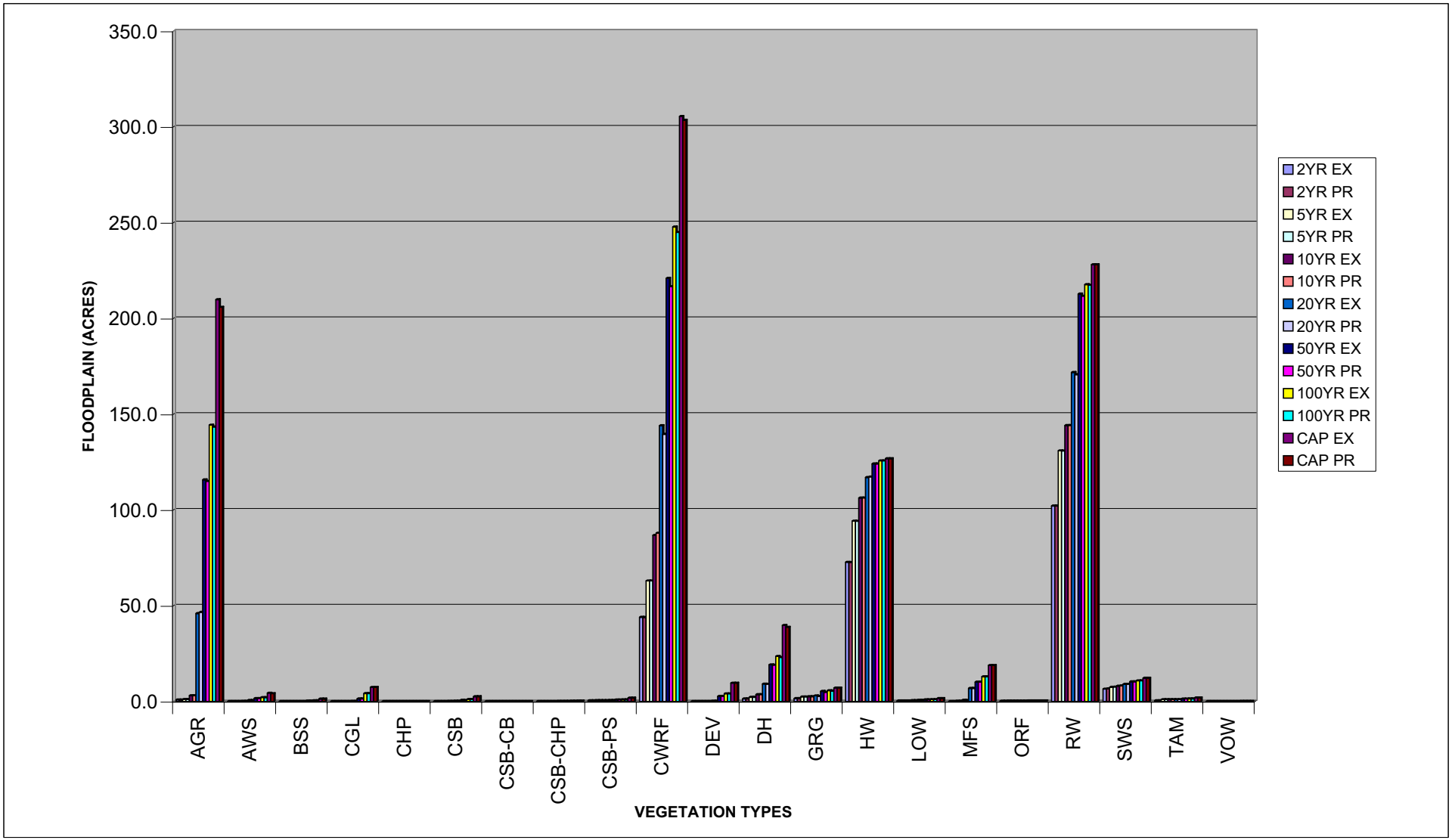
floodplain during these infrequent flood events, resulting in inundation over a smaller area. Figure 4.9A-D shows the different habitat types affected by proposed development at different return periods. The figure shows that a large percent of the total impact results from converting agricultural land to a developed condition. Figure 4.10 compares the vegetation acres within various flood events for both the existing and proposed conditions. The figure shows that some vegetation types are more exposed to flooding in the Project condition, while the largest decrease is under agriculture. This data is shown numerically in Table 4.10.

TABLE 4.10: ACREAGE INUNDATED BY HABITAT TYPE DURING DIFFERENT RETURN PERIODS

HABITAT TYPE	FLOOD EVENTS													
	2-year		5-year		10-year		20-year		50-year		100-year		Q cap	
	EXIS	PROP	EXIS	PROP	EXIS	PROP	EXIS	PROP	EXIS	PROP	EXIS	PROP	EXIS	PROP
AGR	0.9	0.8	1.1	1.1	3.1	3.1	46.0	46.6	115.7	115.0	144.3	143.4	209.8	205.8
AWS	0.0	0.0	0.0	0.0	0.1	0.1	0.6	0.6	1.6	1.6	2.1	2.1	4.4	4.1
BSS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.4	0.4	1.3	1.3
CGL	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.4	1.4	4.2	4.2	7.4	7.4
CHP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CSB	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.7	0.6	1.1	1.1	2.5	2.5
CSB-CB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CSB-CHP	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3
CSB-PS	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.8	0.8	0.9	0.9	1.8	1.8
CWRF	44.0	43.9	63.0	63.0	86.8	87.9	144.0	139.5	220.9	216.6	247.7	244.9	305.4	303.5
DEV	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	2.7	2.7	4.1	4.1	9.6	9.6
DH	1.4	1.4	2.2	2.2	3.6	3.7	9.1	9.1	19.2	19.0	23.6	23.0	39.8	38.8
GRG	1.6	1.6	2.4	2.4	2.5	2.5	3.0	2.7	5.3	4.8	5.7	5.5	7.1	7.1
HW	72.7	72.6	94.2	94.1	106.3	106.3	117.0	117.3	124.1	124.1	125.7	125.7	126.8	126.8
LOW	0.3	0.3	0.4	0.4	0.5	0.5	0.7	0.7	0.9	0.9	1.0	1.0	1.6	1.5
MFS	0.0	0.0	0.2	0.2	0.6	0.6	6.9	6.9	10.2	10.2	13.0	13.0	18.8	18.9
ORF	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
RW	102.1	102.1	130.9	130.8	144.1	144.2	171.8	170.7	212.8	211.7	217.7	217.4	228.1	228.1
SWS	6.5	6.6	7.4	7.6	8.0	8.2	9.0	9.0	10.3	10.3	10.8	10.8	12.2	12.2
TAM	0.4	0.4	1.1	1.1	1.1	1.1	1.1	1.1	1.4	1.4	1.4	1.4	1.9	1.9
VOW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
TOTAL	230.6	230.6	303.7	303.7	357.6	359.1	510.6	505.5	728.8	721.9	804.2	799.4	979.3	972.2

AGR	Agriculture	CSB-CHP	California sagebrush-undifferentiate	LOW	Live oak woodland
AWS	Arrowweed scrub	CSB-PS	California sagebrush-purple sage	MFS	Mulefat
BSS	Big sagebrush scrub	CWRF	Cottonwood willow riparian forest	ORF	Live oak riparian forest
CGL	California annual grassland	DEV	Developed	RW	River wash
CHP	Undifferentiated chaparral	DH	Disturbed land	SWS	Southern willow scrub
CSB	California sagebrush	GRG	Giant reed	TAM	Tamarisk scrub
CSB-CB	California sagebrush-California buc	HW	Herbaceous wetlands	VOW	Valley oak woodland

FIGURE 4.10: MISSION VILLAGE FLOODPLAIN OVERALL VEGETATION COMPARISONS



ENTRIX

SPECIAL STATUS AQUATIC SPECIES HABITAT ASSESSMENT - SANTA CLARA RIVER

MISSION VILLAGE PROJECT
NEWHALL RANCH, CALIFORNIA

Prepared for:
Newhall Land
Valencia, CA

Prepared by:
ENTRIX, Inc.
Ventura, CA

Project No. 3109005

November 27, 2006

E N T R I X

Special Status Aquatic Species Habitat Assessment
Santa Clara River

Mission Village Project
Newhall Ranch, California

Prepared for:
Newhall Land
23823 Valencia Boulevard
Valencia, California 91355

Prepared by:
ENTRIX, Inc.
2140 Eastman Avenue, Suite 200
Ventura, California 93003

Project No. 3109005

November 27, 2006

TABLE OF CONTENTS

SECTION			PAGE
1.	**INTRODUCTION**		**1-1**
	1.1	MISSION VILLAGE PROJECT	1-1
	1.2	SPECIAL STATUS SPECIES BACKGROUND AND DISTRIBUTION	1-2
		1.2.1 Unarmored Threespine Stickleback	1-2
		1.2.2 Southwestern Arroyo Toad	1-2
		1.2.3 California Red-legged Frog	1-3
		1.2.4 Two-striped Garter Snake	1-5
		1.2.5 Southwestern Pond Turtle	1-6
	1.3	STUDY SCOPE	1-6
	1.4	ORGANIZATION OF DOCUMENT	1-6
2.	**METHODS**		**2-1**
	2.1	REVIEW OF EXISTING PROJECT REPORTS AND DOCUMENTATION	2-1
	2.2	REVIEW OF RECORDS AND LITERATURE	2-5
	2.3	FIELD RECONNAISSANCE HABITAT SURVEY METHODS	2-6
3.	**RESULTS**		**3-1**
	3.1	SANTA CLARA RIVER FISH ASSEMBLANGES	3-1
	3.2	HISTORICAL PRESENCE/ABSENCE SURVEY RESULTS	3-2
		3.2.1 Unarmored Threespine Stickleback	3-2
		3.2.2 Southwestern Arroyo Toad	3-2
		3.2.3 California Red-legged Frog	3-3
		3.2.4 Two-striped Garter Snake	3-3
		3.2.5 Southwestern Pond Turtle	3-3
	3.3	HABITAT SURVEY RESULTS	3-4
		3.3.1 Environmental Setting	3-4
		3.3.2 Unarmored Threespine Stickleback Habitat	3-5
		3.3.3 Southwestern Arroyo Toad Habitat	3-6
		3.3.4 California Red-legged Frog Habitat	3-6
		3.3.5 Two-striped Garter Snake Habitat	3-7
		3.3.6 Southwestern Pond Turtle Habitat	3-7
4.	**PROJECT RELATED IMPACTS**		**4-1**
	4.1	PROPOSED FLOODPLAIN MODIFICATIONS	4-1
		4.1.1 San Lose Flats Bank Stabilization	4-1
		4.1.2 Commerce Center Drive Bridge	4-1
		4.1.3 Utility Corridor	4-1
		4.1.4 Regional Water Quality Basin	4-1
	4.2	POTENTIAL PROJECT RELATED IMPACTS	4-2
		4.2.1 Unarmored Threespine Stickleback	4-2
		4.2.2 Southwestern Arroyo Toad	4-1
		4.2.3 California Red-legged Frog	4-2
		4.2.4 Two-striped Garter Snake	4-2
		4.2.5 Southwestern Pond Turtle	4-3

5. REFERENCES 5-1

6. LIST OF PREPARERS 6-1

1. INTRODUCTION

This report summarizes the focused assessment of potential effects of the Mission Village Project (Project) on threatened or endangered aquatic species inhabiting the Newhall Ranch reach of the Santa Clara River, from the Castaic Creek confluence through the boundary of the proposed Mission Village Project. Specifically, this report focused on potential impacts to unarmored threespine stickleback (UTS), arroyo toad, and California red-legged frog (CRLF) as these species are listed as threatened or endangered by the State and Federal Endangered Species Act. In addition, this assessment includes discussion of potential impacts to southwestern pond turtle and two-stripe garter snake designated by the State as "Species of Concern." The primary focus of this assessment is to examine potential impacts to the habitat of the above species resulting from alterations to local hydrology and corresponding habitat areas through implementation of the Project.

1.1 MISSION VILLAGE PROJECT

The Newhall Land and Farming Company (Newhall) plans to develop approximately 1,250 acres of property in Los Angeles County (Figure 1, Mission Village Project Location) east of Castaic Creek along the southern terrace of the Santa Clara River. The Project site is currently used for agricultural and oil production, and is the second phase of the Newhall Ranch Specific Plan. Newhall retained ENTRIX to assess the potential effects of the Project on selected special-status aquatic species, including UTS, arroyo toad, CRLF, southwestern pond turtle, and two-stripe garter snake. The primary features examined in this assessment include buried soil cement bank stabilization along the south bank of the Santa Clara River at San Jose Flats and construction of the Commerce Center Bridge over the river, which would include bridge abutments and piers, and exposed rock rip rap (Figure 2. Mission Village Existing Conditions, Proposed Project Elements and Land Use). Additional features examined include a utility corridor that will be placed adjacent to Highway 126 and a regional water quality basin that will be located on a terrace above the south bank of the Santa Clara River. The footprint of the buried bank stabilization will be placed at the toe of the existing San Jose Flats cliff or terrace along the margin of the active channel. The bridge abutments will be placed at the extreme north and south banks of the Santa Clara River and the piers will be placed strategically within the floodplain. This assessment addresses the construction footprint of the bank protection, the bridge abutments and piers, the utility corridor, regional water quality basin, as well as the anticipated hydrologic influences of the Project on in-stream habitat utilization of aquatic species.

1.2 SPECIAL STATUS SPECIES BACKGROUND AND DISTRIBUTION

1.2.1 Unarmored Threespine Stickleback

The unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*) was designated a federally endangered species in 1970 under the Endangered Species Conservation Act of 1969 (the precursor to the Endangered Species Act of 1973), and a state endangered species in 1971. Populations are restricted to three sections of the upper Santa Clara River including the Newhall Ranch reach, which represents the downstream demarcation of the unarmored subspecies. UTS are small, primarily annual fish that require shallow, slow, marginal stream flows with abundant aquatic vegetation for cover. The male guards territories and builds a small nest of decaying vegetation where he guards the eggs until they hatch. Large numbers of stickleback can exist in the summer and fall with the long breeding season in southern California, and breeding can be almost all year in dry years when a stream is minimally disrupted by storm flows. Under optimum conditions, up to a few hundred stickleback can exist within approximately 10 meters of stream. Strong storm flows can severely reduce localized populations until the streams stabilize in spring and the numbers can build up again. Backwater habitats within the Santa Clara River are utilized by UTS as refugia during storm events.

Populations are restricted to three sections of the upper Santa Clara River including the Newhall Ranch reach, which represents the downstream demarcation of the unarmored subspecies. Although UTS are found within the Mission Village project area of the Santa Clara River, larger populations occur upstream of the Project site both in Soledad Canyon above Lang Station (about 8 miles upstream) and in San Francisquito Canyon from just below Drinkwater Reservoir to the vicinity of the old St. Francis Dam location upstream (about 7.5 miles upstream of the river). Recently, a population was discovered in upper Bouquet Canyon (Jonathan Baskin, pers. comm.) about 11 miles above its mouth at the Santa Clara River.

1.2.2 Southwestern Arroyo Toad

Arroyo toads (*Bufo californicus*) occupy the margins of permanent and seasonal streams in coastal foothill canyons and valleys and to a limited extent in the desert, but they require extremely specialized and limited microhabitat within that general habitat type. Most spawning occurs in shallow overflow pools adjacent to inflow channels of third and higher-order streams that lack suspended silt, aquatic predators, and dense woody bordering vegetation (Sweet 1993). During the remainder of the year, adults occupy adjacent sandbars and sandy terraces, nearly always within 100 meters of suitable spawning pools. Suitable bordering sandbars are usually dampened by capillarity and often include sparse emergent vegetation. The moist substratum keeps metamorphosing juveniles from desiccating during warm summer weather (Sweet 1993; Jennings and Hayes 1994). Suitable terrace habitat includes at least some dense

overgrowth, such as California sycamore (*Platanus racemosa*), Fremont cottonwood (*Populus fremontii*), and willows (*Salix* sp.), but the understory is usually barren except for layers of dead leaves (Sweet 1993). Adult and metamorphosed juvenile arroyo toads are known to forage for various invertebrates around the drip line of large oaks (*Quercus*). They also forage extensively on ants (Sweet 1992, 1993). Little is known of arroyo toad winter hibernaculum requirements, but these toads are believed to hibernate exclusively in the riverine terrace, above the level of frequent winter floods (USFWS 1999a).

The 2001 Critical Habitat designation for the arroyo toad was vacated by court order, but the U.S. Fish and Wildlife Service (2004b) proposed substantially revised Critical Habitat on 28 April 2004 which would place three reaches (6a, 6b and 6c) of the upper Santa Clara River as Critical Habitat. On April 13, 2005 the U.S. Fish and Wildlife Service redesignated Critical Habitat for Arroyo Toad. Under this new rule, the Santa Clara River proposed Critical Habitat designations were withdrawn due to economic reasons. The 2004 proposed Subunit 6b would have included approximately 6 miles of the Santa Clara River from its confluence with the South Fork of the Santa Clara River down to its confluence with Castaic Creek, and San Francisquito Creek from the Newhall Ranch Road bridge, downstream to its confluence with the Santa Clara River (subject study area) (Federal Register, Final Rule, Vol. 70, No. 70, April 13, 2005).

1.2.3 California Red-legged Frog

California red-legged frog (*Rana aurora draytonii*) habitat components include spawning pools and their terrestrial borders, spring/summer refuges, and subterranean hibernation sites. These may be combined at single sites or they may be separated by aquatic or terrestrial "dispersal corridors" (Hayes & Jennings 1989; Jennings & Hayes 1994). Spawning pools are the ecologically central components of CRLF habitat, because they support all elements of the species' reproductive biology and also provide forage for all red-legged frog life stages. Spawning pools are typically permanent or extended seasonal ponds (through August), or stream/spring pools of 0.7-1.2 meters in depth, with dense bordering, emergent, and surface vegetation. Such pools may be as small as $1m^2$ in surface area, with no known upper area limit. Always present at spawning habitat is a large complex invertebrate fauna for juvenile forage, extensive submerged herbaceous and algal vegetation for tadpole forage, and small terrestrial mammals such as voles (*Microtus*) that are an important component of adult frog forage (Jennings & Hayes 1994). Most suitable ponds are also partially to fully sunlit with mud or silt substrata, environmental factors essential to promote dense floating and emergent vegetation. Known CRLF spawning pools, where these frogs are successful, are usually absent of large populations of exotic predators such as bullfrogs and exotic centrarchid fish. Nearly all of the known CRLF populations have been documented below 1,050 meters (3,500 feet) (USFWS 2002b). Its known elevational range extends from near sea level to around 1500 meters (Hayes and Jennings 1989).

Riparian vegetation that structurally appears to be most suitable for this species is described as arroyo willow (*Salix lasiolepis*), cattails (*Typha* sp.), and bulrushes (*Scirpus* sp.) that provide shade over a large portion of the water's surface. The California red-legged frog can occur in both ephemeral and permanent streams or in ponds. However, populations of this species cannot be maintained in areas in which all surface water disappears. Water salinity should be at or below 4.5 percent to ensure the survival of embryonic stages (Jennings and Hayes 1989). Water quality and water flow regimes are important to maintain this species. CRLF appear to be absent when temperatures exceed 22 degrees Celsius (70 degrees Fahrenheit), particularly when the temperature throughout a pool was high, and there are no cool, deep portions (USFWS 2002b).

Newly constructed or impounded ponds rarely support CRLF populations and most spawning sites have existed in stable, relatively undisturbed form for decades (Hayes & Jennings 1989). Likewise, red-legged frog spawning habitat is usually absent from river bottomland, presumably because high springtime flows would disrupt spawning success by scouring spawning pools and discouraging long-term aquatic vegetative growth. California red-legged frogs are vulnerable to early season floods because they spawn in early to mid-winter.

Adult California red-legged frogs may migrate in late spring and summer to shaded pools along streams where undercut banks and exposed root masses offer secure refuges. However, an isolated summer refuge component appears not to be critical to population survival because many adult frogs may be found throughout the summer at spawning pools. Hibernaculum preferences probably include lentic substrata (pond bottoms) or any secure subterranean site near spawning or summer refuge habitat, such as rodent burrows, vegetation mats, and root channels.

California red-legged frog “dispersal habitat” refers usually to stream courses that do not offer spawning or summer habitat but could be dispersal corridors between populations (USFWS 2002b). “Dispersal habitat” discussed in this report refers to any habitat that could be occupied temporarily by California red-legged frogs; it does not necessarily imply that California red-legged frogs might use such habitat to disperse or move among spawning pool habitats.

The 2001 Critical Habitat designation for the CRLF was vacated by court order, but the U.S. Fish and Wildlife Service (2004a) reproposed Critical Habitat with substantially the same boundaries on 13 April 2004. The Final Rule was issued on April 13, 2006 that included a newly recognized ranching activities exemption (USFWS 2006). The final Critical Habitat designations for the Santa Clara River watershed include Piru Creek (VEN-3) and San Francisquito Creek (LOS-1). Neither the 2001 nor 2006 Critical Habitat designation included any part of the Santa Clara River or tributaries in the Mission Village Project Area.

1.2.4 Two-striped Garter Snake

The two-striped garter snake (*Thamnophis hammondii*) occurs from southern Baja California north to central Monterey and western Fresno Counties (Rossman and Stewart 1987). These snakes are found most frequently along the margins of rocky and sandy streams with fairly fast water, and they were formerly ubiquitous and abundant in association with such habitat throughout coastal southern California (Jennings and Hayes 1994). The two-striped garter snake is a California Species of Concern because most of its characteristic habitat in the lowlands of Southern California has been severely degraded and consequently this species has disappeared from substantial portions of its range (Jennings and Hayes 1994). Two striped garter snakes are believed to feed almost exclusively on fish and tadpoles, which they catch in shallow water by stalking, ambushing, or by cornering against submerged rocks or root masses (Jennings and Hayes 1994). Thus, even though they are fundamentally terrestrial, they depend entirely on aquatic habitat for forage.

Although the preferred microhabitat for this species is poorly understood, the greatest numbers seemingly occur in areas along stream courses where the combination of in-stream rocky cover, terrestrial vegetative cover, and easy access to aquatic forage species of the appropriate size range exists. For example, along relatively undisturbed reaches of the San Gabriel River in the San Gabriel Mountains these snakes are frequently found along relatively shallow rocky pools that laterally border somewhat deeper reaches, and they also frequent exposed root masses associated with pools created by the fallen trees. Smaller fish and tadpoles are typically abundant and easy for the snakes to capture in the shallow sections and the root mass pools, and larger fish occur in the adjacent deeper sections. Shoreline rocks, burrows, and dense vegetation (including root masses) offer excellent terrestrial cover, and submerged rocky aggregations offer aquatic refugia. Thus, although these wary snakes are often abundant and easily observed in such habitat, they are difficult to capture because they rarely stray far from secure cover and they flee rapidly into the water when approached.

Two-striped garter snakes are active nearly year-round in the Southern California lowlands, but in higher elevations they hibernate for a variable time span during the winter, and emerge as early as February. They usually mate soon after emergence, but females of this species can become gravid with sperm stored from matings that occurred as long as two years previously (Stewart 1972). Two-striped garter snakes bear live young in litters that average 8-10, usually in late July (Rossman and Stewart 1987). Mortality in newborns is probably fairly high, in particular because newborns may have difficulty securing small amphibian or fish prey in disturbed waterways (Jennings and Hayes 1994).

1.2.5 Southwestern Pond Turtle

Southwestern pond turtles (*Clemmys (Emys) marmorata pallida*), a California Species of Concern, require exposed permanent or extended seasonal (through August) slow or still water, bordered by or in the vicinity of suitable upland oviposition (egg deposition) habitat. Suitable oviposition areas are usually gently sloping treeless hillsides well above floodplains, with southern or southwestern exposure and clay or possibly sandy soil (Holland 1991). Eggs are deposited in flask-shaped vertical excavations from late spring through summer, and hatchlings apparently remain in the nest until the following spring (Holland 1991). All life history stages of post-emergent pond turtles are highly aquatic. Suitable aquatic habitat for adult pond turtles usually includes relatively deep water (at least 0.5 meter) with secure basking sites (logs, exposed banks, etc) within reach of secure subsurface concealment. The aquatic substratum may be silty, muddy, or rocky. Juveniles are generally more secretive than adults and may favor more secure basking habitat such as densely vegetated sections of ponds and stream pools. A complex invertebrate fauna and relatively high primary productivity typically also characterize southwestern pond turtle aquatic habitat (Jennings and Hayes 1994). The most important forage for hatchlings is nektonic plankton, but adults utilize a variety of plant and animal forage sources (Bury 1986).

1.3 STUDY SCOPE

The scope of this assessment is on the potential effects of the Mission Village Project on the target aquatic species described above. The assessment is based on a review of technical and regulatory documents provided by Newhall Land (Section 2.1) and a field reconnaissance level habitat survey of the Project site. Additionally, the preparers of this assessment have relied upon their extensive knowledge and experience on this subject. See Section 6, below, for a list of the preparers of this assessment. In addition, please refer to Appendix B for copies of the resumes of the preparers. No new quantitative surveys or analyses were conducted as part of this study.

1.4 ORGANIZATION OF DOCUMENT

The remainder of this report is organized as follows:

- **Section 2** describes the methods used in the development of the assessment.
- **Section 3** discusses the results of this assessment.
- **Section 4** discusses project related impacts to habitats of special status species

- **Section 5** cites literature and technical references used in the preparation of this assessment.

- **Section 6** includes a list of preparers of this assessment.

- **Appendix A** includes figures and field survey photographs.

- **Appendix B** includes the preparers' resumes.

2. METHODS

The methods used to conduct this assessment are based on review of technical and regulatory documentation provided by Newhall, and field reconnaissance surveys of the Project area. The methods are described in greater detail below.

2.1 REVIEW OF EXISTING PROJECT REPORTS AND DOCUMENTATION

The following technical reports and supporting documentation were reviewed in assessing the potential effects of the Mission Village Project on sensitive aquatic species inhabiting the Santa Clara River and their habitat:

These documents are listed in chronological order.

- *Biological Resources of the Upland Areas of the West Ranch. Newhall Land and Farming Company, Valencia, California, Dames and Moore, Santa Barbara, California, July 1993.*

- *Biota Report, Newhall Ranch Specific Plan, Los Angeles County Department of Regional Planning, Los Angeles, California, September 7, 1995, July 1996 revision.*

- *Final EIS/EIR: 404 Permit and 1603 Streambed Alteration Agreement for Portions of the Santa Clara River and its Tributaries, Los Angeles County*. *Valencia Company, August 1998.*

- *SEATAC Biota Report, Combined San Francisquito Canyon Projects (West Creek (VTTM 52455) and East Creek (VTTM 44831, 52667), Newhall Land and Farming Company, Significant Ecological Area 19, San Francisquito Canyon, Los Angeles County, California, Los Angeles County Department of Regional Planning, Frank Hovore & Associates, San Marino Environmental Associates, Planning Consultants Research, August 19, 1998.*

- *Natural River Management Plan: Permitted Projects and Activities*. *Santa Clara River and tributaries. Valencia Company, November 1998.*

- *Survey for arroyo southwestern toad for Newhall Ranch. Newhall Ranch Company, July 12, 1999.*

- *Biological Resources Assessment of the Proposed Santa Clara River Significant Ecological Area. Los Angeles County Department of Regional Planning. PCR Services Corporation, Frank Hovore and Associates, FORMA Systems, November 2000.*

- *Letter from David Crawford (Impact Science, Inc, Agoura Hills, CA) to Mark Subbotin, Newhall Land and Farming, Subject: Brief summary of arroyo toad survey results in NRMP area, June 18, 2001.*

- *Letter from Scott Cameron (Ecological Sciences, Oxnard, CA) to Rick Farris, U.S. Fish and Wildlife Service, Ventura, CA, Subject: Permit submittal requirements, TE 808242, arroyo toad surveys, Los Angeles County, California, August 2, 2001.*

- *Results of Focused Surveys for Arroyo Toad and Special-Status Aquatic Reptiles and Amphibians within the Newhall Ranch Area, Los Angeles County, California. Newhall Land and Farming,* Impact Sciences, Inc., *September 19, 2001.*

- *Results of Focused Surveys for Arroyo Toad and Special-Status Aquatic Reptiles and Amphibians within the Natural River Management Plan Area, Valencia, California.* Impact Sciences, September 2001.

- *Aquatic Surveys Along the Santa Clara River Part I: Castaic Junction Project Area, Los Angeles County, California.* Aquatic Consulting Services, Inc., April 2002.

- *Aquatic Surveys Along the Santa Clara River Part III: West of Commerce Center Bridge to the Ventura County Line, California.* Aquatic Consulting Services, Inc., June 2002.

- *Letter from Scott Cameron (Ecological Sciences, Oxnard, CA) to Mark Subbotin, Newhall Ranch Co, Valencia, CA, Subject: Results of focused arroyo toad surveys, Auto Center Expansion Project and Hart Baseball and Softball Complex (Hart Complex Area), Santa Clarita, California, June 24, 2002.*

- *Biological Opinion for the Natural River Management Plan, Santa Clarita, Los Angeles County, California (1-8-02-F-4R) (File No. 940050400-BAH)*. U.S. Fish and Wildlife Service, November 2002.

- *Results of Focused Surveys for Unarmored Threespine Stickleback and Other Special-Status Fish Species, Newhall Ranch, Valencia California.* Impact Sciences, Inc., January 2003.

- *Amended 404 Permit (No. 940050400-BAH) for Natural River Management Plan.* U.S. Army Corps of Engineers, June 2003.

- *Revised Additional Analysis to the Newhall Ranch Specific Plan and Water Reclamation Plant Final Program EIR, Volume VIII (May 2003), Section 2.3, Floodplain Modifications.*

- *Letter from Scott Cameron (Ecological Sciences, Oxnard, CA) to Mark Subbotin, Newhall Ranch Co, Valencia, CA, Subject: Results of Focused Arroyo Toad Surveys, Hart/Pony Commercial Site, Santa Clarita, California, August 21, 2003.*

- *Letter from Scott Cameron (Ecological Sciences, Oxnard, CA) to Mark Subbotin, Newhall Ranch Co, Valencia, CA, Subject: Results of Focused Arroyo Toad Surveys, Soledad Site, Santa Clarita, California, August 23, 2003.*

- *Letter from Scott Cameron (Ecological Sciences, Oxnard, CA) to Mark Subbotin, Newhall Ranch Co, Valencia, CA, Subject: Results of Focused Arroyo Toad Surveys, Round Mountain Site, Santa Clarita, California, August 25, 2003.*

- *Letter from Scott Cameron (Ecological Sciences, Oxnard, CA) to Mark Subbotin, Newhall Ranch Co, Valencia, CA, Subject: Results of Focused Arroyo Toad Surveys, Castaic Reservoir Site, Santa Clarita, California, August 27, 2003.*

- *Letter from Scott Cameron (Ecological Sciences, Oxnard, CA) to Mark Subbotin, Newhall Ranch Co, Valencia, CA, Subject: Results of Focused Arroyo Toad Surveys, NRMP Project Area, Santa Clarita, California, August 31, 2003.*

- *Letter from Scott Cameron (Ecological Sciences, Oxnard, CA) to Mark Subbotin, Newhall Ranch Co, Valencia, CA, Subject: Results of Focused Arroyo Toad Surveys, Castaic Creek, Santa Clarita, California, August 31, 2003.*

- *Proposed Designation of Critical Habitat for the California red-legged frog (Rana aurora draytonii), U.S. Fish and Wildlife Service, April 13, 2004, 69 FR 19620-19642.*

- *Proposed Designation of Critical Habitat for the Arroyo Toad, U.S. Fish and Wildlife Service, April 28, 2004, 69 FR 23254-23328.*

- *Letter from Scott Cameron (Ecological Sciences, Oxnard, CA) to Mark Subbotin, Newhall Ranch Co, Valencia, CA, Subject: Results of Focused Arroyo Toad Surveys, Castaic Creek, Santa Clarita, California, August 11, 2004.*

- *Letter from Scott Cameron (Ecological Sciences, Oxnard, CA) to Mark Subbotin, Newhall Ranch Co, Valencia, CA, Subject: Results of Focused Arroyo Toad Surveys, Portions of Santa Clara River/South Fork, Santa Clarita, California, August 21, 2004.*

- *Letter from Scott Cameron (Ecological Sciences, Oxnard, CA) to Mark Subbotin, Newhall Ranch Co, Valencia, CA, Subject: Results of Focused Arroyo Toad Surveys, San Francisquito Creek, Santa Clarita, California, August 25, 2004.*

- *Letter from Scott Cameron (Ecological Sciences, Oxnard, CA) to Susan Tebo, Impact Sciences, Camarillo, CA, Subject: Results of Focused Arroyo Toad Surveys, NRMP Solodad/Riverpark Area, Santa Clarita, California, August 29, 2004.*

- *Results of Focused Surveys for Arroyo Toad and Special-Status Aquatic Reptiles and Amphibians, River Village Project; Newhall Ranch, Valencia, California. Newhall Ranch Company, Compliance Biology, Inc, Camarillo, CA, October 2004.*

- *Special Status Aquatic Species Habitat Assessment Santa Clara River, Landmark Village Project, Newhall Ranch, California. ENTRIX, Inc. 2005*

- *Letter from Scott Cameron (Ecological Sciences, Oxnard, CA) to Sam Rojas, Newhall Ranch Co, Valencia, CA, Subject: Results of Focused Arroyo Toad Surveys, Castaic Creek, Santa Clarita, California, August 17, 2005.*

- *Letter from Scott Cameron (Ecological Sciences, Oxnard, CA) to Sam Rojas, Newhall Ranch Co, Valencia, CA, Subject: Results of Focused Arroyo Toad Surveys, San Francisquito Creek, Santa Clarita, California, August 21, 2005.*

- *Balance Hydrologics, Inc. 2005. Assessment of Potential Impacts Resulting From Cumulative Hyromodification Effects, selected Reaches of The Santa Clara River, Los Angeles County, California.*

- *U.S. Fish and Wildlife Service. 2005. 50 CFR, Federal Register, Final Rule, Vol. 70, No. 70, April 13, 2005. Final Designation of Critical Habitat for the Arroyo Toad.*

- *U.S. Fish and Wildlife Service. 2006. 50 CFR, Federal Register, Final Rule, Vol. 71, No. 71, April 13, 2006. Designation of Critical Habitat for the California Red-Legged Frog and Special Rule Exemption Associated with Final Listing for Existing Routine Ranching Activities.*

- *Flood Technical Report for the Mission Village Project (2006). Pacific Advanced Civil Engineering, Inc. (PACE)*

- *Results of Focused Western Spadefoot Toad Surveys on the Mission Village Project Site. Compliance Biology, Inc. May 26, 2006*

2.2 REVIEW OF RECORDS AND LITERATURE

Information on the special-status wildlife of the proposed Mission Village Project Area was obtained through a search of the *California Natural Diversity Database* (CNDDB; CDFG, 2004); from searches of the specimen catalogues of the major California vertebrate museum collections (detailed below); from the U.S. Fish and Wildlife Service (USFWS), Ventura Office, Endangered Species Division's species list (http://www.fws.gov/ventura/es/spplists/spplists.html); and from reports on biological studies completed in the Project vicinity. Preliminary identification of potential habitat for sensitive aquatic species within the Project site was determined by reviewing aerial photography provided by Newhall Land. The site visit on February 22, 2005 verified the presence or absence of sensitive habitats.

The first step to evaluate Project effects on potential populations of the target special-status aquatic species is to determine the historical presence of these species within the Project area. ENTRIX biologists queried the California Natural Diversity Database (CDFG 2004), the collection catalogue of the Los Angeles County Museum of Natural History (LACM), and the online collection databases of the Museum of Vertebrate Zoology, University of California, Berkeley (UC Berkeley 2004); and the California Academy of Sciences (CAS 2004), to obtain this information. Various literature sources were also used. (Disclaimer: CNDDB and museum records always carry some degree of uncertainty because of potential misidentifications or incorrect locality data. Further, the absence of species records from any given site does not imply that the species is absent from the site).

The ENTRIX and Ecological Sciences biologists then examined maps and aerial photographs to locate aquatic habitat within and near the banks of the Santa Clara River within the Project site. Aquatic habitat suitability for any of the reptile and amphibian species was determined by comparison with previously published assessments (e.g., Holland 1991; Jennings and Hayes 1994; Sweet 1992, 1993; USFWS 1999b, 2002), as well as by the ENTRIX and Ecological Sciences biologists' extensive experience with the species in various parts of California. To assess the potential effects of the proposed Project on unarmored threespine stickleback, arroyo toad, California red-legged frogs, southwestern pond turtles, and two-striped garter snakes, ENTRIX and Ecological Sciences biologists consulted the USFWS Biological Opinion for the Natural River Management Plan (NRMP), Santa Clarita, Los Angeles County, California

(1-8-02-F-4R), dated 15 November 2002; various natural history accounts for these species (e.g., Jennings and Hayes 1994; Holland 1991; Sweet 1992; Swift et al. 1993; Stebbins 1951); Revised Additional Analysis to the Newhall Ranch Specific Plan and Water Reclamation Plant Final Program EIR, Volume VIII (May 2003), Section 2.3, Floodplain Modifications; and the PACE Flood Technical Report for the Mission Village Project (2006).

2.3 FIELD RECONNAISSANCE HABITAT SURVEY METHODS

ENTRIX biologists, Dr. Camm Swift and Steve Howard and Scott Cameron from Ecological Sciences, Inc. conducted a reconnaissance-level habitat survey that focused on the habitats of unarmored threespine stickleback, arroyo toad, California red-legged frog, southwestern pond turtle and two-striped garter snake. This survey was conducted on February 22 2005. The Santa Clara River channel was surveyed from just upstream of the mouth of Middle Canyon to the downstream extent of San Jose Flats. Middle Canyon and Long Canyon were surveyed by direct observation at various spots visible from the road or within the channel when access was possible. The purpose of the field survey was to analyze the potential effects of the Mission Village Project on these species and their associated habitats. The survey focused mainly on evaluating habitat conditions within this reach and in establishing the relative proximity of proposed floodplain enhancement structures to instream habitats. Water temperature was taken with a hand held thermometer in degrees Celsius. Photos were taken of representative habitats with a digital camera.

3. RESULTS

This section discusses the results of the Special Status Aquatic Species Habitat Assessment of the Mission Village Project area. First, analyses of historic and recent records are summarized for each species. Finally, the results of the field habitat assessment are summarized for each species. The results of this assessment are described further below:

3.1 SANTA CLARA RIVER FISH ASSEMBLANGES

Historically, the local fish fauna in this reach of the Santa Clara River was typical of southern California but appears to have had only one species of freshwater fish (Swift et al. 1993). This was the unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*). Steelhead are not known to migrate to the upper Santa Clara River, likely not ascending above the system beyond Piru Creek. However, several native species from elsewhere in southern California became established in the Santa Clara River in the late 1920s and the 1930s. These include the currently established arroyo chub and Santa Ana sucker. Records of speckled dace from upper Castaic Creek are considered to be introductions. The Owens sucker is also found in the drainage from the mouth of Piru Creek downstream. Owens suckers are not, however, reported to be in the Mission Village area. The most common fish in the Santa Clara River is the Arroyo chub, which became established in 1930's around the time when brown trout were commonly planted by the California Department of Fish and Game. Fisherman who used them as bait for trout supposedly introduced this native fish of the Los Angeles basin to the Santa Clara River. Currently the river in the Mission Village area consists of a subset of a typical Los Angeles Basin native fish community.

Several other fishes occur as introductions that have been widespread in southern California as well as the southwestern United States. These include green sunfish, largemouth bass, and mosquitofish, which have been recently reported in the Mission Village area. Several other non-native fish species are known to occur both up and downstream of this immediate area, most of which are found downstream of the mouth of Castaic Creek, suggesting it may be the local source of these fish. These fish are known to adversely affect unarmored threespine stickleback and should be controlled or managed for the benefit of native species.

Another non-native predator in the area is the clawed frog, which can prey on stickleback but its complete effect is not well known.

3.2 HISTORICAL PRESENCE/ABSENCE SURVEY RESULTS

This section summarizes historic and recent survey results from studies conducted in the Mission Village area and within the entire Newhall Reach of the Santa Clara River.

3.2.1 Unarmored Threespine Stickleback

Historical and Recent Vicinity Records

Unarmored threespine stickleback collections have been few and widely scattered in the Del Valle Zone of the Santa Clara River with a few notable exceptions (Aquatic Consulting Services, Inc. 2002a and Impact Sciences 2003a). One exception is the refuge area identified during the surveys for the Mobil and Arco 1994 oil spill investigations. This is an area of marshy habitat just north-northeast of Magic Mountain that is typically wetted and contains numerous stickleback. During the oil spill, this refuge area was not affected due to the main river flow directing the contamination away from this area. Thus, it was also considered a site for relocating rescued stickleback that could not be returned to the main river immediately because of the oil contamination. A stickleback survey conducted by ENTRIX of the entire Newhall reach of the Santa Clara River in September 2005 found stickleback only in this refuge area (ENTRIX 2006 in production).

3.2.2 Southwestern Arroyo Toad

Historical and Recent Vicinity Records

Neither of the museum database queries (CAS 2004; UC Berkeley 2004) yielded records of the arroyo toad from the main channel of the Santa Clara River. However, mainstem Santa Clara River CNDDB records for the arroyo toad exist from the “Santa Clara River, just east of Interstate 5” (1994), which is about two miles east of the Project site, and from “Bear Canyon at the Santa Clara River, six miles upstream of Solemint” (2001), which is about eleven miles east of the Project site. Arroyo toads were also found recently at the confluence of San Francisquito Creek and the Santa Clara River (Impact Sciences 2001). Further, the Aquatic Consulting surveys (2002a) reported arroyo toad tadpoles from pools adjacent to the Valencia Water Treatment Plant and from a pool just upstream of the Project site (site 26). Among north tributaries to the Santa Clara River, arroyo toads are well-known from the Blue Point area along Piru Creek (CNDDB, LACM, and CAS records); from several sites along Sespe Creek (Ventura County) (CNDDB and LACM records and Sweet (1992)); and from at least one location along Castaic Creek north of Castaic Lake (CNDDB 2004; Compliance Biology 2004; U.S. Fish and Wildlife Service 2004b). The existence of tributary records upstream and downstream of the Project area, as well as the in-channel Santa Clara River records west of Interstate 5, indicate

that arroyo toad has the potential to occur within the project site. However, standardized USFWS "protocol" surveys conducted on the project site as recently as 2004 (Compliance Biology 2004) failed to document the occurrence of arroyo toads even though components of its habitat exist within the project reach.

3.2.3 California Red-legged Frog

Historical and Recent Vicinity Records

There are no California Natural Diversity Database records for the California red-legged frog from the Santa Clara River watershed, Los Angeles and Ventura Counties. However, the Museum of Vertebrate Zoology (UC Berkeley 2004) lists 17 specimens from Soledad Canyon (Santa Clara River channel) in its collection, from as recently as 1953. More precise locality data are unavailable. The California Academy of Sciences (CAS 2004) also lists a Soledad Canyon specimen, from 1950. The nearest specific locality to the Project site is some 15 miles upstream near the Santa Clara River's confluence with Agua Dulce Creek. Jennings and Hayes (1994) and the CNDDB indicate that this species still occurs in the Santa Clara River watershed, in sites along San Francisquito Creek 5-10 miles northeast of the Project site, and in tributaries to the Santa Clara River in Ventura County. The closest documented Ventura County occurrence is in Piru Creek 4.5 miles north of Piru, about 10 airline miles west to north-west of the Project site (USFWS 2002a). The species is also in decline in Piru Creek due to changes in flow regimes since the construction of Pyramid Dam (USFWS 2002a).

3.2.4 Two-striped Garter Snake

Historical and Recent Vicinity Records

Santa Clara River records for the two-striped garter snake in the Newhall Ranch region are absent from the CNDDB and the museum collections, yet the various reports reviewed for this document and personal communications with local biologists indicate that this species occurs somewhat commonly along this reach of the river. Impact Sciences (2001) report states that during surveys conducted within the NRMP survey area, two-striped garter snakes were observed numerous times at unspecified sites within the NRMP reaches. In addition, Ecological Sciences reports observing two-stripe garter snakes during various focused arroyo toad surveys within the NRMP survey area. Species was observed in the River Corridor within Newhall Ranch in 2004 (Compliance Biology).

3.2.5 Southwestern Pond Turtle

Historical and Recent Vicinity Records

Southwestern pond turtles are probably distributed throughout the Santa Clara River watershed, wherever there are sufficient permanent or near-permanent water and oviposition sites to support populations. However, the CNDDB includes only two Santa Clara River records of southwestern pond turtles, from near Castaic Junction (2000) and from downstream near the Ventura County line (1998). Neither of the museum databases includes records for southwestern pond turtle within the Santa Clara River watershed. Conversely, the Impact Sciences (2001) report states that during surveys conducted within the NRMP survey area, pond turtles were observed numerous times at unspecified sites within the NRMP reaches, presumably where sufficient water existed to satisfy the aquatic habitat requirements discussed previously. Compliance Biology Survey in 2004 indicated its presence within the Newhall Ranch River Corridor.

3.3 HABITAT SURVEY RESULTS

The following section describes the results for field reconnaissance habitat surveys conducted on February 22, 2006.

3.3.1 Environmental Setting

The Santa Clara River along the north edge of the Mission Village project consists of a wide, flat sandy floodplain. Extensive temporal meandering of the river has deposited sand and gravel creating long elevated bars and terraces within the active channel. Depending on the flow, lateral side channels exist that can provide good habitat for stickleback and other fish species. Typically most of the smaller side channels do not carry water during the dry season although some do persist from upwelling ground water. In some cases larger isolated pools have formed on the order of tens of yards in length and up to 3-6 feet deep. These pools can remain year-round if they are deep enough and near areas of upwelling.

Beyond the typical active floodplain that usually contains the high flows; elevated terraces of varying heights exist and represent the 20 to 100 year floodplain zones only rarely inundated by the river. On the north side of the channel these represent the wide flat areas that are presently farmed. On the south side of the channel and along the north side of Mission Village these are much smaller due to the uplifting of the steep cliffs. These terraces typically support a more mature forest of oaks and sycamores with soil development rather than sand and gravel.

Sparse aquatic vegetation has developed along the main river channel, probably because short-term fluctuations in water level discourage growth of marginal vegetation and because of the 2004/2005 flood events that scoured and deposited excessive amounts of sediment throughout the Newhall Reach of the Santa Clara River. Smaller spring-fed wetted channels are choked with vegetation since they have been nearly constant in flow or change only slowly with the

seasons and are usually on the margins of the floodplain hidden from the effects of high flow events. The fluctuation in treated wastewater effluent can probably be determined by examination of their records but variation in ground water flow may not be known. In addition, various wells exist along the river and their activity certainly affects ground flow. At least four water supply agencies can affect the flows in the Santa Clara River within the Mission Village area. The Metropolitan Water District (MWD) can and has released water into San Francisquito Canyon from their pipeline. The Department of Water and Power (DWP) of the City of Los Angeles can release water from Drinkwater Reservoir and Bouquet Reservoir down San Francisquito and Bouquet canyons, respectively. In addition the DWP pipeline crosses the main Santa Clara River and has valves for releasing water on occasion. Finally, perennial flow is present from the Los Angeles County Sanitation Districts' Water Reclamation Plant in the reach (No. 32), as well as from the upstream plant (No. 26). All of these releases disrupt the natural hydrograph to some extent depending on the time of year and the volume of discharge. Historically this area of the river in the Castaic Junction vicinity was known to have permanent flows and was the site of some of the first settlements in the area. In addition the early train depot depended on the water supply for stage lines that went through the area between Los Angeles and northern destinations.

3.3.2 Unarmored Threespine Stickleback Habitat

The Santa Clara River floodplain during the survey was largely open and sandy and the wetted channel was located 300 yards or more north of the base of the cliffs on the south side of the floodplain. The flow was approximately 35 cubic feet per second (cfs) and contained a mixture of sand, gravel, and cobble substrate depending on gradient within mesohabitat units (i.e. pools, riffles, runs). The water was clear and 18º C. at 1000 hours. Pool depths averaged approximately 2 feet along the approximate 300 meters of river examined. South and somewhat parallel to the wetted channel were two small spring fed side channels attached to the main channel that ranged from 1-6 inches deep. The flow was less than 0.5 cfs or less. These small spring channels were choked with green algae and were 15º C. at 1015 hours. No fish were seen in the main wetted channel or the adjacent side channels.

Along the southern margin of the floodplain a small isolated spring fed side channel existed within the upper one third of the San Lose Flats area. The isolated side channel had less than 0.1 cfs and water temperatures ranging from 11-14º C. at 1130 to 1230 hours. This small channel was choked with aquatic grass, watercress, and marginal herbaceous vegetation for about another 150 meters upstream where it was bordered by low willows and mule fat. Farther upstream the banks consisted of mostly bare mud and sand within a forest of larger willows, cottonwoods, and Arundo. The upper extent of the side channel near Middle Canyon originates within a thick forest of mostly mature trees and blackberries bushes. Two springs appear to feed the side channel. This source flow was clear and 15º C. About 150 fish were observed at

various locations along this spring fed side channel. The majority of these fish appeared to be arroyo chubs; however, a few may have been mosquito fish. Unarmored Threespine Stickelback were not observed. Further, no fish were observed in the relatively lower shallows, approximately 50 yards or so in the agricultural reclaim area. Farther upstream the channel was better defined with greater flow and many areas were approximately to 8-12 inches deep. Groups of small arroyo chubs (up to 40 mm Standard Length) were intermittently scattered in these areas.

3.3.3 **Southwestern Arroyo Toad Habitat**

The survey area within the river channel supports a mosaic of riparian and terrace habitats, barren sandbars, and various densities of riparian scrub that are consistent with arroyo toad primary constituent elements. This reach supports multiple small channels that range from shallow open and braided to relatively deep (±2 feet) and under dense cover. Due to higher than average rainfall during the 2005 season, the river had been extensively scoured and much of the relatively overgrown and dense vegetation from previous years had been removed by major water flow. Perennial flow is present from the Los Angeles County Sanitation Districts' Water Reclamation Plant in the reach (No. 32), as well as from the upstream plant (No. 26).

As described above, the survey area was largely open and sandy with the wetted channel located 300 yards or more north of the base of the cliffs on the south side of the floodplain. Along the southern margin of the floodplain, a small isolated spring fed side channel that was choked with aquatic and herbaceous vegetation and was bordered by low willows and mule fat. Farther upstream the banks consisted of mostly bare mud and sand within a forest of larger willows, cottonwoods, and giant reed. Amphibians detected included Pacific chorus frog (*Pseudacris regilla*). The river provided sufficient low gradient segments to support shallow pools with suitable substrates for arroyo toad. There are also some suitable upland terrace habitats between the banks of the river to support foraging and over-wintering arroyo toad. There are no manmade barriers present in this reach that could completely or substantially impede upland movement of arroyo toads. However, some stretches of the riverbank in the survey area are near vertical (e.g., southern cliff areas) and of a height that would significantly impede migration out of the stream channel.

3.3.4 California Red-legged Frog Habitat

Based on known correlative habitat information for CRLF, suitable habitat for CRLF does not appear to be present within the subject study area. Habitat for CRLF is extremely limited due to the overall absence of deep water (e.g., greater than 10 inches), lack of emergent vegetation throughout the project site, and absence of a consistent hydrological regime throughout the year (hydro-geomorphologic characteristics of the River). Floods periodically scour vegetation in the

active channel where low flows are present. This reduces necessary cover around pools needed by CRLF. The small freshwater spring area on the southern floodplain could potentially serve as habitat for the species (e.g., water was relatively deep in small isolated areas), but this area is likely affected by cattle grazing and scouring, and the occurrence potential would nonetheless be considered extremely low. Accordingly, habitat appropriate for the red-legged frog did not appear to be present within the proposed development area.

3.3.5 Two-striped Garter Snake Habitat

Suitable habitat for the two-striped garter snake is present within portions of the study area. Accordingly, this species has a high potential to occur near freshwater and riparian habitats throughout the study area where water is present most of the year.

3.3.6 Southwestern Pond Turtle Habitat

Potentially suitable habitat is present for the southwestern pond turtle within portions of the study area where ponded or flowing water is present. As such, it is reasonable to predict that the length of the river adjacent to the project site may contain southwestern pond turtles at any given time, as well as some of the moist canyons leading away from the River.

4. PROJECT RELATED IMPACTS

The majority of development will be upslope of the Santa Clara River floodplain. Two floodplain modifications within the Santa Clara River floodplain are proposed for the Mission Village project. These two modification structures are the San Jose Flats Bank Stabilization and the Commerce Center Drive Bridge (including the bridge piers and southern abutment).

4.1 PROPOSED FLOODPLAIN MODIFICATIONS

Please refer to Figure 2, Mission Village Existing Conditions, Proposed Project Elements and Land Use, for a view of the proposed floodplain modifications and their locations with the Mission Village project area.

4.1.1 San Lose Flats Bank Stabilization

The bank stabilization structure will be placed at the toe of the cliff at San Jose Flats on the Santa Clara River. San Jose Flats is located just west of Middle Canyon on the south bank of the Santa Clara River. This structure will be constructed of buried soil cement.

4.1.2 Commerce Center Drive Bridge

The Commerce Center Drive Bridge will include the southerly extension of Commerce Center Drive from the approved Commerce Center Interchange. The bridge will begin from the northerly abutment (which was approved in conjunction with the interchange) and will traverse the river and connect with the south bank just east of Middle Canyon. The southerly bridge abutment will be constructed of rip rap and gunite.

4.1.3 Utility Corridor

The utility corridor will be located outside of the river channel adjacent to Highway 126 on the north side of the Santa Clara River. The utilities will either be attached to bridges or placed under tributary drainage crossings. Due to its location, set back in most cases from the river corridor, no impacts to fish species including unarmored threespine stickleback are expected.

4.1.4 Regional Water Quality Basin

A regional water quality basin will be placed outside of the Santa Clara River channel on the south side of the Santa Clara River. Water will discharge from this basin only during high flow events.

4.2 POTENTIAL PROJECT RELATED IMPACTS

The Santa Clara River is a dynamic, episodic system that experiences ”re-set” flood events that can be expected every 5-15 years (Balance Hydraulics, Inc. 2005). This re-set condition occurred in 2005 resulting from the 2004-2005 flood events. Impacts to aquatic habitats from floodplain modification due to the implementation of the project are minimal as compared to a re-set event. This section summarizes potential impacts to the special status species covered in this report based on the results from hydraulic modeling conducted by PACE in 2006 and the water quality technical report by GeoSyntec 2006.

4.2.1 Unarmored Threespine Stickleback

Project Impacts

The potential impacts to unarmored threespine stickleback (UTS) due to the construction and persistence of the Project's bank stabilization features and the bridge construction are expected to range from no impact to a less than significant impact (Table 1).

Based on hydraulic modeling conducted by PACE 2006, there will be no impact to stickleback during the 2-year and 5-year flood frequency occurrences. This means that no increase in water velocities or loss of rearing habitat will occur during those events. During the 10, 20, 50, and 100 year flood frequency occurrences there will be minimal localized increases in water velocity due to the implementation of the project; however this impact is not anticipated to be significant. When high flood flows occur in rivers, stickleback either become washed downstream and/or migrate to backwater habitats for shelter. Hydraulic modeling results, found in Table 1.0, indicate sufficient backwater habitat for stickleback exists during these events as the project improvements are set back from the existing riparian corridor. In summary, the hydrologic influence of the project on UTS will essentially be transparent when viewed in conjunction with flood flow conditions.

UTS are known to inhabit the Newhall Ranch reach of the Santa Clara River adjacent to the Mission Village Project area. Based on reconnaissance surveys conducted following recent flood events (January and February 2005), high flow conditions appear to have dislocated and dispersed aquatic organisms downstream.

The Flood Technical Report (PACE 2006) found that there would be no significant impacts in water flows, velocities, depth, sedimentation, or floodplain and channel conditions downstream of the Project site as a result of the proposed Project improvements. These hydraulic effects were also found to be insufficient to alter the amount, location and nature of aquatic and riparian

habitats in the Project area and downstream into Ventura County. The technical analysis further determined that the river would still retain sufficient width to allow natural fluvial processes to continue; and, as a result, the mosaic of habitats in the river that support various sensitive species would be maintained, and the population of the species within and immediately adjacent to the river corridor would not be significantly affected. Based on that technical assessment, no significant impacts to UTS populations are expected.

TABLE 1 – Impact Matrix by flood occurrence for the south bank stabilization structure and the Commerce Center Bridge.

Locale	Feature	Potential UTS Impacts By Flood Event Occurrence											
		2-yr		5-yr		10-yr		20-yr		50-yr		100-yr	
		Rearing Habitat	Water Velocity	Rearing Habitat	Water Velocity	Rearing Habitat	Water Velocity	Rearing Habitat	Water Velocity	Rearing Habitat	Water Velocity	Rearing Habitat	Water Velocity
Mission Village Reach of the Santa Clara River													
South Bank	Buried, Gunite Bank Stabilization	NI	NI	NI	NI	G	LS*	G	LS	G	LS*	G	LS*
Commerce Center Bridge	Bridge, Rip Rap, Gunite Bank Stabilization	NI	NI	NI	NI	G	LS*	G	LS	G	LS*	G	LS*

PI = Potential Impact
NI = No impact
LS = Less Than Significant Impact
G = Gain in Backwater Habitat resulting from the project (Project design features will have an effect on the hydraulics within the floodplain. The gain in backwater habitat is assumed to occur as a result of the project design features at certain flood event occurrences)

* Increase in flow velocity less than significant due to already high velocity conditions that exist during high flow events.

Impact Matrix is based on loss of backwater habitats and increased velocities from proposed floodplain modification features. Hydraulic modeling results produced by PACE, Inc (2006).

The Mission Village Water Quality Technical Report (GeoSyntec 2006) indicates that the modeled concentrations in runoff from developed areas with Project Design Features (PDFs) are below all benchmark water quality objectives and criteria and TMDL waste load allocations for the Santa Clara River and are addressed by a comprehensive site design, source control, and treatment control strategy. These water quality objectives are established to protect various beneficial uses including general wildlife, sensitive, rare and endangered species. Therefore, potential impacts from the Project on receiving water quality and beneficial uses in the Santa Clara River are not significant. Based upon that Report, no impacts to adjacent or downstream populations of UTS are expected.

4.2.2 **Southwestern Arroyo Toad**

Project Impacts

Although the arroyo toad has not been recorded within the Project area, suitable habitat exists within the Project boundaries in the Santa Clara River. It is not anticipated that the proposed Project's bank stabilization feature or bridge structure will substantially alter the local sediment transport regime or otherwise affect in-stream habitat (spawning, foraging) for arroyo toad. The Project area falls within an extremely dynamic reach of the Santa Clara River where high disturbance flood events occur every 5 to 15 years and change the existing stream structure.

An EIR/EIS for the NRMP, located adjacent to and upstream of the project, stated that the widening of the river channels within the areas of bank protection (i.e., stabilization) would not cause system-wide channel or bed erosion, or aggradation. In its 1998 and 2002 Biological Opinions on the NRMP (page 30 of the 1998/2002 NRMP), the U.S. Fish and Wildlife Service accepted the NRMP's findings, and stated further that the NRMP would not affect arroyo toad habitat negatively within the Santa Clara River mainstem.

The Flood Technical Report (PACE 2006) for Mission Village found that there would be no significant impacts in water flows, velocities, depth, sedimentation, or floodplain and channel conditions downstream of the Project site as a result of the proposed Project improvements. These hydraulic effects were also found to be insufficient to alter the amount, location and nature of aquatic and riparian habitats in the Project area and downstream into Ventura County. The technical analysis further determined that the river would still retain sufficient width to allow natural fluvial processes to continue; and, as a result, the mosaic of habitats in the river that support various sensitive species would be maintained, and the population of the species within and immediately adjacent to the river corridor would not be significantly affected. Based on that technical assessment, no impacts to downstream populations of the arroyo toad are expected.

The Mission Village Water Quality Technical Report (GeoSyntec 2006) indicates that the modeled concentrations in runoff from developed areas with Project Design Features (PDFs) are below all benchmark water quality objectives and criteria and TMDL waste load allocations for the Santa Clara River and are addressed by a comprehensive site design, source control, and treatment control strategy. These water quality objectives are established to protect various beneficial uses including general wildlife, sensitive, rare and endangered species. Therefore, potential impacts from the Project on receiving water quality and beneficial uses in the Santa Clara River are not significant. Based upon that Report, no impacts to potential adjacent or downstream populations of arroyo toad are expected.

4.2.3 California Red-legged Frog

Project Impacts

Suitable habitat for CRLF does not appear to be present within the subject study area. Habitat for CRLF is extremely limited due to the overall absence of deep water (e.g., greater than 10 inches), lack of emergent vegetation throughout the project site, and absence of a consistent hydrological regime throughout the year (hydro-geomorphologic characteristics of the River).

The Flood Technical Report (PACE 2006) found that there would be no significant impacts in water flows, velocities, depth, sedimentation, or floodplain and channel conditions downstream of the Project site as a result of the proposed Project improvements. These hydraulic effects were also found to be insufficient to alter the amount, location and nature of aquatic and riparian habitats in the Project area and downstream into Ventura County. The technical analysis further determined that the river would still retain sufficient width to allow natural fluvial processes to continue; and, as a result, the mosaic of habitats in the river that support various sensitive species would be maintained, and the population of the species within and immediately adjacent to the river corridor would not be significantly affected. Based on that technical assessment, no impacts to downstream populations of the California red-legged frog are expected.

The Mission Village Water Quality Technical Report (GeoSyntec 2006) indicates that the modeled concentrations in runoff from developed areas with Project Design Features (PDFs) are below all benchmark water quality objectives and criteria and TMDL waste load allocations for the Santa Clara River and are addressed by a comprehensive site design, source control, and treatment control strategy. These water quality objectives are established to protect various beneficial uses including general wildlife, sensitive, rare and endangered species. Therefore, potential impacts from the Project on receiving water quality and beneficial uses in the Santa Clara River are not significant. Based upon that Report, no impacts to potential adjacent or downstream populations of California red-legged frogs are expected.

4.2.4 Two-striped Garter Snake

Project Impacts

Project impacts on two-stripe garter snake will be less than significant since the proposed Project's bank stabilization feature and bridge abutments will be constructed at the toe of steep cliffs, outside of the riparian corridor and away from existing snake habitat. No adverse change to foraging habitat is expected from implementation of the Project.

The Flood Technical Report (PACE 2006) found that there would be no significant impacts in water flows, velocities, depth, sedimentation, or floodplain and channel conditions downstream of the Project site as a result of the proposed Project improvements. These hydraulic effects were also found to be insufficient to alter the amount, location and nature of aquatic and riparian habitats in the Project area and downstream into Ventura County. The technical analysis further determined that the river would still retain sufficient width to allow natural fluvial processes to continue; and, as a result, the mosaic of habitats in the river that support various sensitive species would be maintained, and the population of the species within and immediately adjacent to the river corridor would not be significantly affected. Based on that technical assessment, no impacts to downstream populations of the two-striped garter snake are expected.

The Mission Village Water Quality Technical Report (GeoSyntec 2006) indicates that the modeled concentrations in runoff from developed areas with Project Design Features (PDFs) are below all benchmark water quality objectives and criteria and TMDL waste load allocations for the Santa Clara River and are addressed by a comprehensive site design, source control, and treatment control strategy. These water quality objectives are established to protect various beneficial uses including general wildlife, sensitive, rare and endangered species. Therefore, potential impacts from the Project on receiving water quality and beneficial uses in the Santa Clara River are not significant. Based upon that Report, no impacts to potential adjacent or downstream populations of two-striped garter snakes are expected.

4.2.5 Southwestern Pond Turtle

Project Impacts

Project impacts on southwestern pond turtles will probably include temporary or permanent alteration of aquatic channel foraging habitat consequent to construction activities (primarily related to the construction of bridge piers) and possible loss of basking areas. However, no long-term effects from bank stabilization are expected as long as adjacent channels continue to exist. Oviposition habitat on the south bank and downstream will likely not be affected by bank stabilization or bridge abutments.

The Flood Technical Report (PACE 2006) found that there would be no significant impacts in water flows, velocities, depth, sedimentation, or floodplain and channel conditions downstream of the Project site as a result of the proposed Project improvements. These hydraulic effects were also found to be insufficient to alter the amount, location and nature of aquatic and riparian habitats in the Project area and downstream into Ventura County. The technical analysis further determined that the river would still retain sufficient width to allow natural fluvial processes to continue; and, as a result, the mosaic of habitats in the river that support various sensitive species would be maintained, and the population of the species within and immediately adjacent

to the river corridor would not be significantly affected. Based on that technical assessment, no impacts to downstream populations of the southwestern pond turtle are expected.

The Mission Village Water Quality Technical Report (GeoSyntec 2006) indicates that the modeled concentrations in runoff from developed areas with Project Design Features (PDFs) are below all benchmark water quality objectives and criteria and TMDL waste load allocations for the Santa Clara River and are addressed by a comprehensive site design, source control, and treatment control strategy. These water quality objectives are established to protect various beneficial uses including general wildlife, sensitive, rare and endangered species. Therefore, potential impacts from the Project on receiving water quality and beneficial uses in the Santa Clara River are not significant. Based upon that Report, no impacts to potential adjacent or downstream populations of southwestern pond turtles are expected.

5. REFERENCES

Aquatic Consulting Services, Inc. 2002a. Aquatic Surveys Along the Santa Clara River Part I: Castaic Junction Project Area, Los Angeles County, California. Aquatic Consulting Services, Inc., April 2002.

Aquatic Consulting Services, Inc. 2002b. Aquatic Surveys Along the Santa Clara River Part III: West of Commerce Center Bridge to the Ventura County Line, California. Aquatic Consulting Services, Inc., June 2002.

Balance Hydrologics, Inc. 2005. Assessment of Potential Impacts Resulting From Cumulative Hyromodification Effects, selected Reaches of The Santa Clara River, Los Angeles County, California. Balance Hydrologics, Inc., October 2005.

Bury, R. B. 1986. Feeding ecology of the turtle *Clemmys marmorata*. Journal of Herpetology 20:515-521.

California Department of Fish and Game (CDFG). 2002. California Wildlife Habitat Relationships System. California Interagency Wildlife Task Group, Sacramento, California.

California Department of Fish and Game. 2004. RareFind3. California Natural Diversity Database.

CAS. 2004. California Academy of Sciences Department of Herpetology Collections Catalogue.

Compliance Biology, Inc. 2004. Results of focused surveys for arroyo toad and special-status aquatic reptiles and amphibians, River Village Project; Newhall Ranch, Valencia, California. Compliance Biology, Inc., October 2004.

Ecological Sciences, Inc. 2001. Permit submittal requirements, TE 808242, arroyo toad surveys, Los Angeles County, California, August 2.

Ecological Sciences, Inc. 2002. Results of focused arroyo toad surveys, Auto Center Expansion Project and Hart Baseball and Softball Complex (Hart Complex Area), Santa Clarita, California, June 24.

Ecological Sciences, Inc. 2003a. Results of Focused Arroyo Toad Surveys, Castaic Reservoir Site, Santa Clarita, California, August 27.

Ecological Sciences, Inc. 2003b. Results of Focused Arroyo Toad Surveys, Hart/Pony Commercial Site, Santa Clarita, California, August 21.

Ecological Sciences, Inc. 2003c. Results of Focused Arroyo Toad Surveys, NRMP Project Area, Santa Clarita, California, August 31.

Ecological Sciences, Inc. 2003d. Results of Focused Arroyo Toad Surveys, Round Mountain Site, Santa Clarita, California, August 25.

Ecological Sciences, Inc. 2003e. Results of Focused Arroyo Toad Surveys, Soledad Site, Santa Clarita, California, August 23.

Ecological Sciences, Inc. 2003f. Results of Focused Arroyo Toad Surveys, Castaic Creek, Santa Clarita, California, August 31.

Ecological Sciences, Inc. 2004a. Results of Focused Arroyo Toad Surveys, Portions of Santa Clara River/South Fork, Santa Clarita, California, August 21.

Ecological Sciences, Inc. 2004b. Results of Focused Arroyo Toad Surveys, Castaic Creek, Santa Clarita, California, August 11.

Ecological Sciences, Inc. 2004c. Results of Focused Arroyo Toad Surveys, San Francisquito Creek, Santa Clarita, California, August 25.

Ecological Sciences, Inc. 2004d. Results of Focused Arroyo Toad Surveys, NRMP Solodad/Riverpark Area, Santa Clarita, California, August 29.

Ecological Sciences, Inc. 2005a. Results of Focused Arroyo Toad Surveys, Castaic Creek, Santa Clarita, California, August 17.

Ecological Sciences, Inc. 2005b. Results of Focused Arroyo Toad Surveys, San Francisquito Creek, Santa Clarita, California, August 21.

GeoSyntec Consultants. 2006. The Draft Newhall Ranch Specific Plan Sub-Regional Stormwater Mitigation Plan.

Hayes, M. P. & Jennings, M. R. 1989: Habitat correlates of distribution of the California red-legged frog (*Rana aurora draytonii*) and the foothill yellow-legged frog (*Rana boylii*): Implications for management. In: Management of amphibians, reptiles, and small mammals in North America, Proceedings of the symposium on the [July 19-21, 1988-Flagstaff, Arizona]. Vol. Technical Report RM - 166 (Szaro, R. E., Severson, Kieth E., Patton, David R. (technical coordinators) ed). USDA. pp. 1-458.

Holland, D. 1991. A synopsis of the ecology and status of the western pond turtle (*Clemmys marmorata*) in 1991. Report prepared for U.S. Fish and Wildlife Service, National Ecology Research Center, San Simeon, California.

Impact Sciences, Inc. 2001. Results of Focused Surveys for Arroyo Toad and Special-Status Aquatic Reptiles and Amphibians within the Newhall Ranch area, Los Angeles County, California. Impact Sciences, Inc., Spring 2001. September 19, 2001.

Impact Sciences, Inc. 2003. Results of Focused Unarmored Threespine Stickleback and Other Special-Status Fish Species, Newhall Ranch, Valencia California. Impact Sciences, Inc., January 2003.

Impact Sciences, Inc. 2003. Revised Additional Analysis for the Newhall Ranch Specific Plan and Water Reclamation Plant Final Program EIR, Volume VIII (May 2003), Section 2.3, Floodplain Modifications.

Jennings, M R. and M. Hayes. 1994. Amphibian and Reptile Species of Special Concern in California. California Department of Fish and Game, Rancho Cordova, California.

Pacific Advanced Civil Engineering, Inc. (PACE). 2006. Flood Technical Report for Mission Village. Prepared for Newhall Land.

Rossman, D.A. and G.R. Stewart. 1987. Taxonomic reevaluation of *Thamnophis couchii*. Occasional papers of the Museum of Zoology, Louisiana State University, No. 63, 23pp.

Stebbins, R.C. 1951. Amphibians of Western North America. University of California Press, Berkeley, California.

Stewart, G.R. 1972. An unusual record of sperm storage in a female garter snake (Genus *Thamnophis*). Herpetologica 28:346-347.

Sweet, S. 1992. Ecology and status of the arroyo toad (*Bufo microscaphus californicus*) on the Los Padres National Forest of Southern California, with management recommendations. Contract Report to USDA Forest Service, Los Padres National Forest, Goleta, California.

Sweet, S. 1993. Second report on the biology and status of the arroyo toad (*Bufo microscaphus californicus*) on the Los Padres National Forest of Southern California. Contract Report to USDA Forest Service, Los Padres National Forest, Goleta, California.

Swift, C. C., T. R. Haglund, R. Fisher, and M. Ruiz. 1993. Status and distribution of the freshwater fishes of southern California. Bull. S. Calif Acad. Sci., 92(3):101-167.

UC Berkeley. 2004. Museum of Vertebrate Zoology online Data Access.

U.S. Army Corps of Engineers. 2003. Amended 404 Permit (No. 940050400-BAH) for Natural River Management Plan. U.S. Army Corps of Engineers, June 2003.

U.S. Fish and Wildlife Service, 1985. Recovery Plan for the Unarmored Threespine Stckleback, Revised. U.S. Fish and Wildlife Service, Portland, Oregon.

U.S. Fish and Wildlife Service, 1999a. Survey protocol for the arroyo toad. USFWS, Ventura, California.

U.S. Fish and Wildlife Service, 1999b. Recovery Plan for the Arroyo Southwestern Toad. U.S. Fish and Wildlife Service, Portland, Oregon.

U.S. Fish and Wildlife Service. 2001. Final determination of critical habitat for the California red-legged frog. Federal Register 66(49): 14626-14758.

U.S. Fish and Wildlife Service. 2002a. Biological Opinion for the Natural River Management Plan, Santa Clarita, Los Angeles County, California (1-8-02-F-4R) (File No. 940050400-BAH). U.S. Fish and Wildlife Service, November 2002.

U.S. Fish and Wildlife Service. 2002b. Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*). U.S. Fish and Wildlife Service, Portland, Oregon. viii + 173 pp.

U.S. Fish and Wildlife Service. 2004a. Proposed Designation of Critical Habitat for the California red-legged frog (*Rana aurora draytonii*). 50 CFR Part 17, 69 FR 19620-19642, April 13, 2004.

U.S. Fish and Wildlife Service. 2004b. Proposed Designation of Critical Habitat for the Arroyo Toad. 50 CFR Part 17, 69 FR 23254-23328, April 28, 2004.

U.S. Fish and Wildlife Service. 2005. 50 CFR, Federal Register, Final Rule, Vol. 70, No. 70, April 13, 2005). Final Designation of Critical Habitat for the Arroyo Toad; Final Rule. April 13.

U.S. Fish and Wildlife Service. 2006. 50 CFR, Federal Register, Final Rule, Vol. 71, No. 71, April 13, 2005). Designation of Critical Habitat for the California Red-Legged Frog and Special Rule Exemption Associated With Final Listing for Existing Routine Ranching Activities; Final Rule. April 13.

Valencia Company. 1998. Final EIS/EIR: 404 Permit and 1603 Streambed Alteration Agreement for Portions of the Santa Clara River and its Tributaries, Los Angeles County. Valencia Company, August 1998.

Valencia Company. 1998 Natural River Management Plan: Permitted Projects and Activities. Santa Clara River and tributaries. Valencia Company, November 1998.

6. LIST OF PREPARERS

ENTRIX, Inc. and Ecological Sciences, Inc.

- Camm Swift, Ph.D., Senior Fisheries Scientist, ENTRIX, Inc: conducted field reconnaissance survey and background document review; prepared technical discussion of issues related to stickleback and fish.

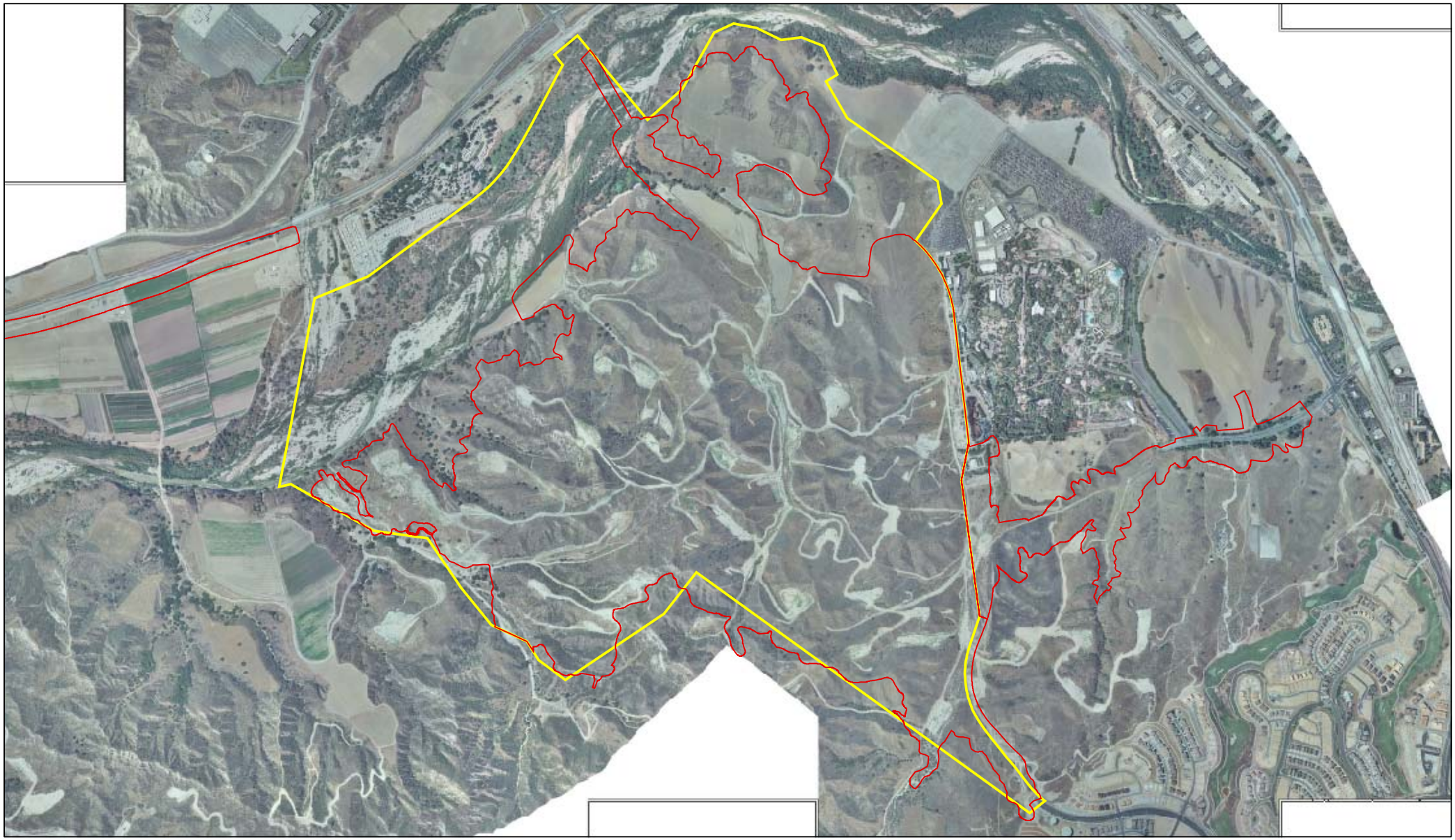
- Steve Howard, Project Manager and Project Fisheries Scientist, ENTRIX, Inc: coordination and management of ENTRIX and Ecological Sciences technical staff, assisted field reconnaissance survey and background document review; supported technical discussion of issues related to stickleback and fish.

- Scott Cameron, Principal Biologist, Ecological Sciences, Inc: assisted field reconnaissance survey and background document review; supported technical discussion of issues related to special-status amphibians and reptiles.

- Resumes for these preparers are included in Appendix B.

APPENDIX A

FIGURES

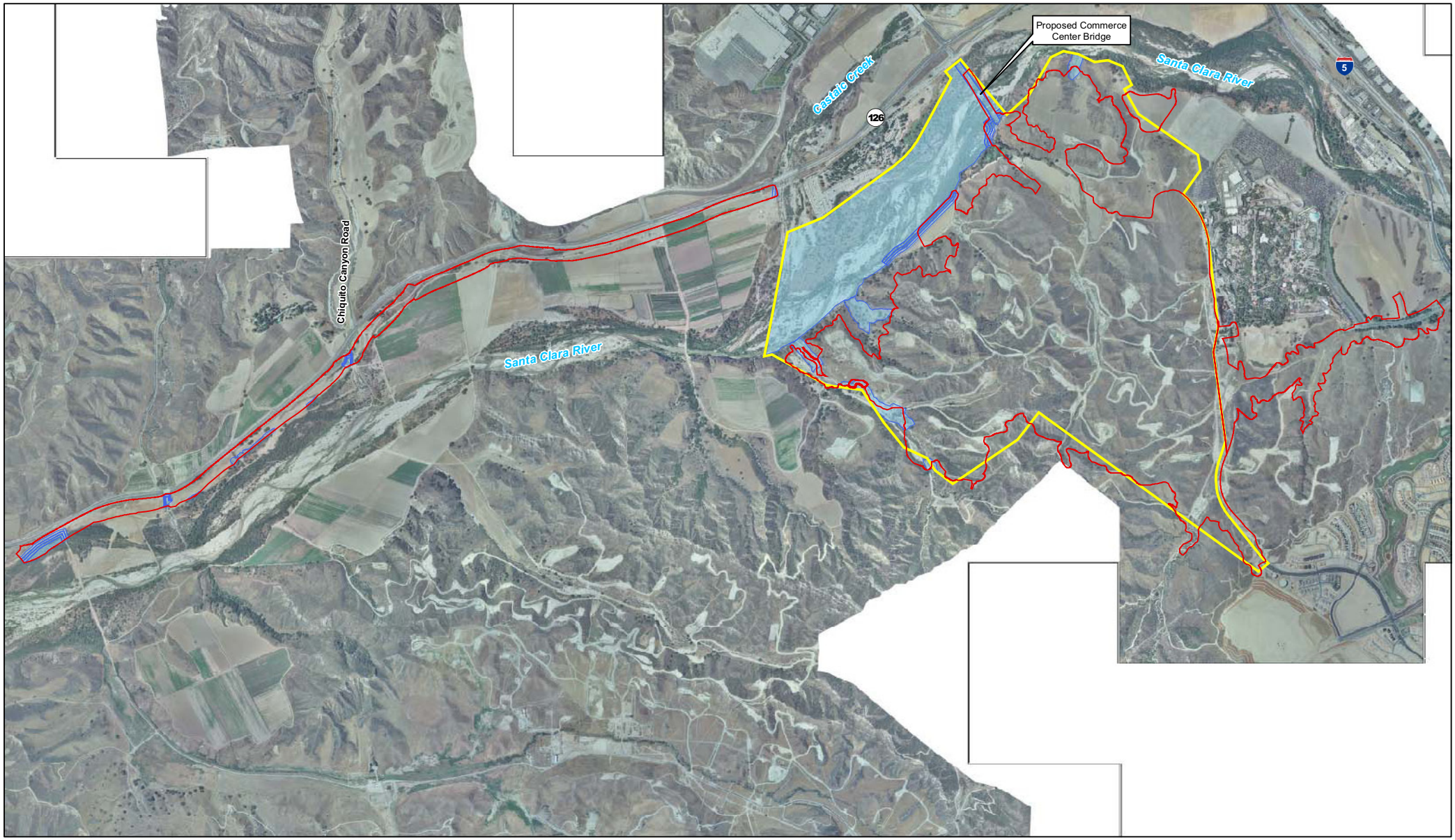


0 0.125 0.25 0.5 Miles

Figure 1 - Newhall Ranch
Mission Village Project

Mission Village Planning Boundary
Mission Village Grading Limit Line

Source: Imagery - 2003, Grading Limit and Planning Bnd. - 2006, PSOMAS.



0 0.25 0.5 1 Miles

Figure 2
Mission Village Project Floodplain Modification Features

Mission Village Grading Limit Line
Mission Village Planning Boundary
Bank Stablization Areas

Source: Imagery - 2003, Grading Limit and Planning Bnd. - 2006, PSOMAS.
Bank Stabilization Areas - (d2-05_BankStab_pc042505.shp) - 2006, PACE.

APPENDIX B

RESUMES OF PREPARERS

ENTRIX
ENVIRONMENTAL CONSULTANTS

Camm Churchill Swift, Ph.D.

Sr. Project Scientist

Discipline/Specialty

- Ichthyology
- Fishery Biology
- Estuarine Biology

Education

- Ph.D., Department of Biology, Florida State University, Tallahassee, 1970
- M.A., Department of Zoology, University of Michigan, Ann Arbor, 1965
- A.B., Department of Zoology, University of California, Berkeley, 1963

Professional Affiliations

- American Fisheries Society, including California-Nevada Chapter
- Estuarine Research Federation, including California Estuarine Research Society
- Southern California Academy of Sciences
- Western Field Ornithologists, and California Native Plant Society

Summary of Qualifications

Swift is one of the leading authorities on the biology, management, and conservation of the fresh and brackish water fishes of coastal southern California. He has worked with a wide variety of public and private agencies for many years to conserve these species and advise on habitat restoration for their benefit. He was appointed to the Unarmored Threespine Stickleback Recovery Team and currently serves on the Technical Recovery Teams for tidewater goby (U. S. Fish and Wildlife Service) and southern steelhead (National Marine Fisheries Service).

Relevant Experience

Research Interests

The biology, conservation, and paleontology of freshwater and estuarine fishes, recently in coastal southern California, including the federally endangered brackish water species, the tidewater goby, *Eucyclogobius newberryi*, the migratory (anadromous) and federally listed steelhead (*Oncorhynchus mykiss*), and the federally threatened Santa Ana sucker (*Catostomus santaanae*). Of about eight species of freshwater fishes native to the Los Angeles Basin, the Santa Ana sucker, Santa Ana speckled dace (*Rhinichthys csculus ssp*.), and arroyo chub (*Gila orcutti*) are endemic here and have been highly impacted by man. The tidewater goby, narrowly adapted to the upper brackish estuarine zone of the aquatic habitat continuum, contributes to the understanding of the evolution of organisms into the estuarine habitat, and the evolution of north Pacific marine faunas in general. The severe alteration of freshwater and estuarine habitat in much of California has led to most of the freshwater and brackish water species having special conservation status. For years several of my studies on the biology, distribution, and conservation of all four of these species have helped shape management and recovery strategies for them

Contracts and Consulting

Freshwater fishes of southern California.

Supervised crews of three to six graduate students surveying the estuarine and freshwaters of southern California for fishes for four months and prepared report for the California Department of Fish and Game on the status and distribution of these fishes, at Natural History Museum of Los Angeles County.

Status of the native freshwater fishes of southern California, including the status of the estuarine tidewater goby, *Eucyclogobius newberryi*, with recommendations for preserves to maintain their existence. California Department of Fish and Game Contract FG-7455, one year. Compiled data bases on fish records collaborating with Peter Moyle, U. C. Davis, to incorporate data into the California Department of Fish and Game's Natural Heritage Data Base, at Natural History Museum of Los Angeles County.

Cooperative Agreement between National Biological Service (now part of USGS) and Loyola Marymount University for study of the biology of the federally endangered tidewater goby on Vandenberg Air Force Base, Santa Barbara County. Included three to four paid undergraduate research assistants at Loyola Marymount University.

Analyzed bottom samples from Delta Mendota Canal, central California, for invertebrate densities of the Asiatic clam, *Corbicula fluminea*, as a research assistant Zoology Department, University of California, Berkeley.

Identified freshwater and coastal fish habitats to determine Significant Ecological Areas for Regional Planning Department, Los Angeles County, via contract to Natural History Museum of Los Angeles County.

Co-author, U.S. Fish and Wildlife Service Recovery Plan for Endangered Unarmored Threespine Stickleback, as member of Unarmored Threespine Stickleback Endangered Species Recovery Team.

Expert panel, habitat suitability criteria and curves for three native cyprinoid fishes (state species of special concern) of the Santa Ana River, southern Calif., EA Engineering and Technology (Lafayette, CA) for Southern California Edison Company.

Surveyed for freshwater fishes of the Los Angeles River. Field work and report writing, as part of contract from the California Department of Fish and Game to the Natural History Museum of Los Angeles County, to assess the fauna and flora of the river.

Monitored populations of native federally endangered fish species during streambed alterations in the Santa Clara River, southern California with San Marino Environmental Associates, San Marino, CA. Both field work and report writing.

Advised Six Agency committee [of southern California water and power purveyors, including Metropolitan Water District of Southern California] on the quality and rationale for U.S. Fish and Wildlife Service Critical Habitat designations for endangered big river fishes of the Colorado River, southwestern United States, with San Marino Environmental Associates, San Marino, CA. Literature research, report writing.

Surveyed for the proposed endangered fish, the tidewater goby, in coastal estuaries of Camp Pendleton Marine Base, southern California, contract through San Marino Environmental Associates, San Marino, CA. Field work and report preparation.

Surveyed for the federally endangered tidewater goby in the estuarine Shuman Lagoon, Vandenberg Air Force Base, Santa Barbara County, CA. for U.S. Fish and Wildlife Service, Ventura Field Office,

Analyzed diet of the endangered bird, the least tern, with Patricia Baird, Department of Biology, California State University, Long Beach. Under U.S. Navy contract (to P. Baird) at Long Beach, with three undergraduate research participants at Loyola Marymount University.

Prepared draft recovery plan for tidewater goby, with U. S. Fish and Wildlife Service, Ecological Services, Ventura California.

Prepared historical analysis of coastal estuaries, habitat change, and restoration options for the estuary at the mouth of the Santa Maria River, Santa Barbara County, CA for California Department of Fish and Game Oil

Response Team, for its contribution to the Trustees of Guadalupe Site, through Hagler-Bailly Inc., Boulder, Co. Field work, research and report writing.

Surveyed for the endangered fish species, the tidewater goby on Marine Corps Base Camp Pendleton, coastal southern California, and provide recommendations for maintenance and improvement of habitat for the species on the Base. With Dan Holland, Camp Pendleton Amphibian and Reptile Survey, Fallbrook, CA for Marine Corps Base Camp Pendleton

Prepared management plan for exotic fishes on Marine Corps Base Camp Pendleton, including methods for removal of exotics and for prevention or minimizing their impact on native aquatic species. With Dan Holland (Principal Investigator), Camp Pendleton Amphibian and Reptile Survey, Fallbrook, CA.

Surveyed for native and introduced freshwater fishes in the middle Santa Ana River in the Prado Dam vicinity with special reference to Santa Ana sucker and arroyo chub. For U. S. Army Corps of Engineers, Los Angeles through Larry Muncey International, Tustin, CA.

Survey, downstream trapping, and analysis of habitat quality for the three endangered fishes (southern steelhead, tidewater goby, and unarmored threespine stickleback) in San Antonio Creek, Santa Barbara County for Vandenberg Air Force Base, with Tetra Tech, Inc., Santa Barbara.

Survey, downstream trapping, and food habit studies of Santa Ana suckers in the Santa Ana River to document movements into diversions and impact of exotic species on suckers. Phase II for Santa Ana Water Project Authority, Riverside, through Larry Muncey International, Tustin, CA.

Expert witness on Southern California Minnow/sucker community for California Department of Fish and Game in their arbitration with Foothill Golf and Development, State Superior Court, Los Angeles, No. 99-0600-DW (This fish community consists of Santa Ana sucker, Santa Ana speckled dace, and arroyo chub).

Prepared preliminary assessment of impacts of shore dredging on the fisheries of Big Bear Lake, for Big Bear Municipal Water District with Montgomery and Watson, Pasadena.

Surveyed and estimated population sizes of endangered unarmored threespine stickleback and tidewater goby, and analyze steelhead habitat on several drainages on Vandenberg Air Force Base with Tetra Tech, Inc., Santa Barbara.

Monitored population of tidewater goby in San Luis Obispo Creek Lagoon in relation to Avila Beach clean up site. For Unocal through Essex Environmental, San Luis Obispo.

Surveyed for tidewater gobies in Santa Clara River Lagoon, Ventura County. For City of Ventura with Entrix, Inc., Oxnard, CA.

Surveyed for populations of sensitive native freshwater fish in the Santa Ana River near Colton and Loma Linda for ENSR, Camarillo, CA.

Surveyed for populations of native fishes in the Santa Ana River in the vicinity of the Interstate 210 crossing. For Cal Trans with Sapphos Environmental, Pasadena, CA.

Monitored for Santa Ana suckers and assess effects of bridge maintenance, sand mining, and alternative bridge design on this fish. For Riverside County Transportation Department, through Tierra Madre Associates and Ogden Environmental (now AMEC Earth and Environmental, Ltd.), Riverside, CA.

Surveyed for the federally endangered tidewater goby in lower San Luis Rey River, CA. with Camp Pendleton Amphibian and Reptile Survey, Fallbrook, CA and MBC Applied Environmental Sciences, Inc., Costa Mesa, CA.

Surveyed and monitoring for the federally endangered tidewater goby in San Mateo Lagoon, Camp Pendleton Marine Corps Base with recommendations for restoration and recovery with Merkel and Associates, San Diego CA.

Interaction of native and exotic freshwater fishes during El Nino disturbance in the Santa Margarita River, southern California. With USGS Laboratory, San Diego State University with partial support of the Nature Conservancy.

Determined possible effects on steelhead of UNOCAL remediation of soil contamination in the vicinity of the lower Santa Maria River. With Jordan Environmental Services, Atascadero, CA.

Reviewed and assessed mitigation features for Seven Oaks Dam on the Santa Ana River in relation to populations of Santa Ana sucker downstream. For the U. S. Army Corps of Engineers via MEC Analytical Inc., Carlsbad, CA.

Reviewed and assessed mitigation plans and Biological Assessments for tidewater goby and steelhead in relation to Lower Mission Flood Control Project of U. S. Army Corps of Engineers. For City of Santa Barbara, CA.

Surveyed for fishes and assess possible impacts of the construction of a pipeline crossing over Dominguez Channel in Wilmington. With RAM Environmental Engineering Services, Inc., Bakersfield.

Directed surveys for Santa Ana speckled dace in lower Fremont, Blackstar, and Silverado canyons, Orange County. With Harmsworth and Associates, Inc., Dove Canyon, CA.

Surveyed for native freshwater fishes and advise on mitigation for quarry operations at the mouth of Fish Canyon, near Azusa, CA. For Cal Mat Corporation through Chambers Group, Irvine, CA.

Implemented eradication plan for exotic fishes in Los Angeles County Public Works mitigation area of lower Big Tujunga Canyon-Haines Creek area. With Camp Pendleton Amphibian and Reptile Survey, Fallbrook, CA, subcontract with Chambers Group, Irvine, CA, for Los Angeles County Department of Public Works.

Identified freshwater fossil fish remains from a variety of late Pleistocene freshwater sites in Riverside County. With L and L Environmental, Riverside, CA and Paleo Environmental Associates, Pasadena, CA .

Monitored, rescued, and transferred federally threatened Santa Ana suckers from diversion of Santa Ana River, Orange County. For U. S. Corps of Engineers through San Marino Environmental Associates, San Marino, CA.

Provideed assessment of impacts of changes in water flow from San Bernardino Infiltration and Extraction Wastewater Treatment Facility (RIX) on populations of Santa Ana sucker. For City of San Bernardino with Albert Webb Associates, Riverside.

Surveyed for native fishes in relation to highway crossing of streams at Temecula Creek, San Diego County and Chino Creek, San Bernardino county. For CalTrans with AMEC Earth and Environmental, Ltd., Riverside, CA.

Provided assessment of impacts and mitigation possibilities for native sensitive fish species in lower San Juan Creek, Orange County and lower San Mateo Creek, northern San Diego County for various alternatives of the proposed new highways. For Foothill/Eastern Transportation Corridor Agency with P and D Consultants, Orange, CA.

Provided expertise and field work to study steelhead in Topanga Creek including snorkel surveys, habitat assessment, and up and downstream migrant trapping. With Resource Conservation District of the Santa Monica Mountains, Topanga, CA.

Employment History

- ENTRIX, Inc., Senior Project Scientist, Ventura, CA, September, 2003-present
- Emeritus Associate Curator, Natural History Museum of Los Angeles County, January, 1993-present
- Part-time instructor, Mount San Antonio College, 1993-1994
- Visiting Assistant Professor of Biology, Loyola Marymount University, Los Angeles, 1994-1998.
- Part-time instructor, East Los Angeles, Rio Hondo, and Valley colleges, 1993-1994, 1998-1999.
- Associate Curator of Fishes, Natural History Museum of Los Angles County; and Adjunct Assistant Professor of Biology, University of Southern California, 1970-1993.

Publications

Peer-Reviewed, Published Papers

- 1993. Swift, T. H. Haglund, M. Ruiz, and R. Fisher. Status and distribution of the freshwater fishes of southern California. Bull. S. Calif. Acad. Sci., 92(3):101-168.
- 1996. Chapter 30. Distribution and migration. Pp. 595-630. (excluding literature cited in single collection at end of book). In: Carl Bond. Biology of Fishes, (textbook) Second Edition. Harcort, Brace, and Co., Philadelphia.
- 1996. Lafferty, K., R. Swenson, and C. C. Swift. Tidewater goby; endangered species profile. Environmental Biology of Fishes, 46:254.
- 1998. The fish fauna of Ballona Marsh, an urban estuary on the western of the Los Angeles Basin. p. 1427 (Abst). In: Orville T. Magoon, et al. Eds, California and the World Ocean ’97. 2 vols. American Society Civil Engineers, Reston, VA
- 1999. K. Lafferty, C. C. Swift and R. Ambrose. Postflood persistence and recolonization of endangered tidewater goby populations. North American Journal of Fisheries Management, 19(2):618-622.

- 1999. Lafferty, K., C. C. Swift, and R. Ambrose. Extirpation and recolonization in a metapopulation of an endangered fish, the tidewater goby. Conservation Biology, 13(6):1447-1453.
- 2002. Swift, K. Hieb, and R. Swenson. Family Gobiidae. pp. 7-9. IN: William S. Leet, Christopher M. Dewees, Richard Klingbeil, and Eric J. Larson (editors), California's Living Marine Resources: A status report. The Errata. California Department of Fish and Game, Sacramento, CA (December, 2001) (www.dfg.ca.gov/mrd) [The larger work appeared in hard copy in earliest 2002 minus this Gobies article later added to an electronic Errata on the web site for inclusion in the Section on Bay and Estuarine Finfish Resources]
- 2002. M. N. Dawson, K. D. Louie, M. Barlow, D. K. Jacobs, and C. C. Swift. Comparative phylogeography of sympatric sister species, *Clevelandia ios* and *Eucyclogobius newberryi* (Teleostei, Gobiidae), across the California transition zone. Molecular Ecology, 11, 1065-1075.
- 2002. Swift and D. C. Holland. Exotic Fish species and their impacts on small costal lagoons in southern California. (Abst.) Bull. S. Calif. Acad. Sci., 101(2), Supplement, p. 32
- 2002. Interaction between native fish, habitat, and exotic fish species in the middle Santa Ana River, southern California. (Abst.) Bull. S. Calif. Acad. Sci., 101(2), Supplement, p. 32.
- 2002. Chapter 29. Distribution. Pp. 601-638. In: Michael Barton. Bond's Biology of Fishes. 3rd Edition. Thompson Brooks/Cole, Belmont, CA (publication date of 2007 mistakenly printed inside cover)
- (In preparation) with Richard Feeney. Description and ecology of free-swimming larvae and juveniles of Santa Ana sucker, Santa Ana speckled dace, and arroyo chub.

Grants

- Research collaborator with Dr. George Dales. Use of freshwater, estuarine, and marine fishes by the Harappan Culture of coastal Pakistan. Smithsonian Foreign Currency Program, 3 years.
- Co-principal investigator with Lawrence Barnes and Edward D. Mitchell. NSF EAR-7916508, Paleoecology of the Sharktooth Hill Bonebed. 2 years.
- Research collaborator with Drs. Brent Berlin and James L. Patton. (co-principal investigators). NSF BSN-7916746. Field research in ethnobiological anthropology in the Peruvian Amazon, 3 years.
- Co-principal investigator with Robert J. Lavenberg. NSF DEB-8008088. Development of Ichthyological Resources (at the Natural History Museum of Los Angeles County), 3 years.
- Co-principal investigator (with Judith Chovan). A national traveling exhibition on the biology of sharks. NSF Pre-College Education Grant MDR-8751868, 2 years.

Curatorial and Field Experience

- Curated wet fish specimens and dry fish skeletons in the collections of the Museum of Zoology, University of Michigan; Florida State University; and Section of Fishes, Natural History Museum of Los Angeles County. Expeditionary work in Caribbean Honduras; Pacific coastal Mexico and Costa Rica; Indus Delta, Pakistan; Amazonian foothills, northern Peru; and Miocene Sharktooth Hill Bonebed, California. Numerous smaller trips for recent freshwater and estuarine fishes, particularly in the southeastern United States and coastal California.

Professional Activities

- Various elected and appointive positions in the California-Nevada Chapter of the American Fisheries Society, Southern California Academy of Sciences, and American Society of Ichthyologists and Herpetologists. Secretary, Vice-president, and President of the Academy; elected President-elect, and proceeded to President, and past President of California Nevada Chapter, 1997-1999. Served on host committees for Los Angeles meetings of the American Society of Ichthyologists and Herpetologists (twice), Society of Vertebrate Paleontology, California-Nevada Chapter of the AFS, and the Southern California Academy of Sciences (three times).

- Member, Unarmored Threespine Stickleback Endangered Species Recovery Team (1972-1995), the Technical Recovery Team for the Tidewater Goby (2003-present), both for U.S. Fish and Wildlife Service, and member of the Southern Steelhead Technical Recovery Team (2003-present) for the National Marine Fisheries Service.

Awards, Honors

- Elected Fellow of the Southern California Academy of Sciences, 1991; Emeritus Associate Curator of Fishes, Natural History Museum of Los Angeles County, 1993; Award of Excellence from California Nevada Chapter of the American Fisheries Society, 1997.

Presentations (1999 onward, Swift presented unless otherwise noted)

- The disappearing fishes of southern California. In: Swimming Upstream: Restoring California's rivers and streams for salmon, steelhead and other species. Educational Workshop sponsored by the Sierra Club and California Trout, 12 June 1999, Los Angeles Zoo, Los Angeles, CA

- Biodiversity and conservation of the freshwater fishes of southern California. (with Jonathan Baskin) In: Planning for Biodiversity: Bringing research and management together. A symposium sponsored by the USDA Forest Service and USGS Western Ecological Research Center. California State Polytechnic University, Pomona, 29 February-2 March 2000.

- Dramatic effects of rainfall on species distributions in the Santa Margarita River. (with Manna Warburton [presenter] and Robert N. Fisher), California-Nevada Chapter, American Fisheries Society, 34th Annual Meeting, Ventura, CA 31 March-1 April 2000.

- Freshwater fishes of the Los Angeles River, southern California. (with Jeffrey Seigel and Dan Holland), and Fish population fluctuations 1997-2000 in small lagoons on Marine Corps Base Camp Pendleton. (with Dan Holland), Annual Meeting, Southern California Academy of Sciences, University of Southern California, Los Angeles, CA 19-20 May 2000.

- El Nino effects on the native and exotic fish populations of the Santa Margarita River southern California. (with Robert N. Fisher [presenter] and Manna Warburton). Society for Conservation Biology Annual Meeting, Hilo Hawaii, 29 July-Aug. 1, 2001.

- El Nino effects on estuarine fish populations associated with the southernmost populations of tidewater goby, 1990-2001 (with Dan Holland), and The federally threatened Santa Ana sucker in the Santa Ana River-Distribution, habitat, and exotic predators. Ann. Meeting, California Nevada Chapter American Fisheries Society, Tahoe City, CA April 19-20, 2002

- Exotic fish species and their impacts on small coastal lagoons in southern California (with Dan Holland, presenter), and Interaction between native fish, habitat, and exotic fish species in the middle Santa Ana

River, southern California. Annual. Meeting, Southern California Academy of Sciences, Claremont, CA June 7-8, 2002.

- Fish populations of small coastal lagoons in southern California. California Estuarine Research Society, Inaugural Meeting, Hubbs Sea World Research Institute, San Diego, CA, April 14, 2003

- Status of and prognosis for the freshwater fishes of coastal southern California. Swift [presenter], Jonathan N. Baskin, Robert Fisher, and Thomas Haglund; Status, Habitat, and restoration of southern Steelhead in Topanga Creek and State Park, just south of Malibu Creek. Rosi Dagit [presenter] and Swift; Visual Display of stream habitat survey profiles using GIS: An example from Topanga Creek, coastal Southern California. Kevin Reagan [presenter], Rosi Dagit, and Swift; and a Poster: Genetic structure in the staghorn sculpin from Alaska to southern California. Kristina D. Louie [presenter], K. P. Kloepfli, D. K. Jacobs, and Swift. Western Division/Cal-Neva Chapter of American Fisheries Society, Joint Annual Meeting, San Diego, April 14-17, 2003. In addition Swift organized two days of symposia on the freshwater fish, amphibian, and aquatic reptile fauna of coastal southern California.

Professional Societies

- American Fisheries Society, including California Nevada Chapter, Estuarine Research Foundation, American Society of Ichthyologists and Herpetologists, Desert Fishes Council, Southeastern Fishes Council, Society of Vertebrate Paleontology, Sigma Xi (Loyola Marymount University Chapter), American Association for the Advancement of Science, Southern California Academy of Sciences, Society for Conservation Biology, Society of Systematic Biology, Biological Society of Washington, Japanese Ichthyological Society, Western Field Ornithologists, and California Native Plant Society

ENTRIX
ENVIRONMENTAL CONSULTANTS

Steven R. Howard

Project Scientist

Discipline/Specialty

- Aquatic Invertebrate Ecology
- Fisheries Biology
- Habitat Assessments and Mapping
- IFIM/PHABSIM
- Limnology
- Salmonid Biology
- Stream and Estuarine Ecology
- Water Quality Assessment
- Environmental Monitoring

Education

- B.S., Fisheries: Humboldt State University, Arcata, CA, 1999

Training/Certifications

- California Department of Fish and Game. Resident Scientific Collecting Permit No. 801226-04
- USFWS Project Permitted Tidewater Goby Specialist in Ventura and Santa Cruz Counties
- Theory and Application of the Physical Habitat Simulation System, Utah State University, May 2002
- Sampling Theory and Design Workshop, Humboldt State University, March 2002
- Aquatic Ecological Assessment Workshop, CDFG, March 2002

Affiliations

- American Fisheries Society, Oregon and Cal-Neva Chapters since 1998

Summary of Qualifications

Mr. Howard is an interdisciplinary scientist with an emphasis on aquatic studies including fishery habitat assessment and population surveys, fish species identification, fisheries techniques, fish passage assessment, fish and aquatic invertebrate population analysis, water quality assessment, and wildlife population and escapement surveys. Mr. Howard has preformed numerous projects in aquatic habitats ranging from high elevation lakes and streams to coastal estuaries. Mr. Howard has also conducted projects including subsurface soil and groundwater investigations, environmental impact studies, environmental monitoring, and site closure and remediation. Mr. Howard has been involved in permitting large power projects and smaller instream projects throughout California.

Mr. Howard has conducted numerous fish population studies throughout many of the western states. Representative projects include chinook, steelhead and bull trout studies in northern California and Oregon, steelhead studies in central and southern California, various trout species studies in California, Oregon and Idaho, and native fish studies in Oregon and southern California. Mr. Howard has also conducted fish population surveys in southern and central California estuaries for the endangered tidewater goby.

Mr. Howard manages the majority of the aquatic projects in southern California. Proven management skills along with technical expertize with special status aquatic species, instream flow studies and mitigation compliance has been a key factor in the retention of on-call services contracts with several clients in southern California.

Relevant Experience

Fish and Wildlife Studies

McKenzie River Watershed Spring Chinook Population Study – Lane County, Oregon

Mr. Howard conducted chinook salmon spawning surveys, obtained biological samples from spawned-out salmon, collected downstream migrants, monitored fish passage though leaburg dam, and monitored bull trout migration under the Western Oregon Research and Monitoring Program. Mr. Howard conducted these projects for the Oregon Department of Fish and Wildlife.

Oregon State Elk Population Study – Lane County, Oregon

Mr. Howard managed an initial statewide effort to obtain elk teeth and tissue samples throughout the state of Oregon. This effort was successful and set precedent for future Oregon Department of Fish and Wildlife elk tissue collection efforts.

United Water Conservation District FERC Relicensing Project – Ventura County, California

ENTRIX, Inc. designed multiple studies under agency consultation during the FERC application process. Mr. Howard conducted fish population studies and identified fish species present in Piru Creek below Santa Felecia Dam, within Piru Lake and above the lake in Piru Creek.

United Water Conservation District Steelhead Migration Project – Ventura County, California

ENTRIX, Inc. directed fish passage monitoring and fish rescue consultation involving steelhead on the lower Santa Clara River. Mr. Howard was the lead fisheries biologist for the project. The Vern Freeman Diversion fish passage facility includes a fish ladder, fish screens, and a downstream migrant fish trap. During steelhead migration, facilities at the diversion were inspected for stranded steelhead and resident rainbow trout for relocation to the appropriate habitat. These operations were interim mitigation measures for section 10 incidental steelhead take.

PacifiCorp FERC Relicensing Project – Jackson County, Oregon

ENTRIX, Inc. conducted numerous aquatic studies under agency consultation during the FERC reliscencing application process. Mr. Howard analyzed fish population data in the upper Rogue River watershed to estimate salmonid population densities above and below dams.

Moyie River Fish Population Study – Bonner County, Idaho

ENTRIX, Inc. conducted a salmonid relative abundance survey in the Moyie River in Idaho. The survey was performed utilizing four divers at several gas pipeline river crossings. This was conducted in conjunction with past monitoring and a proposed expansion of the pipeline at the crossings in the Moyie River. Mitigation for each crossing consisted of installing Riprap wings to prevent bank Scour and rock-drop structures to form rearing and holding pools.

Ventura County Flood Control Tidewater Goby Project – Ventura County, California

ENTRIX, Inc. served as fisheries professional to the Ventura County Flood Control District during pipe maintenance in the Hueneme drain. A temporary impoundment was placed around the work area which trapped numerous fish including tidewater gobies. Mr. Howard identified fish species within the impoundment and relocated all fish away from the work area.

Ventura County Flood Control Bank Stabilization Project – Ventura County, California

ENTRIX, Inc. served as fisheries professional for Ventura County Flood Control District during a bank stabilization and habitat restoration project on the Sespe River. Mr. Howard was in charge of identifying fish species for relocation outside of the project boundary.

San Clemente Dam Retrofit Drawdown Project – Monterey County, California

ENTRIX, Inc. is conducting annual fish rescues upstream of San Clemente Dam and fish trapping and relocation activities to appropriate habitats downstream of San Clemente Dam for California-American Water Company. Water quality monitoring was also an important part of this project during the drawdown activities. Dissolved oxygen can drop dramatically during these types of projects. Aerators were installed throughout the reservoir to maintain adequate DO levels during the project. A low percentage of steelhead mortalities occurred during this project. Mr. Howard conducted fish rescues and relocations and water quality monitoring during this project. Mr. Howard was one of a few biologists permitted by NOAA Fisheries to conduct electrofishing and fish relocation activities during this project.

Haines Creek Native Fish Population Monitoring and Exotic Species Removal Project – Los Angeles County, California

ENTRIX, Inc. is involved in a multi-year fish population monitoring project on Haines Creek. Haines Creek is one of a few creeks that has sustaining populations of Santa Ana suckers and Santa Ana speckled dace. Numerous exotic species are also found in Haines Creek such as largemouth bass, green sunfish, mosquito fish and crawfish. Sampling is conducted by a 2-pass seining method in 200-meter sample sites.

San Lorenzo River Steelhead and Tidewater Goby Relocation Project – Santa Cruz County, California

ENTRIX, Inc. conducted steelhead and tidewater goby rescue and relocation activities during a bank stabilization project in the tidally influenced reach of the San Lorenzo River. A portadam was constructed around the work area and water was pumped out the impoundment. During fish rescue operations, Mr. Howard discovered the first known tidewater goby in the San Lorernzo River, which prompted further consultation to complete the project. Entrix, Inc. assisted in expediting this consultation process with the USFWS and NOAA Fisheries by monitoring water quality within the impoundment and describing tidewater goby habitat and in the San Lorenzo River.

Habitat Assessment Studies

Habitat Typing Projects – California and Oregon

ENTRIX, Inc. performs numerous habitat typing investigations for multiple clients throughout the United States. Mr. Howard has performed habitat typing field projects in northern California coastal rivers and in mountain streams in southern California and Oregon.

Steelhead Habitat and Passage Assessment – Ventura County, California

ENTRIX, Inc. conducted a steelhead habitat and passage assessment for the City of Ventura to be included in the Ventura River Habitat Conservation Plan. Mr. Howard was the lead fisheries biologist in charge of assessing steelhead habitat on North Fork Matilija Creek. A diversion facility on the Ventura River currently blocks access to headwater steelhead habitat in North Fork Matilija Creek and its tributaries. A fish passage facility is planned for construction in the near future allowing upstream migration to important steelhead habitat in the North Fork Matilija. This habitat assessment quantified spawning and rearing habitat for southern California steelhead trout.

Matilija Creek Steelhead Habitat Evaluation – Ventura County, California

ENTRIX, Inc. conducted a steelhead habitat evaluation for the Matilija Dam Ecosystem Restoration Project. Mr. Howard assisted a project team during this evaluation. The report supplemented the F3 Feasibility Study prepared by the US Army Corps of Engineers and Ventura County Flood Control District. The Matilija Dam project is the largest dam removal and restoration activity ever proposed in California. Restoration will connect endangered southern California ESU steelhead with nearly 50 percent of its historic Ventura River basin spawning and rearing habitat.

Salsipuedes Creek Fish Passage Project – Santa Barbara County, California

ENTRIX, Inc. modified an existing concrete apron to provide for fish passage along Salsipuedes Creek near Lompoc, California. Responsibilities included surveying, conducting site reconnaissance studies, preparing design drawings, permit information, and a grant application, and construction oversight. Mr. Howard assisted the project engineer on anadromous fish passage criteria for the project.

Bioassessment and Invertebrate Studies

Olympic View Sanitary Landfill Wetland Evaluation – Kitsap County,Washington

ENTRIX, Inc. conducted statistical analysis of previously collected data to evaluate relationships between chemical and physical water parameters and the abundance and diversity of macroinvertebrates in a wetland adjacent to the landfill. Stepwise regression analysis attempted to correlate species abundance and richness with water quality and chemistry to assess localized impacts. Mr. Howard conducted this statistical analysis and assisted the project team with the final report.

Santa Clara River Estuary Bioassessment – Ventura County, California

ENTRIX, Inc. designed and conducted this bioassessment study which involved stratified sampling of several estuarine habitats for benthic macroinvertebrates in the Santa Clara River Estuary. Mr. Howard was the lead field biologist on this project. The macroinvertebrate data characterized the assemblage diversity and develops relationships between species abundance, density, richness and microhabitat preferences (grain size, salinity tolerances, etc.). The objective of this study was to support the City and LAWRQCB in the development of defensible site-specific NPDES limits for metals discharged to the estuary.

Big Creek FERC Relicensing Bioassessment Project - Sierra National Forest, California

ENTRIX, Inc. performed this study under agency consultation for the SCE Big Creek FERC relicensing application process. Mr. Howard was a lead biologist on this bioassessment project. The project was conducted in a large portion of the South Fork San Joaquin River watershed. Macroinvertebrate sampling occurred above and below large dams and small diversions to assess Southern California Edison project impacts.

Instream Flow Studies/PHABSIM Modeling

United Water Conservation District FERC Relicensing IFIM Project – Ventura County, California

ENTRIX, Inc. conducted an instream flow study to determine the impacts of Santa Felicia Dam on the steelhead habitat in Piru Creek. Mr. Howard lead a crew comprised of client staff and sub-contractors.

United Water Conservation District FERC Relicensing Steelhead Migration Project– Ventura County, California

ENTRIX, Inc. conducted a migration study on the Santa Clara River downstream of Piru Creek to determine adequate flow releases that would facilitate steelhead upstream migration to Piru Creek.

Ventura River IFIM Project – Ventura County, California

ENTRIX, Inc. conducted this instream flow study to determine the impacts of dams and diversions on the steelhead habitat in the Ventura River. The results of this study will assist in the identification of factors potentially limiting fish populations in the effected reaches of the Ventura River and to determine appropriate minimum instream flows. Mr. Howard conducted the field investigation, PHABSIM Modeling and produced the final report. Instream Flow Incremental Methodology (IFIM) studies in Oregon and California including the Ventura River. These projects use multiple flow regimes in determining fish habitat suitability downstream from dams and diversions.

Matilija Creek IFIM Project – Ventura County, California

ENTRIX, Inc. conducted this instream flow study to determine the impacts of releases from Matilija Dam on Steelhead rearing and spawning habitat from the dam to the Robles Diversion on the Ventura River. The

results of this study will assist in the identification of factors potentially limiting fish populations in the effected reach and to determine appropriate release flows and ramping rates. Mr. Howard conducted the field investigation, data collection, and modeling setup.

PacifiCorp FERC IFIM Project – Jackson County, Oregon

ENTRIX, Inc. conducted this instream flow study to determine the impacts of dams and diversions on fisheries habitat in the upper Rogue River watershed. Mr. Howard assisted in the field investigation and data collection.

Water Quality Studies

Santa Clara River Estuary Metals Translator Study – Ventura County, California

ENTRIX, Inc. conducted a yearlong investigation focused on determining the metals translators for copper, nickel, zinc, and lead in the Santa Clara River Estuary. There are chemical differences between the Ventura Water Reclamation Facilities (VWRF) discharged effluent and the receiving Santa Clara River water. The Metals Translator Study determined what fraction of metals in the VWRF effluent were dissolved in the receiving water, and therefore bioavailable. Mr. Howard was the lead investigator on the Santa Clara River Estuary Metals Translator Study for the City of San Buenaventura.

Big Creek FERC Relicensing Water Quality Project – Sierra national Forest, California

ENTRIX, Inc. conducted a water quality study related to the hydroelectric relicensing of Southern California Edison's Big Creek system in the San Joaquin River watershed. Study sites were selected by ENTRIX and a combined agency working group targeting large reservoirs, small impoundments, and streams below project facilities. Mr. Howard was in charge of multiple sampling teams working throughout the San Joaquin watershed.

Environmental Monitoring

360 Networks Fiber Optics Project – Modoc, Lassen, Tehama, Glenn, Butte, Yuba, and Sutter Counties, California

ENTRIX, Inc. monitored fiber optic installation that occurred within a variety of sensitive habitats including rivers, wetlands, vernal pools, caves, and cultural resource areas. Many species listed under the California and Federal endangered species acts were of special concern on this project. Mr. Howard was the lead environmental monitor on this fiber optics project for the California Public Utilities Commission. No significant environmental impacts, under the adopted environmental mitigation measures, occurred on this project.

Southern Trails Gas Pipeline Project – Riverside County, California

ENTRIX, Inc. monitored fiber optic installation that occurred within a variety of sensitive dessert habitats including rivers, washes, reptile and bird habitats, and cultural resource areas in the Mojave Dessert near Palm Springs, California. Mr. Howard was the Lead Field Coordinator for the California State Lands Commission on this project. The pipeline right-of-way was 8 miles long which crossed numerous washes including the San Gorgonio River. No significant environmental impacts, under the adopted environmental mitigation measures, occurred on this project.

Ventura County Water Protection District Sediment Removal- Ventura County, California

ENTRIX, Inc. monitored a sediment removal and channel maintenance project on Pole Creek in Fillmore, California. Mr. Howard served as fisheries professional and Environmental Monitor to the Ventura County Flood Control District on this project. This creek is a tributary to the Santa Clara River which supports a small population of endangered southern California steelhead trout. Mr. Howard assessed steelhead habitat quality and steelhead migration barriers. Additionally, Mr. Howard monitored construction to eliminate the possibility of project related steelhead impacts.

Ventura County Water Protection District Emergency Instream Restoration Projects- Ventura County, California

ENTRIX, Inc. assisted the County of Ventura during and following the floods events that caused extensive damage to private property, flood control and fish passage facilities, and the agricultural communities throughout Ventura County in 2004 and 2005. Mr. Howard managed 15 projects for the county following the flood events. Mr Howard, along with other ENTRIX biologists permitted to work with local endangered fish species including steelhead and tidewater gobies captured and relocated fish species prior to instream construction activities. Construction monitoring was also conducted to ensure emergency permit compliance and to minimise potential take of endangered species and their habitat.

El Paso Natural Gas Conversion Project- San Berbardino County, California

ENTRIX, Inc. monitored pipeline installation that occurred within a variety of sensitive desert habitats including rivers, washes, reptile and bird habitats, and cultural resource areas near Blythe, California. Mr. Howard was the Lead Field Coordinator for the California State Lands Commission and the BLM on this project. The pipeline right-of-way was 80 miles long. This project had multiple compliance challenges that were identified and managed onsite with oversite by the Lead Field Coordinator and Project Manager. No significant environmental impacts, under the adopted environmental mitigation measures, occurred on this project.

ECOLOGICAL SCIENCES, inc.

CURRICULUM VITAE

Scott Cameron, Principal Biologist

Overview of Professional Experience

Mr. Cameron is the Principal Biologist of Ecological Sciences, Inc. Mr. Cameron has extensive experience in sensitive biological resources inventories, endangered species surveys, general wildlife biology, environmental mitigation monitoring, and wildlife and botanical habitat evaluations in the California counties of Riverside, San Bernardino, Los Angeles, Kern, San Diego, Orange, Fresno, Kings, Tulare, Santa Barbara, Alameda, Ventura, Santa Barbara, Monterey, Imperial, Del Norte, Sacramento, and San Joaquin. Mr. Cameron has extensive survey experience in Wyoming and Nevada as well. He provides project management and direction, preparation of environmental documents under the Endangered Species Act (ESA) and California Environmental Quality Act (CEQA), endangered species expertise, biological resources consultation, biological construction monitoring and sensitive biological resources educational training for a wide range of projects. He develops and implements mitigation and monitoring plans, permitting strategies, manages construction monitoring, and provides endangered species permitting assistance. Mr. Cameron also conducts wetland delineations and permitting per U.S. Army Corps of Engineers (USACOE) and California Department of Fish and Game (CDFG) requirements.

Documentation experience includes preparation of numerous environmental and biological assessments, biology sections of Environmental Impact Reports (EIRs), and mitigation/monitoring plans. Mr. Cameron also has extensive experience in CEQA compliance, preparation of Habitat Conservation Plans, federal Section 7 consultations, and Riverside County Multiple Species Habitat Conservation Plan (MSHCP) documents. Mr. Cameron has handled thousands of small mammals (55,000+ cumulative trapnights and over 5,000+ individual captures) in California and Wyoming, and has been included in multiple Memoranda of Understanding (MOUs) throughout California and Nevada. He has designed numerous study plans to evaluate the presence/absence of special-status invertebrates, birds, reptiles, amphibians, and small mammals. He has also handled and/or surveyed for sensitive, threatened, and endangered birds, reptiles, and mammals under federal and state permits.

Mr. Cameron currently holds five federal Section 10(a) permits to conduct focused surveys for Pacific pocket mouse, coastal California gnatcatcher, arroyo toad, California red-legged frog and Delhi sands flower-loving fly (1996-2008). Mr. Cameron is also certified to conduct surveys for the flat-tailed horned lizard by the Arizona Department of Fish and Game and approved by USFWS to conduct desert tortoise surveys. Mr. Cameron also holds a State of California Scientific Collectors Permit (SC-6864).

Selected Herpetological Experience (1994-2005)

Principal Investigator for conducting focused surveys for, and translocation of, ±1,000 arroyo toads (*Bufo microscaphus californicus*) for a river diversion (Santa Margarita River) project on USMC Camp Pendleton. Established numerous pitfall trap lines and drift fencing within extensive areas of arroyo toad habitat over a several month period.

Principal Permitted Investigator for conducting numerous focused arroyo toad surveys along portions of the Santa Clara River in 2001-2005 for Newhall Land.

601 GLADE DRIVE ♦ SANTA PAULA, CA 93060 ♦ TEL 805.921.0583 ♦ FAX 805.921.0683
email: scameron@ecosciencesinc.com

Principal Investigator for management and implementation of The Southern California Gas Company's Programmatic Permit/Biological Opinion, Northern Service Territory. Responsible for environmental compliance throughout the permit area, which includes Fresno, Kings, Kern, and Tulare counties. Performed focused surveys for arroyo toad and California red-legged frog (*Rana aurora draytonii*) in portions of the Cherry Creek watershed, Ventura County.

Project Ecologist for numerous surveys for arroyo toad in Orange and San Diego counties, primarily along San Mateo Creek. Surveys were conducted per USFWS protocol and involved identifying toads by vocalization and direct observation (including juveniles and tadpoles). Additionally, all arroyo toad locations were mapped for future population estimates and distributional information. Observed hundreds of arroyo toads during the course of these surveys including adults, juveniles, and tadpoles.

Project Ecologist for conducting numerous focused and/or habitat evaluations surveys over a two-year period along the proposed Foothill Transportation Corridor (FTC) located in Orange and San Diego counties, California. Focused surveys included those for arroyo toad, spadefoot toad, silvery legless lizard, coastal rosy boa, orange-throated whiptail, San Bernardino ring-necked snake, coast patch-nosed snake, southwestern pond turtle, San Diego horned lizard, and red diamond rattlesnake. Recorded and observed numerous arroyo toads during the survey efforts.

Principal Investigator for conducting focused sensitive amphibian surveys including California red-legged frog for Ventura County Flood Control.

Senior Biologist for herpetological surveys associated with several Newhall Ranch projects located in the Santa Clara River and San Francisquito Creek area. Conducted focused nighttime surveys for arroyo toad, southwestern pond turtle, and two-striped garter snake. Documented presence of arroyo toad.

Principal Investigator for evaluating habitats potentially suitable to support sensitive amphibians, reptiles, and mammals at the Playa Vista project site. Conducted mammal inventory on the project site located in the Playa del Rey area, Los Angeles County, California. Tasks included designing formal study plan for surveys for western spadefoot toad, southwestern pond turtle, coastal western whiptail (*Cnemidophorus tigris multiscutatus*), silvery legless lizard, coast patch-nosed snake, and two-striped garter snake.

Project Ecologist for a California Department of Corrections electrified fence EIR project. Duties included evaluating correctional facilities throughout California that involved evaluating wildlife mortality along perimeter fences. Observed hundreds of northern red-legged frogs (*Rana aurora aurora*) and tadpoles during the surveys conducted in northern California. Developed various methods to prevent or reduce "take" of special-status wildlife species.

Staff Biologist for baseline biological inventories for wildlife and botanical resources, including sensitive wildlife species surveys for the proposed Elsmere Solid Waste Facility landfill site in Los Angeles County. Fieldwork involved surveys for foothill yellow-legged frog (*Rana boylii*) and California red-legged frog.

Principal Investigator for the performance of habitat-based investigations performed to evaluate aquatic habitats potentially suitable to support California red-legged frog in portions of the Arroyo Conejo, Conejo, and Calleguas Creek drainage system for the Camrosa Water District (CWD).

Senior Biologist for the performance of surveys for potentially occurring sensitive amphibian species such as the California red-legged frog on portions of Tejon Ranch, California.

Senior Biologist for focused surveys in Calleguas Creek for special-status amphibians and reptiles including: California red-legged frog, southwestern pond turtle (*Clemmys marmorata pallida*), two-striped garter snake (*Thamnophis hammondii*), and south coast garter snake (*Thamnophis sirtalis* sp.). Habitat characterization included an evaluation of riparian vegetation, flow regimes, and salinity measurements.

Principal Investigator for evaluating suitable habitat to support the mountain yellow-legged frog, San Bernardino mountain kingsnake, southern rubber boa, two-striped garter snake, and southwestern pond turtle in the Big Bear area of the San Bernardino Mountains.

Senior Biologist for Greystone Homes' Dos Vientos project located in Newberry Park, Ventura County. Conducted focused surveys for California red-legged frog, southwestern pond turtle, and two-striped garter snake. Captured and translocated individual pond turtles and garter snakes away from areas proposed for impacts.

Senior Biologist for conducted surveys for the western spadefoot toad on the Parker Ranch site located in Simi Valley, California. Identified tadpoles, juveniles, and adult toads.

Research Biologist for the capture, electronic passive infrared transmitter tagging (P.I.T.T.), and release of blunt-nosed leopard lizard (*Gambelia silus*) on the Elkhorn and Carrizo Plains. Worked with San Joaquin Endangered Species Recovery Program Team, and the CSU Stanislaus Foundation. The dispersal and reproductive data gathered was used to develop future species recovery plans for sensitive reptiles.

Project Biologist for a sensitive biological resources study on 6,250 acres of land between the Algodones Dunes and the Chocolate Mountains. Directed six biologists conducting surveys for desert tortoise (*Gopherus agassizii*), flat-tailed horned lizard (*Phrynosoma mccallii*), and Colorado Desert fringe-toed lizard (*Uma notata*). Acquired certification from the Arizona Department of Game and Fish to survey for the flat-tailed horned lizard.

Principal Investigator for conducting surveys for the flat-tailed horned lizard in the LaQuinta area of southern California.

Staff Biologist for preconstruction surveys to evaluate areas that support desert tortoise in Nevada and California along the 900 mile-long Kern River natural gas pipeline ROW. Evaluations based upon presence/ abundance of burrows, scat, tracks, drinking depressions, and carapace remains, as well as the use of fiber-optic scopes to visually inspect deep burrows for tortoise occupation. Monitored all phases of construction throughout known tortoise habitat. Documented all tortoise encounters, removed tortoises from the construction site, and performed handling procedures following USFWS protocol, which included marking scutes, painting and numbering, photographing, and monitoring overnight before release. Included on the MOU for the Kern River Pipeline project and was certified to handle and inventory desert tortoises by USFWS.

Selected Small Mammal Experience (1994-2005)

Senior Biologist/Principal Investigator for the performance of general small mammal live-trapping survey efforts on portions of Tejon Ranch, Los Angeles County, California.

Principal Investigator/**Senior Biologist** for conducting focused small mammal trapping surveys for sensitive biological resources including the Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), near the City of Chatsworth, Los Angeles County. Project is located in a Significant Ecological Area (SEA), and as such involved preparation of a Biota Report and subsequent planning meetings with the SEA Technical Advisory Committee (SEATAC).

Staff Biologist for trapping project for the Trust for Public Lands in Los Angeles County. Species captured, weighed, measured, and released include California mouse, brush mouse, Pinion mouse (*Peromyscus truei*), deer mouse, Pacific kangaroo rat, California pocket mouse, dusky-footed woodrat, desert woodrat, and California meadow vole.

Principal Investigator for evaluating habitats potentially suitable to support Pacific pocket mouse (*Perognathus longimembris pacificus*) at the Playa Vista project site in Los Angeles County. Conducted

mammal inventory on the project site located in the Playa del Rey area, Los Angeles County, California (a type locality for the Pacific pocket mouse). Tasks included designing and submitting a formal study plan to USFWS and conducting a focused field survey effort for the Pacific pocket mouse and other sensitive small mammal species. Principal investigator for the 3,000+ trapnight effort utilizing both Sherman live-traps and pitfall trapping arrays. Performed these surveys under the authority of federal permit (PRT-808242).

Project Ecologist/Trap Manager for 45,000+ trapnight program to evaluate the presence/absence of the Pacific little pocket mouse (*Perognathus longimembris pacificus*). Trap manager for 9,900 trapnights, and supervised trap assistants involved in the project. Species captured, identified, measured, weighed, and released include the endangered Pacific pocket mouse, California pocket mouse (*Chaetodipus californicus*), San Diego desert woodrat (*Neotoma lepida intermedius*), dusky-footed woodrat (*Neotoma fuscipes*), deer mouse (*Peromyscus maniculatus*), California mouse (*Peromyscus californicus*), brush mouse (*Peromyscus boylii*), cactus mouse (*Peromyscus eremicus*), pocket gopher (*Thomomys bottae*), California vole (*Microtus californicus*), harvest mouse (*Reithrodontomys megalotis*), pacific kangaroo rat (*Dipodomys agilis*), house mouse (*Mus musculus*), and Virginia opossum (*Didelphis virginiana*).

Principal Investigator for Section 7 consultation regarding the San Bernardino kangaroo rat (*Dipodomys merriami parvus*) for a project located in Redlands, California.

Principle Investigator/Project Biologist for a small mammal inventory program conducted in the northeastern portion of Wyoming. Permitted as Principal Investigator to conduct the trapping program by Wyoming Department of Game and Fish (WDGF). The trapping program was a component of a Gap Analysis project that was a cooperative effort between WDFG, Bureau of Land Management (BLM), The Nature Conservancy (TNC), and the University of Wyoming (UW). Specific job related duties included conducting over 8,500+ trapnights, ground-truthing GIS vegetation polygons for accuracy, evaluating habitat quality, and identifying dominant and subdominant plant communities occurring in a tri-county area. All small mammals captured were measured and identified to species. Species captured and identified include olive-backed pocket mouse (*Perognathus fasciatus*), plains pocket mouse (*Perognathus flavescens flavescens*), deer mouse, western harvest mouse, least chipmunk (*Tamias minimus*), Southern red-backed vole (*Clethrionomys gapperi*), prairie vole (*Microtus ochrogaster*), montane vole (*Microtus montanus*), masked shrew (*Sorex cinereus cinereus*), Merriam's shrew (*Sorex merriami*), Northern grasshopper mouse (*Onychomys leucogaster*), Ord's kangaroo rat (*Dipodomys ordii*), and white-footed mouse (*Peromyscus leucopus aridulus*). Additional work involved hantavirus research, collection for museum specimens, and raptor rehabilitation. Responsible for supervising trapping assistants and producing final report for journal publication.

Senior Biologist for numerous biological studies in the Newhall area of Los Angeles County, California. Tasks included designing and implementing small mammal live-trapping programs and evaluating small mammal habitat usage of selected study areas. Study evaluated small mammal home range size and movement patterns to determine appropriate buffer widths for development projects located adjacent to sensitive resources.

Principal Investigator for a small mammal live-trapping program to evaluate the presence/absence of the federal-listed endangered Pacific pocket mouse in the Del Mar area, San Diego County, California. Performed these surveys under the authority of federal permit (PRT-808242).

Principal Investigator for a small mammal live-trapping program to evaluate the presence/absence of the federal-listed endangered Pacific pocket mouse in the Silver Strand area, San Diego County, California. Performed these surveys under the authority of federal permit (PRT-808242).

Principal Investigator for a small mammal live-trapping program to evaluate the presence/absence of the federal-listed endangered Pacific pocket mouse in Crystal Cove State Park, Orange County, California. Performed these surveys under the authority of federal permit (PRT-808242).

Senior Biologist/Trap Manager for evaluating habitats potentially suitable to support Pacific pocket mouse on USMC Camp Pendleton (Base). Directed trap assistants, established trapping transects, and handled endangered Pacific pocket mice during the course of a large trapping study conducted throughout the Base located in San Diego County, California.

Staff Biologist for baseline biological inventories for wildlife and botanical resources, including sensitive wildlife species surveys for a proposed Los Angeles County landfill site. Fieldwork involved small mammal trapping for Los Angeles little pocket mouse (*Perognathus longimembris brevinasus*), and sensitive bat surveys using mist nets, night-vision scopes, and hand-held bat echolocation detectors.

Staff Biologist for baseline inventory of flora and fauna for multiple Caltrans highway projects in the Fresno and Coalinga areas. Surveys included small mammal trapping [included in MOU for short-nosed kangaroo rat (*Dipodomys nitratoides brevinasus*)], scent station monitoring for San Joaquin kit fox (*Vulpes macrotus mutica*), spotlighting, and focused reptile and avian surveys.

Senior Biologist for conducting biological assessment on over 700 acres located in Ventura County, California. Conducted general wildlife surveys, special-status species surveys, vegetation mapping, and conducting a focused small mammal sampling program effort.

Senior Biologist for performing a biological assessment of an approximately 100-acre site located in the Mountaingate area of Los Angeles County. Conducted a small mammal live-trapping program, performed general avian and reptile surveys of the project site, developed a plant compendium of the site, mapped vegetation communities, and established scent stations.

Project Ecologist for California Department of Corrections (CDC) involving mitigation monitoring of a Pacific Gas and Electric (PG&E) along a pipeline corridor. Included on MOU to trap and translocate short-nosed kangaroo rat (*Dipodomys nitratoides brevinasus*) in Kern and Fresno counties.

Research Biologist for the capture, electronic passive infrared transmitter tagging (P.I.T.T.), and release giant kangaroo rats (*Dipodomys ingens*) on the Elkhorn and Carrizo Plains. Worked with San Joaquin Endangered Species Recovery Program Team, and the CSU Stanislaus Foundation. The dispersal and reproductive data gathered was used to develop future species recovery plans for sensitive small mammals and reptiles.

Project Ecologist for barn owl (*Tyto alba*) pellet analysis to provide information on the presence and relative distribution of the Pacific pocket mouse. Individually examined and identified over 500 small mammal skulls and bone fragments of various species occurring in Orange and San Diego counties that included Botta's pocket gopher, San Diego desert woodrat, dusky-footed woodrat, white-footed mouse (*Peromyscus* sp.), harvest mouse, California meadow vole, pocket mice (*Chaetodipus* sp.), Pacific kangaroo rat, desert shrew (*Notiosorex crawfordi*), ornate shrew (*Sorex ornatus*), Audubon's cottontail (*Sylvilagus audubonii*), old world rat (*Rattus* sp.), house mouse, and mole (*Scapanus* sp.).

Staff Biologist for over 35 proposed small energy development projects, including linear facilities, such as pipelines and transmission lines, for the Westside Development Program and Kern River Oilfield Development Program, Kern and Monterey Counties. As staff biologist, was responsible for inventory of rare, threatened, and endangered plant and animal species using various field and literature search techniques, including transect surveys, small mammal trapping surveys under MOU with CDFG, and scent station and burrow monitoring, and evaluations based on animal sign, such as scat, tracks, claw marks, diggings, prey remains, dust baths, hay stacking, and nesting. Evaluated presence of sensitive habitat. Also responsible for training and management of field biologists and coordination of field activities.

Biological Technician for black-footed ferret (*Mustela nigripes*) trapping project in Medicine Bow, Wyoming for the Wyoming Department of Game and Fish. Conducted spot-light surveys for captive-bred introduced ferrets, and assisted biologists set live-traps, bar-code scan, and release captured ferrets.

Selected Avian Experience (1994-2005)

Project Ecologist/Principal Investigator for over 200 field days of California gnatcatcher surveys conducted in San Diego, Orange, San Bernardino, Riverside, Ventura, and Los Angeles counties for various clients throughout southern California. Observed hundreds of gnatcatchers during the course of these surveys over the past 10 years. Mapped nesting territories and documented numerous fledglings.
Principal Investigator for over 30 western burrowing owl surveys conducted in San Bernardino, Riverside, Imperial, Kern, Sacramento, Ventura, and Los Angeles counties for various clients throughout southern California. Observed hundreds of owls during the course of these surveys. Mapped nesting territories and documented/photographed numerous fledglings. Employed passive relocation techniques.

Project Ecologist for conducting numerous focused and/or habitat evaluations surveys over a two-year period along the proposed Foothill Transportation Corridor (FTC) located in Orange and San Diego counties. Focused surveys included, but were not limited to: coastal California gnatcatcher, grasshopper sparrow, tricolored blackbird, Bell's sage sparrow, California horned lark, coastal cactus wren, loggerhead shrike, northern harrier, western burrowing owl, and southern California rufous-crowned sparrow.

Project Ecologist/Principal Investigator for numerous nesting bird surveys conducted in San Bernardino, Imperial, Ventura, Orange, San Diego, Los Angeles, and Riverside counties. Mapped nesting territories and documented numerous fledglings.

Senior Biologist/Principal Investigator for several least Bell's vireo surveys conducted in San Bernardino, Riverside, Ventura, and Los Angeles counties.

Selected Delhi Sands Flower-loving Fly Experience (1996-2005)

Senior Biologist/Principal Investigator for 70+ focused USFWS protocol survey efforts to determine the presence/absence of the endangered Delhi Sands flower-loving fly (DSF) for numerous public and private sector clients located in Riverside and San Bernardino counties. Conducted focused surveys following USFWS protocol under the authority of federal Section 10(a) permit TE-808242-4 issued to Scott Cameron. Measured and recorded characteristics of occupied Delhi Sands flower-loving fly habitat at sites known to support this species in all Recovery Units in the region. Observed and documented numerous DSF during the course of these surveys.

Senior Biologist/Principal Investigator for conducting 50+ habitat-based surveys for Delhi sands flower-loving fly located in San Bernardino and Riverside counties. Survey efforts included habitat evaluations based on existing site conditions. Existing documentation pertinent to the distribution and habitat requirements of the DSF in the vicinity of each project area was reviewed and analyzed. Field visits to each site were conducted to note the habitat characteristics of each site. Comparative analysis of currently occupied DSF habitat was also completed for each habitat-based evaluation. Habitat characteristics were documented (e.g., soils, plant species, percentage ground cover, percentage vegetative cover, etc.), and photographs of each site were taken in an attempt to discern any differences in biological characteristics, which may relate to habitat suitability for the endangered fly species.

Principal Investigator for the preparation of a Habitat Conservation Plan (HCP) in support of a Section 10(a) permit application. Plan involves the federally endangered Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*) located in the City of Ontario.

Professional History

Ecological Sciences, Inc. – Principal Biologist
EcoSciences – Principal Biologist
Impact Sciences, Inc. - Senior Biologist
Michael Brandman Associates - Project Ecologist/Manager
The Nature Conservancy - Project Biologist/Principle Investigator
Wyoming Department of Game and Fish - Biological Technician

Professional History-*continued*

Dames and Moore - Staff Biologist
San Joaquin Endangered Species Recovery Program/CSU Stanislaus Foundation-Research Assistant
County of Santa Barbara, Department of Environmental Review – Intern

Education/Permits/Certifications

- B.A., Environmental Studies (Natural Resource Management Emphasis; graduate-level courses in Ecology), University of California, Santa Barbara
- Certification, ***Flat-tailed Horned Lizard*** Survey Techniques, Arizona Department of Game and Fish
- Certification, ***Desert Tortoise*** Handling, burrow construction, and egg handling Techniques, U.S. Fish and Wildlife Service
- Certification, Marine Sciences Program, Santa Barbara City College
- Certification, Rescue Diver, PADI
- CDFG agreement to trap and release ***small mammal California Species of Special Concern***
- CDFG Scientific Collecting Permit, 2003-2005
- Federal Section 10(a) Permit to capture and release an endangered small mammal species, ***Pacific pocket mouse***, 1996-2008 (TE-808242-4).
- Federal Section 10(a) Permit for performance of ***Delhi sands flower-loving fly*** surveys (TE-808242-4), 1997-2008
- Federal Section 10(a) Permit to capture and release threatened and endangered amphibian species, ***arroyo toad***, 1996-2008 (TE-808242-4)
- Federal Section 10(a) Permit to capture and release threatened and endangered amphibian species, ***California red-legged frog***, 1996-2008 (TE-808242-4)
- Federal Section 10(a) Permit for performance of ***coastal California Gnatcatcher*** surveys, 1994-2008 (TE-808242-4)

Professional Affiliations

The Wildlife Society
American Society of Mammalogists
Society for the Study of Reptiles and Amphibians
California Native Plant Society

Publications/Submittals

Cameron, S. D. and C. S. Garber. *Inventory and Monitoring of Small Mammal Distribution in the Bureau of Land Management's Casper District, Buffalo Resource Area.* The Nature Conservancy, Wyoming Natural Diversity Database. Cooperative Agreement Number K910-A4-0011, Task Order TO-002.

Cameron, S. D. and R. W. Hanson. 1994. *Range Extension of the Western Patchnose Snake* (*Salvadora hexalepis mojavensis*). Herpetological Review, 25 (1): 34-35.