

APPENDIX D:

Marina Del Rey Sediment Characterization Study

Solid Phase Test

**10 DAY SOLID PHASE TEST
INTERACTIVE DATA SETUP**

GENERAL

CLIENT:	LADPW	
PROJECT:	Marina Del Rey	Salinity of Testing (2 - ≤ 28 ppt)
WESTON JOB NUMBER:	13434.004.003.0006	20
PROJECT MANAGER:	Shelly Anghera	
TEST SPECIES:	<i>Eohaustorius estuarius</i>	
TEST PROTOCOL:	USACE/USEPA (1998)	NH3 REFTOX CONC (mg/L)
WESTON PROTOCOL:	WESTON BIO066	
WESTON LABORATORY:	Carlsbad	0
TEST LOCATION:	Room 2	15.625
TEST START DATE:	05Oct07	31.25
TEMP. RECORDER#:	778892	62.5
DILUTION WATER BATCH:	SIO 092107	125
FEEDING INFORMATION:	None	250
WATER RENEWAL INFO:	none	

FIELD SAMPLE

DATE RECEIVED AT WESTON:	9/19/07 and 9/20/07	Cd REFTOX CONC (mg/ L)
SAMPLE STORAGE:	4 Degrees Celsius - dark	0
SAMPLE TREATMENT:	press sieved (2.0 mm)	2.5
TEST CHAMBER:	1 L mason jars	5
EXPOSURE VOLUME:	2 cm sediment/ 750 mL water	10
REFERENCE TOXICANT #1:	cadmium	20
REF. TOX. MATERIAL #1	cadmium chloride	40
REFERENCE TOXICANT #2	ammonia	
REF. TOX. MATERIAL #2:	ammonium chloride	

	CLIENT SAMPLE ID	CONTROL ID	WESTON CONTROL ID
1	D3	C070920.10	Control 1
2	E4	C070920.09	C071002.03
3	F1	C070919.08	
4	B2	C070919.14	
5	MC2	C070919.06	
6	MC3	C070919.10	
7	MC5	C070919.09	
8	MC4	C070919.16	
9	.	.	
10	.	.	
11	.	.	
12	.	.	
13	.	.	
14	.	.	
15	.	.	



Data summary of 10-Day solid phase test
Eohaustorius estuarius
 LADPW Marina Del Rey

WATER QUALITY

CLIENT SAMPLE ID	WESTON SAMPLE ID	DISS.OXYGEN (mg/L)			DISS.OXYGEN (%SAT)	TEMPERATURE (°C)			SALINITY (ppt)			pH			OVERLYING NH ₃ (mg/L)			INTER. NH ₃ (mg/L)			INTER. SULFIDE (mg/L)		
		Mean	Min	Max	Mean	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
Control 1	C071002.03	8.1	7.4	8.6	92.8	15.4	14.3	17.0	20.4	19.7	20.9	8.1	8.0	8.3	0.500	0.500	0.500	0.881	0.571	1.19			
D3	C070920.10	8.1	7.7	8.6	92.6	15.2	14.4	16.8	21.1	20.0	22.4	8.1	8.0	8.3	0.500	0.500	0.500	1.27	0.977	1.56			
E4	C070920.09	8.1	7.3	8.8	92.0	15.0	14.3	15.9	21.1	20.0	22.3	8.1	7.9	8.3	0.500	0.500	0.500	1.25	1.22	1.27			
F1	C070919.08	8.2	7.8	8.7	93.3	14.9	14.4	15.9	21.1	19.8	22.2	8.1	8.0	8.4	0.500	0.500	0.500	1.32	0.973	1.67			
B2	C070919.14	8.2	7.5	8.6	93.7	15.0	14.0	16.2	21.2	20.1	22.2	8.2	8.0	8.3	0.500	0.500	0.500	1.49	0.946	2.03			
MC2	C070919.06	8.3	7.7	8.6	93.7	15.0	13.4	16.8	21.0	20.0	22.2	8.2	8.0	8.3	0.500	0.500	0.500	2.11	1.46	2.75			
MC3	C070919.10	8.0	7.5	8.7	91.8	15.4	13.8	17.0	21.0	20.0	22.2	8.1	7.9	8.3	0.500	0.500	0.500	2.59	2.29	2.88			
MC5	C070919.09	8.2	7.4	8.5	92.8	14.9	14.0	16.0	21.0	20.0	21.9	8.1	7.7	8.3	0.500	0.500	0.500	3.90	3.00	4.79			
MC4	C070919.16	8.3	7.8	8.8	94.9	15.0	14.2	15.7	21.0	20.0	21.9	8.2	8.0	8.3	0.500	0.500	0.500	2.67	1.63	3.71			

10 DAY SOLID PHASE TEST DATA SHEET 2



CLIENT LADPW	PROJECT Marina Del Rey	SPECIES Eohaustorius estuarius	WESTON LABORATORY Carlsbad Room 2
WESTON JOB NUMBER 13434.004.003.0006	PROJECT MANAGER Shelly Anghera	TEST START DATE 05Oct07	TEST END DATE 15Oct07
		TIME 15/10JH	TIME 11:30 AM/DS

WATER QUALITY DATA

TEST	DO (mg/L)		TEMP (C)		SALINITY (ppt)		pH		NH3 (mg/L)		DILUTION WATER BATCH				TEMP.RECDR./HOBO#				
	> 6.0		15 ± 2		20 ± 2		7.8 ± 0.5		< 4.0		SIO 092107				778892				
CLIENT/WESTON ID	DAY	REP	JAR #	D.O.		TEMP		SALINITY		pH		OVERLY. NH3		INTER. NH3		INTER. SULFIDE		TECHNICIAN	WATER RENEWAL
				meter	mg/L	meter	°C	meter	ppt	meter	unit	Techn.	mg/L	Techn.	mg/L	Techn.	mg/L		
Control 1 / C071002.03	0	1	44	6	7.5	6	16.3	5	19.7	13	8.3	JH	<0.5					NS	NS
		2	12	6	7.9	6	16.0	5	19.7	13	8.1	JH						NS	NS
		3	31	6	7.9	6	15.9	5	19.9	13	8.2							NS	NS
		4	34	6	8.1	6	15.8	5	19.9	13	8.2							NS	NS
		5	11	6	8.0	6	16.2	5	19.9	13	8.1							NS	NS
Control 1 / C071002.03	1	1	44	6	8.0	6	15.2	5	20.0	13	8.3							EB	
Control 1 / C071002.03	2	2	12	6	8.1	6	16.1	5	19.9	13	8.2							EB	
Control 1 / C071002.03	3	3	31	6	8.5	6	15.0	5	20.3	13	8.2							AL	
Control 1 / C071002.03	4	4	34	6	8.4	6	15.0	5	20.7	13	8.3							NS	
Control 1 / C071002.03	5	5	11	6	8.6	6	14.3	5	20.3	13	8.0							NS	
Control 1 / C071002.03	6	1	44	6	8.3	6	15.9	5	20.9	13	8.1							NS	
Control 1 / C071002.03	7	2	12	6	7.7	6	17.0	5	20.6	13	8.1							NS	
Control 1 / C071002.03	8	3	31	6	7.9	6	15.1	5	20.8	10	8.0							AL	
Control 1 / C071002.03	9	4	34	6	7.4	6	15.0	5	20.9	10	8.1							AL	
Control 1 / C071002.03	10	1	44	6	8.2	6	14.9	5	20.8	13	8.0	AL	<0.5					AL	
		2	12	6	8.5	6	15.0	5	20.6	13	8.0								
		3	31	6	8.3	6	15.1	5	20.6	13	8.0								
		4	34	6	8.5	6	14.8	5	20.9	13	8.1								
		5	11	6	8.6	6	14.9	5	20.6	13	8.1								

① Composite of all 5 reps 10/10/07 JH

② Composite of all 5 reps 10/24/07 AEL

③ METER INITIALLY SET FOR FRESH WATER 10/11/07 NS

10 DAY SOLID PHASE TEST DATA SHEET 2



CLIENT LADPW	PROJECT Marina Del Rey	SPECIES <i>Eohaustorius estuarius</i>	WESTON LABORATORY Carlsbad Room 2
WESTON JOB NUMBER 13434.004.003.0006	PROJECT MANAGER Shelly Anghera	TEST START DATE 05Oct07	TEST END DATE 15Oct07
		TIME 15/0 JH	PROTOCOL USACE/USEPA (1998) / WESTON B10066
			TIME 1130 am / DS

WATER QUALITY DATA

TEST	DO (mg/L)		TEMP (C)		SALINITY (ppt)		pH		NH3 (mg/L)		DILUTION WATER BATCH				TEMP. RECDR./HOB#				
	> 6.0		15 ± 2		20 ± 2		7.8 ± 0.5		< 4.0		SIO 092107				778892				
CLIENT/WESTON ID	DAY	REP	JAR #	D.O.		TEMP		SALINITY		pH		OVERLY. NH3		INTER. NH3		INTER. SULFIDE		TECHNICIAN	WATER RENEWAL
				meter	mg/L	meter	°C	meter	ppt	meter	unit	Techn.	mg/L	Techn.	mg/L	Techn.	mg/L		
D3 / C070920.10	0	1	20	6	8.2	6	15.4	5	20.2	13	8.2	JH	< 0.5					AMM	NS
		2	19	1	7.9	1	15.1	1	20.0	1	8.2								
		3	33	1	7.8	1	15.0	1	20.9	1	8.1								
		4	16	1	7.7	1	15.3	1	20.0	1	8.2								
		5	23	1	7.9	1	15.3	1	20.0	1	8.2								
D3 / C070920.10	1	1	20	6	8.1	6	15.5	5	20.1	13	8.3							AB	
D3 / C070920.10	2	2	19	6	8.0	6	15.3	5	20.0	13	8.2							EB	
D3 / C070920.10	3	3	33	6	8.4	6	14.8	5	21.9	13	8.2							AL	
D3 / C070920.10	4	4	16	6	8.3	6	14.9	5	21.1	13	8.2							NS	
D3 / C070920.10	5	5	23	6	8.0	6	14.6	5	21.2	13	8.0							NS	
D3 / C070920.10	6	1	20	6	8.3	6	14.5	5	21.4	13	8.0							NS	
D3 / C070920.10	7	2	19	6	7.8	6	16.8	5	21.5	13	8.1							NS	
D3 / C070920.10	8	3	33	6	7.8	6	14.9	5	21.6	10	8.0							AL	
D3 / C070920.10	9	4	16	6	8.0	6	14.4	5	21.5	10	8.0							AL	
D3 / C070920.10	10	1	20	6	8.2	6	15.6	5	21.6	13	8.2	AL	< 0.5					AL	
		2	19	1	8.4	1	15.6	1	21.7	1	8.1								
		3	33	1	8.6	1	15.6	1	22.4	1	8.1								
		4	16	1	8.4	1	15.2	1	21.7	1	8.1								
		5	23	1	8.3	1	15.5	1	21.5	1	8.1								

① composite of all 5 reps 10/8/07 JH
 ② MEIER in. Hully set for fresh water NS 10/11/07

③ composite of all 5 reps 10/24/07 AEL

10 DAY SOLID PHASE TEST DATA SHEET 2



CLIENT LADPW	PROJECT Marina Del Rey	SPECIES <i>Eohaustorius estuarius</i>	WESTON LABORATORY Carlsbad Room 2
WESTON JOB NUMBER 13434.004.003.0006	PROJECT MANAGER Shelly Anghera	TEST START DATE 05Oct07	TEST END DATE 15Oct07
		TIME 15/0 JH	PROTOCOL USACE/USEPA (1998) / WESTON BIO066
			TIME 1130 am / DS

WATER QUALITY DATA

TEST	DO (mg/L)		TEMP (C)		SALINITY (ppt)		pH		NH3 (mg/L)		DILUTION WATER BATCH				TEMP. RECDR./HOB#				
	> 6.0		15 ± 2		20 ± 2		7.8 ± 0.5		< 4.0		SIO 092107				778892				
CLIENT/WESTON ID	DAY	REP	JAR #	D.O.		TEMP		SALINITY		pH		OVERLY. NH3		INTER. NH3		INTER. SULFIDE		TECHNICIAN	WATER RENEWAL
				meter	mg/L	meter	°C	meter	ppt	meter	unit	Techn.	mg/L	Techn.	mg/L	Techn.	mg/L		
E4 / C070920.09	0	1	5	6	8.1	6	15.3	5	20.0	13	8.2	JH	<0.5					NS/AM	NS
		2	2	6	7.9	6	15.1	5	20.0	13	8.2							NS/AM	NS
		3	30	6	8.3	6	14.7	5	20.1	13	8.2							NS/AM	NS
		4	40	6	7.4	6	14.7	5	20.2	13	8.3							NS/AM	NS
		5	22	6	8.1	6	15.2	5	20.1	13	8.2							NS/AM	NS
E4 / C070920.09	1	1	5	6	8.0	6	15.2	5	20.1	13	8.2							EB	
E4 / C070920.09	2	2	2	6	8.0	6	15.3	5	20.1	13	8.3							GB	
E4 / C070920.09	3	3	30	6	8.8	6	14.4	5	21.2	13	8.2							AL	
E4 / C070920.09	4	4	40	6	8.2	6	15.0	5	21.8	13	8.3							NS	
E4 / C070920.09	5	5	22	6	8.1	6	14.3	5	21.1	13	8.0							NS	
E4 / C070920.09	6	1	5	6	8.2	6	14.3	5	21.6	13	8.0							NS	
E4 / C070920.09	7	2	2	6	7.8	6	15.9	5	21.6	13	7.9							NS	
E4 / C070920.09	8	3	30	6	8.0	6	14.6	5	21.7	10	8.0							AL	
E4 / C070920.09	9	4	40	6	7.3	6	15.0	5	21.6	10	8.1							AL	
E4 / C070920.09	10	1	5	6	8.0	6	15.0	5	21.9	13	8.0	AEL	<0.5					AL	
		2	2		8.3		14.8		21.8		8.0								
		3	30		8.5		15.2		22.2		8.0								
		4	40		8.5		15.1		22.3		8.1								
		5	22	✓	8.4	✓	15.1	✓	21.7	✓	8.1								↓

① composite of all 5 reps 10/8/07 JH

② composite of all 5 reps 10/24/07 AEL

③ METER, INITIALLY SET FOR FRESH WATER NS 10/1/07 (8.2 mg/L, 14.3°C)

10 DAY SOLID PHASE TEST DATA SHEET 2



CLIENT LADPW	PROJECT Marina Del Rey	SPECIES <i>Eohaustorius estuarius</i>	WESTON LABORATORY Carlsbad Room 2
WESTON JOB NUMBER 13434.004.003.0006	PROJECT MANAGER Shelly Anghera	TEST START DATE 05Oct07	TEST END DATE 15Oct07
		TIME 15/0 JH	PROTOCOL USACE/USEPA (1998) / WESTON B10066
			TIME 1130 am/123

WATER QUALITY DATA

CLIENT/WESTON ID	DAY	REP	JAR #	DO (mg/L)		TEMP (C)		SALINITY (ppt)		pH		NH3 (mg/L)		DILUTION WATER BATCH				TEMP. RECD./HOB#	
				> 6.0		15 ± 2		20 ± 2		7.8 ± 0.5		< 4.0		SIO 092107				778892	
				D.O.		TEMP		SALINITY		pH		OVERLY. NH3		INTER. NH3		INTER. SULFIDE		TECHNICIAN	WATER RENEWAL
				meter	mg/L	meter	°C	meter	ppt	meter	unit	Techn.	mg/L	Techn.	mg/L	Techn.	mg/L		
F1 / C070919.08	0	1	14	6	8.2	6	15.2	5	19.8	13	8.1	JH	<0.5					am	NS
		2	7	6	8.0	6	15.3	5	20.1	13	8.2	JH							
		3	8	6	8.1	6	15.1	5	20.3	13	8.2								
		4	38	6	8.0	6	15.0	5	20.0	13	8.3								
		5	45	6	7.8	6	14.6	5	20.0	13	8.4								
F1 / C070919.08	1	1	14	6	8.1	6	15.1	5	20.0	13	8.2							EB	
F1 / C070919.08	2	2	7	6	8.2	6	15.0	5	20.1	13	8.2							EB	
F1 / C070919.08	3	3	38	6	8.6	6	14.5	5	21.3	13	8.2							AL	
F1 / C070919.08	4	4	38	6	8.5	6	14.7	5	21.4	13	8.2							NS	
F1 / C070919.08	5	5	45	6	8.1	6	14.6	5	21.3	13	8.0							NS	
F1 / C070919.08	6	1	14	6	8.6	6	14.7	5	21.5	13	8.0							NS	
F1 / C070919.08	7	2	7	6	7.8	6	15.9	5	21.9	13	8.0							NS	
F1 / C070919.08	8	3	8	6	7.9	6	14.6	5	21.8	10	8.6							AL	
F1 / C070919.08	9	4	38	6	8.3	6	14.8	5	21.9	10	8.0							AL	
F1 / C070919.08	10	1	14	6	8.4	6	14.8	5	21.9	13	8.1	AL	<0.5					AL	
		2	7	6	8.5	6	14.8	5	22.2	13	8.1	AL							
		3	8	6	8.6	6	14.4	5	21.9	13	8.1								
		4	38	6	8.6	6	15.3	5	21.9	13	8.2								
		5	45	6	8.7	6	14.7	5	21.7	13	8.1								

① composite of all 5 reps 10/10/07 JH

② WC 10/10/07 NS

10/5/2007 Echs 10-5-07 Batch 1 WQ

③ METER INITIALLY SET TO FRESH WATER NS 10/11/07

④ composite of all 5 reps 10/24/07 AL

10 DAY SOLID PHASE TEST DATA SHEET 2



CLIENT LADPW	PROJECT Marina Del Rey	SPECIES <i>Eohaustorius estuarius</i>	WESTON LABORATORY Carlsbad Room 2
WESTON JOB NUMBER 13434.004.003.0006	PROJECT MANAGER Shelly Anghera	TEST START DATE 05Oct07	TEST END DATE 15Oct07
		TIME 1516 JH	PROTOCOL USACE/USEPA (1998) / WESTON B10066
			TIME 1130 am/OS

WATER QUALITY DATA

TEST	DO (mg/L)		TEMP (C)		SALINITY (ppt)		pH		NH3 (mg/L)		DILUTION WATER BATCH						TEMP.RECDR./HOB0#		
	> 6.0		15 ± 2		20 ± 2		7.8 ± 0.5		< 4.0		SIO 092107						778892		
	CLIENT/WESTON ID	DAY	REP	JAR #	D.O.		TEMP		SALINITY		pH		OVERLY. NH3		INTER. NH3		INTER. SULFIDE		TECHNICIAN
meter					mg/L	meter	°C	meter	ppt	meter	unit	Techn.	mg/L	Techn.	mg/L	Techn.	mg/L		
B2 / C070919.14	0	1	41	6	8.2	6	14.7	5	20.3	13	8.3	JK	<0.5					AMM	NS
		2	6	8.0	15.2	20.2	8.2	Dilt											
		3	43	8.4	14.8	20.1	8.2												
		4	13	8.3	15.1	20.1	8.2												
		5	37	8.4	14.9	20.1	8.2												
B2 / C070919.14	1	1	41	6	8.2	6	15.0	5	20.2	13	8.2							EB	
B2 / C070919.14	2	2	6	6	8.1	6	15.4	5	20.2	13	8.2							EB	
B2 / C070919.14	3	3	43	6	8.6	6	15.1	5	21.4	13	8.2							AL	
B2 / C070919.14	4	4	13	6	8.4	6	14.0	5	21.5	13	8.3							NS	
B2 / C070919.14	5	5	37	6	8.0	6	16.2	5	21.6	13	8.0							NS	
B2 / C070919.14	6	1	41	6	8.5	6	15.4	5	21.9	13	8.1							NS	
B2 / C070919.14	7	2	6	6	8.0	6	15.9	5	21.9	13	8.1							NS	
B2 / C070919.14	8	3	43	6	7.9	6	15.1	5	21.8	10	8.0							AL	
B2 / C070919.14	9	4	13	6	8.0	6	14.2	5	21.9	10	8.0							AL	
B2 / C070919.14	10	1	41	6	8.4	6	14.8	5	22.1	13	8.2	AEL	<0.5					AL	
		2	6	8.5	14.8	21.9	8.1	AEI											
		3	43	8.6	14.8	22.2	8.1												
		4	13	8.5	14.8	21.9	8.1												
		5	37	8.4	15.5	22.0	8.2												

① composite of all 5 reps 10/8/07 JH

② NS METER initially set for FRESH WATER 10/11/07

③ composite of all 5 reps 10/24/07 AEL

10 DAY SOLID PHASE TEST DATA SHEET 2



CLIENT LADPW	PROJECT Marina Del Rey	SPECIES <i>Eohaustorius estuarius</i>	WESTON LABORATORY Carlsbad Room 2
WESTON JOB NUMBER 13434.004.003.0006	PROJECT MANAGER Shelly Anghera	TEST START DATE 05Oct07	TEST END DATE 15Oct07
		TIME 1510JH	PROTOCOL USACE/USEPA (1998) / WESTON B10066
			TIME 1130 am / DS

WATER QUALITY DATA

TEST	DO (mg/L)		TEMP (C)		SALINITY (ppt)		pH		NH3 (mg/L)		DILUTION WATER BATCH				TEMP. RECDR./HOB#				
	> 6.0		15 ± 2		20 ± 2		7.8 ± 0.5		< 4.0		SIO 092107				778892				
CLIENT/WESTON ID	DAY	REP	JAR #	D.O.		TEMP		SALINITY		pH		OVERLY. NH3		INTER. NH3		INTER. SULFIDE		TECHNICIAN	WATER RENEWAL
				meter	mg/L	meter	°C	meter	ppt	meter	unit	Techn.	mg/L	Techn.	mg/L	Techn.	mg/L		
MC2 / C070919.06	0	1	42	6	8.2	6	14.7	5	20.1	13	8.2	JH	<0.5					Am	NS
		2	26		8.3		15.1		20.1		8.2	JH							
		3	35		8.4		14.8		20.1		8.2								
		4	1		8.5		15.0		20.0		8.3								
		5	28	↓	8.5	↓	14.9	↓	20.2	↓	8.3								
MC2 / C070919.06	1	1	42	6	8.3	6	15.1	5	20.1	13	8.1							EB	
MC2 / C070919.06	2	2	26	6	8.3	6	15.1	5	20.2	13	8.3							EB	
MC2 / C070919.06	3	3	35	6	8.5	6	15.2	5	21.4	13	8.3							AL	
MC2 / C070919.06	4	4	1	6	8.6	6	13.4	5	21.3	13	8.3							NS	
MC2 / C070919.06	5	5	28	6	7.8	6	14.6	5	21.3	13	8.1							NS	
MC2 / C070919.06	6	1	42	6	8.2	6	14.8	5	21.7	13	8.1							NS	
MC2 / C070919.06	7	2	26	6	7.8	6	16.8	5	21.3	13	8.1							NS	
MC2 / C070919.06	8	3	35	6	7.7	6	15.3	5	21.4	10	8.0							AL	
MC2 / C070919.06	9	4	1	6	7.9	6	13.5	5	21.4	10	8.1							AL	
MC2 / C070919.06	10	1	42	6	8.1	6	14.6	5	21.9	13	8.1	AL	<0.5					AL	
		2	26		8.1		15.4		21.6		8.2	AL							
		3	35		8.5		14.8		22.2		8.2								
		4	1		8.6		15.0		21.9		8.2								
		5	28	↓	8.6	↓	15.5	↓	21.7	↓	8.2								

① composite of ml 5 reps 10/10/07 JH

② composite of all 5 reps 10/24/07 AL

③ METER INITIALLY SET FOR FRESH WATER 10/11/07 NS

10 DAY SOLID PHASE TEST DATA SHEET 2



CLIENT LADPW	PROJECT Marina Del Rey	SPECIES <i>Eohaustorius estuarius</i>	WESTON LABORATORY Carlsbad Room 2
WESTON JOB NUMBER 13434.004.003.0006	PROJECT MANAGER Shelly Anghera	TEST START DATE 05Oct07	TEST END DATE 15Oct07
		TIME 15/0 JH	PROTOCOL USACE/USEPA (1998) / WESTON BIO066
			TIME 1130 am/DS

WATER QUALITY DATA

TEST	DO (mg/L)		TEMP (C)		SALINITY (ppt)		pH		NH3 (mg/L)		DILUTION WATER BATCH				TEMP.RECDR./HOBO#				
	> 6.0		15 ± 2		20 ± 2		7.8 ± 0.5		< 4.0		SIO 092107				778892				
CLIENT/WESTON ID	DAY	REP	JAR #	D.O.		TEMP		SALINITY		pH		OVERLY. NH3		INTER. NH3		INTER. SULFIDE		TECHNICIAN	WATER RENEWAL
				meter	mg/L	meter	°C	meter	ppt	meter	unit	Techn.	mg/L	Techn.	mg/L	Techn.	mg/L		
MC3 / C070919.10	0	1	4	6	7.5	6	15.9 20.0	5	20.0	13	8.0	JH	50.5					NS	NS
		2	27	6	7.8	6	15.4 20.0	5	20.0	13	8.2	JH						NS	NS
		3	9	6	7.7	6	15.5 20.0	5	20.0	13	8.1							NS	NS
		4	32	6	7.9	6	15.4 20.0	5	20.0	13	8.2							NS	NS
		5	36	6	7.6	6	15.5 20.0	5	20.0	13	8.2							NS	NS
MC3 / C070919.10	1	1	4	6	8.0	6	15.5	5	20.1	13	8.1						EB		
MC3 / C070919.10	2	2	27	6	7.9	6	15.4	5	20.0	13	8.1						EB		
MC3 / C070919.10	3	3	9	6	8.5	6	13.8	5	21.0	13	8.3						AL		
MC3 / C070919.10	4	4	32	6	7.8	6	15.5	5	21.4	13	8.3						NS		
MC3 / C070919.10	5	5	36	6	7.8	6	16.6	5	21.1	13	8.0						NS		
MC3 / C070919.10	6	1	4	6	9.8 8.0	6	14.5 14.5	5	21.3	13	8.0						NS		
MC3 / C070919.10	7	2	27	6	7.7	6	17.0	5	21.6	13	7.9						NS		
MC3 / C070919.10	8	3	9	6	7.8	6	13.9	5	21.5	10	8.0						AL		
MC3 / C070919.10	9	4	32	6	7.6	6	15.6	5	21.4	10	8.0						AL		
MC3 / C070919.10	10	1	4	6	8.5	6	15.4	5	21.9	13	8.3	AL	20.5					AL	
		2	27	6	8.5	6	15.5	5	21.9	13	8.1	AL							
		3	9	6	8.7	6	15.0	5	21.9	13	8.1								
		4	32	6	8.6	6	15.1	5	22.2	13	8.1								
		5	36	6	8.5	6	15.4	5	21.6	13	8.2								

① NS 10/05/07 NS
 ② composite of all 5 reps 10/8/07 JH
 ③ METER INITIALLY SET TO FRESHWATER 10/11/07 NS
 ④ composite of all 5 reps 10/24/07 AEL

10 DAY SOLID PHASE TEST DATA SHEET 2



CLIENT LADPW	PROJECT Marina Del Rey	SPECIES <i>Eohaustorius estuarius</i>	WESTON LABORATORY Carlsbad Room 2
WESTON JOB NUMBER 13434.004.003.0006	PROJECT MANAGER Shelly Anghera	TEST START DATE 05Oct07	TEST END DATE 15Oct07
		TIME 1516 JH	PROTOCOL USACE/USEPA (1998) / WESTON B10066
			TIME 1130 am/ps

WATER QUALITY DATA

TEST	DO (mg/L)		TEMP (C)		SALINITY (ppt)		pH		NH3 (mg/L)		DILUTION WATER BATCH				TEMP. REC'DR./HOB#				
	> 6.0		15 ± 2		20 ± 2		7.8 ± 0.5		< 4.0		SIO 092107				778892				
CLIENT/WESTON ID	DAY	REP	JAR #	D.O.		TEMP		SALINITY		pH		OVERLY. NH3		INTER. NH3		INTER. SULFIDE		TECHNICIAN	WATER RENEWAL
				meter	mg/L	meter	°C	meter	ppt	meter	unit	Techn.	mg/L	Techn.	mg/L	Techn.	mg/L		
MC5 / C070919.09	0	1	15	6	8.0	6	15.2	5	20.0	13	8.1	JH	<0.5					am	NS
		2	10	6	8.0	6	15.0	5	20.0	13	8.1	JH	<0.5						
		3	18	6	8.2	6	15.5	5	20.0	13	8.2								
		4	25	6	8.3	6	15.3	5	20.0	13	8.2								
		5	21	6	8.4	6	14.8	5	20.1	13	8.2								
MC5 / C070919.09	1	1	15	6	8.0	6	15.1	5	20.1	13	8.2							EB	
MC5 / C070919.09	2	2	10	6	8.0	6	15.2	5	20.0	13	8.1							EB	
MC5 / C070919.09	3	3	18	6	8.4	6	14.3	5	20.9	13	8.3							AL	
MC5 / C070919.09	4	4	25	6	8.4	6	14.0	5	20.9	13	8.2							NS	
MC5 / C070919.09	5	5	21	6	8.2	6	14.5	5	21.4	13	7.7							NS	
MC5 / C070919.09	6	1	15	6	8.4	6	14.8	5	21.5	13	8.1							NS	
MC5 / C070919.09	7	2	10	6	8.0	6	14.1	5	21.5	13	8.0							NS	
MC5 / C070919.09	8	3	18	6	8.0	6	14.4	5	21.7	10	8.0							AL	
MC5 / C070919.09	9	4	25	6	8.2	6	14.1	5	21.6	10	7.9							AL	
MC5 / C070919.09	10	1	15	6	8.5	6	14.8	5	21.8	13	8.1	JH	<0.5					AL	
		2	10	6	8.4	6	14.8	5	21.9	13	8.1								
		3	18	6	8.2	6	15.2	5	21.6	13	8.1								
		4	25	6	8.4	6	15.4	5	21.5	13	8.2								
		5	21	6	8.5	6	15.4	5	21.7	13	7.8								

① composite of all 5 reps 10/8/07 JH ③ METER INITIALLY SET TO FRESH WATER 10/11/07 NS
 ② 10/11/07 TE NS (8.0) WC ④ composite of all 5 reps 10/21/07 AEL

10 DAY SOLID PHASE TEST DATA SHEET 2



CLIENT LADPW	PROJECT Marina Del Rey	SPECIES <i>Eohaustorius estuarius</i>	WESTON LABORATORY Carlsbad Room 2
WESTON JOB NUMBER 13434.004.003.0006	PROJECT MANAGER Shelly Anghera	TEST START DATE 05Oct07	TEST END DATE 15Oct07
		TIME 1510 JH	PROTOCOL USACE/USEPA (1998) / WESTON B10066
			TIME 1130 am/DS

WATER QUALITY DATA

CLIENT/WESTON ID	DAY	REP	JAR #	DO (mg/L)		TEMP (C)		SALINITY (ppt)		pH		NH3 (mg/L)		DILUTION WATER BATCH				TEMP.RECDR./HOB0#	
				> 6.0		15 ± 2		20 ± 2		7.8 ± 0.5		< 4.0		SIO 092107				778892	
						D.O.		TEMP		SALINITY		pH		OVERLY. NH3		INTER. NH3		INTER. SULFIDE	
meter	mg/L	meter	°C	meter	ppt	meter	unit	Techn.	mg/L	Techn.	mg/L	Techn.	mg/L						
MC4 / C070919.16	0	1	39	6	8.6	6	14.9	5	20.0	13	8.3	JH	40.5					AM	NS
		2	3		8.1		15.3		20.2		8.2	DH							
		3	24		8.4		15.4		20.1		8.3								
		4	29		8.5		14.7		20.1		8.2								
		5	17	↓	8.5	↓	15.4	↓	20.2	↓	8.2								
MC4 / C070919.16	1	1	39	6	8.5	6	15.1	5	20.1	13	8.3							CB	
MC4 / C070919.16	2	2	3	6	8.2	6	15.4	5	20.1	13	8.2							CB	
MC4 / C070919.16	3	3	24	6	8.3	6	14.2	5	20.9	13	8.3							AL	
MC4 / C070919.16	4	4	29	6	8.4	6	15.1	5	21.2	13	8.3							NS	
MC4 / C070919.16	5	5	18	6	8.3	6	14.3	5	21.2	13	8.1							NS	
MC4 / C070919.16	6	1	39	6	8.0	6	15.2	5	21.7	13	8.1							NS	
MC4 / C070919.16	7	2	3	6	7.9	6	15.7	5	21.6	13	8.1							NS	
MC4 / C070919.16	8	3	24	6	7.8	6	14.3	5	21.7	10	8.0							AL	
MC4 / C070919.16	9	4	29	6	8.0	6	15.2	5	21.6	10	8.1							AL	
MC4 / C070919.16	10	1	39	6	8.4	6	15.2	5	21.9	13	8.3	AL	20.5						AL
		2	3		8.5		14.8		21.7		8.3	AL							
		3	24		8.6		15.2		21.6		8.3								
		4	29		8.5		15.2		21.6		8.2								
		5	17	↓	8.6	↓	15.1	↓	21.5	↓	8.3								

① Composite of all 5 reps 10/8/07 JH
 ② METER initially set for FRESH WATER NS

③ Composite of all 5 reps 10/29/07 AL



Ammonia Analysis Total Ammonia (mg/L)

Client/Project: LADPW / Marina Del Rey	Organism: E. coli	Weston Test ID:	Test Duration (days): 10
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PRETEST / INITIAL / FINAL / OTHER (circle one) DAY of TEST: 0
OVERLYING (OV) / FOREWATER (PW) (circle one)

Calibration Standards Temperature		Sample temperature should be within $\pm 1^\circ\text{C}$ of standards temperature at time and date of analysis.
Date:	Temperature:	
10/17/07	24.0	

Sample ID or Description	Conc or Rep	Date of Sampling and Initials	Ammonia Value (mg/L)	Temp (C)	Date of Reading and Initials	Sample Frozen (Y/N)	pH	Sal (ppt)
Ø1		10/5/07	1.19	24.3	10/17/07 JH	Y	7.6	22
D3			1.56	24.5			7.8	30
E4			1.27	24.0			7.9	30
F1			1.67	24.7			7.7	30
B2			2.03	23.9			7.7	30
MC2			2.75	24.5			7.5	30
MC3			2.88	24.6			7.5	30
MC5			4.79	24.5			7.5	30
MC4		↘	3.71	24.3	↘	↘	7.6	30



Ammonia Analysis Total Ammonia (mg/L)

Client/Project: <i>LADPW/Manna Del Rey</i>	Organism: <i>E. coli</i>	Weston Test ID:	Test Duration (days): <i>10</i>
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PRETEST / INITIAL / ~~FINAL~~ / OTHER (circle one) DAY of TEST: 10
 OVERLYING (OV) / ~~POREWATER~~ (PW) (circle one)

Calibration Standards Temperature		Sample temperature should be within $\pm 1^{\circ}\text{C}$ of standards temperature at time and date of analysis.
Date:	Temperature:	
<i>10/15/07</i>	<i>23.5</i>	

Sample ID or Description	Conc. or Rep	Date of Sampling and Initials	Ammonia Value (mg/L)	Temp $^{\circ}\text{C}$	Date of Reading and Initials	Sample Frozen (Y/N)	pH	Sal (ppt)
<i>Ø1</i>		<i>10/15/07 JH</i>	<i>0.571</i>	<i>24.4</i>	<i>10/15/07 JH</i>	<i>N</i>	<i>7.4</i>	<i>20</i>
<i>D-3</i>			<i>0.977</i>	<i>24.3</i>			<i>7.6</i>	<i>23</i>
<i>E-4</i>			<i>1.22</i>	<i>24.3</i>			<i>7.6</i>	<i>23</i>
<i>F-1</i>			<i>0.973</i>	<i>24.2</i>			<i>7.5</i>	<i>22</i>
<i>B-2</i>			<i>0.946</i>	<i>24.4</i>			<i>7.6</i>	<i>22</i>
<i>MC-2</i>			<i>1.46</i>	<i>24.4</i>			<i>7.4</i>	<i>21</i>
<i>MC-3</i>			<i>2.29</i>	<i>24.3</i>			<i>7.4</i>	<i>23</i>
<i>MC-5</i>			<i>3.00</i>	<i>24.2</i>			<i>7.4</i>	<i>23</i>
<i>MC-4</i>		<i>↙</i>	<i>1.63</i>	<i>24.4</i>	<i>↘</i>	<i>↙</i>	<i>7.4</i>	<i>22</i>



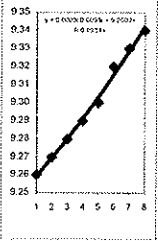
Un-ionized Ammonia Calculator

Client:	LADPW	Start Date:	05-Oct-07
Project ID:	Marina del Rey	Test Type:	Eohaustorius estuarius

To convert Total Ammonia (mg/L) to Free (un-ionized) Ammonia (mg/L) enter the corresponding total ammonia, salinity, temperature, and pH.

Integer: i-factor

1	9.26
2	9.27
3	9.28
4	9.29
5	9.30
6	9.32
7	9.33
8	9.34



TEST	NH3T (mg/L)	salinity (ppt)	pH	temp (C)	temp (K)	i-factor	NH3U (mg/L)	
Example	0.610	22.9	8.0	24.1	297.26	9.3053	0.027	
Example2	2.000	10.0	7.5	5.0	278.16	9.2750	0.008	
Initial OV								
1	Control 1	< 0.500	19.8	8.2	16.0	289.16	9.2975	< 0.020
2	D3	< 0.500	20.2	8.2	15.2	288.36	9.2985	< 0.019
3	E4	< 0.500	20.1	8.2	15.0	288.16	9.2983	< 0.018
4	F1	< 0.500	20.0	8.2	15.0	288.16	9.2980	< 0.018
5	B2	< 0.500	20.2	8.2	14.9	288.06	9.2985	< 0.018
6	MC2	< 0.500	20.1	8.2	14.9	288.06	9.2983	< 0.018
7	MC3	< 0.500	20.0	8.1	15.5	288.66	9.2980	< 0.015
8	MC5	< 0.500	20.0	8.2	15.2	288.36	9.2980	< 0.019
9	MC4	< 0.500	20.1	8.2	15.1	288.26	9.2983	< 0.019
10								
11	Final OV							
12	Control 1	< 0.500	20.7	8.0	14.9	288.06	9.2997	< 0.012
13	D3	< 0.500	21.8	8.1	15.5	288.66	9.3025	< 0.015
14	E4	< 0.500	22.0	8.0	15.0	288.16	9.3030	< 0.012
15	F1	< 0.500	21.9	8.1	14.8	287.96	9.3027	< 0.014
16	B2	< 0.500	22.0	8.1	14.9	288.06	9.3030	< 0.014
17	MC2	< 0.500	21.9	8.2	15.1	288.26	9.3027	< 0.018
18	MC3	< 0.500	21.9	8.2	15.3	288.46	9.3027	< 0.019
19	MC5	< 0.500	21.7	8.1	15.1	288.26	9.3022	< 0.015
20	MC4	< 0.500	21.7	8.3	15.1	288.26	9.3022	< 0.023
21								
22								
23								
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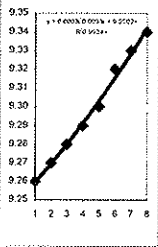
Un-ionized Ammonia Calculator

Client:	LADPW	Start Date:	05-Oct-07
Project ID:	Marina del Rey	Test Type:	Eohaustorius estuarius

To convert Total Ammonia (mg/L) to Free (un-ionized) Ammonia (mg/L) enter the corresponding total ammonia, salinity, temperature and pH.

Integer: I-factor

1	9.26
2	9.27
3	9.28
4	9.29
5	9.30
6	9.32
7	9.33
8	9.34



TEST	NH3T (mg/L)	salinity (ppt)	pH	temp (C)	temp (K)	i-factor	NH3U (mg/L)	
Example	0.610	22.9	8.0	24.1	297.26	9.3053	0.027	
Example2	2.000	10.0	7.5	5.0	278.16	9.2750	0.008	
Initial PW								
1	Control 1	1.190	22	7.6	16.0	289.16	9.3030	0.012
2	D3	1.560	30	7.8	15.2	288.36	9.3242	0.022
3	E4	1.270	30	7.9	15.0	288.16	9.3242	0.023
4	F1	1.670	30	7.7	15.0	288.16	9.3242	0.019
5	B2	2.030	30	7.7	14.9	288.06	9.3242	0.023
6	MC2	2.750	30	7.5	14.9	288.06	9.3242	0.019
7	MC3	2.880	30	7.5	15.5	288.66	9.3242	0.021
8	MC5	4.790	30	7.5	15.2	288.36	9.3242	0.035
9	MC4	3.710	30	7.6	15.1	288.26	9.3242	0.034
10								
Final PW								
12	Control 1	0.571	20	7.4	14.9	288.06	9.2980	0.003
13	D3	0.977	23	7.6	15.5	288.66	9.3055	0.009
14	E4	1.220	23	7.6	15.0	288.16	9.3055	0.011
15	F1	0.973	22	7.5	14.8	287.96	9.3030	0.007
16	B2	0.946	22	7.6	14.9	288.06	9.3030	0.009
17	MC2	1.460	21	7.4	15.1	288.26	9.3005	0.009
18	MC3	2.290	23	7.4	15.3	288.46	9.3055	0.014
19	MC5	3.000	23	7.4	15.1	288.26	9.3055	0.018
20	MC4	1.630	22	7.4	15.1	288.26	9.3030	0.010
21								
22								
23								
24								
25								
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28								
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Data summary of 10-Day solid phase test
 LADPW Marina Del Rey
Eohaustorius estuarius

ENDPOINTS

CLIENT SAMPLE ID	WESTON SAMPLE ID	CONCENTRATION	REP	INITIAL	FINAL NO. ALIVE	% SURVIVAL	MEAN SURVIVAL	MEAN MORTALITY	NUMBER REBURIED	EFFECTIVE MORTALITY
Control 1	C071002.03		1	20	19	95.0			18	
Control 1	C071002.03		2	20	20	100.0			20	
Control 1	C071002.03		3	20	19	95.0	95.0	5.0	19	6.0
Control 1	C071002.03		4	20	18	90.0			18	
Control 1	C071002.03		5	20	19	95.0			19	
D3	C070920.10		1	20	16	80.0			16	
D3	C070920.10		2	20	15	75.0			15	
D3	C070920.10		3	20	16	80.0	75.0	25.0	16	25.0
D3	C070920.10		4	20	14	70.0			14	
D3	C070920.10		5	20	14	70.0			14	
E4	C070920.09		1	20	9	45.0			9	
E4	C070920.09		2	20	12	60.0			12	
E4	C070920.09		3	20	15	75.0	63.0	37.0	15	37.0
E4	C070920.09		4	20	13	65.0			13	
E4	C070920.09		5	20	14	70.0			14	
F1	C070919.08		1	20	11	55.0			11	
F1	C070919.08		2	20	8	40.0			8	
F1	C070919.08		3	20	14	70.0	57.0	43.0	14	43.0
F1	C070919.08		4	20	12	60.0			12	
F1	C070919.08		5	20	12	60.0			12	
B2	C070919.14		1	20	11	55.0			11	
B2	C070919.14		2	20	10	50.0			10	
B2	C070919.14		3	20	11	55.0	55.0	45.0	11	45.0
B2	C070919.14		4	20	10	50.0			10	
B2	C070919.14		5	20	13	65.0			13	
MC2	C070919.06		1	20	18	90.0			18	
MC2	C070919.06		2	20	10	50.0			10	
MC2	C070919.06		3	20	13	65.0	74.0	26.0	13	26.0
MC2	C070919.06		4	20	18	90.0			18	
MC2	C070919.06		5	20	15	75.0			15	
MC3	C070919.10		1	20	14	70.0			14	
MC3	C070919.10		2	20	16	80.0			16	
MC3	C070919.10		3	20	18	90.0	77.0	23.0	18	23.0
MC3	C070919.10		4	20	14	70.0			14	
MC3	C070919.10		5	20	15	75.0			15	



Data summary of 10-Day solid phase test
 LADPW Marina Del Rey
Eohaustorius estuarius

ENDPOINTS

CLIENT SAMPLE ID	WESTON SAMPLE ID	CONCENTRATION	REP	INITIAL	FINAL NO. ALIVE	% SURVIVAL	MEAN SURVIVAL	MEAN MORTALITY	NUMBER REBURIED	EFFECTIVE MORTALITY
MC5	C070919.09		1	20	15	75.0			15	
MC5	C070919.09		2	20	14	70.0			14	
MC5	C070919.09		3	20	12	60.0	67.0	33.0	12	33.0
MC5	C070919.09		4	20	13	65.0			13	
MC5	C070919.09		5	20	13	65.0			13	
MC4	C070919.16		1	20	16	80.0			16	
MC4	C070919.16		2	20	19	95.0			19	
MC4	C070919.16		3	20	18	90.0	91.0	9.0	18	9.0
MC4	C070919.16		4	20	20	100.0			20	
MC4	C070919.16		5	20	18	90.0			18	



10 DAY SOLID PHASE TEST DATA SHEET 3

CLIENT LADPW	PROJECT Marina Del Rey	WESTON JOB NO. 13434.004.003.0006	PROJECT MAN. Shelly Anghera	WESTON LABORATORY Carlsbad Room 2	PROTOCOL USACE/USEPA (1998) / WESTON B10066	SPECIES Eohaustorius estuarius	ACCLM.MOR < 5%
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ENDPOINT DATA & OBSERVATIONS

OBSERVATIONS KEY				DAY 0	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8	DAY 9	DAY 10	NUMBER REMAINING	re-buried
N = normal L = anoxic surface B = no burrows F = fungal patches M = dead on surface D = no air flow (D2) A = avoidance U = excess food				DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE		
CLIENT/ WESTON ID	REP	JAR #	INITIAL #	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN			
Control 1 / C071002.03	1		20		N	IA	IM	IM	IM	IM	IM	IM	IM	19	19	
	2		20		N	N	N	N	N	N	N	N	N	20	20	
	3		20		N	N	N	N	N	N	N	N	N	19	19	
	4		20		N	N	N	N	N	N	N	N	N	18	18	
	5		20		N	N	N	N	N	N	N	N	IM	19	19	
D3 / C070920.10	1		20		N	IA	N	N	N	N	N	N	N	16	16	
	2		20		N	IA	N	N	N	N	N	N	N	15	15	
	3		20		N	N	N	N	N	N	N	N	N	16	16	
	4		20		N	N	N	N	N	N	N	N	N	14	14	
	5		20		N	N	N	N	N	N	N	N	N	14	14	
E4 / C070920.09	1		20		N	N	N	N	N	N	N	N	N	9	9	
	2		20		N	N	N	N	N	N	N	N	N	12	12	
	3		20		N	N	N	N	N	N	N	N	N	15	15	
	4		20		N	N	N	N	N	N	N	N	N	13	13	
	5		20		N	N	N	N	N	N	N	N	IA	14	14	
F1 / C070919.08	1		20		N	N	N	N	N	N	N	N	N	11	11	
	2		20		N	N	N	N	N	N	N	N	N	8	8	
	3		20		N	N	N	N	N	N	N	N	N	14	14	
	4		20		IA	N	N	N	N	N	N	N	N	12	12	
	5		20		N	N	N	N	N	N	N	N	N	12	12	
B2 / C070919.14	1		20		N	N	N	N	N	N	N	N	N	11	11	
	2		20		N	N	N	N	N	N	N	N	N	10	10	
	3		20		N	N	N	N	N	N	N	N	N	11	11	
	4		20		N	N	N	N	N	N	N	N	N	10	10	
	5		20		N	N	N	N	N	N	N	N	N	13	13	
WC2 / C070919.06	1		20		N	N	N	N	N	N	N	N	N	18	18	
	2		20		N	N	N	N	N	N	N	N	N	10	10	
	3		20		N	N	N	N	N	N	N	N	N	13	13	
	4		20		N	N	N	N	N	N	N	N	N	18	18	
	5		20		N	N	N	N	N	N	N	N	IM	15	15	



10 DAY SOLID PHASE TEST DATA SHEET 3

CLIENT LADPW	PROJECT Marina Del Rey	WESTON JOB NO. 13434.004.003.0006	PROJECT MAN. Shelly Anghera	WESTON LABORATORY Carlsbad Room 2	PROTOCOL USACE/USEPA (1998) / WESTON B10066	SPECIES <i>Eohaustorius estuarius</i>	ACCLM.MOR < 5%
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ENDPOINT DATA & OBSERVATIONS

OBSERVATIONS KEY				DAY 0	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8	DAY 9	DAY 10	NUMBER REMAINING	re-buried
N = normal L = anoxic surface B = no burrows F = fungal patches M = dead on surface D = no air flow (DC2) A = avoidance U = excess food				DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE		
CLIENT/ WESTON ID	REP	JAR #	INITIAL #	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN		
MC3 / C070919.10	1		20		N	N	N	N	N	N	N	N	N	N	14	14
	2		20		N	N	N	N	N	N	N	N	N	N	16	16
	3		20		N	N	N	N	N	N	N	N	N	N	18	18
	4		20		N	N	N	N	N	N	N	N	N	N	14	14
	5		20		N	N	N	N	N	N	N	N	N	N	14	14
MC5 / C070919.09	1		20		N	N	N	N	N	N	N	N	N	N	15	15
	2		20		N	N	N	N	N	N	N	N	N	N	14	14
	3		20		N	N	N	ZM IA	IM IA	N	N	N	N	N	12	12
	4		20		N	N	N	N	N	N	N	N	N	N	13	13
	5		20		N	N	N	N	N	N	N	N	N	N	13	13
MC4 / C070919.16	1		20		N	N	N	N	N	N	N	N	N	N	16	16
	2		20		N	N	N	N	N	N	N	N	N	N	19	19
	3		20		N	N	N	N	N	N	N	N	N	N	18	18
	4		20		N	N	N	N	N	N	N	N	N	N	20	20
	5		20		N	N	N	N	N	N	N	N	N	N	18	18

**10 DAY SOLID PHASE TEST
INTERACTIVE DATA SETUP**

GENERAL

CLIENT:	LADPW	
PROJECT:	Marina del Rey	Salinity of Testing (2 - ≤ 28 ppt)
WESTON JOB NUMBER:	13434.004.003.0006	20
PROJECT MANAGER:	Shelly Anghera	
TEST SPECIES:	<i>Eohaustorius estuarius</i>	
TEST PROTOCOL:	USACE/USEPA (1998)	NH3 REFTOX CONC (mg/L)
WESTON PROTOCOL:	WESTON BIO066	
WESTON LABORATORY:	Carlsbad	0
TEST LOCATION:	Room 2	15.625
TEST START DATE:	05Oct07	31.25
TEMP. RECORDER#:	778892	62.5
DILUTION WATER BATCH:	SIO 092107	125
FEEDING INFORMATION:	None	250
WATER RENEWAL INFO:	none	

FIELD SAMPLE

DATE RECEIVED AT WESTON:	9/19/07 and 9/20/07	Cd REFTOX CONC (mg/ L)
SAMPLE STORAGE:	4 Degrees Celsius - dark	0
SAMPLE TREATMENT:	press sieved (2.0 mm)	2.5
TEST CHAMBER:	1 L mason jars	5
EXPOSURE VOLUME:	2 cm sediment/ 750 mL water	10
REFERENCE TOXICANT #1:	cadmium	20
REF. TOX. MATERIAL #1	cadmium chloride	40
REFERENCE TOXICANT #2	ammonia	
REF. TOX. MATERIAL #2:	ammonium chloride	

	CLIENT SAMPLE ID	CONTROL ID	WESTON CONTROL ID
1	E3	C070920.08	Control 2
2	E1	C070919.11	C071002.03
3	MC1	C070919.07	
4	G2	C070919.12	
5	D2	C070920.11	
6	H2	C070919.05	
7	A2	C070919.15	
8	C2	C070919.13	
9	.	.	
10	.	.	
11	.	.	
12	.	.	
13	.	.	
14	.	.	
15	.	.	



Data summary of 10-Day solid phase test
Eohaustorius estuarius
 LADPW Marina del Rey

WATER QUALITY

CLIENT SAMPLE ID	WESTON SAMPLE ID	DISS.OXYGEN (mg/L)			DISS.OXYGEN (%SAT)	TEMPERATURE (°C)			SALINITY (ppt)			pH			OVERLYING NH ₃ (mg/L)			INTER. NH ₃ (mg/L)			INTER. SULFIDE (mg/L)		
		Mean	Min	Max	Mean	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
Control 2	C071002.03	8.5	8.0	8.7	95.8	15.1	14.4	15.7	20.4	20.0	20.8	8.2	8.0	8.3	0.500	0.500	0.500	0.862	0.858	0.866			
E3	C070920.08	8.3	7.6	8.6	93.7	14.9	13.8	15.5	21.2	20.0	22.2	8.1	7.9	8.3	0.500	0.500	0.500	0.894	0.587	1.20			
E1	C070919.11	8.3	7.8	8.6	94.3	14.9	13.4	15.6	21.0	20.0	21.9	8.2	8.0	8.3	0.500	0.500	0.500	1.55	1.33	1.76			
MC1	C070919.07	8.4	7.6	8.7	95.3	15.0	13.3	15.6	21.0	20.1	21.9	8.2	8.0	8.3	0.500	0.500	0.500	1.41	0.896	1.93			
G2	C070919.12	8.3	7.8	8.6	94.0	15.0	13.4	15.5	21.1	20.1	22.0	8.1	7.9	8.3	0.500	0.500	0.500	1.51	1.32	1.69			
D2	C070920.11	8.3	7.6	8.6	94.3	15.1	14.0	16.4	21.0	20.0	21.9	8.1	7.9	8.3	0.500	0.500	0.500	1.85	1.16	2.54			
H2	C070919.05	8.4	7.8	8.7	95.5	15.0	13.7	15.8	20.9	20.0	21.9	8.2	8.0	8.4	0.500	0.500	0.500	2.92	2.70	3.13			
A2	C070919.15	8.3	7.5	8.7	95.1	15.2	13.9	16.6	21.1	20.1	21.9	8.2	8.0	8.3	0.500	0.500	0.500	2.15	1.04	3.25			
C2	C070919.13	8.3	7.8	8.7	95.3	15.4	13.8	16.0	21.0	20.0	21.8	8.2	8.0	8.3	0.500	0.500	0.500	2.04	1.66	2.42			

10 DAY SOLID PHASE TEST DATA SHEET 2



CLIENT LADPW	PROJECT Marina del Rey	SPECIES Eohaustorius estuarius	WESTON LABORATORY Carlsbad Room 2
WESTON JOB NUMBER 13434.004.003.0006	PROJECT MANAGER Shelly Anghera	TEST START DATE 05Oct07	TEST END DATE 15Oct07
		TIME 1610 JH/ML/NS	PROTOCOL USACE/USEPA (1998) / WESTON B10066
			TIME 1500 AMM/DS

WATER QUALITY DATA

TEST	DO (mg/L)		TEMP (C)		SALINITY (ppt)		pH		NH3 (mg/L)		DILUTION WATER BATCH				TEMP.RECDR./HOBO#					
	> 6.0		15 ± 2		20 ± 2		7.8 ± 0.5		< 4.0		SIO 092107				778892					
	CLIENT/WESTON ID	DAY	REP	JAR #	D.O.		TEMP		SALINITY		pH		OVERLY. NH3		INTER. NH3		INTER. SULFIDE		TECHNICIAN	WATER RENEWAL
				meter	mg/L	meter	°C	meter	ppt	meter	unit	Techn.	mg/L	Techn.	mg/L	Techn.	mg/L			
Control 2 / C071002.03	0	1	15	6	8.5	6	15.4	5	20.0	13	8.2	JH	<0.5					AMM	NS	
		2	40		8.6		14.7		20.0		8.2									
		3	24		8.6		15.2		20.0		8.2									
		4	41		8.7		14.7		20.0		8.2									
		5	36	↓	8.5	↓	14.7	↓	20.0	↓	8.2									
Control 2 / C071002.03	1	1	15	6	8.4	6	15.1	5	20.1	13	8.1							EB		
Control 2 / C071002.03	2	2	40	6	8.5	6	15.0	5	20.0	13	8.2							EB		
Control 2 / C071002.03	3	3	24	6	8.7	6	14.4	5	20.5	13	8.3							AL		
Control 2 / C071002.03	4	4	41	6	8.3	6	14.9	5	20.5	13	8.2							NS		
Control 2 / C071002.03	5	5	36	6	8.4	6	13.8	5	20.6	13	8.2							NS		
Control 2 / C071002.03	6	1	15	6	8.4	6	14.7	5	20.7	13	8.1							NS		
Control 2 / C071002.03	7	2	40	6	8.1	6	15.7	5	20.6	13	8.1							NS		
Control 2 / C071002.03	8	3	24	6	8.0	6	14.7	5	20.7	10	8.0							AL		
Control 2 / C071002.03	9	4	41	6	8.3	6	15.4	5	20.6	10	8.1							AL		
Control 2 / C071002.03	10	1	15	6	8.6	6	15.4	5	20.7	13	8.2	AL	<0.5					AL		
		2	40		8.6		15.1		20.6		8.2									
		3	24		8.5		15.4		20.8		8.1									
		4	41		8.6		14.9		20.6		8.2									
		5	36	↓	8.3	↓	15.5	↓	20.8	↓	8.1									

① composite of all 5 reps 10/8/07 JH
 ② wc 10/9/07 NS

③ IE 10/11/07 NS meter initially set in incorrectly (fresh water)
 ④ composite of all 5 reps 10/24/07 AEL

10 DAY SOLID PHASE TEST DATA SHEET 2



CLIENT LADPW	PROJECT Marina del Rey	SPECIES <i>Eohaustorius estuarius</i>	WESTON LABORATORY Carlsbad Room 2
WESTON JOB NUMBER 13434.004.003.0006	PROJECT MANAGER Shelly Anghera	TEST START DATE 05Oct07	TEST END DATE 15Oct07
		TIME 1610 JH/AL/NS	PROTOCOL USACE/USEPA (1998) / WESTON B10066
			TIME 1500 am/bs

WATER QUALITY DATA

TEST	DO (mg/L)		TEMP (C)		SALINITY (ppt)		pH		NH3 (mg/L)		DILUTION WATER BATCH						TEMP.RECDR./HOBO#			
	> 6.0		15 ± 2		20 ± 2		7.8 ± 0.5		< 4.0		SIO 092107						778892			
	CLIENT/WESTON ID	DAY	REP	JAR #	D.O.		TEMP		SALINITY		pH		OVERLY. NH3		INTER. NH3		INTER. SULFIDE		TECHNICIAN	WATER RENEWAL
				meter	mg/L	meter	°C	meter	ppt	meter	unit	Techn.	mg/L	Techn.	mg/L	Techn.	mg/L			
E3 / C070920.08	0	1	44	6	8.6	6	14.7	5	20.2	13	8.3	JH	<0.5					AM	NS	
		2	43		8.6		14.6		20.2		8.3	JH								
		3	33		8.6		14.9		20.1		8.3									
		4	13		8.2		15.1		20.3		8.2									
		5	12	✓	8.4	✓	15.2	✓	20.1	✓	8.2									
E3 / C070920.08	1	1	44	6	8.5	6	15.0	5	20.0	13	8.2							EP		
E3 / C070920.08	2	2	43	6	8.5	6	14.9	5	20.1	13	8.3							EB		
E3 / C070920.08	3	3	33	6	8.6	6	14.7	5	21.3	13	8.3							AL		
E3 / C070920.08	4	4	13	6	8.1	6	13.8	5	21.5	13	8.2							NS		
E3 / C070920.08	5	5	12	6	8.3	6	13.8	5	21.4	13	7.93							NS		
E3 / C070920.08	6	1	44	6	8.0	6	15.5	5	21.9	13	8.0							NS		
E3 / C070920.08	7	2	43	6	8.0	6	15.5	5	21.5	13	8.1							NS		
E3 / C070920.08	8	3	33	6	7.9	6	14.9	5	21.6	10	8.0							AL		
E3 / C070920.08	9	4	13	6	7.6	6	15.1	5	22.1	10	8.0							AL		
E3 / C070920.08	10	1	44	6	7.6	6	14.8	5	22.2	13	8.0	AL	<0.5					AL		
		2	43		8.2		15.0		21.9		8.1	AL								
		3	33		8.3		15.1		21.9		8.1									
		4	13		8.5		15.3		22.2		8.1									
		5	12	✓	8.4	✓	15.4	✓	21.9	✓	8.1									

① composite of all 5 reps 10/8/07 JH ② IE 10/11/07 NS meter initially SET for fresh water (8.0 mg/L, 15.5°C)
 ③ composite of all 5 reps 10/24/07 AL

10 DAY SOLID PHASE TEST DATA SHEET 2



CLIENT LADPW	PROJECT Marina del Rey	SPECIES <i>Eohaustorius estuarius</i>	WESTON LABORATORY Carlsbad Room 2
WESTON JOB NUMBER 13434.004.003.0006	PROJECT MANAGER Shelly Anghera	TEST START DATE 05Oct07	TEST END DATE 15Oct07
		TIME 1610 JH / AL / NS	PROTOCOL USACE/US EPA (1998) / WESTON B10066
			TIME 1500 am / NS

WATER QUALITY DATA

TEST	DO (mg/L)		TEMP (C)		SALINITY (ppt)		pH		NH3 (mg/L)		DILUTION WATER BATCH						TEMP. RECDR./HOBO#		
	> 6.0		15 ± 2		20 ± 2		7.8 ± 0.5		< 4.0		SIO 092107						778892		
CLIENT/WESTON ID	DAY	REP	JAR #	D.O.		TEMP		SALINITY		pH		OVERLY. NH3		INTER. NH3		INTER. SULFIDE		TECHNICIAN	WATER RENEWAL
				meter	mg/L	meter	°C	meter	ppt	meter	unit	Techn.	mg/L	Techn.	mg/L	Techn.	mg/L		
E1 / C070919.11	0	1	22	6	8.5	6	15.2	5	20.0	13	8.2	JH	60.5					AM	NS
		2	35	6	8.5	6	14.6	5	20.1	13	8.3	JH							
		3	26	6	8.6	6	15.2	5	20.2	13	8.3								
		4	16	6	8.3	6	15.2	5	20.1	13	8.2								
		5	30	6	8.4	6	15.0	5	20.1	13	8.2								
E1 / C070919.11	1	1	22	6	8.4	6	15.1	5	20.1	13	8.2							AL	
E1 / C070919.11	2	2	35	6	8.5	6	15.0	5	20.1	13	8.3							AL	
E1 / C070919.11	3	3	26	6	8.3	6	13.5	5	21.0	13	8.3							AL	
E1 / C070919.11	4	4	16	6	8.5	6	13.4	5	21.3	13	8.3							NS	
E1 / C070919.11	5	5	30	6	8.4	6	15.2	5	21.3	13	8.0							NS	
E1 / C070919.11	6	1	22	6	8.5	6	13.9	5	21.2	13	8.0							NS	
E1 / C070919.11	7	2	35	6	8.1	6	15.1	5	21.3	13	8.0							NS	
E1 / C070919.11	8	3	26	6	8.0	6	13.7	5	21.4	10	8.0							AL	
E1 / C070919.11	9	4	16	6	7.8	6	15.3	5	21.7	10	8.1							AL	
E1 / C070919.11	10	1	22	6	8.4	6	14.9	5	21.8	13	8.1	ML < 0.5						AL	
		2	35	6	8.2	6	14.8	5	21.5	13	8.1	AL							
		3	26	6	8.3	6	15.6	5	21.9	13	8.1								
		4	16	6	8.1	6	15.4	5	21.8	13	8.1								
		5	30	6	8.4	6	15.5	5	21.8	13	8.1								

① Composite of all 5 reps 10/8/07 JH
 ② IE 10/11/07 NS meter initially in incorrect mode

③ Composite of all 5 reps 10/24/07 AEL

10 DAY SOLID PHASE TEST DATA SHEET 2



CLIENT LADPW	PROJECT Marina del Rey	SPECIES <i>Eohaustorius estuarius</i>	WESTON LABORATORY Carlsbad Room 2
WESTON JOB NUMBER 13434.004.003.0006	PROJECT MANAGER Shelly Anghera	TEST START DATE 05Oct07	TEST END DATE 15Oct07
		TIME 16:10 JH/AL/NS	PROTOCOL USACE/USEPA (1998) / WESTON B10066
			TIME 1500 am/bjs

WATER QUALITY DATA

TEST	DO (mg/L)		TEMP (C)		SALINITY (ppt)		pH		NH3 (mg/L)		DILUTION WATER BATCH				TEMP.RECDR./HOB0#				
	> 6.0		15 ± 2		20 ± 2		7.8 ± 0.5		< 4.0		SIO 092107				778892				
CLIENT/WESTON ID	DAY	REP	JAR #	D.O.		TEMP		SALINITY		pH		OVERLY. NH3		INTER. NH3		INTER. SULFIDE		TECHNICIAN	WATER RENEWAL
				meter	mg/L	meter	°C	meter	ppt	meter	unit	Techn.	mg/L	Techn.	mg/L	Techn.	mg/L		
MC1 / C070919.07	0	1	7	6	8.1	6	15.3	5	20.2	13	8.2	JH	<0.5					AM	NS
		2	32		8.6		15.0		20.1		8.3	JH							
		3	10		8.6		15.2		20.1		8.2								
		4	27		8.7		15.0		20.2		8.3								
		5	20	↓	8.7	↓	15.1	↓	20.1	↓	8.3								
MC1 / C070919.07	1	1	7	6	8.2	6	15.1	5	20.2	13	8.2							EB	
MC1 / C070919.07	2	2	32	6	8.5	6	15.1	5	20.1	13	8.3							EB	
MC1 / C070919.07	3	3	10	6	8.4	6	13.3	5	20.9	13	8.3							AL	
MC1 / C070919.07	4	4	27	6	8.3	6	14.7	5	21.3	13	8.3							NS	
MC1 / C070919.07	5	5	20	6	8.1	6	14.6	5	21.3	13	8.0							NS	
MC1 / C070919.07	6	1	7	6	8.7 ^②	6	15.5 ^②	5	21.3	13	8.0							NS	
MC1 / C070919.07	7	2	32	6	8.3	6	15.5	5	21.3	13	8.1							NS	
MC1 / C070919.07	8	3	10	6	8.2	6	13.7	5	21.4	10	8.0							AL	
MC1 / C070919.07	9	4	27	6	8.4	6	15.6	5	21.7	10	8.2							AL	
MC1 / C070919.07	10	1	7	6	8.4	6	15.5	5	21.8	13	8.1	AL	<0.5					AL	
		2	32		8.6		15.3		21.7		8.2	AL							
		3	10		8.6		15.2		21.7		8.1								
		4	27		8.5		15.6		21.9		8.2								
		5	20	↓	8.5	↓	15.6	↓	21.7	↓	8.2								

- ① Composite of all 5 reps 10/8/07 JH ② IE 10/11/07 NS meter initially set for fresh water.
 ③ Composite of all 5 reps 10/24/07 AL

10 DAY SOLID PHASE TEST DATA SHEET 2



CLIENT LADPW	PROJECT Marina del Rey	SPECIES <i>Eohaustorius estuarius</i>	WESTON LABORATORY Carlsbad Room 2
WESTON JOB NUMBER 13434.004.003.0006	PROJECT MANAGER Shelly Anghera	TEST START DATE 05Oct07	TEST END DATE 15Oct07
		TIME 1610 JH/PAL/NS	PROTOCOL USACE/USEPA (1998) / WESTON B10066
			TIME 1500 AMM/PS

WATER QUALITY DATA

TEST	DO (mg/L)		TEMP (C)		SALINITY (ppt)		pH		NH3 (mg/L)		DILUTION WATER BATCH				TEMP. RECDR./HOB0#				
	> 6.0		15 ± 2		20 ± 2		7.8 ± 0.5		< 4.0		SIO 092107				778892				
CLIENT/WESTON ID	DAY	REP	JAR #	D.O.		TEMP		SALINITY		pH		OVERLY. NH3		INTER. NH3		INTER. SULFIDE		TECHNICIAN	WATER RENEWAL
				meter	mg/L	meter	°C	meter	ppt	meter	unit	Techn.	mg/L	Techn.	mg/L	Techn.	mg/L		
G2 / C070919.12	0	1	8	6	8.5	6	15.2	5	20.1	13	8.2	JH	<0.5					AMM	NS
		2	6		8.1		15.3		20.2		8.2								
		3	11		8.3		15.2		20.1		8.2								
		4	34		8.6		14.7		20.1		8.3								
		5	31	↓	8.4	↓	15.1	↓	20.2	↓	8.2								
G2 / C070919.12	1	1	8	6	8.4	6	15.1	5	20.2	13	8.2							EB	
G2 / C070919.12	2	2	6	6	8.1	6	15.1	5	20.2	13	8.2							EB	
G2 / C070919.12	3	3	11	6	8.6	6	13.4	5	20.9	13	8.2							AL	
G2 / C070919.12	4	4	34	6	8.3	6	15.2	5	21.3	13	8.3							NS	
G2 / C070919.12	5	5	31	6	7.8	6	15.5	5	21.3	13	7.9							NS	
G2 / C070919.12	6	1	8	6	8.1	6	15.4	5	21.5	13	8.0							NS	
G2 / C070919.12	7	2	6	6	7.8	6	15.5	5	21.6	13	7.9							NS	
G2 / C070919.12	8	3	11	6	8.0	6	13.9	5	21.5	10	7.9							AL	
G2 / C070919.12	9	4	34	6	8.2	6	15.1	5	21.7	10	8.1							AL	
G2 / C070919.12	10	1	8	6	7.9	6	15.1	5	21.9	13	8.1	AE	<0.5					AL	
		2	6		8.4		15.4		22.0		8.1								
		3	11		8.4		15.3		21.7		8.1								
		4	34		8.5		15.1		22.0		8.1								
		5	31	↓	8.6	↓	15.5	↓	21.9	↓	8.1								

① composite of all 5 reps 10/8/07 JH
 ② meter initially set for fresh water 10/11/07 NS
 ③ composite of all 5 reps 10/21/07 AE

10 DAY SOLID PHASE TEST DATA SHEET 2



CLIENT LADPW	PROJECT Marina del Rey	SPECIES <i>Eohaustorius estuarius</i>	WESTON LABORATORY Carlsbad Room 2
WESTON JOB NUMBER 13434.004.003.0006	PROJECT MANAGER Shelly Anghera	TEST START DATE 05Oct07	TEST END DATE 15Oct07
		TIME 1610 JH/ML NS	PROTOCOL USACE/USEPA (1998) / WESTON BIO066
			TIME 1500 am/ML

WATER QUALITY DATA

TEST	DO (mg/L)		TEMP (C)		SALINITY (ppt)		pH		NH3 (mg/L)		DILUTION WATER BATCH				TEMP.RECDR./HOBO#					
	> 6.0		15 ± 2		20 ± 2		7.8 ± 0.5		< 4.0		SIO 092107				778892					
CLIENT/WESTON ID	DAY	REP	JAR #	D.O.		TEMP		SALINITY		pH		OVERLY. NH3		INTER. NH3		INTER. SULFIDE		TECHNICIAN	WATER RENEWAL	
				meter	mg/L	meter	°C	meter	ppt	meter	unit	Techn.	mg/L	Techn.	mg/L	Techn.	mg/L			
D2 / C070920.11	0	1	39	6	8.4	6	15.1	5	20.1	13	8.2	JH	<0.5					am	NS	
		2	2		8.1		15.2		20.1		8.1		0.5							
		3	5		8.5		15.5		20.1		8.2									
		4	4		8.4		15.3		20.1		8.1									
		5	23	↓	8.6	↓	15.3	↓	20.0	↓	8.2									
D2 / C070920.11	1	1	39	6	8.3	6	15.0	5	20.2	13	8.3							EB		
D2 / C070920.11	2	2	2	6	8.2	6	15.1	5	20.1	13	8.2							EB		
D2 / C070920.11	3	3	5	6	8.6	6	14.0	5	21.1	13	8.2							AL		
D2 / C070920.11	4	4	4	6	8.4	6	14.3	5	21.1	13	8.2							NS		
D2 / C070920.11	5	5	23	6	8.2	6	14.0	5	21.3	13	8.0							NS		
D2 / C070920.11	6	1	39	6	8.2	6	15.5	5	21.6	13	7.9							NS		
D2 / C070920.11	7	2	2	6	7.7	6	15.1	5	21.6	13	7.9							NS		
D2 / C070920.11	8	3	5	6	7.6	6	15.3	5	21.7	10	8.0							AL		
D2 / C070920.11	9	4	4	6	8.4	6	15.0	5	21.7	10	8.1							AL		
D2 / C070920.11	10	1	39	6	8.0	6	15.4	5	21.9	13	8.2	AEL	<0.5					AL		
		2	2		8.5		15.5		21.7		8.2		0.5							
		3	5		8.5		15.4		21.9		8.1									
		4	4		8.5		15.3		21.7		8.1									
		5	23	↓	8.3	↓	15.2	↓	21.9	↓	8.1									

① composite of all 5 reps 10/8/07 JH
 ② meter initially set for fresh water NS 10/11/07

③ composite of all 5 reps 10/21/07 AEL

10 DAY SOLID PHASE TEST DATA SHEET 2



CLIENT LADPW	PROJECT Marina del Rey	SPECIES <i>Eohaustorius estuarius</i>	WESTON LABORATORY Carlsbad Room 2
WESTON JOB NUMBER 13434.004.003.0006	PROJECT MANAGER Shelly Anghera	TEST START DATE 05Oct07	TEST END DATE 15Oct07
		TIME 1610 JH / AL / NS	PROTOCOL USACE/USEPA (1998) / WESTON B10066
			TIME 1500 Am/BS

WATER QUALITY DATA

TEST	DO (mg/L)		TEMP (C)		SALINITY (ppt)		pH		NH3 (mg/L)		DILUTION WATER BATCH				TEMP.RECDR./HOB#					
	> 6.0		15 ± 2		20 ± 2		7.8 ± 0.5		< 4.0		SIO 092107				778892					
	CLIENT/WESTON ID	DAY	REP	JAR #	D.O.		TEMP		SALINITY		pH		OVERLY. NH3		INTER. NH3		INTER. SULFIDE		TECHNICIAN	WATER RENEWAL
				meter	mg/L	meter	°C	meter	ppt	meter	unit	Techn.	mg/L	Techn.	mg/L	Techn.	mg/L			
H2 / C070919.05	0	1	1	6	8.4	6	15.2	5	20.1	13	8.1	JH	<0.5					Am	NS	
		2	28	6	8.7	6	14.9	5	20.1	13	8.2	JH								
		3	19	6	8.6	6	15.4	5	20.3	13	8.2									
		4	9	6	8.6	6	15.2	5	20.0	13	8.2									
		5	14	6	8.6	6	15.1	5	20.1	13	8.2									
H2 / C070919.05	1	1	6	8.5	6	15.3	5	20.2	13	8.2								AL		
H2 / C070919.05	2	2	6	8.5	6	15.0	5	20.1	13	8.2								AL		
H2 / C070919.05	3	3	6	8.7	6	14.1	5	21.1	13	8.3								AL		
H2 / C070919.05	4	4	6	8.4	6	14.2	5	20.8	13	8.2								NS		
H2 / C070919.05	5	5	6	8.2	6	14.6	5	21.3	13	8.1								NS		
H2 / C070919.05	6	1	6	8.1	6	15.3	5	21.3	13	8.1								NS		
H2 / C070919.05	7	2	6	7.9	6	15.8	5	21.2	13	8.1								NS		
H2 / C070919.05	8	3	6	7.8	6	14.2	5	21.3	10	8.0								AL		
H2 / C070919.05	9	4	6	8.4	6	14.8	5	21.4	10	8.1								AL		
H2 / C070919.05	10	1	1	6	8.4	6	15.0	5	21.6	13	8.2	AL	<0.5					AL		
		2	28	6	8.2	6	15.5	5	21.9	13	8.2	AL								
		3	19	6	8.7	6	15.7	5	21.7	13	8.4									
		4	9	6	8.7	6	15.2	5	21.6	13	8.2									
		5	14	6	8.5	6	15.3	5	21.8	13	8.2									

① composite of all 5 reps 10/8/07 JH
 ② IE 10/11/07 NS meter initially set for fresh water

③ composite of all 5 reps 10/24/07 AEL

10 DAY SOLID PHASE TEST DATA SHEET 2



CLIENT LADPW	PROJECT Marina del Rey	SPECIES <i>Eohaustorius estuarius</i>	WESTON LABORATORY Carlsbad Room 2
WESTON JOB NUMBER 13434.004.003.0006	PROJECT MANAGER Shelly Anghera	TEST START DATE 05Oct07	TEST END DATE 15Oct07
		TIME 1610 JH/AL/NS	PROTOCOL USACE/USEPA (1998) / WESTON BIO066
			TIME 1500 am/125

WATER QUALITY DATA

TEST	DO (mg/L)		TEMP (C)		SALINITY (ppt)		pH		NH3 (mg/L)		DILUTION WATER BATCH				TEMP. RECDR./HOB0#				
	> 6.0		15 ± 2		20 ± 2		7.8 ± 0.5		< 4.0		SIO 092107				778892				
CLIENT/WESTON ID	DAY	REP	JAR #	D.O.		TEMP		SALINITY		pH		OVERLY. NH3		INTER. NH3		INTER. SULFIDE		TECHNICIAN	WATER RENEWAL
				meter	mg/L	meter	°C	meter	ppt	meter	unit	Techn.	mg/L	Techn.	mg/L	Techn.	mg/L		
A2 / C070919.15	0	1	21	6	7.5	6	15.1	5	20.3	13	8.3	JH	<0.5					Am	NS
		2	18		8.5		15.5		20.2		8.3		DJH						
		3	45		8.6		14.5		20.1		8.3								
		4	42		8.7		14.6		20.2		8.3								
		5	29	↓	8.7	↓	14.9	↓	20.1	↓	8.2								↓
A2 / C070919.15	1	1	21	6	8.0	6	15.3	5	20.3	13	8.3							EB	
A2 / C070919.15	2	2	18	6	8.3	6	15.4	5	20.3	13	8.3							EB	
A2 / C070919.15	3	3	45	6	8.6	6	13.9	5	21.0	13	8.3							AL	
A2 / C070919.15	4	4	42	6	8.1	6	15.6	5	21.3	13	8.3 ^{0.5}							NS	
A2 / C070919.15	5	5	29	6	8.2	6	14.7	5	21.4	13	8.1							NS	
A2 / C070919.15	6	1	21	6	8.0 ^{0.5}	6	14.8 ^{0.5}	5	21.4	13	8.2							NS	
A2 / C070919.15	7	2	18	6	7.9	6	16.6	5	21.6	13	8.1							NS	
A2 / C070919.15	8	3	45	6	8.0	6	15.3	5	21.5	10	8.0							AL	
A2 / C070919.15	9	4	42	6	8.5	6	14.9	5	21.7	10	8.1							AL	
A2 / C070919.15	10	1	21	6	8.3	6	15.4	5	21.8	13	8.2	AEL	>0.5					AL	
		2	18		8.3		15.6		21.9		8.2		ⓐ AEL						
		3	45		8.7		14.8		21.8		8.3								
		4	42		8.7		14.9		21.9		8.2								
		5	29	↓	8.7	↓	15.5	↓	21.9	↓	8.2								↓

① composite of all 5 reps 10/8/07 JH
 ② 1w (10/9/07) NS - 8.3

③ water initially set for fresh water 10/11/07 NS
 ④ composite of all 5 reps 10/24/07 AEL

10 DAY SOLID PHASE TEST DATA SHEET 2



CLIENT LADPW	PROJECT Marina del Rey	SPECIES <i>Eohaustorius estuarius</i>	WESTON LABORATORY Carlsbad Room 2
WESTON JOB NUMBER 13434.004.003.0006	PROJECT MANAGER Shelly Anghera	TEST START DATE 05Oct07	TEST END DATE 15Oct07
		TIME 1610 JH/AL/NS	PROTOCOL USACE/USEPA (1998) / WESTON B.0066
			TIME 1500 am JH

WATER QUALITY DATA

TEST	DO (mg/L)		TEMP (C)		SALINITY (ppt)		pH		NH3 (mg/L)		DILUTION WATER BATCH				TEMP.RECDR./HOB#				
	> 6.0		15 ± 2		20 ± 2		7.8 ± 0.5		< 4.0		SIO 092107				778892				
CLIENT/WESTON ID	DAY	REP	JAR #	D.O.		TEMP		SALINITY		pH		OVERLY. NH3		INTER. NH3		INTER. SULFIDE		TECHNICIAN	WATER RENEWAL
				meter	mg/L	meter	°C	meter	ppt	meter	unit	Techn.	mg/L	Techn.	mg/L	Techn.	mg/L		
C2 / C070919.13	0	1	3	6	8.2	6	15.5	5	20.0	13	8.2	JH < 0.5						AMM	NS
		2	17		8.5		15.5		20.1		8.2	JH							
		3	25		8.6		15.3		20.2		8.2								
		4	37		8.5		15.0		20.1		8.2								
		5	38	↓	8.6	↓	15.1	↓	20.2	↓	8.3								
C2 / C070919.13	1	1	3	6	8.1	6	15.4	5	20.2	13	8.3							EIS	
C2 / C070919.13	2	2	17	6	8.3	6	15.4	5	20.1	13	8.2							GB	
C2 / C070919.13	3	3	25	6	8.7	6	13.8	5	20.9	13	8.3							AL	
C2 / C070919.13	4	4	37	6	7.8	6	15.8	5	21.2	13	8.3							NS	
C2 / C070919.13	5	5	38	6	7.7	6	15.4	5	21.2	13	8.0							NS	
C2 / C070919.13	6	1	3	6	8.1	6	15.8	5	21.3	13	8.0							NS	
C2 / C070919.13	7	2	17	6	7.8	6	15.9	5	21.5	13	8.1							NS	
C2 / C070919.13	8	3	25	6	7.9	6	16.0	5	21.6	10	8.0							AL	
C2 / C070919.13	9	4	37	6	8.2	6	15.7	5	21.6	10	8.2							AL	
C2 / C070919.13	10	1	3	6	8.6	6	15.2	5	21.6	13	8.2	ABL < 0.5						AL	
		2	17		8.6		15.7		21.8		8.2	ABL							
		3	25		8.7		15.6		21.7		8.2								
		4	37		8.5		15.6		21.8		8.2								
		5	38	↓	8.5	↓	15.6	↓	21.6	↓	8.2								

① composite of all 5 reps 10/8/07 JH
 ② meter initially set for fresh water 10/11/07 NS
 ③ composite of all 5 reps 10/24/07 ABL



Ammonia Analysis Total Ammonia (mg/L)

Client/Project: LADPW/Marina DelRey	Organism: Eohs	Weston Test ID:	Test Duration (days): 10
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PRETEST / INITIAL / FINAL / OTHER (circle one) **DAY of TEST: 0**
OVERLYING (OV) / POREWATER (PW) (circle one)

Calibration Standards Temperature		Sample temperature should be within $\pm 1^{\circ}\text{C}$ of standards temperature at time and date of analysis.
Date:	Temperature:	
10/17/07	24.0°	

Sample ID or Description	Conc of Rep	Date of Sampling and Initials	Ammonia Value (mg/L)	Temp °C	Date of Reading and Initials	Sample Frozen (Y/N)	pH	Sal (ppt)
G2		10/5/07 JH	0.866	24.4	10/17/07 JH	Y	7.7	22
E3			1.20	24.2			7.8	30
E1			1.76	24.2			7.7	30
MCI			1.93	24.0			7.8	30
G2			1.69	24.4			7.8	30
D2			2.54	23.8			8.0	30
H2			3.13	24.0			7.6	30
A2			3.25	24.0			7.8	30
C2		↘	2.92	23.8	↘	↘	7.7	30



Ammonia Analysis Total Ammonia (mg/L)

Client/Project: LADPW/Marina Del Rey	Organism: Foks	Weston Test ID:	Test Duration (days): 10
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PRETEST / INITIAL / FINAL / OTHER (circle one) DAY of TEST: 10
 OVERLYING (OV) / POREWATER (PW) (circle one)

Calibration Standards Temperature		Sample temperature should be within $\pm 1^\circ\text{C}$ of standards temperature at time and date of analysis.
Date:	Temperature:	
10/15/07	23.5	

Sample ID or Description	Conc. or Rep	Date of Sampling and Initials	Ammonia Value (mg/L)	Temp $^\circ\text{C}$	Date of Reading and Initials	Sample Frozen (Y/N)	pH	Sal (ppt)		
D-2		10/15/07 JH	0.858	23.4	10/15/07 JH	N	7.4	21		
F-3			0.587	24.3			7.0	22		
E-1			1.33	23.6			7.5	22		
D-2			1.16	23.3			7.4	23		
H-2			2.70	24.4			7.4	23		
C-2			1.64	23.8			7.5	23		
MC-1			0.896	23.6			7.4	23		
G-2			1.32	24.0			7.4	23		
A-2			1.04	23.3			7.5	22		



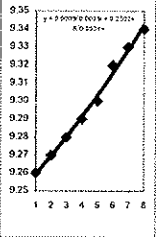
Un-ionized Ammonia Calculator

Client:	LADPW	Start Date:	05-Oct-07
Project ID:	Marina del Rey	Test Type:	Eohaustorius estuarius

To convert Total Ammonia (mg/L) to Free (un-ionized) Ammonia (mg/L) enter the corresponding total ammonia, salinity, temperature, and pH.

Integer: I-factor

1	9.26
2	9.27
3	9.28
4	9.29
5	9.30
6	9.32
7	9.33
8	9.34



TEST	NH3T (mg/L)	salinity (ppt)	pH	temp (C)	temp (K)	i-factor	NH3U (mg/L)	
Example	0.610	22.9	8.0	24.1	297.26	9.3053	0.027	
Example2	2.000	10.0	7.5	5.0	278.16	9.2750	0.008	
Initial OV								
1	Control 2	<0.500	20.0	8.2	14.9	288.06	9.2980	<0.018
2	E3	<0.500	20.2	8.3	14.9	288.06	9.2985	<0.023
3	E1	<0.500	20.1	8.2	15.0	288.16	9.2983	<0.018
4	MC1	<0.500	20.1	8.3	15.1	288.26	9.2983	<0.023
5	G2	<0.500	20.1	8.2	15.1	288.26	9.2983	<0.019
6	D2	<0.500	20.1	8.2	15.3	288.46	9.2983	<0.019
7	H2	<0.500	20.1	8.2	15.2	288.36	9.2983	<0.019
8	A2	<0.500	20.2	8.3	14.9	288.06	9.2985	<0.023
9	C2	<0.500	20.1	8.2	15.3	288.46	9.2983	<0.019
10								
11	Final OV							
12	Control 2	<0.500	20.7	8.2	15.3	288.46	9.2997	<0.019
13	E3	<0.500	22.0	8.1	15.1	288.26	9.3030	<0.015
14	E1	<0.500	21.8	8.1	15.2	288.36	9.3025	<0.015
15	MC1	<0.500	21.8	8.2	15.4	288.56	9.3025	<0.019
16	G2	<0.500	21.9	8.1	15.3	288.46	9.3027	<0.015
17	D2	<0.500	21.8	8.1	15.4	288.56	9.3025	<0.015
18	H2	<0.500	21.7	8.2	15.3	288.46	9.3022	<0.019
19	A2	<0.500	21.9	8.2	15.2	288.36	9.3027	<0.019
20	C2	<0.500	21.7	8.2	15.5	288.66	9.3022	<0.019
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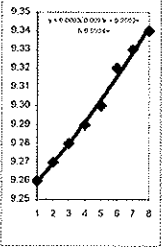
Un-ionized Ammonia Calculator

Client:	LADPW	Start Date:	05-Oct-07
Project ID:	Marina del Rey	Test Type:	Eohaustorius estuarius

To convert Total Ammonia (mg/L) to Free (un-ionized) Ammonia (mg/L) enter the corresponding total ammonia, salinity, temperature and pH.

Integer: I-factor

1	9.26
2	9.27
3	9.28
4	9.29
5	9.30
6	9.32
7	9.33
8	9.34



TEST	NH3T (mg/L)	salinity (ppt)	pH	temp (C)	temp (K)	i-factor	NH3U (mg/L)
Example	0.610	22.9	8.0	24.1	297.26	9.3053	0.027
Example2	2.000	10.0	7.5	5.0	278.16	9.2750	0.008
Initial PW							
1 Control 2	0.866	22	7.7	14.9	288.06	9.3030	0.010
2 E3	1.200	30	7.8	14.9	288.06	9.3242	0.017
3 E1	1.760	30	7.7	15.0	288.16	9.3242	0.020
4 MC1	1.930	30	7.8	15.1	288.26	9.3242	0.028
5 G2	1.690	30	7.8	15.1	288.26	9.3242	0.024
6 D2	2.540	30	8.0	15.3	288.46	9.3242	0.058
7 H2	3.130	30	7.6	15.2	288.36	9.3242	0.029
8 A2	3.250	30	7.8	14.9	288.06	9.3242	0.046
9 C2	2.420	30	7.7	15.3	288.46	9.3242	0.028
Final PW							
12 Control 2	0.858	21	7.4	15.3	288.46	9.3005	0.005
13 E3	0.587	22	7.6	15.1	288.26	9.3030	0.006
14 E1	1.330	22	7.5	15.2	288.36	9.3030	0.010
15 MC1	0.896	23	7.4	15.4	288.56	9.3055	0.005
16 G2	1.320	23	7.4	15.3	288.46	9.3055	0.008
17 D2	1.160	23	7.4	15.4	288.56	9.3055	0.007
18 H2	2.700	23	7.4	15.3	288.46	9.3055	0.016
19 A2	1.040	22	7.5	15.2	288.36	9.3030	0.008
20 C2	1.660	23	7.5	15.5	288.66	9.3055	0.013
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CS



Data summary of 10-Day solid phase test
 LADPW Marina del Rey
Eohaustorius estuarius

ENDPOINTS

CLIENT SAMPLE ID	WESTON SAMPLE ID	CONCENTRATION	REP	INITIAL	FINAL NO. ALIVE	% SURVIVAL	MEAN SURVIVAL	MEAN MORTALITY	NUMBER REBURIED	EFFECTIVE MORTALITY
Control 2	C071002.03		1	20	14	70.0			14	
Control 2	C071002.03		2	20	20	100.0			20	
Control 2	C071002.03		3	20	20	100.0	91.0	9.0	20	9.0
Control 2	C071002.03		4	20	19	95.0			19	
Control 2	C071002.03		5	20	18	90.0			18	
E3	C070920.08		1	20	12	60.0			12	
E3	C070920.08		2	20	9	45.0			8	
E3	C070920.08		3	20	14	70.0	57.0	43.0	14	44.0
E3	C070920.08		4	20	8	40.0			8	
E3	C070920.08		5	20	14	70.0			14	
E1	C070919.11		1	20	12	60.0			12	
E1	C070919.11		2	20	13	65.0			13	
E1	C070919.11		3	20	14	70.0	65.0	35.0	14	35.0
E1	C070919.11		4	20	12	60.0			12	
E1	C070919.11		5	20	14	70.0			14	
MC1	C070919.07		1	20	14	70.0			14	
MC1	C070919.07		2	20	15	75.0			15	
MC1	C070919.07		3	20	6	30.0	59.0	41.0	6	41.0
MC1	C070919.07		4	20	11	55.0			11	
MC1	C070919.07		5	20	13	65.0			13	
G2	C070919.12		1	20	7	35.0			7	
G2	C070919.12		2	20	7	35.0			7	
G2	C070919.12		3	20	12	60.0	45.0	55.0	12	55.0
G2	C070919.12		4	20	11	55.0			11	
G2	C070919.12		5	20	8	40.0			8	
D2	C070920.11		1	20	11	55.0			11	
D2	C070920.11		2	20	13	65.0			13	
D2	C070920.11		3	20	17	85.0	69.0	31.0	17	31.0
D2	C070920.11		4	20	13	65.0			13	
D2	C070920.11		5	20	15	75.0			15	
H2	C070919.05		1	20	17	85.0			17	
H2	C070919.05		2	20	17	85.0			17	
H2	C070919.05		3	20	16	80.0	85.0	15.0	16	15.0
H2	C070919.05		4	20	16	80.0			16	
H2	C070919.05		5	20	19	95.0			19	



Data summary of 10-Day solid phase test
 LADPW Marina del Rey
Eohaustorius estuarius

ENDPOINTS

CLIENT SAMPLE ID	WESTON SAMPLE ID	CONCENTRATION	REP	INITIAL	FINAL NO. ALIVE	% SURVIVAL	MEAN SURVIVAL	MEAN MORTALITY	NUMBER REBURIED	EFFECTIVE MORTALITY
A2	C070919.15		1	20	14	70.0			14	
A2	C070919.15		2	25	23	92.0			23	
A2	C070919.15		3	20	17	85.0	83.8	16.3	17	16.3
A2	C070919.15		4	20	19	95.0			19	
A2	C070919.15		5	20	17	85.0			17	
C2	C070919.13		1	20	13	65.0			13	
C2	C070919.13		2	20	16	80.0			16	
C2	C070919.13		3	20	13	65.0	72.0	28.0	13	28.0
C2	C070919.13		4	20	17	85.0			17	
C2	C070919.13		5	20	13	65.0			13	



10 DAY SOLID PHASE TEST DATA SHEET 3

CLIENT LADPW	PROJECT Marina del Rey	WESTON JOB NO. 13434.004.003.0005	PROJECT MAN. Shelly Anghera	WESTON LABORATORY Carlsbad Room 2	PROTOCOL USACE/USEPA (1998) / WESTON B10066	SPECIES <i>Eohaustorius estuarius</i>	ACCLM.MORT. < 5%
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ENDPOINT DATA & OBSERVATIONS

OBSERVATIONS KEY				DAY 0	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8	DAY 9	DAY 10	NUMBER REMAINING	RE-DUNED
N = normal L = anoxic surfac B = no burrows F = fungal patches M = dead on surface D = no air flow (D ₂) A = avoidance U = excess food				DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE		
CLIENT/ WESTON ID	REP	JAR #	INITIAL #	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN	TECHNICIAN			
Control 2 / C071002.03	1		20		N	2A 2A	2M	2M	4M	4M	4m	4m	4M	4M	14	14
	2		20		N	N	N	1M	N	N	N	N	N	N	20	20
	3		20		N	N	1M	1M	1M	N	N	N	N	N	20	20
	4		20		N	N	N	N	N	N	N	N	N	N	19	19
	5		20		N	1A 1A	1M	1M	1M	N	N	N	1M	1M	18	18
E3 / C070920.08	1		20		N	N	1M	1M	1M	N	N	N	N	3M	12	12
	2		20		N	N	1M	2M	3M	3M	3M	3M	3M	N	9	8
	3		20		N	1A	N	N	1M	N	N	N	2A	N	14	14
	4		20		N	N	N	N	N	N	N	N	N	N	13	8
	5		20		N	N	N	N	N	N	N	N	1A	N	4	14
E1 / C070919.11	1		20		N	N	N	N	N	N	N	N	N	N	13	12
	2		20		N	N	N	N	N	N	N	N	N	N	13	3
	3		20		N	N	N	N	N	N	N	1M	1M	1M	11	4
	4		20		N	N	N	N	N	N	N	N	1M 1A	N	12	12
	5		20		N	N	N	N	N	N	N	N	N	N	14	14
MC1 / C070919.07	1		20		N	N	N	N	N	N	N	N	N	1M	14	14
	2		20		N	N	N	N	N	N	N	N	1M	1M	15	15
	3		20		N	N	N	N	N	N	N	N	N	N	6	6
	4		20		N	N	N	N	N	N	N	N	N	1M	11	1
	5		20		N	N	N	N	N	N	N	N	N	N	13	13
G2 / C070919.12	1		20		N	N	N	N	N	N	N	N	N	N	7	7
	2		20		N	N	N	N	N	N	N	N	N	N	7	7
	3		20		N	N	N	N	N	N	N	N	N	N	2	12
	4		20		N	N	N	N	N	N	N	1M	1M	N	11	11
	5		20		N	N	N	N	N	N	1M	1M	1M	N	8	8
D2 / C070920.11	1		20		N	N	1M	1M	1M	1M	1M	1M	1M	1M	11	11
	2		20		N	N	N	N	N	N	N	N	N	N	13	13
	3		20		N	N	N	N	N	N	N	N	N	N	7	13
	4		20		N	N	N	N	N	N	N	N	1M	1M	3	13
	5		20		N	N	N	N	N	N	N	N	N	N	5	15

① IE 10/7/07 EB

③ WC 10/15/07 an



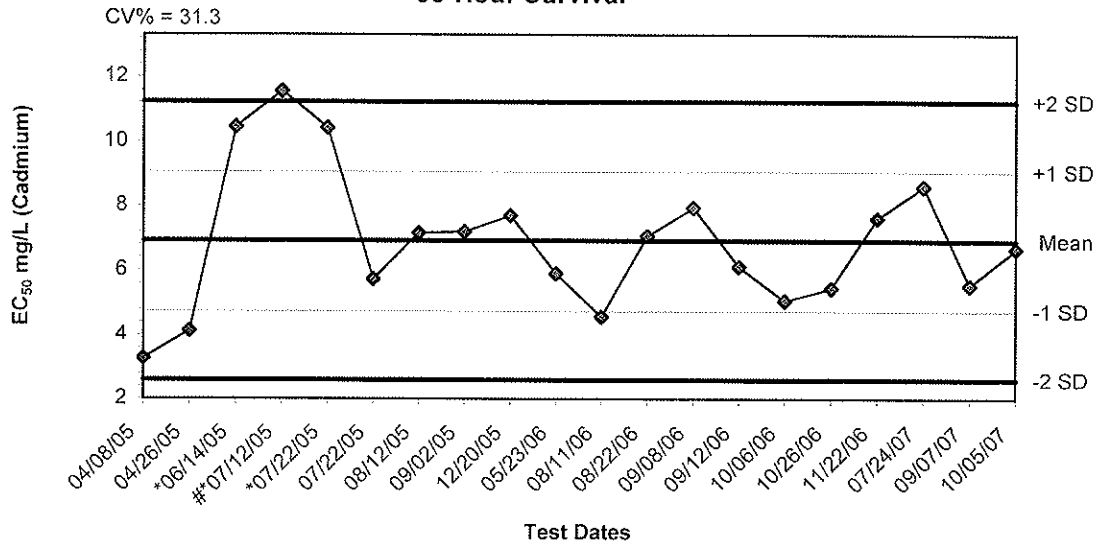
10 DAY SOLID PHASE TEST DATA SHEET 3

CLIENT LADPW	PROJECT Marina del Rey	WESTON JOB NO. 13434.004.003.0006	PROJECT MAN. Shelly Anghera	WESTON LABORATORY Carlsbad Room 2	PROTOCOL USACE/USEPA (1998) / WESTON B20066	SPECIES Eohaustorius estuarius	ACCLM.MORT. < 5%
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ENDPOINT DATA & OBSERVATIONS

OBSERVATIONS KEY N = normal L = anoxic surface B = no burrows F = fungal patches M = dead on surface D = no air flow (D?) A = avoidance U = excess food				DAY 0	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8	DAY 9	DAY 10	NUMBER REMAINING	REBURIED
CLIENT/ WESTON ID	REP	JAR #	INITIAL #	DATE OBSERVNS.	DATE OBSERVNS.	DATE OBSERVNS.	DATE OBSERVNS.	DATE OBSERVNS.	DATE OBSERVNS.	DATE OBSERVNS.	DATE OBSERVNS.	DATE OBSERVNS.	TECHNICIAN	TECHNICIAN		
H2 / C070919.05	1		20		N	N	N	N	N	N	N	N	N	17	17	
	2		20		IA	IA	N	N	N	N	N	N	N	17	17	
	3		20		N	N	N	N	N	N	N	N	IA	16	16	
	4		20		N	N	N	N	N	N	N	N	N	16	16	
	5		20		N	N	N	N	N	IM	IM	IM	IM	16	16	
A2 / C070919.15	1		20		N	N	N	N	2M	2M	2M	2M	2M	14	14	
	2		25		N	N	N	N	N	N	N	N	N	23	23	
	3		20		N	N	N	N	N	N	N	N	N	7	7	
	4		20		N	N	N	N	N	N	N	N	IA	9	9	
	5		20		N	N	N	N	N	N	N	IM	IM	17	17	
C2 / C070919.13	1		20		N	N	N	N	N	N	N	N	N	3	3	
	2		20		N	N	N	N	N	N	N	N	N	16	16	
	3		20		N	N	N	N	N	N	N	N	N	13	13	
	4		20		N	N	N	N	N	N	N	N	N	17	17	
	5		20		N	N	N	N	2M	N	N	N	IM	13	13	

***Eohaustorius estuarius* Reference Toxicant Control Chart:
96-Hour Survival**



Dates	Values	Mean	-1 SD	-2 SD	+1 SD	+2 SD
04/08/05	3.2642	6.9037	4.7426	2.5816	9.0647	11.2258
04/26/05	4.1257	6.9037	4.7426	2.5816	9.0647	11.2258
*06/14/05	10.4483	6.9037	4.7426	2.5816	9.0647	11.2258
#*07/12/05	11.5534	6.9037	4.7426	2.5816	9.0647	11.2258
*07/22/05	10.4255	6.9037	4.7426	2.5816	9.0647	11.2258
07/22/05	5.7213	6.9037	4.7426	2.5816	9.0647	11.2258
08/12/05	7.1510	6.9037	4.7426	2.5816	9.0647	11.2258
09/02/05	7.1895	6.9037	4.7426	2.5816	9.0647	11.2258
12/20/05	7.6923	6.9037	4.7426	2.5816	9.0647	11.2258
05/23/06	5.8929	6.9037	4.7426	2.5816	9.0647	11.2258
08/11/06	4.5709	6.9037	4.7426	2.5816	9.0647	11.2258
08/22/06	7.0500	6.9037	4.7426	2.5816	9.0647	11.2258
09/08/06	7.9443	6.9037	4.7426	2.5816	9.0647	11.2258
09/12/06	6.1110	6.9037	4.7426	2.5816	9.0647	11.2258
10/06/06	5.0590	6.9037	4.7426	2.5816	9.0647	11.2258
10/26/06	5.4531	6.9037	4.7426	2.5816	9.0647	11.2258
11/22/06	7.6162	6.9037	4.7426	2.5816	9.0647	11.2258
07/24/07	8.6016	6.9037	4.7426	2.5816	9.0647	11.2258
09/07/07	5.5365	6.9037	4.7426	2.5816	9.0647	11.2258
10/05/07	6.6671	6.9037	4.7426	2.5816	9.0647	11.2258

*Tests run at 30 ppt salinity.

Value out of 95% CI range at time of testing.

Updated 10/25/07 EB

Acute Sediment Test-96 Hr Survival

Start Date: 10/5/2007 15:55	Test ID: C040405.89	Sample ID: REF-Ref Toxicant
End Date: 10/9/2007 15:00	Lab ID: CCA-Weston, Carlsbad	Sample Type: CDCL-Cadmium chloride
Sample Date:	Protocol: EPA USACE-1998	Test Species: EE-Eohaustorius estuarius

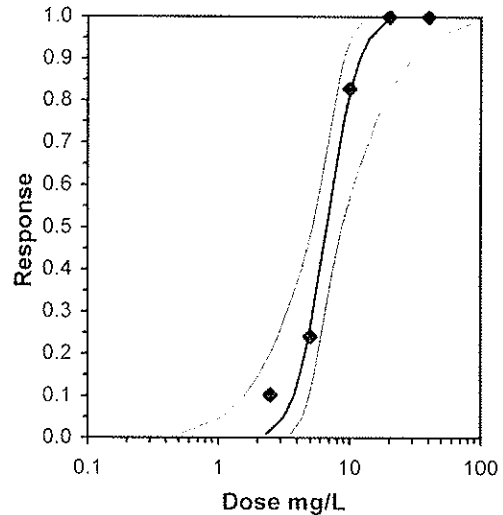
Comments:

Conc-mg/L	1	2	3
Control	0.9000	1.0000	1.0000
2.5	0.7000	1.0000	0.9000
5	0.9000	0.7000	0.6000
10	0.1000	0.1000	0.3000
20	0.0000	0.0000	0.0000
40	0.0000	0.0000	0.0000

Conc-mg/L	Transform: Untransformed							1-Tailed				
	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
Control	0.9667	1.0000	0.9667	0.9000	1.0000	5.973	3				0.9667	0.0000
2.5	0.8667	0.8966	0.8667	0.7000	1.0000	17.625	3	1.192	2.500	0.2097	0.8667	0.1034
*5	0.7333	0.7586	0.7333	0.6000	0.9000	20.830	3	2.782	2.500	0.2097	0.7333	0.2414
*10	0.1667	0.1724	0.1667	0.1000	0.3000	69.282	3	9.537	2.500	0.2097	0.1667	0.8276
*20	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	3	11.523	2.500	0.2097	0.0000	1.0000
*40	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	3	11.523	2.500	0.2097	0.0000	1.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93855	0.858	0.16005	0.24605						
Equality of variance cannot be confirmed										
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	2.5	5	3.53553		0.20972	0.21695	0.60356	0.01056	5.9E-08	5, 12

Parameter	Value	SE	95% Fiducial Limits		Maximum Likelihood-Probit						
			Control	Chi-Sq	Critical	P-value	Mu	Sigma	Iter		
Slope	5.11993	1.53972	2.10208	8.13777	0	0.85568	7.81473	0.84	0.82393	0.19532	8
Intercept	0.78152	1.28045	-1.7282	3.29121							
TSCR											
Point	Probits	mg/L	95% Fiducial Limits								
EC01	2.674	2.34187	0.51461	3.55452							
EC05	3.355	3.18177	1.07069	4.37062							
EC10	3.718	3.74651	1.57376	4.90616							
EC15	3.964	4.18314	2.03213	5.32669							
EC20	4.158	4.56617	2.47964	5.70997							
EC25	4.326	4.92261	2.92805	6.0882							
EC40	4.747	5.9491	4.29872	7.41014							
EC50	5.000	6.66705	5.19466	8.69486							
EC60	5.253	7.47165	6.03415	10.6135							
EC75	5.674	9.02967	7.27334	15.7339							
EC80	5.842	9.73454	7.74039	18.6146							
EC85	6.036	10.6259	8.28512	22.7474							
EC90	6.282	11.8643	8.98473	29.4073							
EC95	6.645	13.9701	10.0756	43.2676							
EC99	7.326	18.9804	12.3782	90.0987							



Test: SED-Acute Sediment Test Test ID: C040405.89
 Species: EE-Eohaustorius estuarius Protocol: EPA USACE-1998
 Sample ID: REF-Ref Toxicant Sample Type: CDCL-Cadmium chloride
 Start Date: 10/5/2007 15:55 End Date: 10/9/2007 15:00 Lab ID: CCA-Weston, Carlsbad

Pos	ID	Rep	Group	Start	24 Hr	48 Hr	72 Hr	96 Hr	Notes
	1	1	Control	10				9	
	2	2	Control	10				10	
	3	3	Control	10				10	
	4	1	2.500	10				7	
	5	2	2.500	10				10	
	6	3	2.500	10				9	
	7	1	5.000	10				9	
	8	2	5.000	10				7	
	9	3	5.000	10				6	
	10	1	10.000	10				1	
	11	2	10.000	10				1	
	12	3	10.000	10				3	
	13	1	20.000	10				0	
	14	2	20.000	10				0	
	15	3	20.000	10				0	
	16	1	40.000	10				0	
	17	2	40.000	10				0	
	18	3	40.000	10				0	

Comments:



10 DAY SOLID PHASE TEST DATA SHEET 2 - REF TOX WQ

CLIENT LADPW	PROJECT Marina Del Rey	SPECIES <i>Eohaustorius estuarius</i>	WESTON LABORATORY Carlsbad Room 2	PROTOCOL USACE/USEPA (1998) / WESTON
WESTON JOB NUMBER 13434.004.003.0006	PROJECT MANAGER Shelly Anghera	TEST START DATE 05Oct07	TIME 1555 JH	TEST END DATE 09Oct07
				TIME 1500NS

WATER QUALITY DATA

5.9999 mL Cd 1500.0 mL G/L

TEST	TEMP (C)	SAL (ppt)	DO (mg/L)	pH	DILT.N.WAT.BATCH	REFERENCE TOXICANT MATERIAL	TOXICANT AMOUNT	DILUENT AMOUNT	REF. TOX. TEST I.D.				
	15 ± 2	20 ± 2	> 6.0	7.8 ± 0.5	SIO 092107	cadmium chloride	6.0 mL Cd	1500 mL	0040405.09				
CLIENT/WESTON ID	CONCENTRATION		DAY	REP	Dissolved Oxygen		Temperature		Salinity		pH		TECHNICIAN
	value	units			METER	mg/L	METER	°C	METER	ppt	METER	units	
Ref.Tox.-cadmium	0 mg/L		0	All	6	8.4	6	15.3	6	20.1	10	8.3	JH
			4	3	6	8.5	6	14.7	5	20.3	13	8.1	AL
Ref.Tox.-cadmium	2.5 mg/L		0	All	6	8.3	6	15.3	6	20.2	10	8.3	JH
			4	3	6	8.7	6	14.3	5	20.4	13	8.1	AL
Ref.Tox.-cadmium	5 mg/L		0	All	6	8.2	6	15.3	6	20.2	10	8.3	JH
			4	3	6	8.6	6	14.5	5	20.5	13	8.1	AL
Ref.Tox.-cadmium	10 mg/L		0	All	6	8.3	6	15.4	6	20.2	10	8.3	JH
			4	3	6	8.5	6	14.1	5	20.4	13	8.1	AL
Ref.Tox.-cadmium	20 mg/L		0	All	6	8.3	6	15.7	6	20.2	10	8.3	JH
			4	3	6	8.6	6	14.3	5	20.4	13	8.2	AL
Ref.Tox.-cadmium	40 mg/L		0	All	6	8.4	6	15.8	6	20.2	10	8.3	JH
			4	3	6	8.7	6	14.6	5	20.5	13	8.2	AL



10 DAY SOLID PHASE TEST DATA SHEET 3 - REF TOX

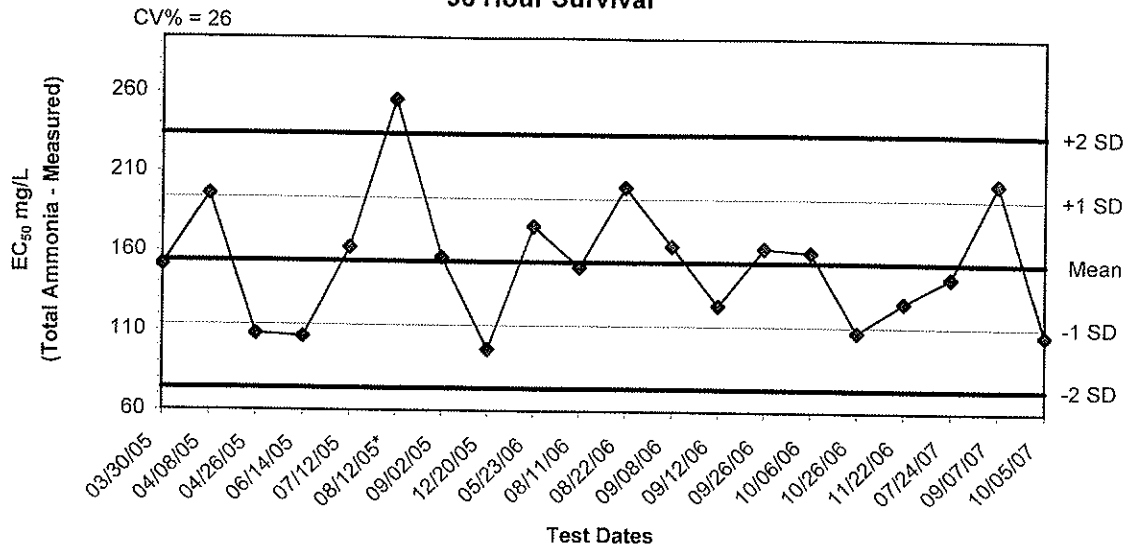
CLIENT LADPW			PROJECT Marina Del Rey		WESTON JOB NO. 13434.004.003.0006		SPECIES <i>Eohaustorius estuarius</i>		ACCLM.MORT. < 5%	
							PROJECT MANAGER Shelly Anghera		WESTON LABORATORY Carlsbad Room 2	
									PROTOCOL USACE/USEPA (1998) / WESTON B10066	

SURVIVAL & BEHAVIOR DATA

OBSERVATIONS KEY N = normal LOE = loss of equilibrium Q = quiescent SUR = surfacing FOS = Floating on Surface DC = discoloration OB = on bottom J = jumper NB = no body				DAY 1			DAY 2			DAY 3			DAY 4			
				DATE	TECHNICIAN	DATE	TECHNICIAN	DATE	TECHNICIAN	DATE	TECHNICIAN					
CLIENT/WESTON ID	CONC.		REP	INITIAL NUMBER	#ALIVE	#DEAD	OBS	#ALIVE	#DEAD	OBS	#ALIVE	#DEAD	OBS	#ALIVE	#DEAD	OBS
	value	units			#ALIVE	#DEAD	OBS	#ALIVE	#DEAD	OBS	#ALIVE	#DEAD	OBS	#ALIVE	#DEAD	OBS
Ref. Tox. - cadmium	0 mg/L		1	10	10	0	N	9	1	N	9	0	1sur	9	0	1sur
			2	10	10	0	N	10	0	N	10	0	N	10	0	N
			3	10	10	0	N	10	0	N	10	0	N	10	0	N
Ref. Tox. - cadmium	2.5 mg/L		1	10	10	0	N	10	0	N	7	3	1Q	7	0	2DC 2sur
			2	10	10	0	N	10	0	N	10	0	N	10	0	1DC
			3	10	10	0	N	10	0	1Q	9	1	N	9	0	2DC
Ref. Tox. - cadmium	5 mg/L		1	10	10	0	N	10	0	N	9	1	N	9	0	N
			2	10	10	0	N	10	0	1DC	9	1	2Q	7	2	2Q
			3	10	10	0	N	10	0	1Q	8	2	1sur	6	2	1Q
Ref. Tox. - cadmium	10 mg/L		1	10	10	0	N	8	2	1Q	4	0	2Q	1	3	N
			2	10	10	0	N	10	0	2Q	6	4	2DC 3Q	5	5	1Q
			3	10	10	0	N	8	2	N	8	0	2DC	3	5	N
Ref. Tox. - cadmium	20 mg/L		1	10	10	0	N	5	5	1Q	2	3	1Q/DC	0	2	-
			2	10	10	0	N	7	3	3Q	2	5	1Q	0	2	-
			3	10	10	0	N	8	2	4Q	2	6	1Q	0	2	-
Ref. Tox. - cadmium	40 mg/L		1	10	10	0	1Q	1	9	Q	0	1	-	-	-	-
			2	10	10	0	N	2	8	Q	0	2	-	0	0	-
			3	10	10	0	2Q	4	6	3Q	1	3	1Q/DC	0	1	-

① 1E 10/08 NS
② 1E 10/09 NS

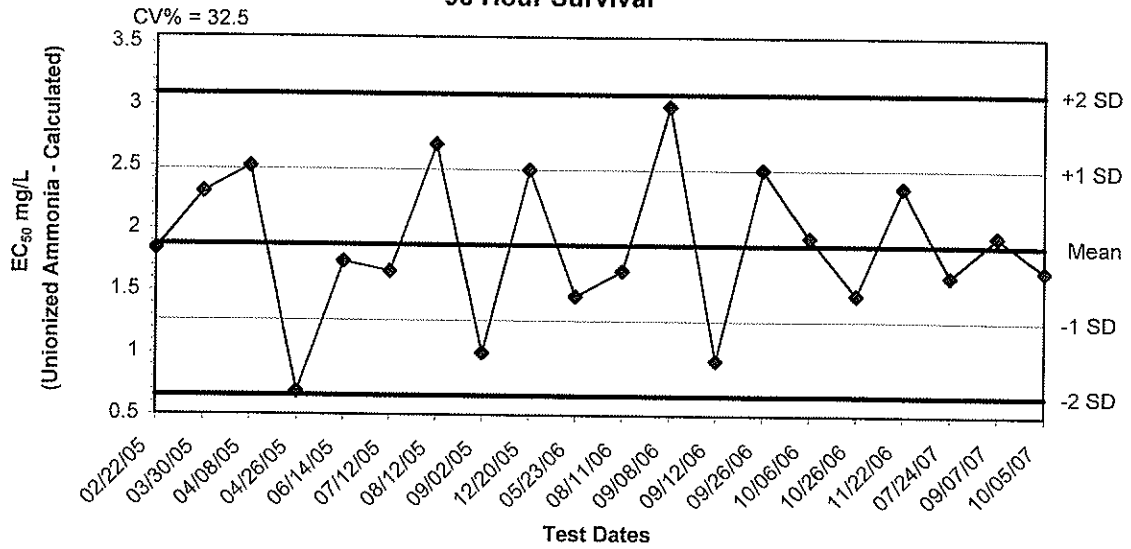
***Eohaustorius estuarius* Reference Toxicant Control Chart:
96 Hour Survival**



Dates	Values	Mean	-1 SD	-2 SD	+1 SD	+2 SD
03/30/05	151.5170	153.8269	113.8630	73.8992	193.7907	233.7545
04/08/05	196.0000	153.8269	113.8630	73.8992	193.7907	233.7545
04/26/05	108.0300	153.8269	113.8630	73.8992	193.7907	233.7545
06/14/05	106.4540	153.8269	113.8630	73.8992	193.7907	233.7545
07/12/05	162.7000	153.8269	113.8630	73.8992	193.7907	233.7545
08/12/05*	255.3940	153.8269	113.8630	73.8992	193.7907	233.7545
09/02/05	156.5900	153.8269	113.8630	73.8992	193.7907	233.7545
12/20/05	98.7040	153.8269	113.8630	73.8992	193.7907	233.7545
05/23/06	176.4200	153.8269	113.8630	73.8992	193.7907	233.7545
08/11/06	150.8600	153.8269	113.8630	73.8992	193.7907	233.7545
08/22/06	201.2600	153.8269	113.8630	73.8992	193.7907	233.7545
09/08/06	164.2820	153.8269	113.8630	73.8992	193.7907	233.7545
09/12/06	127.0400	153.8269	113.8630	73.8992	193.7907	233.7545
09/26/06	162.9800	153.8269	113.8630	73.8992	193.7907	233.7545
10/06/06	160.5250	153.8269	113.8630	73.8992	193.7907	233.7545
10/26/06	110.3450	153.8269	113.8630	73.8992	193.7907	233.7545
11/22/06	129.4200	153.8269	113.8630	73.8992	193.7907	233.7545
07/24/07	145.1500	153.8269	113.8630	73.8992	193.7907	233.7545
09/07/07	203.7560	153.8269	113.8630	73.8992	193.7907	233.7545
10/05/07	109.1100	153.8269	113.8630	73.8992	193.7907	233.7545

* Value out of 95% CI range at time of test. Test was rerun on 9/2/05 and was within 95% CI.
Updated 10/25/07 AM

***Eohaustorius estuarius* Reference Toxicant Control Chart:
96 Hour Survival**



Dates	Values	Mean	-1 SD	-2 SD	+1 SD	+2 SD
02/22/05	1.8369	1.8711	1.2625	0.6538	2.4798	3.0885
03/30/05	2.2985	1.8711	1.2625	0.6538	2.4798	3.0885
04/08/05	2.5010	1.8711	1.2625	0.6538	2.4798	3.0885
04/26/05	0.6844	1.8711	1.2625	0.6538	2.4798	3.0885
06/14/05	1.7368	1.8711	1.2625	0.6538	2.4798	3.0885
07/12/05	1.6562	1.8711	1.2625	0.6538	2.4798	3.0885
08/12/05	2.6828	1.8711	1.2625	0.6538	2.4798	3.0885
09/02/05	1.0016	1.8711	1.2625	0.6538	2.4798	3.0885
12/20/05	2.4797	1.8711	1.2625	0.6538	2.4798	3.0885
05/23/06	1.4604	1.8711	1.2625	0.6538	2.4798	3.0885
08/11/06	1.6638	1.8711	1.2625	0.6538	2.4798	3.0885
09/08/06	2.9942	1.8711	1.2625	0.6538	2.4798	3.0885
09/12/06	0.9414	1.8711	1.2625	0.6538	2.4798	3.0885
09/26/06	2.4836	1.8711	1.2625	0.6538	2.4798	3.0885
10/06/06	1.9388	1.8711	1.2625	0.6538	2.4798	3.0885
10/26/06	1.4742	1.8711	1.2625	0.6538	2.4798	3.0885
11/22/06	2.3403	1.8711	1.2625	0.6538	2.4798	3.0885
07/24/07	1.6236	1.8711	1.2625	0.6538	2.4798	3.0885
09/07/07	1.9498	1.8711	1.2625	0.6538	2.4798	3.0885
10/05/07	1.6748	1.8711	1.2625	0.6538	2.4798	3.0885

Updated 10/25/07 AM

Acute Sediment Test-96 Hr Survival

Start Date: 10/5/2007 16:00 ✓ Test ID: C040719.146 ✓ Sample ID: REF-Ref Toxicant ✓
 End Date: 10/9/2007 15:30 ✓ Lab ID: CCA-Weston, Carlsbad ✓ Sample Type: UNH3-Ammonia-unionized (calculated) ✓
 Sample Date: Protocol: EPA USACE-1998 ✓ Test Species: EE-Eohaustorius estuarius ✓
 Comments:

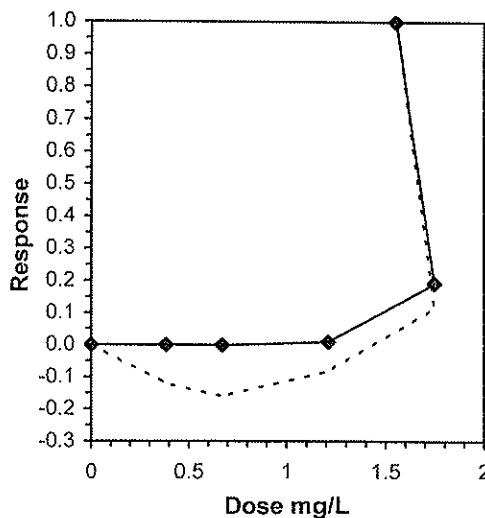
Conc-mg/L	1	2	3
Control	0.7000	0.8000	1.0000
0.385	0.8000	1.0000	1.0000
0.673	0.9000	1.0000	1.0000
1.212	0.9000	0.9000	0.9000
1.749	0.7000	0.6000	0.9000
1.553	0.0000	0.0000	0.0000

Conc-mg/L	Transform: Untransformed							1-Tailed			Isotonic	
	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
Control	0.8333	1.0000	0.8333	0.7000	1.0000	18.330	3				0.9111	1.0000
0.385	0.9333	1.1200	0.9333	0.8000	1.0000	12.372	3	-1.088	2.470	0.2270	0.9111	1.0000
0.673	0.9667	1.1600	0.9667	0.9000	1.0000	5.973	3	-1.451	2.470	0.2270	0.9111	1.0000
1.212	0.9000	1.0800	0.9000	0.9000	0.9000	0.000	3	-0.725	2.470	0.2270	0.9000	0.9878
1.749	0.7333	0.8800	0.7333	0.6000	0.9000	20.830	3	1.088	2.470	0.2270	0.7333	0.8049
1.553	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	3				0.0000	0.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93155	0.835	0.2341	-0.3386

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	1.749	1.553	1.64809		0.22698	0.27237	0.02567	0.01267	0.16646	4, 10

Point	Linear Interpolation (200 Resamples)				
	mg/L	SD	95% CL(Exp)	Skew	
IC05	1.3230	0.1957	0.2410	2.0888	-1.6729
IC10	1.4698	0.1421	0.9285	2.0498	0.5903
IC15	1.6165	0.1204	1.0982	1.8900	-0.0458
IC20	1.7478	0.0856	1.1583	1.7478	-0.8456
IC25	1.7356	0.0472	1.3757	1.7637	-2.0476
IC40	1.6991	0.0152	1.6540	1.7719	0.1541
IC50	1.6748	0.0127	1.6372	1.7354	0.1541



Test: SED-Acute Sediment Test ✓
 Species: EE-Eohaustorius estuarius ✓
 Sample ID: REF-Ref Toxicant ✓
 Start Date: 10/5/2007 16:00 ✓

Test ID: C040719.14 ✓
 Protocol: EPA USACE-1998 ✓
 Sample Type: UNH3-Ammonia-unionized (calculated) ✓
 End Date: 10/9/2007 15:30 ✓, Lab ID: CCA-Weston, Carlsbad ✓

Pos	ID	Rep	Group	Start	24 Hr	48 Hr	72 Hr	96 Hr	Notes
	1	1	Control	10				7	
	2	2	Control	10				8	
	3	3	Control	10				10	
	4	1	0.385	10				8	
	5	2	0.385	10				10	
	6	3	0.385	10				10	
	7	1	0.673	10				9	
	8	2	0.673	10				10	
	9	3	0.673	10				10	
	10	1	1.212	10				9	
	11	2	1.212	10				9	
	12	3	1.212	10				9	
	13	1	1.749	10				7	
	14	2	1.749	10				6	
	15	3	1.749	10				9	
	16	1	1.553	10				0	
	17	2	1.553	10				0	
	18	3	1.553	10				0	

Comments: / / /

Acute Sediment Test-96 Hr Survival

Start Date: 10/5/2007 16:00 ✓ Test ID: C040719.146 ✓ Sample ID: REF-Ref Toxicant ✓
 End Date: 10/9/2007 15:30 ✓ Lab ID: CCA-Weston, Carlsbad ✓ Sample Type: TNH3-Ammonia-total (measured) ✓
 Sample Date: Protocol: EPA USACE-1998 ✓ Test Species: EE-Eohaustorius estuarius ✓
 Comments:

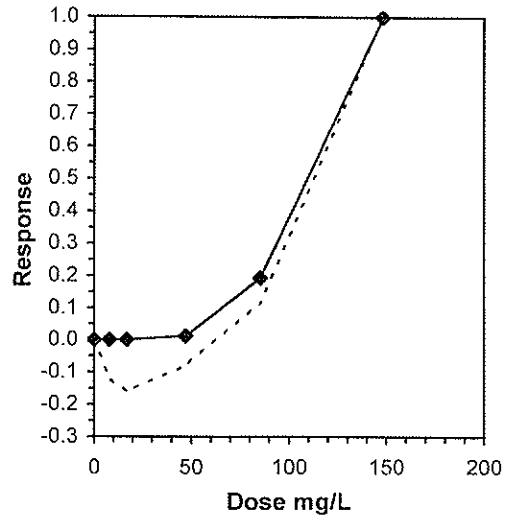
Conc-mg/L	1	2	3
Control	0.7000	0.8000	1.0000
7.87	0.8000	1.0000	1.0000
16.9	0.9000	1.0000	1.0000
47.2	0.9000	0.9000	0.9000
85.4	0.7000	0.6000	0.9000
148	0.0000	0.0000	0.0000

Conc-mg/L	Mean	N-Mean	Transform: Untransformed				N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%					Mean	N-Mean
Control	0.8333	1.0000	0.8333	0.7000	1.0000	18.330	3				0.9111	1.0000
7.87	0.9333	1.1200	0.9333	0.8000	1.0000	12.372	3	-1.088	2.470	0.2270	0.9111	1.0090
16.9	0.9667	1.1600	0.9667	0.9000	1.0000	5.973	3	-1.451	2.470	0.2270	0.9111	1.0000
47.2	0.9000	1.0800	0.9000	0.9000	0.9000	0.000	3	-0.725	2.470	0.2270	0.9000	0.9878
85.4	0.7333	0.8800	0.7333	0.6000	0.9000	20.830	3	1.088	2.470	0.2270	0.7333	0.8049
148	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	3				0.0000	0.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution ($p > 0.01$)	0.93155	0.835	0.2341	-0.3386

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	85.4	148	112.424		0.22698	0.27237	0.02567	0.01267	0.16646	4, 10

Point	mg/L	SD	Linear Interpolation (200 Resamples)		
			95% CL(Exp)	Skew	
IC05	55.09	13.74	0.00	121.58	-0.4517
IC10	65.54	11.38	27.03	116.86	0.5280
IC15	75.98	10.60	30.59	112.15	-0.0013
IC20	85.78	9.07	34.85	108.13	-0.5126
IC25	89.67	7.61	45.61	110.63	-0.8143
IC40	101.33	5.31	74.79	118.10	-0.5669
IC50	109.11	4.42	86.99	123.08	-0.5669



Test: SED-Acute Sediment Test ✓

Test ID: C040719.14 ✓

Species: EE-Eohaustorius estuarius ✓

Protocol: EPA USACE-1998

Sample ID: REF-Ref Toxicant ✓

Sample Type: TNH3-Ammonia-total (measured)

Start Date: 10/5/2007 16:00 ✓

End Date: 10/9/2007 15:30 ✓

Lab ID: CCA-Weston, Carlsbad

Pos	ID	Rep	Group	Start	24 Hr	48 Hr	72 Hr	96 Hr	Notes
	1	1	Control	10				7	
	2	2	Control	10				8	
	3	3	Control	10				10	
	4	1	7.870	10				8	
	5	2	7.870	10				10	
	6	3	7.870	10				10	
	7	1	16.900	10				9	
	8	2	16.900	10				10	
	9	3	16.900	10				10	
	10	1	47.200	10				9	
	11	2	47.200	10				9	
	12	3	47.200	10				9	
	13	1	85.400	10				7	
	14	2	85.400	10				6	
	15	3	85.400	10				9	
	16	1	148.000	10				0	
	17	2	148.000	10				0	
	18	3	148.000	10				0	

Comments: / /



10 DAY SOLID PHASE TEST DATA SHEET 2 - REF TOX WQ

CLIENT LADPW	PROJECT Marina Del Rey	SPECIES <i>Eohaustorius estuarius</i>	WESTON LABORATORY Carlsbad Room 2	PROTOCOL USACE/USEPA (1998) / WESTON
WESTON JOB NUMBER 13434.004.003.0006	PROJECT MANAGER Shelly Anghera	TEST START DATE 05Oct07	TIME 1600 JH	TEST END DATE 09Oct07
TIME 1530 NIS				

WATER QUALITY DATA

TEST	TEMP (C)	SAL (ppt)	DO (mg/L)	pH	DILT.N.WAT.BATCH	REFERENCE TOXICANT MATERIAL	TOXICANT AMOUNT	DILUENT AMOUNT	REF. TOX. TEST I.D.	CLIENT/WESTON ID		CONCENTRATION		DAY	REP	Dissolved Oxygen		Temperature		Salinity		pH		TECHNICIAN
										value	units	METER	mg/L			METER	°C	METER	ppt	METER	units			
Ref.Tox.-ammonia	15 ± 2	20 ± 2	> 6.0	7.8 ± 0.5	SIO 092107	ammonium chloride	68.8 mL	1500.0 mL	CO40719.146 EB			0 mg/L		0	All	6	8.7	6	15.8	6	20.0	10	8.3	JH
														4	1	6	8.3	6	14.7	5	20.0	13	8.2	AL
Ref.Tox.-ammonia												15.625 mg/L		0	All	6	8.5	6	15.9	6	20.2	10	8.3	JH
														4	1	6	8.5	6	14.3	5	20.5	13	8.2	AL
Ref.Tox.-ammonia												31.25 mg/L		0	All	6	8.4	6	16.1	6	20.3	10	8.2	JH
														4	1	6	8.5	6	14.3	5	20.6	13	8.1	AL
Ref.Tox.-ammonia												62.5 mg/L		0	All	6	8.5	6	16.2	6	20.4	10	8.0	JH
														4	1	6	8.5	6	14.5	5	20.6	13	8.1	AL
Ref.Tox.-ammonia												125 mg/L		0	All	6	8.3	6	16.2	6	20.6	10	7.9	JH
														4	1	6	8.6	6	14.4	5	20.9	13	8.1	AL
Ref.Tox.-ammonia												250 mg/L		0	All	6	8.3	6	16.4	6	21.2	10	7.6	JH
														4										AL



10 DAY SOLID PHASE TEST DATA SHEET 3 - REF TOX

CLIENT LADPW		PROJECT Marina Del Rey	WESTON JOB NO. 13434.004.003.0006	SPECIES <i>Eohaustorius estuarius</i>	ACCLM.MORT. < 5%
PROJECT MANAGER Shelly Anghera			WESTON LABORATORY Carlsbad Room 2	PROTOCOL USACE/USEPA (1998) / WESTON B10066	

SURVIVAL & BEHAVIOR DATA

OBSERVATIONS KEY N = normal LOE= loss of equilibrium Q = quiescent SUR= surfacing FOS = Floating on Surface DC = discoloration OB = on bottom J = jumper NB = no body				DAY 1			DAY 2			DAY 3			DAY 4			
				DATE	TECHNICIAN	DATE	TECHNICIAN	DATE	TECHNICIAN	DATE	TECHNICIAN					
CLIENT/WESTON ID	CONC.		REP	INITIAL NUMBER	#ALIVE	#DEAD	OBS	#ALIVE	#DEAD	OBS	#ALIVE	#DEAD	OBS	#ALIVE	#DEAD	OBS
	value	units			#ALIVE	#DEAD	OBS	#ALIVE	#DEAD	OBS	#ALIVE	#DEAD	OBS	#ALIVE	#DEAD	OBS
Ref.Tox.- ammonia	0 mg/L	↓	1	10	10	0	N	9	1	N	8	1	1FOS	7	1	N
			2	10	10	0	N	10	0	N	10	0	1DC	8	2	N
			3	10	10	0	N	10	0	N	10	0	1SUR	10	0	N
Ref.Tox.- ammonia	15.625 mg/L	↓	1	10	10	0	N	9	1	N	8	1	3SUR	8	0	1FOS
			2	10	10	0	N	10	0	N	10	0	N	10	0	1SUR 2DC
			3	10	10	0	N	10	0	1Q	10	0	1FOS	10	0	1SUR 1Q
Ref.Tox.- ammonia	31.25 mg/L	↓	1	10	9	1	N	9	0	N	9	0	1DC 1SUR	9	0	1SUR
			2	10	10	0	N	10	0	1Q	10	0	1DC 1SUR	10	0	1SUR
			3	10	10	0	N	10	0	N	10	0	N	10	0	N
Ref.Tox.- ammonia	62.5 mg/L	↓	1	10	10	0	N	10	0	N	9	1	N	9	0	N
			2	10	10	0	N	16	0	N	10	0	1DC/Q	9	1	3DC
			3	10	10	0	N	9	1	N	9	0	1DC	9	0	12DC 1SUR
Ref.Tox.- ammonia	125 mg/L	↓	1	10	10	0	N	7	3	1Q	7	0	1SUR	7	0	1Q
			2	10	10	0	N	7	3	1Q	6	1	2Q	6	0	1Q 1SUR
			3	10	10	0	N	10	0	3Q	10	0	1FOS/Q 2DC	9	1	3Q 1DC
Ref.Tox.- ammonia	250 mg/L	↓	1	10	10	0	N	3	7	Q	0	3	-	-	-	-
			2	10	10	0	N	0	8	-	-	-	-	-	-	-
			3	10	10	0	N	1	9	Q	0	1	-	-	-	-

① WC 10/6/07 EB

② IE 10/8/07 NS (1 FOS, 4 Q, 3 DC)



Ammonia Analysis Total Ammonia (mg/L)

Client/Project: <i>LadPW</i>	Organism: <i>EOHS</i>	Weston Test ID: <i>NH RT</i>	Test Duration (days): <i>4 days</i>
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PRETEST / INITIAL / FINAL / OTHER (circle one) DAY of TEST: 0
OVERLYING (OV) / POREWATER (PW) (circle one)

Calibration Standards Temperature		Sample temperature should be within $\pm 1^{\circ}\text{C}$ of standards temperature at time and date of analysis.
Date:	Temperature:	
<i>10/24/07</i>	<i>24.0</i>	

Sample ID or Description	Conc. or Rep	Date of Sampling and Initials	Ammonia Value (mg/L)	Temp $^{\circ}\text{C}$	Date of Reading and Initials	Sample Frozen (Y/N)	pH	Sal (PPU)
<i>0</i>		<i>10/15/07</i>	<i><0.5</i>	<i>24.7</i>	<i>10/24/07 AK</i>	<i>Y</i>		
<i>15.625</i>		↓	<i>7.87</i>	<i>25.3</i>	↓	↓		
<i>31.25</i>		↓	<i>16.9</i>	<i>24.4</i>	↓	↓		
<i>62.5</i>		↓	<i>47.2</i>	<i>25.1</i>	↓	↓		
<i>125</i>		↓	<i>85.4</i>	<i>25.0</i>	↓	↓		
<i>250</i>		↓	<i>148</i>	<i>24.9</i>	↓	↓		



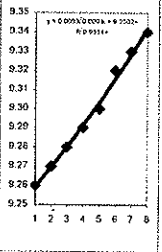
Un-ionized Ammonia Calculator

Client:	LADPW /	Start Date:	05-Oct-07 /
Project ID:	Marina del Rey /	Test Type:	Eohaustorius estuarius NH RT /

To convert Total Ammonia (mg/L) to Free (un-ionized) Ammonia (mg/L) enter the corresponding total ammonia, salinity, temperature and pH.

Integer: i-factor

1	9.26
2	9.27
3	9.28
4	9.29
5	9.30
6	9.32
7	9.33
8	9.34



TEST	NH3T (mg/L)	salinity (ppt)	pH	temp (C)	temp (K)	i-factor	NH3U (mg/L)	
Example	0.610	22.9	8.0	24.1	297.26	9.3053	0.027	
Example2	2.000	10.0	7.5	5.0	278.16	9.2750	0.008	
1	Control	< 0.500	20.0	8.3	15.8	288.96	9.2980	< 0.024
2	15.625	7.87	20.2	8.3	15.9	289.06	9.2985	0.385
3	31.25	16.9	20.3	8.2	16.1	289.26	9.2988	0.673
4	62.5	47.2	20.4	8.0	16.2	289.36	9.2990	1.212
5	125	85.4	20.6	7.9	16.2	289.36	9.2995	1.749
6	250	148	21.2	7.6	16.4	289.56	9.3010	1.553
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- 1440 Broadway, Ste. 908 • Oakland, CA 94612 • (510) 808-0302, FAX 891-9710
- 152 Sunset View Lane • Sequim, WA 98382 • (360) 582-1758, FAX 582-1679
- 4729 NE View Drive • Port Gamble, WA 98364 • (360) 297-6903, FAX 297-6905

Internal Cooler Temp 3°C

CHAIN OF CUSTODY

13684

DATE 9/16/07 PAGE 1 OF 1

PROJECT NAME / SURVEY / PROJECT NUMBER					NUMBER & TYPE OF CONTAINERS	ANALYSIS/TEST REQUESTED				FOR WESTON USE ONLY				
PROJECT MANAGER						PRESERVED HOW/ COMMENTS	SAMPLE TEMP. UPON RECEIPT	WESTON LAB ID						
AD/10 - MARINA Sec Key					Toxicity									
Shelly Angler														
Weston														
As Above														
As Above														
SAMPLE I.D.	DATE	TIME	MATRIX	INITIALS										
✓ H-2	9/16/07	1345	SED	MA		1 bag	X				ICE			0070919.05
Did Not Arrive → A-1		1440	SED											
✓ MC2		1622												0070919.06
✓ MC-1		1640												0070919.07
✓ FI		1720												0070919.08
✓ MCS	9/17/07	0750												0070919.09
✓ MC 3		0900												0070919.10
✓ E-1	9-18-07	0945									0070919.11			
✓ Gd	9-18-07	1145									0070919.12			
✓ Cd		1210									0070919.13			
✓ Bd		1417									0070919.14			
✓ Ad		1520									0070919.15			
✓ MC 4		1530									0070919.16			

SPECIAL INSTRUCTIONS/COMMENTS: - Samples collected by B. ISLAM
 - See Shelly Angler for Analysis
 Note - 9/16/07 9:00-7:30 Be 9/17/07
 9/17/07 9:00-7:30 Be 9/18/07

SHIPPING:		SAMPLE CONDITION UPON RECEIPT (FOR WESTON USE ONLY):			
Shipping VIA:	Airbill No:				
RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
<i>BT shor</i>	<i>Satoru Y</i>	<i>Satoru Y</i>	<i>oh hick</i>		
Signature Weston	Signature WESTON	Signature WESTON	Signature Weston	Signature	Signature
Firm 9/19/07 0825	Firm 9/19/07 0825	Firm 9/19/07 915	Firm 9/19/07 0915	Firm	Firm
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time



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CHAIN OF CUSTODY

13676

DATE 9-19-07 PAGE 1 OF 1

PROJECT NAME / SURVEY / PROJECT NUMBER <i>LA 100 - MARINA DEL REY</i>					NUMBER & TYPE OF CONTAINERS	ANALYSIS/TEST REQUESTED					FOR WESTON USE ONLY			
PROJECT MANAGER <i>Shelley Anderson</i>						10x						PRESERVED HOW/ COMMENTS <i>ICE</i>	SAMPLE TEMP. UPON RECEIPT	WESTON LAB ID <i>CO71004.08</i> <i>CO70920.09</i> <i>CO70920.10</i> <i>CO70920.11</i>
COMPANY <i>WESTON SOLUTIONS</i>														
ADDRESS <i>As Above</i>														
PHONE/FAX <i>As Above</i>														
SAMPLE I.D.	DATE	TIME	MATRIX	INITIALS										
<i>E-3</i>	<i>9/19/07</i>	<i>0800</i>	<i>Soil</i>	<i>MA</i>	<i>10x</i>	<i>X</i>								
<i>E-4</i>	<i>I</i>	<i>0845</i>	<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>								
<i>D3</i>	<i>I</i>	<i>0945</i>	<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>								
<i>D2</i>	<i>I</i>	<i>1015</i>	<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>								

SPECIAL INSTRUCTIONS/COMMENTS: *0 IE 1015107am*

SHIPPING:		SAMPLE CONDITION UPON RECEIPT (FOR WESTON USE ONLY):			
Shipping VIA:		Airbill No:			
RELINQUISHED BY <i>[Signature]</i>	RECEIVED BY <i>Vasey Strickland</i>	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature <i>Weston</i>	Signature <i>Weston</i>	Signature	Signature	Signature	Signature
Firm <i>9/19/07</i>	Firm <i>2/20/07 0855</i>	Firm	Firm	Firm	Firm
Date/Time <i>0855</i>	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time



Ammonia Analysis Total Ammonia (mg/L)

Client/Project: <i>Marina Del Rey</i>	Organism:	Weston Test ID:	Test Duration (days):
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PRETEST / INITIAL / FINAL / OTHER (circle one) DAY of TEST: _____
 OVERLYING (OV) / POREWATER (PW) (circle one)

Calibration Standards Temperature		Sample temperature should be within $\pm 1^\circ\text{C}$ of standards temperature at time and date of analysis.
Date:	Temperature:	
<i>10/1/07</i>	<i>24.0</i>	

Sample ID or Description	Conc of Rep	Date of Sampling and Initials	Ammonia Value (mg/L)	Temp $^\circ\text{C}$	Date of Reading and Initials	Sample Frozen (Y/N)	pH	Sal (ppb)
<i>D3</i>		<i>10/1/07 AL</i>	<i>2.43</i>	<i>25.4</i>	<i>10/1/07 JH</i>	<i>N</i>	<i>7.7</i>	<i>34</i>
<i>E-4</i>			<i>1.85</i>	<i>25.4</i>			<i>7.6</i>	<i>34</i>
<i>F1</i>			<i>2.24</i>	<i>25.3</i>			<i>7.5</i>	<i>34</i>
<i>B-2</i>			<i>2.58</i>	<i>25.0</i>			<i>7.4</i>	<i>34</i>
<i>MG-2</i>			<i>3.46</i>	<i>25.1</i>			<i>7.3</i>	<i>34</i>
<i>MC3</i>			<i>3.80</i>	<i>25.1</i>			<i>7.3</i>	<i>34</i>
<i>M65</i>			<i>5.44</i>	<i>24.1</i>			<i>7.3</i>	<i>34</i>
<i>MC4</i>			<i>5.74</i>	<i>24.3</i>			<i>7.4</i>	<i>34</i>
<i>E-3</i>			<i>1.73</i>	<i>25.3</i>			<i>7.8</i>	<i>34</i>
<i>E-1</i>			<i>2.50</i>	<i>25.2</i>			<i>7.6</i>	<i>34</i>
<i>MG-1</i>			<i>1.94</i>	<i>25.4</i>			<i>7.4</i>	<i>34</i>
<i>G-2</i>			<i>2.25</i>	<i>25.4</i>			<i>7.5</i>	<i>33</i>
<i>D2</i>			<i>2.51</i>	<i>25.2</i>			<i>7.6</i>	<i>34</i>
<i>H2</i>			<i>4.10</i>	<i>25.1</i>			<i>7.4</i>	<i>33</i>
<i>A-2</i>			<i>4.12</i>	<i>25.3</i>			<i>7.5</i>	<i>34</i>
<i>G-2</i>			<i>3.20</i>	<i>25.0</i>			<i>7.5</i>	<i>34</i>