ATTACHMENT 2

ACUTE TOXICITY TESTING STUDY

RESULTS

WESTON SOLUTIONS, INC.
2433 Impala Drive
Carlsbad, CA 92008
(760) 931-8081 / (760) 931-1580 FAX
www.westonsolutions.com

January 17, 2007

Poseidon Resources Corporation
1055 Washington Boulevard,
Stamford, CT 06901
Attn: Nikolay Voutchkov

RE: Toxicity Testing Results - Test Substance RO Concentrate Comp

Dear Mr. Voutchkov:

Attached please find the report for the Topsmelt acute test performed on test substance RO-Concentrate Comp, received on January 4, 2007.

All testing was performed consistent with our laboratory's quality assurance program. All results are to be considered in their entirety, and Weston Solutions is not responsible for use of less than the complete report. Results apply only to the sample tested.

If you have any questions regarding the attached report, or require additional testing, please call me at (760) 931-8081 or email at Chris.Osuch@westonsolutions.com. Thank you for using the aquatic testing services of Weston Solutions, Inc.

Sincerely,

Chris Osuch

Chris Osuch
Carlsbad Bioassay Laboratory

Weston Solutions, Inc.

Analytical Report

Client	Poseidon	Date Received:	04 Jan 07
Project:	Desal Pilot Topsmelt Toxicity Study	Date Test Started:	05 Jan 07
Client Sample ID:	RO Concentrate Comp	Date Test Ended:	09 Jan 07
Weston Test ID:	C070105.0262	Matrix:	Liquid

96 Hour Acute Effluent Toxicity Bioassay
Weston Testing Protocol No. BIO 062C
EPA-821-R-02-012

Test Organism: ***Atherinops affinis***
Age: 15 days old

Study Design: Sample RO Concentrate Comp was diluted with filtered seawater from the desalination plant (UF Filtrate) to 13 different test salinities. A UF Filtrate Control was also tested to confirm that the dilution water did not cause toxicity. Final salinities of 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58 and 60 ppt were tested following EPA-821-R-02-012. To simulate what would occur if the power plant shuts down, the fish were acclimated to final salinities over the first 24 hours of the test. The fish were initially exposed to half of the salinity increase to start the test. The salinity was adjusted during the water renewal at 24 hours to final concentrations. In addition to the normal survival counts, additional counts were performed at 30 minutes, 1 hour, 2 hours, 4 hours and 12 hours. Standard test procedures were followed.

Concentration (ppt)	Number of Test Organisms at Start of Test	Number of Test Organisms at End of Test	Percent Survival	TUa
Control	40	40	100	N/A
UF Filtrate Control	40	40	100	N/A
36	40	38	95	0.41
38	40	36	90	0.59
40	40	38	95	0.41
42	40	39	97.5	0.23
44	40	34	85	0.69
46	40	35	87.5	0.65
48	40	32	80	0.77
50	40	22	55	0.97
52	40	25	62.5	0.93
54	40	18	45	1.02
56	40	22	55	0.97
58	40	26	65	0.91
60	40	15	37.5	1.06

Amy Meisel — QA Officer — 1/16/07 Date

Chris Osuch — Approved — 1/17/07 Date

Weston Solutions, Inc.

Analytical Report

Client	Poseidon	Date Received:	04 Jan 07
Project:	Desal Pilot Topsmelt Toxicity Study	Date Test Started:	05 Jan 07
Client Sample ID:	RO Concentrate Comp	Date Test Ended:	09 Jan 07
Weston Test ID:	C070105.0262	Matrix:	Liquid

96 Hour Acute Effluent Toxicity Bioassay
Weston Testing Protocol No. BIO 062C
EPA-821-R-02-012

Test Organism: ***Atherinops affinis***

Acute Toxicity Statement for Sample RO Concentrate Comp

Distribution Method	Result	Variance Method	Result
Kolmogorov D Test	Non-normal; $p \leq 0.01$	N/A	could not be confirmed

Hypothesis Method	NOEC	LOEC	Point Estimation Method	LC_{50}
Wilcoxon Rank Sum Test	42 ppt	44 ppt	Linear Interpolation	58.57 ppt

Acute Toxicity Statement: Test substance RO Concentrate Comp produced 37.5 percent survival in the 60 ppt concentration at 96 hours. The LC50 at 96 hours was estimated to be 58.57 ppt.

Control and UF Filtrate Control means were not significantly different ($p = 1.00$).

Weston Solutions, Inc.

Analytical Report

Client	Poseidon	Date Received:	04 Jan 07
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Client Sample ID:	RO Concentrate Comp	Date Test Ended:	09 Jan 07
Weston Test ID:	C070105.0262	Matrix:	Liquid

96 Hour Acute Effluent Toxicity Bioassay
Weston Testing Protocol No. BIO 062C
EPA-821-R-02-012

Test Organism: *Atherinops affinis*

Additional statistics were performed on each concentration to determine the No Observed Effect Time (NOET), the Lowest Observed Effect Time (LOET), and the Lethal Time for 50% of the population (LT_{50}). The results are presented in the table below.

Concentration (ppt)	NOET (Hours)	LOET (Hours)	LT_{50} (Hours)
36	96	>96	>96
38	96	>96	>96
40	96	>96	>96
42	96	>96	>96
44	4	12	>96
46	96	>96	>96
48	96	>96	>96
50	4	12	>96
52	96	>96	>96
54	1	2	11
56	96	>96	>96
58	4	12	>96
60	2	4	8.67

Weston Solutions, Inc.

Analytical Report

Client	Poseidon	Date Received:	04 Jan 07
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Client Sample ID:	RO Concentrate Comp	Date Test Ended:	09 Jan 07
Weston Test ID:	C070105.0262	Matrix:	Liquid

96 Hour Acute Effluent Toxicity Bioassay
Weston Testing Protocol No.: BIO 062C
EPA-821-R-02-012

Test Organism: ***Atherinops affinis***

Test Solution Physical and Chemical Data

Total Chlorine (mg/L)			
Concentration (ppt)	Initial	Renewal	Final
Control	0.00	*	*
60	0.00	*	*

*Chlorine not detected in initial measurement of sample

Concentration (ppt)	Statistic	D.O. (mg/L)	Temp (°C)	Salinity (ppt)	pH
Control	Mean	6.6	21.1	33.5	8.0
	Minimum	5.6	20.4	33.1	7.8
	Maximum	7.4	21.7	33.7	8.1
UF Filtrate	Mean	7.2	20.8	33.3	7.9
	Minimum	5.6	20.0	32.9	7.8
	Maximum	8.8	21.7	33.7	8.0
36	Mean	6.4	20.7	36.1	7.9
	Minimum	5.6	19.8	34.3	7.8
	Maximum	8.8	21.3	37.5	8.0
38	Mean	7.0	20.8	37.9	7.9
	Minimum	5.4	20.0	35.3	7.8
	Maximum	8.7	21.6	40.2	8.0
40	Mean	7.0	20.7	39.8	7.9
	Minimum	5.4	19.9	36.3	7.8
	Maximum	8.9	21.6	43.4	8.0
42	Mean	7.0	20.6	41.6	7.9
	Minimum	5.3	19.7	37.3	7.8
	Maximum	8.8	21.6	46.2	8.0
44	Mean	7.0	20.7	43.4	7.9
	Minimum	5.4	19.8	38.2	7.8
	Maximum	8.8	21.7	49.1	8.0

Weston Solutions, Inc.

Analytical Report

Client	Poseidon	Date Received:	04 Jan 07
Project:	Desal Pilot Topsmelt Toxicity Study	Date Test Started:	05 Jan 07
Client Sample ID:	RO Concentrate Comp	Date Test Ended:	09 Jan 07
Weston Test ID:	C070105.0262	Matrix:	Liquid

96 Hour Acute Effluent Toxicity Bioassay
Weston Testing Protocol No.: BIO 062C
EPA-821-R-02-012

Test Organism: ***Atherinops affinis***

Test Solution Physical and Chemical Data

Concentration (ppt)	Statistic	D.O. (mg/L)	Temp. (°C)	Salinity (ppt)	pH
46	Mean	7.0	20.7	45.2	7.9
	Minimum	5.3	19.7	39.2	7.8
	Maximum	8.8	21.7	52.1	8.0
48	Mean	6.9	20.7	47.2	7.9
	Minimum	5.1	20.1	40.5	7.8
	Maximum	8.8	21.3	55.0	8.0
50	Mean	6.9	20.7	48.9	7.9
	Minimum	5.4	19.9	41.2	7.8
	Maximum	8.8	21.6	57.9	8.0
52	Mean	7.0	20.8	50.8	7.9
	Minimum	5.4	20.1	41.9	7.8
	Maximum	8.8	21.8	61.0	8.0
54	Mean	7.1	20.8	52.7	7.9
	Minimum	5.5	20.2	43.1	7.8
	Maximum	8.8	21.8	63.9	8.0
56	Mean	7.0	20.9	54.4	7.9
	Minimum	5.2	20.3	44.1	7.8
	Maximum	8.7	21.8	65.9	8.0
58	Mean	7.0	21.0	55.7	7.9
	Minimum	5.6	20.3	44.9	7.8
	Maximum	8.6	21.8	65.8	8.0
60	Mean	7.1	20.9	57.2	7.9
	Minimum	5.6	20.0	45.7	7.8
	Maximum	8.7	21.7	65.8	8.0

Protocol Deviations: The test was initially started on December 19, 2006, but did not meet control survival acceptability criteria. The test was re-run on January 5, 2007 and the results are presented in this report.

Weston Solutions, Inc.

Analytical Report

Client:	Poseidon	Date Received:	04 Jan 07
Project:	Desal Pilot Topsmelt Toxicity Study	Date Test Started:	05 Jan 07
Client Sample ID:	RO Concentrate Comp	Date Test Ended:	09 Jan 07
Weston Test ID:	C070105.0262	Matrix:	Liquid

TEST: 96 Hour Acute Effluent Toxicity Bioassay, Weston Protocol No. BIO 062C, EPA-821-R-02-012

LAB CONTROL WATER: Filtered Seawater from Desalination Plant.

Dissolved Oxygen	7.4 mg/L
Temperature	21.7 °C
pH	8.1

TEST ORGANISM: Topsmelt, *Atherinops affinis* Age: 15 days old
Supplier: Aquatic BioSystems
Feeding: Fed *Artemia* nauplii *ad libitum* daily prior to testing.

TEST CHAMBER: Half liter containers, 4 replicate samples, 13 test salinities, and 4 replicate controls, brought to a 250mL final volume.

EXPERIMENTAL DESIGN:

1. Poseidon Resources personnel collected two 12 hour composite samples of both RO Concentrate and UF Filtrate ending at 1600 hours on January 3 and 0800 hours on January 4, 2007, respectively. Each sample was delivered to Weston in two 20L containers at 1020 hours on January 4. Temperatures upon arrival were 14.1 and 16.4° C for RO Concentrate, and 14.9 and 15.3°C for UF Filtrate, respectively. To create a 24 hour composite sample, the two 12 hour composites of each sample were composited at the Weston laboratory at 1040 hours on January 5, 2007. The composite samples were named RO Concentrate Comp and UF Filtrate Comp.
2. The temperature of the effluent was adjusted to 21± 1°C.
3. 10 test organisms were placed in each test container.
4. Test chambers were held at 21± 1°C for 96 hours with a photoperiod of 16 hours light: 8 hours darkness.
5. Test chambers were renewed daily.
6. Each test chamber was fed 1000 freshly hatched *Artemia* nauplii daily for the duration of the test.

MORTALITY CRITERIA: Lack of respiratory movement and lack of reaction to gentle prodding

ACCEPTIBILITY CRITERIA:
≥ 90% survival in controls. Evaluation of the concentration-response relationship indicated that the data presented in this report are reliable.

REFERENCE TOXICITY:
(Control Chart Included)
Toxicant: CuSO4, Lot No.: 1605565, Received: 5/25/06, Opened: 6/6/06, Expires: 5/25/08.

96 Hour LC_{50}:	105.62 ppb	
Laboratory Mean:	159.08 ppb	
Test Date:	1/5/2007	Within 95 % Confidence Limits

STUDY DIRECTOR: K. Skrivseth
INVESTIGATORS: K. Skrivseth, E. Batliner, D. Weiss, A. Margolis, D. Sowersby, A. Lovell, J. Hansen

WESTON SOLUTIONS

Topsmelt 96-Hour Acute Toxicity Test

BIO062

Client	Poseidon
Project:	Desal Pilot Topsmelt Toxicity Study
Client Sample ID:	RO Concentrate Comp 1
Weston Test ID:	C070105.0262
Species	*Atherinops affinis*

Date Received:	1/4/07
Date Test Started:	1/5/07
Date Test Ended:	1/9/07
Study Director:	K. Skrivseth
Organisms/Chamber:	10

	Conc.	Meter	D.O. (mg/L)	Meter	Temp (°C)	Meter	Salinity (ppt)	Meter	pH	Total Chlorine (mg/L)
Day 0 (0 Hours) Date: 1/5/07 Sample ID: C070105.01 C070105.02 Dilutions (Tech): KS WQ Time: 1415 Rep: stock Technician: EB	Control	7	7.4	7	21.7	6	33.1	11	8.1	0.00
	UF Ø		8.0		21.7		32.9		8.0	
	36		8.1		21.3		34.3		8.0	
	38		7.7		21.6		35.3		8.0	
	40		7.7		21.6		36.3		8.0	
	42		7.7		21.6		37.3		8.0	
	44		7.8		21.7		38.2		8.0	0.00
24 Hours (OLD) Date: 1/6/07 WQ Time: 1355 Rep: 1 Technician: KS	Control	7	5.7	7	20.9	6	33.7	10	7.9	
	UF Ø		5.8		21.1		33.6		7.8	
	36		5.8		21.2		35.0		7.8	
	38		5.4		20.8		36.4		7.8	
	40		5.4		20.6		37.1		7.8	
	42		5.3		20.5		37.9		7.8	
	44		5.7		20.8		38.4		7.8	
24 Hours (Renewal Water) Date: 1/6/07 Sample ID: C070105.01 C070105.02 Dilutions (Tech): KS WQ Time: 1435 Rep: stock Technician: KS	Control	7	7.2	7	21.6	6	33.1	10	8.1	
	UF Ø		8.2		21.3		32.9		8.0	
	36		8.4		21.0		37.5		8.0	
	38		8.3		21.1		40.2		7.9	
	40		8.3		21.2		43.4		7.9	
	42		8.1		21.3		46.2		7.9	
	44		8.1		21.3		49.1		7.9	
48 Hours (OLD) Date: 1/7/07 WQ Time: 1420 Rep: 2 Technician: KS	Control	6	5.6	6	21.0	5	33.7	10	7.9	
	UF Ø		5.6		20.5		33.7		7.9	
	36		5.6		20.4		36.5		7.9	
	38		5.8		20.4		38.6		7.9	
	40		5.5		20.5		40.2		7.9	
	42		6.0		20.3		42.5		7.9	
	44		5.4		20.6		44.4		7.9	
48 Hours (Renewal Water) Date: 1/7/07 Sample ID: C070105.01 C070105.02 Dilutions (Tech): KS WQ Time: 1445 Rep: Stock Technician: KS	Control	6	7.3	6	20.9	5	33.5	10	8.1	③
	UF Ø		8.8		20.0		33.2		8.0	
	36		8.8		19.8		36.5		8.0	
	38		8.7		20.0		38.0		8.0	
	40		8.9		19.9		40.0		8.0	
	42		8.8		19.7		42.5		8.0	
	44		8.8		19.8		43.9		8.0	—
72 Hours (OLD) Date: 1/8/07 WQ Time: 1106 Rep: 3 Technician: KS	Control	6	6.1	6	20.7	5	33.6	10	7.9	
	UF Ø		6.2		20.6		33.4		7.9	
	36		6.2		20.5		36.1		7.9	
	38		6.1		20.4		38.3		7.9	
	40		5.9		20.6		40.2		7.9	
	42		6.0		20.5		42.2		7.9	
	44		6.0		20.4		44.2		7.9	
72 Hours (Renewal Water) Date: 1/8/07 Sample ID: C070105.01 C070105.02 Dilutions (Tech): KS WQ Time: 1140 Rep: stock Technician: KS	Control	6	7.3	6	21.2	5	33.6	10	8.1	
	UF Ø		8.7		21.2		33.2		8.0	
	36		8.7		21.2		36.2		8.0	
	38		8.6		21.2		38.0		7.9	
	40		8.7		21.0		40.9		7.9	
	42		8.6		21.0		42.1		7.9	
	44		8.7		20.8		44.4		7.9	
96 Hours Date: 1/9/07 WQ Time: 1020 Rep: 4 Technician: AM	Control	6	6.0	6	20.4	5	33.7	10	7.8	③
	UF Ø		6.0		20.3		33.4		7.8	
	36		6.0		20.4		36.5		7.8	
	38		5.7		20.6		38.4		7.8	
	40		5.5		20.2		40.1		7.8	
	42		5.6		20.1		42.3		7.8	
	44		5.6		20.3		44.4		7.8	—

① WC 1/6/07 KS

② WC 1/8/07 KS

③ No chlorine detected at test initiation. 1/5/07 KS

WESTON SOLUTIONS

Topsmelt 96-Hour Acute Toxicity Test

BIO062

Client	Poseidon
Project:	Desal Pilot Topsmelt Toxicity Study
Client Sample ID:	RO Concentrate Comp
Weston Test ID:	C070105.0262
Species	*Atherinops affinis*

Date Received:	1/4/07
Date Test Started:	1/5/07
Date Test Ended:	1/9/07
Study Director:	K. Skrivseth
Organisms/Chamber:	10

	Conc.	Meter	D.O. (mg/L)	Meter	Temp (°C)	Meter	Salinity (ppt)	Meter	pH	Total Chlorine (mg/L)
Day 0 (0 Hours) Date: 1/5/07 Sample ID: C070105.01 C070105.02 Dilutions (Tech): KS WQ Time: 1415 Rep: Stock Technician: EP	46	7	7.7	7	21.7	6	39.2	11	8.0	~~0.02~~
	48		7.5		21.3		40.5		8.0	
	50		7.4		21.6		41.2		8.0	
	52		7.5		21.8		42.1		8.0	
	54		7.5		21.8		43.1		8.0	
	56		7.5		21.8		44.1		8.0	
	58		7.4		21.8		45.1		8.0	—
24 Hours (OLD) Date: 1/6/07 WQ Time: 1355 Rep: 1 Technician: KS	46	7	5.3	7	20.7	6	39.5	10	7.8	
	48		5.1		20.7		41.2		7.8	
	50		5.6		20.6		41.3		7.8	
	52		5.4		20.7		41.9		7.8	
	54		5.5		20.6		43.2		7.9	
	56		5.2		20.3		44.2		7.9	
	58		5.6		20.8		44.9		7.9	
24 Hours (Renewal Water) Date: 1/6/07 Sample ID: C070105.01 C070105.02 Dilutions (Tech): KS WQ Time: 1435 Rep: Stock Technician: KS	46	7	8.2	7	21.3	6	52.1	10	7.9	
	48		8.2		21.3		55.0		7.9	
	50		8.2		21.2		57.9		7.9	
	52		8.2		21.3		61.0		7.8	
	54		8.0		21.4		63.9		7.8	
	56		8.1		21.5		65.9		7.8	
	58		8.1		21.6		65.8		7.8	
48 Hours (OLD) Date: 1/7/07 WQ Time: 1420 Rep: 2 Technician: KS	46	6	5.5	6	21.3	5	46.0	10	7.8	
	48		5.3		20.7		48.2		7.9	
	50		5.7		20.8		50.1		7.9	
	52		5.6		20.6		52.6		7.9	
	54		5.8		20.2		54.3		8.0	
	56		5.4		20.8		56.2		8.0	
	58		5.6		20.8		57.5		8.0	
48 Hours (Renewal Water) Date: 1/7/07 Sample ID: C070105.01 C070105.02 Dilutions (Tech): KS WQ Time: 1445 Rep: Stock Technician: KS	46	6	8.8	6	19.7	5	46.0	10	8.0	—
	48		8.8		20.1		48.0		8.0	
	50		8.8		19.9		50.0		8.0	
	52		8.8		20.4		51.9		8.0	
	54		8.8		20.5		53.9		7.9	
	56		8.7		20.5		56.0		8.0	
	58		8.6		20.6		57.9		7.9	—
72 Hours (OLD) Date: 1/8/07 WQ Time: 1106 Rep: 3 Technician: KS	46	6	6.0	6	20.4	5	46.3	10	7.9	
	48		6.2		20.4		48.2		7.9	
	50		6.0		20.6		50.2		7.9	
	52		6.3		20.7		52.3		8.0	
	54		6.2		20.4		54.2		8.0	
	56		6.4		20.4		56.1		8.0	
	58		6.3		20.6		~~60.~~ 58.3		8.0	
72 Hours (Renewal Water) Date: 1/8/07 Sample ID: C070105.01 C070105.02 Dilutions (Tech): KS WQ Time: 1140 Rep: Stock Technician: KS	46	6	8.6	6	20.9	5	46.4	10	7.9	
	48		8.5		21.0		47.9		7.9	
	50		8.3		21.0		50.2		7.9	
	52		8.5		21.0		51.9		7.9	
	54		8.6		21.1		53.9		7.9	
	56		8.5		21.2		55.9		7.9	
	58		8.5		21.2		57.9		7.8	
96 Hours Date: 1/9/07 WQ Time: 1020 am Rep: 4 Technician:	46	6	5.5	6	20.8	5	46.4	10	7.8	—
	48		5.2		20.4		48.2		7.8	
	50		5.4		20.2		50.3		7.8	
	52		6.0		20.1		52.3		7.9	
	54		6.1		20.5		54.7		7.9	
	56		5.9		20.6		56.4		7.9	
	58		5.8		20.3		58.0		7.9	—

① WC 1/8/07

② WC 1/9/07

WESTON SOLUTIONS

Topsmelt 96-Hour Acute Toxicity Test

BIO062

Client	Poseidon
Project:	Desal Pilot Topsmelt Toxicity Study
Client Sample ID:	RO Concentrate Comp
Weston Test ID:	C070105.0262
Species	*Atherinops affinis*

Date Received:	1/4/07 @am
Date Test Started:	1/5/07
Date Test Ended:	1/9/07
Study Director:	K. Strivath
Organisms/Chamber:	10

	Conc.	Meter	D.O. (mg/L)	Meter	Temp (°C)	Meter	Salinity (ppt)	Meter	pH	Total Chlorine (mg/L)
Day 0 (0 Hours) Date: 1/5/07 @am Sample ID: C070105.01 C070105.02 Dilutions (Tech): KS WQ Time: 1415 Rep: Stock Technician: EB	60	7	7.5	7	21.7	6	46.1	11	8.0	0.00
24 Hours (OLD) Date: 1/6/07 WQ Time: 1355 Rep: 1 Technician: KS	60	7	5.6	7	21.2	6	45.7	10	8.0	
24 Hours (Renewal Water) Date: 1/6/07 Sample ID: C070105.01 C070105.02 Dilutions (Tech): KS WQ Time: 1435 Rep: Stock Technician: KS	60	7	8.1	7	21.5	6	65.8	10	7.9	
48 Hours (OLD) Date: 1/7/07 WQ Time: 1420 Rep: 2 Technician: KS	60	6	5.9	6	20.6	5	59.9	10	8.0	
48 Hours (Renewal Water) Date: 1/7/07 Sample ID: C070105.01 C070105.02 Dilutions (Tech): KS WQ Time: 1445 Rep: Stock Technician: KS	60	6	8.7	6	20.6	5	60.0	10	7.9	③
72 Hours (OLD) Date: 1/8/07 WQ Time: 1106 Rep: 3 Technician: KS	60	6	6.5	6	20.6	5	60.3	10	8.0	
72 Hours (Renewal Water) Date: 1/8/07 Sample ID: C070105.01 C070105.02 Dilutions (Tech): KS WQ Time: 1140 Rep: Stock Technician: KS	60	6	8.4	6	21.2	5	59.9	10	7.8	
96 Hours Date: 1/9/07 WQ Time: 1020 Rep: 4 Technician: am	60	6	5.7	6	20.0	5	60.2	10	7.9	③

① WD 1/5/07 EB
② IE 1/5/07 EB
③ No Chlorine detected at test initiation. 1/9/07 KS

WESTON SOLUTIONS

Topsmelt 96-Hour Acute Toxicity Test

BIO062

Weston Test ID:	Client:	Client Sample ID:
C070105.0262	Poseidon	RO Concentrate Comp

Survival Data

Conc.	Rep	30 min		1 Hour		2 Hours		4 Hours		12 Hours		24 Hours		48 Hours		72 Hours		96 Hours	
		Date: 1.5.07		Date: 1.5.07		Date: 1.5.07		Date: 1.5.07		Date: 1.6.07		Date: 1/6/07		Date: 1/7/07		Date: 1/8/07		Date: 1/9/07	
		Time: 1838		Time: 1910		Time: 2010		Time: 2205		Time: 0608		Renewal Time: 1629		Renewal Time: 1528		Renewal Time: 1400		End Time: 1610	
		Technician: DA		Technician: DA		Technician: DA		Technician: DA		Technician: DW		Technician: VS		Technician: VS		Technician: DA		Technician: CMM	
		# Alive	#Dead	# Alive	#Dead	# Alive	#Dead	# Alive	#Dead	# Alive	#Dead	# Alive	#Dead	# Alive	#Dead	# Alive	#Dead	# Alive	#Dead
Control	1	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø
	2	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø
	3	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø
	4	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø
UF Ø	1	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø
	2	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø
	3	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø
	4	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø
36	1	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø
	2	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø
	3	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	9	1	9	Ø	9	Ø
	4	10	Ø	10	Ø	10	Ø	10	Ø	9	1	9	Ø	9	Ø	9	Ø	9	Ø
38	1	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø
	2	10	Ø	10	Ø	10	Ø	9	1	9	Ø	8	1	8	Ø	8	Ø	8	Ø
	3	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø
	4	10	Ø	10	Ø	9	1	9	Ø	8	1	8	Ø	8	Ø	8	Ø	8	Ø
40	1	10	Ø	10	Ø	9	1	9	Ø	9	Ø	9	Ø	9	Ø	9	Ø	9	Ø
	2	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø
	3	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø
	4	10	Ø	10	Ø	10	Ø	10	Ø	9	1	9	Ø	9	Ø	9	Ø	9	Ø

Feeding Information	Day 0	24 Hours	48 Hours	72 Hours
Feed Time*:	1810	1300	1245	1055
Technician:	DA	VS	VS	VS

*Topsmelt should be fed at test initiation and approximately 2 hours before renewal at 24, 48, and 72 hours.

Start Time:	1805 DA, DW
End Time:	1610 CMM
Supplier:	ABS
Organism Batch:	ABS 3444 Age: 15 days

Dilution Water Batch	070105.01
Hobo Temp. No.:	543494
Test Location:	Rm 3
Test Acceptability:	X ≥ 90% Survival in Control

WESTON SOLUTIONS

Topsmelt 96-Hour Acute Toxicity Test

BIO062

Weston Test ID:	Client:	Client Sample ID:
C070105.0262	Poseidon	RO concentrate Comp

Survival Data

Conc.	Rep	30 min.		1 Hour		2 Hours		4 Hours		12 Hours		24 Hours		48 Hours		72 Hours		96 Hours	
		Date: 1.5.07		Date: 1.5.07		Date: 1.5.07		Date: 1.5.07		Date: 1.6.07		Date: 1/6/07		Date: 1/7/07		Date: 1/8/07		Date: 1/9/07	
		Time: 1838		Time: 1910		Time: 2010		Time: 2205		Time: 0608		Renewal Time: 1628		Renewal Time: 1528		Renewal Time: 1400		End Time: 1610	
		Technician: EA		Technician: EA		Technician: EA		Technician: EA		Technician: DW		Technician: VS		Technician: VS		Technician: EA		Technician:	
		# Alive	#Dead	# Alive	#Dead	# Alive	#Dead	# Alive	#Dead	# Alive	#Dead	# Alive	#Dead	# Alive	#Dead	# Alive	#Dead	# Alive	#Dead
42	1	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø
	2	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø
	3	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø
	4	10	Ø	10	Ø	9	1	9	Ø	9	Ø	9	Ø	9	Ø	9	Ø	9	Ø
44	1	10	Ø	10	Ø	10	Ø	10	Ø	9	1 NB	9	Ø	9	Ø	9	Ø	9	Ø
	2	10	Ø	10	Ø	10	Ø	9	1	7	2	7	Ø	7	Ø	7	Ø	7	Ø
	3	10	Ø	10	Ø	10	Ø	9	1	9	Ø	9	Ø	9	Ø	9	Ø	9	Ø
	4	10	Ø	10	Ø	10	Ø	10	Ø	9	1	9	Ø	9	Ø	9	Ø	9	Ø
46	1	9	1	9	Ø	9	Ø	7	2	7	Ø	7	Ø	7	Ø	7	Ø	7	Ø
	2	10	Ø	10	Ø	10	Ø	10	Ø	9	1	9	Ø	9	Ø	9	Ø	9	Ø
	3	10	Ø	10	Ø	9	1	9	Ø	9	Ø	9	Ø	9	Ø	9	Ø	9	Ø
	4	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø
48	1	10	Ø	10	Ø	8	2	8	Ø	7	1	7	Ø	7	Ø	6	1	6	Ø
	2	10	Ø	10	Ø	10	Ø	9	1	9	Ø	9	Ø	9	Ø	9	Ø	9	Ø
	3	10	Ø	10	Ø	10	Ø	10	Ø	7	3	7	Ø	7	Ø	7	Ø	7	Ø
	4	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø
50	1	10	Ø	10	Ø	9	1	6	3	3	3	3	Ø	2	1	2	Ø	2	Ø
	2	10	Ø	10	Ø	10	Ø	9	1	9	Ø	9	Ø	9	Ø	9	Ø	9	Ø
	3	10	Ø	10	Ø	10	Ø	9	1	6	3	5	1	5	Ø	5	Ø	5	Ø
	4	10	Ø	10	Ø	8	2	8	Ø	7	1	7	Ø	6	1	6	Ø	6	Ø

Feeding Information	Day 0	24 Hours	48 Hours	72 Hours
Feed Time*:	1810	1300	1245	1055
Technician:	EA	VS	VS	VS

*Topsmelt should be fed at test initiation and approximately 2 hours before renewal at 24, 48, and 72 hours.

① I.E. 1.5.07 EA
② W.S. 1.8.07 EA

Start Time:	1805 EA., DW.
End Time:	1610
Supplier:	ABS
Organism Batch:	ABS 3444 Age: 15 days

Dilution Water Batch	C070105.01
Hobo Temp. No.:	543494
Test Location:	Rm 3
Test Acceptability:	X ≥ 90% Survival in Control

WESTON SOLUTIONS

Topsmelt 96-Hour Acute Toxicity Test

BIO062

Weston Test ID:	Client:	Client Sample ID:
C070105.0262	Posidon	RO Concentrate Comp

Survival Data

Conc.	Rep	30 min.		1 Hour		2 Hours		4 Hours		12 Hours		24 Hours		48 Hours		72 Hours		96 Hours	
		Date: 1.5.07		Date: 1.5.07		Date: 1.5.07		Date: 1.5.07		Date: 01.06.07		Date: 1/6/07		Date: 1/7/07		Date: 1/8/07		Date: 1/9/07	
		Time: 1838		Time: 1910		Time: 2010		Time: 2205		Time: 0608		Renewal Time: 1629		Renewal Time: 1528		Renewal Time: 1400		End Time: 1610	
		Technician: DA		Technician: DA		Technician: DA		Technician: DA		Technician: DW		Technician: KS		Technician: KS		Technician: DA		Technician: DM	
		# Alive	#Dead	# Alive	#Dead	# Alive	#Dead	# Alive	#Dead	# Alive	#Dead	# Alive	#Dead	# Alive	#Dead	# Alive	#Dead	# Alive	#Dead
52	1	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	9	1	9	Ø	9	Ø	9	Ø
	2	10	Ø	10	Ø	10	Ø	8	2	8	Ø	8	Ø	8	Ø	8	Ø	8	Ø
	3	10	Ø	7	3	6	1	5	1	4	1	4	Ø	4	Ø	4	Ø	4	Ø
	4	10	Ø	10	Ø	8	2	6	2	5	1	4	1	4	Ø	4	Ø	4	Ø
54	1	10	Ø	8	2	7	1	7	Ø	6	1	6	Ø	6	Ø	5	1	5	Ø
	2	10	Ø	9	1	8	1	8	Ø	5	3	5	Ø	5	Ø	5	Ø	5	Ø
	3	9	1	7	2	5	2	5	Ø	4	1	4	Ø	4	Ø	4	Ø	4	Ø
	4	10	Ø	10	Ø	9	1	7	2	4	3	4	Ø	4	Ø	4	Ø	4	Ø
56	1	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø	10	Ø
	2	10	Ø	10	Ø	9	1	7	2	7	Ø	7	Ø	7	Ø	7	Ø	7	Ø
	3	9	1	7	2	6	1	2	4	2	Ø	2	Ø	2	Ø	2	Ø	2	Ø
	4	10	Ø	10	Ø	10	Ø	7	3	4	3	3	1	3	Ø	3	Ø	3	Ø
58	1	10	Ø	10	Ø	9	1	9	Ø	8	1	8	Ø	8	Ø	8	Ø	8	Ø
	2	10	Ø	10	Ø	9	1	8	1	8	Ø	8	Ø	8	Ø	8	Ø	8	Ø
	3	8	2	5	3	5	Ø	5	Ø	5	Ø	5	Ø	5	Ø	5	Ø	5	Ø
	4	10	Ø	10	Ø	10	Ø	7	3	5	2	5	Ø	5	Ø	5	Ø	5	Ø
60	1	10	Ø	10	Ø	9	1	5	4	3	2	3	Ø	3	Ø	3	Ø	3	Ø
	2	10	Ø	10	Ø	9	1	8	1	3	5	3	Ø	3	Ø	3	Ø	3	Ø
	3	10	Ø	10	Ø	8	2	7	1	4	3	4	Ø	4	Ø	4	Ø	4	Ø
	4	10	Ø	10	Ø	10	Ø	7	3	5	2	5	Ø	5	Ø	5	Ø	5	Ø

Feeding Information	Day 0	24 Hours	48 Hours	72 Hours
Feed Time*:	1810	1300	1245	1055
Technician:	DA	KS	KS	KS

*Topsmelt should be fed at test initiation and approximately 2 hours before renewal at 24, 48, and 72 hours.

Start Time:	1805 DA, DW
End Time:	1610
Supplier:	ABS
Organism Batch:	ABS 3444 Age: 15 days

Dilution Water Batch:	C070105.01
Hobo Temp. No.:	543494
Test Location:	Rm3
Test Acceptability:	X ≥ 90% Survival in Control

Acute Fish Test-96 Hr Survival

Start Date:	1/5/2007 18:05	Test ID:	C070105.0262	Sample ID:	RO Concentrate Comp
End Date:	1/9/2007 16:10	Lab ID:	CCA-Weston, Carlsbad	Sample Type:	DMR-Discharge Monitoring Report
Sample Date:	1/4/2007 08:00	Protocol:	EPAA 02-EPA Acute	Test Species:	AA-Atherinops affinis

Comments: Sample time is last sample taken of 24 hour composite, not the time the composite was created in the lab.

Conc-ppt	1	2	3	4
Control	1.0000	1.0000	1.0000	1.0000
UF Filtrate Control	1.0000	1.0000	1.0000	1.0000
36	1.0000	1.0000	0.9000	0.9000
38	1.0000	0.8000	1.0000	0.8000
40	0.9000	1.0000	1.0000	0.9000
42	1.0000	1.0000	1.0000	0.9000
44	0.9000	0.7000	0.9000	0.9000
46	0.7000	0.9000	0.9000	1.0000
48	0.6000	0.9000	0.7000	1.0000
50	0.2000	0.9000	0.5000	0.6000
52	0.9000	0.8000	0.4000	0.4000
54	0.5000	0.5000	0.4000	0.4000
56	1.0000	0.7000	0.2000	0.3000
58	0.8000	0.8000	0.5000	0.5000
60	0.3000	0.3000	0.4000	0.5000

			Transform: Untransformed					Rank	1-Tailed	Isotonic	
Conc-ppt	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical	Mean	N-Mean
Control	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4			1.0000	1.0000
UF Filtrate Control	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4				
36	0.9500	0.9500	0.9500	0.9000	1.0000	6.077	4	14.00	12.00	0.9500	0.9500
38	0.9000	0.9000	0.9000	0.8000	1.0000	12.830	4	14.00	12.00	0.9417	0.9417
40	0.9500	0.9500	0.9500	0.9000	1.0000	6.077	4	14.00	12.00	0.9417	0.9417
42	0.9750	0.9750	0.9750	0.9000	1.0000	5.128	4	16.00	12.00	0.9417	0.9417
*44	0.8500	0.8500	0.8500	0.7000	0.9000	11.765	4	10.00	12.00	0.8625	0.8625
*46	0.8750	0.8750	0.8750	0.7000	1.0000	14.381	4	12.00	12.00	0.8625	0.8625
*48	0.8000	0.8000	0.8000	0.6000	1.0000	22.822	4	12.00	12.00	0.8000	0.8000
*50	0.5500	0.5500	0.5500	0.2000	0.9000	52.486	4	10.00	12.00	0.5875	0.5875
*52	0.6250	0.6250	0.6250	0.4000	0.9000	42.079	4	10.00	12.00	0.5875	0.5875
*54	0.4500	0.4500	0.4500	0.4000	0.5000	12.830	4	10.00	12.00	0.5500	0.5500
*56	0.5500	0.5500	0.5500	0.2000	1.0000	67.215	4	12.00	12.00	0.5500	0.5500
*58	0.6500	0.6500	0.6500	0.5000	0.8000	26.647	4	10.00	12.00	0.5500	0.5500
*60	0.3750	0.3750	0.3750	0.3000	0.5000	25.531	4	10.00	12.00	0.3750	0.3750

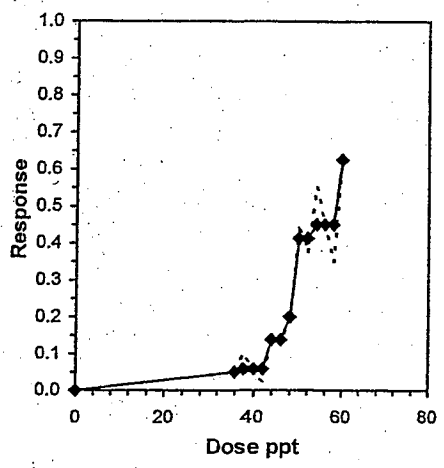
TUa
0.41
0.59
0.41
0.23
0.69
0.65
0.77
0.97
0.93
1.02
0.97
0.91
1

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Kolmogorov D Test indicates non-normal distribution (p <= 0.01)	1.04263	1.035	0.18798	1.22476
Equality of variance cannot be confirmed				
The control means are not significantly different (p = 1.00)	0	2.44691		

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Wilcoxon Rank Sum Test	42	44	42.9884	

Linear Interpolation (200 Resamples)

Point	ppt	SD	95% CL(Exp)		Skew
IC05	36.000	5.725	16.800	46.478	-0.9648
IC10	43.053	1.446	41.368	50.968	1.0565
IC15	46.400	1.683	41.358	49.543	-0.4398
IC20	48.000	1.108	41.600	49.686	-1.2139
IC25	48.471	0.931	46.118	51.988	0.9231
IC40	49.882	2.730	48.645	63.329	1.1803
IC50	58.571				



ToxCalc v5.0.23

Reviewed by: Cm

Test: AC-Acute Fish Test
Species: AA-Atherinops affinis
Sample ID: RO Concentrate Comp
Start Date: 1/5/2007 18:05 End Date: 1/9/2007 16:10

Test ID: C070105.0262
Protocol: EPAA 02-EPA Acute
Sample Type: DMR-Discharge Monitoring Report
Lab ID: CCA-Weston, Carlsbad

Pos	ID	Rep	Group	Start	24 Hr	48 Hr	72 Hr	96 Hr	Notes
	1	1	Control	10				10	
	2	2	Control	10				10	
	3	3	Control	10				10	
	4	4	Control	10				10	
	5	1	UF Filtrate Control	10				10	
	6	2	UF Filtrate Control	10				10	
	7	3	UF Filtrate Control	10				10	
	8	4	UF Filtrate Control	10				10	
	9	1	36.000	10				10	
	10	2	36.000	10				10	
	11	3	36.000	10				9	
	12	4	36.000	10				9	
	13	1	38.000	10				10	
	14	2	38.000	10				8	
	15	3	38.000	10				10	
	16	4	38.000	10				8	
	17	1	40.000	10				9	
	18	2	40.000	10				10	
	19	3	40.000	10				10	
	20	4	40.000	10				9	
	21	1	42.000	10				10	
	22	2	42.000	10				10	
	23	3	42.000	10				10	
	24	4	42.000	10				9	
	25	1	44.000	10				9	
	26	2	44.000	10				7	
	27	3	44.000	10				9	
	28	4	44.000	10				9	
	29	1	46.000	10				7	
	30	2	46.000	10				9	
	31	3	46.000	10				9	
	32	4	46.000	10				10	
	33	1	48.000	10				6	
	34	2	48.000	10				9	
	35	3	48.000	10				7	
	36	4	48.000	10				10	
	37	1	50.000	10				2	
	38	2	50.000	10				9	
	39	3	50.000	10				5	
	40	4	50.000	10				6	
	41	1	52.000	10				9	
	42	2	52.000	10				8	
	43	3	52.000	10				4	
	44	4	52.000	10				4	
	45	1	54.000	10				5	
	46	2	54.000	10				5	
	47	3	54.000	10				4	
	48	4	54.000	10				4	
	49	1	56.000	10				10	
	50	2	56.000	10				7	
	51	3	56.000	10				2	
	52	4	56.000	10				3	
	53	1	58.000	10				8	

Test: AC-Acute Fish Test	Test ID: C070105.02G2
Species: AA-Atherinops affinis	Protocol: EPAA 02-EPA Acute
Sample ID: RO Concentrate Comp	Sample Type: DMR-Discharge Monitoring Report
Start Date: 1/5/2007 18:05 End Date: 1/9/2007 16:10	Lab ID: CCA-Weston, Carlsbad

Pos	ID	Rep	Group	Start	24 Hr	48 Hr	72 Hr	96 Hr	Notes
	54	2	58.000	10				8	
	55	3	58.000	10				5	
	56	4	58.000	10				5	
	57	1	60.000	10				3	
	58	2	60.000	10				3	
	59	3	60.000	10				4	
	60	4	60.000	10				5	

Comments: Sample time is last sample taken of 24 hour composite, not the time the composite was created in the lab.

Acute Fish Test

Start Date:	1/5/2007 18:05	Test ID:	C070105.0262	Sample ID:	36 ppt RO Concentrate Comp
End Date:	1/9/2007 16:10	Lab ID:	CCA-Weston, Carlsbad	Sample Type:	DMR-Discharge Monitoring Report
Sample Date:	1/4/2007 08:00	Protocol:	EPAA 02-EPA Acute	Test Species:	AA-Atherinops affinis

Comments: Used to compare survival of fish to time exposed to 36 ppt concentration.

Conc-Hours	1	2	3	4
0	1.0000	1.0000	1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000
1	1.0000	1.0000	1.0000	1.0000
2	1.0000	1.0000	1.0000	1.0000
4	1.0000	1.0000	1.0000	1.0000
12	1.0000	1.0000	1.0000	0.9000
24	1.0000	1.0000	1.0000	0.9000
48	1.0000	1.0000	0.9000	0.9000
72	1.0000	1.0000	0.9000	0.9000
96	1.0000	1.0000	0.9000	0.9000

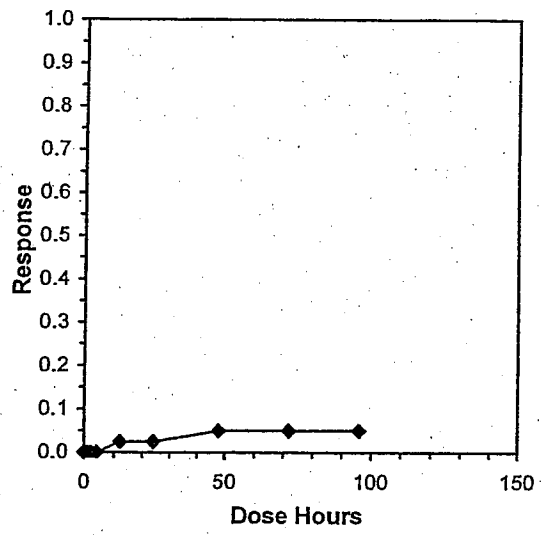
			Transform: Untransformed						1-Tailed		Isotonic	
Conc-Hours	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
0	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4				1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4	0.000	2.540	0.0696	1.0000	1.0000
1	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4	0.000	2.540	0.0696	1.0000	1.0000
2	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4	0.000	2.540	0.0696	1.0000	1.0000
4	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4	0.000	2.540	0.0696	1.0000	1.0000
12	0.9750	0.9750	0.9750	0.9000	1.0000	5.128	4	0.913	2.540	0.0696	0.9750	0.9750
24	0.9750	0.9750	0.9750	0.9000	1.0000	5.128	4	0.913	2.540	0.0696	0.9750	0.9750
48	0.9500	0.9500	0.9500	0.9000	1.0000	6.077	4	1.826	2.540	0.0696	0.9500	0.9500
72	0.9500	0.9500	0.9500	0.9000	1.0000	6.077	4	1.826	2.540	0.0696	0.9500	0.9500
96	0.9500	0.9500	0.9500	0.9000	1.0000	6.077	4	1.826	2.540	0.0696	0.9500	0.9500

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.857002	0.919	-0.51648	-0.0863
Equality of variance cannot be confirmed				

Hypothesis Test (1-tail, 0.05)	NOET	LOET	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	96	>96			0.069561	0.069561	0.002111	0.0015	0.228996	9, 30

Linear Interpolation (200 Resamples)

Point	Hours	SD	95% CL(Exp)	Skew
IT05	>96			
IT10	>96			
IT15	>96			
IT20	>96			
IT25	>96			
IT40	>96			
IT50	>96			



 ToxCalc v5.0.23 Reviewed by: [illegible]

Test: AC-Acute Fish Test
Species: AA-Atherinops affinis
Sample ID: 36 ppt RO Concentrate Comp
Start Date: 1/5/2007 18:05 End Date: 1/9/2007 16:10

Test ID: C070105.0262
Protocol: EPAA 02-EPA Acute
Sample Type: DMR-Discharge Monitoring Report
Lab ID: CCA-Weston, Carlsbad

Pos	ID	Rep	Hour	Start	# Alive	Notes
	1	1	0.000	10	10	
	2	2	0.000	10	10	
	3	3	0.000	10	10	
	4	4	0.000	10	10	
	5	1	0.500	10	10	
	6	2	0.500	10	10	
	7	3	0.500	10	10	
	8	4	0.500	10	10	
	9	1	1.000	10	10	
	10	2	1.000	10	10	
	11	3	1.000	10	10	
	12	4	1.000	10	10	
	13	1	2.000	10	10	
	14	2	2.000	10	10	
	15	3	2.000	10	10	
	16	4	2.000	10	10	
	17	1	4.000	10	10	
	18	2	4.000	10	10	
	19	3	4.000	10	10	
	20	4	4.000	10	10	
	21	1	12.000	10	10	
	22	2	12.000	10	10	
	23	3	12.000	10	10	
	24	4	12.000	10	9	
	25	1	24.000	10	10	
	26	2	24.000	10	10	
	27	3	24.000	10	10	
	28	4	24.000	10	9	
	29	1	48.000	10	10	
	30	2	48.000	10	10	
	31	3	48.000	10	9	
	32	4	48.000	10	9	
	33	1	72.000	10	10	
	34	2	72.000	10	10	
	35	3	72.000	10	9	
	36	4	72.000	10	9	
	37	1	96.000	10	10	
	38	2	96.000	10	10	
	39	3	96.000	10	9	
	40	4	96.000	10	9	

Comments: Used to compare survival of fish to time exposed to 36 ppt concentration.

Acute Fish Test

Start Date:	1/5/2007 18:05	Test ID:	C070105.0262	Sample ID:	38 ppt RO Concentrate Comp
End Date:	1/9/2007 16:10	Lab ID:	CCA-Weston, Carlsbad	Sample Type:	DMR-Discharge Monitoring Report
Sample Date:	1/4/2007 08:00	Protocol:	EPAA 02-EPA Acute	Test Species:	AA-Atherinops affinis

Comments: Used to compare survival of fish to time exposed to 38 ppt concentration.

Conc-Hours	1	2	3	4
0	1.0000	1.0000	1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000
1	1.0000	1.0000	1.0000	1.0000
2	1.0000	1.0000	1.0000	0.9000
4	1.0000	0.9000	1.0000	0.9000
12	1.0000	0.9000	1.0000	0.8000
24	1.0000	0.8000	1.0000	0.8000
48	1.0000	0.8000	1.0000	0.8000
72	1.0000	0.8000	1.0000	0.8000
96	1.0000	0.8000	1.0000	0.8000

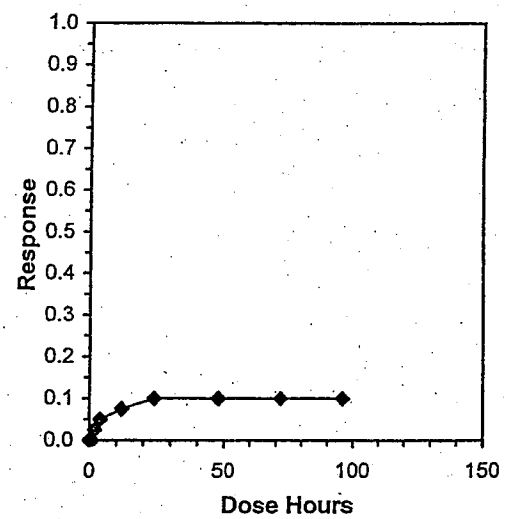
			Transform: Untransformed						1-Tailed		Isotonic	
Conc-Hours	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
0	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4				1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4	0.000	2.540	0.1485	1.0000	1.0000
1	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4	0.000	2.540	0.1485	1.0000	1.0000
2	0.9750	0.9750	0.9750	0.9000	1.0000	5.128	4	0.428	2.540	0.1485	0.9750	0.9750
4	0.9500	0.9500	0.9500	0.9000	1.0000	6.077	4	0.855	2.540	0.1485	0.9500	0.9500
12	0.9250	0.9250	0.9250	0.8000	1.0000	10.351	4	1.283	2.540	0.1485	0.9250	0.9250
24	0.9000	0.9000	0.9000	0.8000	1.0000	12.830	4	1.711	2.540	0.1485	0.9000	0.9000
48	0.9000	0.9000	0.9000	0.8000	1.0000	12.830	4	1.711	2.540	0.1485	0.9000	0.9000
72	0.9000	0.9000	0.9000	0.8000	1.0000	12.830	4	1.711	2.540	0.1485	0.9000	0.9000
96	0.9000	0.9000	0.9000	0.8000	1.0000	12.830	4	1.711	2.540	0.1485	0.9000	0.9000

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.88643	0.919	-0.1062	-1.1176
Equality of variance cannot be confirmed				

Hypothesis Test (1-tail, 0.05)	NOET	LOET	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	96	>96			0.14847	0.14847	0.00822	0.00683	0.32927	9, 30

Linear Interpolation (200 Resamples)

Point	Hours	SD	95% CL(Exp)	Skew
IT05	4.000			
IT10	24.000			
IT15	>96			
IT20	>96			
IT25	>96			
IT40	>96			
IT50	>96			



 ToxCalc v5.0.23 Reviewed by: JM

Test: AC-Acute Fish Test
Species: AA-Atherinops affinis
Sample ID: 38 ppt RO Concentrate Comp
Start Date: 1/5/2007 18:05 End Date: 1/9/2007 16:10

Test ID: C070105.0262
Protocol: EPAA 02-EPA Acute
Sample Type: DMR-Discharge Monitoring Report
Lab ID: CCA-Weston, Carlsbad

Pos	ID	Rep	Hour	Start	# Alive	Notes
	1	1	0.000	10	10	
	2	2	0.000	10	10	
	3	3	0.000	10	10	
	4	4	0.000	10	10	
	5	1	0.500	10	10	
	6	2	0.500	10	10	
	7	3	0.500	10	10	
	8	4	0.500	10	10	
	9	1	1.000	10	10	
	10	2	1.000	10	10	
	11	3	1.000	10	10	
	12	4	1.000	10	10	
	13	1	2.000	10	10	
	14	2	2.000	10	10	
	15	3	2.000	10	10	
	16	4	2.000	10	9	
	17	1	4.000	10	10	
	18	2	4.000	10	9	
	19	3	4.000	10	10	
	20	4	4.000	10	9	
	21	1	12.000	10	10	
	22	2	12.000	10	9	
	23	3	12.000	10	10	
	24	4	12.000	10	8	
	25	1	24.000	10	10	
	26	2	24.000	10	8	
	27	3	24.000	10	10	
	28	4	24.000	10	8	
	29	1	48.000	10	10	
	30	2	48.000	10	8	
	31	3	48.000	10	10	
	32	4	48.000	10	8	
	33	1	72.000	10	10	
	34	2	72.000	10	8	
	35	3	72.000	10	10	
	36	4	72.000	10	8	
	37	1	96.000	10	10	
	38	2	96.000	10	8	
	39	3	96.000	10	10	
	40	4	96.000	10	8	

Comments: Used to compare survival of fish to time exposed to 38 ppt concentration.

Acute Fish Test

Start Date:	1/5/2007 18:05	Test ID:	C070105.0262	Sample ID:	40 ppt RO Concentrate Comp
End Date:	1/9/2007 16:10	Lab ID:	CCA-Weston, Carlsbad	Sample Type:	DMR-Discharge Monitoring Report
Sample Date:	1/4/2007 08:00	Protocol:	EPAA 02-EPA Acute	Test Species:	AA-Atherinops affinis

Comments: Used to compare survival of fish to time exposed to 40 ppt concentration.

Conc-Hours	1	2	3	4
0	1.0000	1.0000	1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000
1	1.0000	1.0000	1.0000	1.0000
2	0.9000	1.0000	1.0000	1.0000
4	0.9000	1.0000	1.0000	1.0000
12	0.9000	1.0000	1.0000	0.9000
24	0.9000	1.0000	1.0000	0.9000
48	0.9000	1.0000	1.0000	0.9000
72	0.9000	1.0000	1.0000	0.9000
96	0.9000	1.0000	1.0000	0.9000

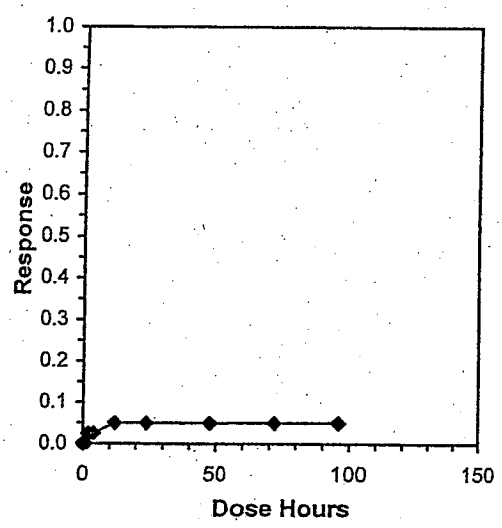
			Transform: Untransformed						1-Tailed		Isotonic	
Conc-Hours	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
0	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4				1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4	0.000	2.540	0.0836	1.0000	1.0000
1	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4	0.000	2.540	0.0836	1.0000	1.0000
2	0.9750	0.9750	0.9750	0.9000	1.0000	5.128	4	0.760	2.540	0.0836	0.9750	0.9750
4	0.9750	0.9750	0.9750	0.9000	1.0000	5.128	4	0.760	2.540	0.0836	0.9750	0.9750
12	0.9500	0.9500	0.9500	0.9000	1.0000	6.077	4	1.519	2.540	0.0836	0.9500	0.9500
24	0.9500	0.9500	0.9500	0.9000	1.0000	6.077	4	1.519	2.540	0.0836	0.9500	0.9500
48	0.9500	0.9500	0.9500	0.9000	1.0000	6.077	4	1.519	2.540	0.0836	0.9500	0.9500
72	0.9500	0.9500	0.9500	0.9000	1.0000	6.077	4	1.519	2.540	0.0836	0.9500	0.9500
96	0.9500	0.9500	0.9500	0.9000	1.0000	6.077	4	1.519	2.540	0.0836	0.9500	0.9500

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.86051	0.919	-0.2975	-1.1929
Equality of variance cannot be confirmed				

Hypothesis Test (1-tail, 0.05)	NOET	LOET	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	96	>96			0.0836	0.0836	0.00211	0.00217	0.48013	9, 30

Linear Interpolation (200 Resamples)

Point	Hours	SD	95% CL(Exp)	Skew
IT05	>96			
IT10	>96			
IT15	>96			
IT20	>96			
IT25	>96			
IT40	>96			
IT50	>96			



ToxCalc v5.0.23

Reviewed by: AM

Test: AC-Acute Fish Test
Species: AA-Atherinops affinis
Sample ID: 40 ppt RO Concentrate Comp
Start Date: 1/5/2007 18:05 End Date: 1/9/2007 16:10

Test ID: C070105.0262
Protocol: EPAA 02-EPA Acute
Sample Type: DMR-Discharge Monitoring Report
Lab ID: CCA-Weston, Carlsbad

Pos	ID	Rep	Hour	Start	# Alive	Notes
	1	1	0.000	10	10	
	2	2	0.000	10	10	
	3	3	0.000	10	10	
	4	4	0.000	10	10	
	5	1	0.500	10	10	
	6	2	0.500	10	10	
	7	3	0.500	10	10	
	8	4	0.500	10	10	
	9	1	1.000	10	10	
	10	2	1.000	10	10	
	11	3	1.000	10	10	
	12	4	1.000	10	10	
	13	1	2.000	10	9	
	14	2	2.000	10	10	
	15	3	2.000	10	10	
	16	4	2.000	10	10	
	17	1	4.000	10	9	
	18	2	4.000	10	10	
	19	3	4.000	10	10	
	20	4	4.000	10	10	
	21	1	12.000	10	9	
	22	2	12.000	10	10	
	23	3	12.000	10	10	
	24	4	12.000	10	9	
	25	1	24.000	10	9	
	26	2	24.000	10	10	
	27	3	24.000	10	10	
	28	4	24.000	10	9	
	29	1	48.000	10	9	
	30	2	48.000	10	10	
	31	3	48.000	10	10	
	32	4	48.000	10	9	
	33	1	72.000	10	9	
	34	2	72.000	10	10	
	35	3	72.000	10	10	
	36	4	72.000	10	9	
	37	1	96.000	10	9	
	38	2	96.000	10	10	
	39	3	96.000	10	10	
	40	4	96.000	10	9	

Comments: Used to compare survival of fish to time exposed to 40 ppt concentration.

Acute Fish Test

Start Date:	1/5/2007 18:05	Test ID:	C070105.0262	Sample ID:	42 ppt RO Concentrate Comp
End Date:	1/9/2007 16:10	Lab ID:	CCA-Weston, Carlsbad	Sample Type:	DMR-Discharge Monitoring Report
Sample Date:	1/4/2007 08:00	Protocol:	EPAA 02-EPA Acute	Test Species:	AA-Atherinops affinis

Comments: Used to compare survival of fish to time exposed to 42 ppt concentration.

Conc-Hours	1	2	3	4
0	1.0000	1.0000	1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000
1	1.0000	1.0000	1.0000	1.0000
2	1.0000	1.0000	1.0000	0.9000
4	1.0000	1.0000	1.0000	0.9000
12	1.0000	1.0000	1.0000	0.9000
24	1.0000	1.0000	1.0000	0.9000
48	1.0000	1.0000	1.0000	0.9000
72	1.0000	1.0000	1.0000	0.9000
96	1.0000	1.0000	1.0000	0.9000

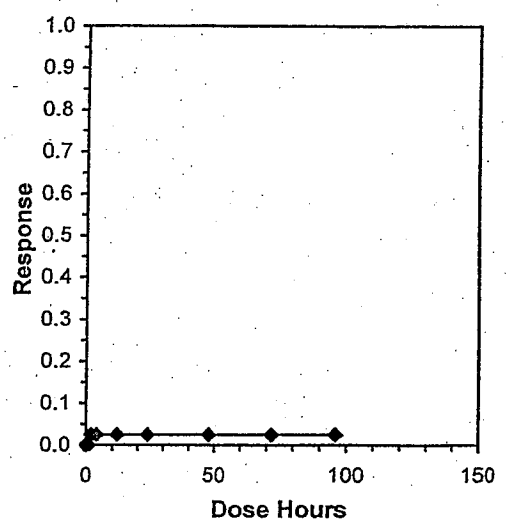
			Transform: Untransformed						1-Tailed		Isotonic	
Conc-Hours	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
0	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4				1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4	0.000	2.540	0.0751	1.0000	1.0000
1	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4	0.000	2.540	0.0751	1.0000	1.0000
2	0.9750	0.9750	0.9750	0.9000	1.0000	5.128	4	0.845	2.540	0.0751	0.9750	0.9750
4	0.9750	0.9750	0.9750	0.9000	1.0000	5.128	4	0.845	2.540	0.0751	0.9750	0.9750
12	0.9750	0.9750	0.9750	0.9000	1.0000	5.128	4	0.845	2.540	0.0751	0.9750	0.9750
24	0.9750	0.9750	0.9750	0.9000	1.0000	5.128	4	0.845	2.540	0.0751	0.9750	0.9750
48	0.9750	0.9750	0.9750	0.9000	1.0000	5.128	4	0.845	2.540	0.0751	0.9750	0.9750
72	0.9750	0.9750	0.9750	0.9000	1.0000	5.128	4	0.845	2.540	0.0751	0.9750	0.9750
96	0.9750	0.9750	0.9750	0.9000	1.0000	5.128	4	0.845	2.540	0.0751	0.9750	0.9750

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.64765	0.919	-1.4345	0.54552
Equality of variance cannot be confirmed				

Hypothesis Test (1-tail, 0.05)	NOET	LOET	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	96	>96			0.07513	0.07513	0.00058	0.00175	0.95668	9, 30

Linear Interpolation (200 Resamples)

Point	Hours	SD	95% CL(Exp)	Skew
IT05	>96			
IT10	>96			
IT15	>96			
IT20	>96			
IT25	>96			
IT40	>96			
IT50	>96			



 ToxCalc v5.0.23 Reviewed by

Test: AC-Acute Fish Test
Species: AA-Atherinops affinis
Sample ID: 42 ppt RO Concentrate Comp
Start Date: 1/5/2007 18:05 End Date: 1/9/2007 16:10

Test ID: C070105.0262
Protocol: EPAA 02-EPA Acute
Sample Type: DMR-Discharge Monitoring Report
Lab ID: CCA-Weston, Carlsbad

Pos	ID	Rep	Hour	Start	# Alive	Notes
	1	1	0.000	10	10	
	2	2	0.000	10	10	
	3	3	0.000	10	10	
	4	4	0.000	10	10	
	5	1	0.500	10	10	
	6	2	0.500	10	10	
	7	3	0.500	10	10	
	8	4	0.500	10	10	
	9	1	1.000	10	10	
	10	2	1.000	10	10	
	11	3	1.000	10	10	
	12	4	1.000	10	10	
	13	1	2.000	10	10	
	14	2	2.000	10	10	
	15	3	2.000	10	10	
	16	4	2.000	10	9	
	17	1	4.000	10	10	
	18	2	4.000	10	10	
	19	3	4.000	10	10	
	20	4	4.000	10	9	
	21	1	12.000	10	10	
	22	2	12.000	10	10	
	23	3	12.000	10	10	
	24	4	12.000	10	9	
	25	1	24.000	10	10	
	26	2	24.000	10	10	
	27	3	24.000	10	10	
	28	4	24.000	10	9	
	29	1	48.000	10	10	
	30	2	48.000	10	10	
	31	3	48.000	10	10	
	32	4	48.000	10	9	
	33	1	72.000	10	10	
	34	2	72.000	10	10	
	35	3	72.000	10	10	
	36	4	72.000	10	9	
	37	1	96.000	10	10	
	38	2	96.000	10	10	
	39	3	96.000	10	10	
	40	4	96.000	10	9	

Comments: Used to compare survival of fish to time exposed to 42 ppt concentration.

Acute Fish Test

Start Date:	1/5/2007 18:05	Test ID:	C070105.0262	Sample ID:	44 ppt RO Concentrate Comp
End Date:	1/9/2007 16:10	Lab ID:	CCA-Weston, Carlsbad	Sample Type:	DMR-Discharge Monitoring Report
Sample Date:	1/4/2007 08:00	Protocol:	EPAA 02-EPA Acute	Test Species:	AA-Atherinops affinis

Comments: Used to compare survival of fish to time exposed to 44 ppt concentration.

Conc-Hours	1	2	3	4
0	1.0000	1.0000	1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000
1	1.0000	1.0000	1.0000	1.0000
2	1.0000	1.0000	1.0000	1.0000
4	1.0000	0.9000	0.9000	1.0000
12	0.9000	0.7000	0.9000	0.9000
24	0.9000	0.7000	0.9000	0.9000
48	0.9000	0.7000	0.9000	0.9000
72	0.9000	0.7000	0.9000	0.9000
96	0.9000	0.7000	0.9000	0.9000

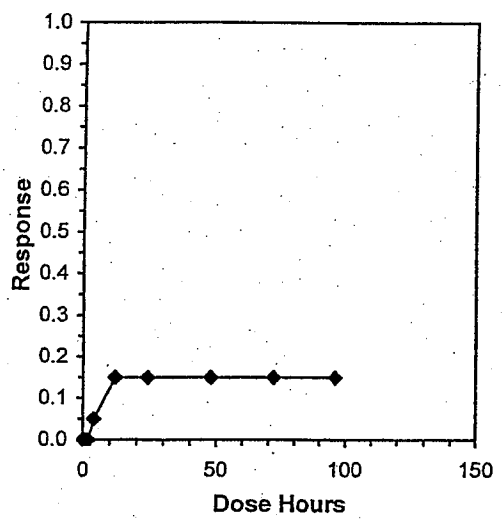
			Transform: Untransformed						1-Tailed		Isotonic	
Conc-Hours	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
0	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4				1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4	0.000	2.540	0.1312	1.0000	1.0000
1	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4	0.000	2.540	0.1312	1.0000	1.0000
2	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4	0.000	2.540	0.1312	1.0000	1.0000
4	0.9500	0.9500	0.9500	0.9000	1.0000	6.077	4	0.968	2.540	0.1312	0.9500	0.9500
*12	0.8500	0.8500	0.8500	0.7000	0.9000	11.765	4	2.905	2.540	0.1312	0.8500	0.8500
*24	0.8500	0.8500	0.8500	0.7000	0.9000	11.765	4	2.905	2.540	0.1312	0.8500	0.8500
*48	0.8500	0.8500	0.8500	0.7000	0.9000	11.765	4	2.905	2.540	0.1312	0.8500	0.8500
*72	0.8500	0.8500	0.8500	0.7000	0.9000	11.765	4	2.905	2.540	0.1312	0.8500	0.8500
*96	0.8500	0.8500	0.8500	0.7000	0.9000	11.765	4	2.905	2.540	0.1312	0.8500	0.8500

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.70003	0.919	-1.5407	1.46363
Equality of variance cannot be confirmed				

Hypothesis Test (1-tail, 0.05)	NOET	LOET	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	4	12	6.9282		0.13117	0.13117	0.02267	0.00533	0.00127	9, 30

Linear Interpolation (200 Resamples)

Point	Hours	SD	95% CL(Exp)		Skew
IT05	4.0000	1.3395	2.4000	10.4000	0.8155
IT10	8.0000	10.0399	1.6000	72.0000	3.8051
IT15	>96				
IT20	>96				
IT25	>96				
IT40	>96				
IT50	>96				



 ToxCalc v5.0.23 Reviewed by

Test: AC-Acute Fish Test
Species: AA-Atherinops affinis
Sample ID: 44 ppt RO Concentrate Comp
Start Date: 1/5/2007 18:05 End Date: 1/9/2007 16:10

Test ID: C070105.0262
Protocol: EPAA 02-EPA Acute
Sample Type: DMR-Discharge Monitoring Report
Lab ID: CCA-Weston, Carlsbad

Pos	ID	Rep	Hour	Start	# Alive	Notes
	1	1	0.000	10	10	
	2	2	0.000	10	10	
	3	3	0.000	10	10	
	4	4	0.000	10	10	
	5	1	0.500	10	10	
	6	2	0.500	10	10	
	7	3	0.500	10	10	
	8	4	0.500	10	10	
	9	1	1.000	10	10	
	10	2	1.000	10	10	
	11	3	1.000	10	10	
	12	4	1.000	10	10	
	13	1	2.000	10	10	
	14	2	2.000	10	10	
	15	3	2.000	10	10	
	16	4	2.000	10	10	
	17	1	4.000	10	10	
	18	2	4.000	10	9	
	19	3	4.000	10	9	
	20	4	4.000	10	10	
	21	1	12.000	10	9	
	22	2	12.000	10	7	
	23	3	12.000	10	9	
	24	4	12.000	10	9	
	25	1	24.000	10	9	
	26	2	24.000	10	7	
	27	3	24.000	10	9	
	28	4	24.000	10	9	
	29	1	48.000	10	9	
	30	2	48.000	10	7	
	31	3	48.000	10	9	
	32	4	48.000	10	9	
	33	1	72.000	10	9	
	34	2	72.000	10	7	
	35	3	72.000	10	9	
	36	4	72.000	10	9	
	37	1	96.000	10	9	
	38	2	96.000	10	7	
	39	3	96.000	10	9	
	40	4	96.000	10	9	

Comments: Used to compare survival of fish to time exposed to 44 ppt concentration.

Acute Fish Test

Start Date:	1/5/2007 18:05	Test ID:	C070105.0262	Sample ID:	46 ppt RO Concentrate Comp
End Date:	1/9/2007 16:10	Lab ID:	CCA-Weston, Carlsbad	Sample Type:	DMR-Discharge Monitoring Report
Sample Date:	1/4/2007 08:00	Protocol:	EPAA 02-EPA Acute	Test Species:	AA-Atherinops affinis

Comments: Used to compare survival of fish to time exposed to 46 ppt concentration.

Conc-Hours	1	2	3	4
0	1.0000	1.0000	1.0000	1.0000
0.5	0.9000	1.0000	1.0000	1.0000
1	0.9000	1.0000	1.0000	1.0000
2	0.9000	1.0000	0.9000	1.0000
4	0.7000	1.0000	0.9000	1.0000
12	0.7000	0.9000	0.9000	1.0000
24	0.7000	0.9000	0.9000	1.0000
48	0.7000	0.9000	0.9000	1.0000
72	0.7000	0.9000	0.9000	1.0000
96	0.7000	0.9000	0.9000	1.0000

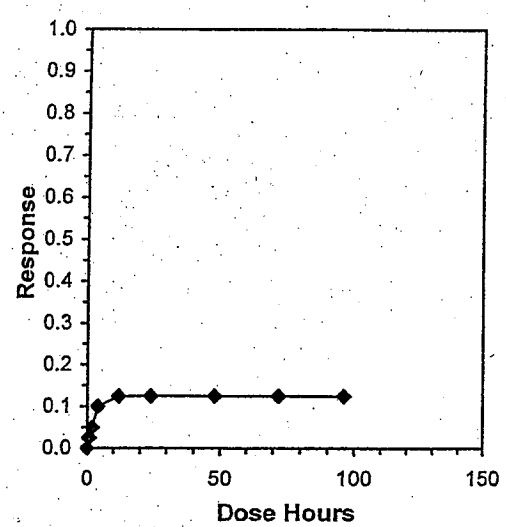
			Transform: Untransformed						1-Tailed		Isotonic	
Conc-Hours	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
0	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4				1.0000	1.0000
0.5	0.9750	0.9750	0.9750	0.9000	1.0000	5.128	4	0.341	2.540	0.1862	0.9750	0.9750
1	0.9750	0.9750	0.9750	0.9000	1.0000	5.128	4	0.341	2.540	0.1862	0.9750	0.9750
2	0.9500	0.9500	0.9500	0.9000	1.0000	6.077	4	0.682	2.540	0.1862	0.9500	0.9500
4	0.9000	0.9000	0.9000	0.7000	1.0000	15.713	4	1.364	2.540	0.1862	0.9000	0.9000
12	0.8750	0.8750	0.8750	0.7000	1.0000	14.381	4	1.705	2.540	0.1862	0.8750	0.8750
24	0.8750	0.8750	0.8750	0.7000	1.0000	14.381	4	1.705	2.540	0.1862	0.8750	0.8750
48	0.8750	0.8750	0.8750	0.7000	1.0000	14.381	4	1.705	2.540	0.1862	0.8750	0.8750
72	0.8750	0.8750	0.8750	0.7000	1.0000	14.381	4	1.705	2.540	0.1862	0.8750	0.8750
96	0.8750	0.8750	0.8750	0.7000	1.0000	14.381	4	1.705	2.540	0.1862	0.8750	0.8750

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.84452	0.919	-0.848	0.16827
Equality of variance cannot be confirmed				

Hypothesis Test (1-tail, 0.05)	NOET	LOET	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	96	>96			0.18622	0.18622	0.01058	0.01075	0.47261	9, 30

Linear Interpolation (200 Resamples)

Point	Hours	SD	95% CL(Exp)		Skew
IT05	2.0000	2.9127	0.0000	11.6686	5.4444
IT10	4.0000				
IT15	>96				
IT20	>96				
IT25	>96				
IT40	>96				
IT50	>96				



 ToxCalc v5.0.23 Reviewed by:

Test: AC-Acute Fish Test
Species: AA-Atherinops affinis
Sample ID: 46 ppt RO Concentrate Comp
Start Date: 1/5/2007 18:05 End Date: 1/9/2007 16:10

Test ID: C070105.0262
Protocol: EPAA 02-EPA Acute
Sample Type: DMR-Discharge Monitoring Report
Lab ID: CCA-Weston, Carlsbad

Pos	ID	Rep	Hour	Start	# Alive	Notes
	1	1	0.000	10	10	
	2	2	0.000	10	10	
	3	3	0.000	10	10	
	4	4	0.000	10	10	
	5	1	0.500	10	9	
	6	2	0.500	10	10	
	7	3	0.500	10	10	
	8	4	0.500	10	10	
	9	1	1.000	10	9	
	10	2	1.000	10	10	
	11	3	1.000	10	10	
	12	4	1.000	10	10	
	13	1	2.000	10	9	
	14	2	2.000	10	10	
	15	3	2.000	10	9	
	16	4	2.000	10	10	
	17	1	4.000	10	7	
	18	2	4.000	10	10	
	19	3	4.000	10	9	
	20	4	4.000	10	10	
	21	1	12.000	10	7	
	22	2	12.000	10	9	
	23	3	12.000	10	9	
	24	4	12.000	10	10	
	25	1	24.000	10	7	
	26	2	24.000	10	9	
	27	3	24.000	10	9	
	28	4	24.000	10	10	
	29	1	48.000	10	7	
	30	2	48.000	10	9	
	31	3	48.000	10	9	
	32	4	48.000	10	10	
	33	1	72.000	10	7	
	34	2	72.000	10	9	
	35	3	72.000	10	9	
	36	4	72.000	10	10	
	37	1	96.000	10	7	
	38	2	96.000	10	9	
	39	3	96.000	10	9	
	40	4	96.000	10	10	

Comments: Used to compare survival of fish to time exposed to 46 ppt concentration

Acute Fish Test

Start Date:	1/5/2007 18:05	Test ID:	C070105.0262	Sample ID:	48 ppt RO Concentrate Comp
End Date:	1/9/2007 16:10	Lab ID:	CCA-Weston, Carlsbad	Sample Type:	DMR-Discharge Monitoring Report
Sample Date:	1/4/2007 08:00	Protocol:	EPAA 02-EPA Acute	Test Species:	AA-Atherinops affinis

Comments: Used to compare survival of fish to time exposed to 48 ppt concentration.

Conc-Hours	1	2	3	4
0	1.0000	1.0000	1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000
1	1.0000	1.0000	1.0000	1.0000
2	0.8000	1.0000	1.0000	1.0000
4	0.8000	0.9000	1.0000	1.0000
12	0.7000	0.9000	0.7000	1.0000
24	0.7000	0.9000	0.7000	1.0000
48	0.7000	0.9000	0.7000	1.0000
72	0.6000	0.9000	0.7000	1.0000
96	0.6000	0.9000	0.7000	1.0000

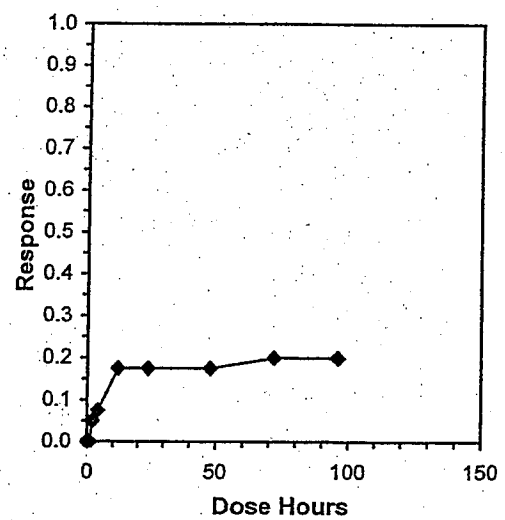
			Transform: Untransformed						1-Tailed		Isotonic	
Conc-Hours	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
0	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4				1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4	0.000	2.540	0.2224	1.0000	1.0000
1	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4	0.000	2.540	0.2224	1.0000	1.0000
2	0.9500	0.9500	0.9500	0.8000	1.0000	10.526	4	0.571	2.540	0.2224	0.9500	0.9500
4	0.9250	0.9250	0.9250	0.8000	1.0000	10.351	4	0.857	2.540	0.2224	0.9250	0.9250
12	0.8250	0.8250	0.8250	0.7000	1.0000	18.182	4	1.999	2.540	0.2224	0.8250	0.8250
24	0.8250	0.8250	0.8250	0.7000	1.0000	18.182	4	1.999	2.540	0.2224	0.8250	0.8250
48	0.8250	0.8250	0.8250	0.7000	1.0000	18.182	4	1.999	2.540	0.2224	0.8250	0.8250
72	0.8000	0.8000	0.8000	0.6000	1.0000	22.822	4	2.284	2.540	0.2224	0.8000	0.8000
96	0.8000	0.8000	0.8000	0.6000	1.0000	22.822	4	2.284	2.540	0.2224	0.8000	0.8000

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93335	0.919	0.03161	-0.6642
Equality of variance cannot be confirmed				

Hypothesis Test (1-tail, 0.05)	NOET	LOET	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	96	>96			0.2224	0.2224	0.031	0.01533	0.07183	9, 30

Linear Interpolation (200 Resamples)

Point	Hours	SD	95% CL(Exp)		Skew
IT05	2.000	2.318	1.111	9.467	6.1902
IT10	6.000	7.141	0.000	34.966	4.8581
IT15	10.000				
IT20	>96				
IT25	>96				
IT40	>96				
IT50	>96				



ToxCalc v5.0.23

Reviewed by:

Test: AC-Acute Fish Test
Species: AA-Atherinops affinis
Sample ID: 48 ppt RO Concentrate Comp
Start Date: 1/5/2007 18:05 End Date: 1/9/2007 16:10

Test ID: C070105.0262
Protocol: EPAA 02-EPA Acute
Sample Type: DMR-Discharge Monitoring Report
Lab ID: CCA-Weston, Carlsbad

Pos	ID	Rep	Hour	Start	# Alive	Notes
	1	1	0.000	10	10	
	2	2	0.000	10	10	
	3	3	0.000	10	10	
	4	4	0.000	10	10	
	5	1	0.500	10	10	
	6	2	0.500	10	10	
	7	3	0.500	10	10	
	8	4	0.500	10	10	
	9	1	1.000	10	10	
	10	2	1.000	10	10	
	11	3	1.000	10	10	
	12	4	1.000	10	10	
	13	1	2.000	10	8	
	14	2	2.000	10	10	
	15	3	2.000	10	10	
	16	4	2.000	10	10	
	17	1	4.000	10	8	
	18	2	4.000	10	9	
	19	3	4.000	10	10	
	20	4	4.000	10	10	
	21	1	12.000	10	7	
	22	2	12.000	10	9	
	23	3	12.000	10	7	
	24	4	12.000	10	10	
	25	1	24.000	10	7	
	26	2	24.000	10	9	
	27	3	24.000	10	7	
	28	4	24.000	10	10	
	29	1	48.000	10	7	
	30	2	48.000	10	9	
	31	3	48.000	10	7	
	32	4	48.000	10	10	
	33	1	72.000	10	6	
	34	2	72.000	10	9	
	35	3	72.000	10	7	
	36	4	72.000	10	10	
	37	1	96.000	10	6	
	38	2	96.000	10	9	
	39	3	96.000	10	7	
	40	4	96.000	10	10	

Comments: Used to compare survival of fish to time exposed to 48 ppt concentration.

Acute Fish Test

Start Date:	1/5/2007 18:05	Test ID:	C070105.0262	Sample ID:	50 ppt RO Concentrate Comp
End Date:	1/9/2007 16:10	Lab ID:	CCA-Weston, Carlsbad	Sample Type:	DMR-Discharge Monitoring Report
Sample Date:	1/4/2007 08:00	Protocol:	EPAA 02-EPA Acute	Test Species:	AA-Atherinops affinis

Comments: Used to compare survival of fish to time exposed to 50 ppt concentration.

Conc-Hours	1	2	3	4
0	1.0000	1.0000	1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000
1	1.0000	1.0000	1.0000	1.0000
2	0.9000	1.0000	1.0000	0.8000
4	0.6000	0.9000	0.9000	0.8000
12	0.3000	0.9000	0.6000	0.7000
24	0.3000	0.9000	0.5000	0.7000
48	0.2000	0.9000	0.5000	0.6000
72	0.2000	0.9000	0.5000	0.6000
96	0.2000	0.9000	0.5000	0.6000

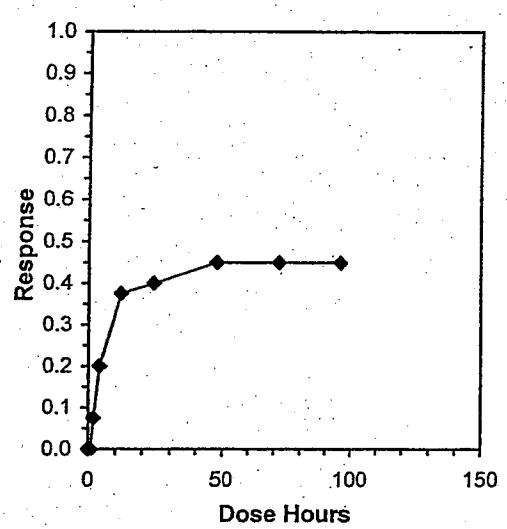
			Transform: Untransformed						1-Tailed		Isotonic	
Conc-Hours	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
0	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4				1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4	0.000	2.540	0.3629	1.0000	1.0000
1	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4	0.000	2.540	0.3629	1.0000	1.0000
2	0.9250	0.9250	0.9250	0.8000	1.0000	10.351	4	0.525	2.540	0.3629	0.9250	0.9250
4	0.8000	0.8000	0.8000	0.6000	0.9000	17.678	4	1.400	2.540	0.3629	0.8000	0.8000
*12	0.6250	0.6250	0.6250	0.3000	0.9000	40.000	4	2.624	2.540	0.3629	0.6250	0.6250
*24	0.6000	0.6000	0.6000	0.3000	0.9000	43.033	4	2.799	2.540	0.3629	0.6000	0.6000
*48	0.5500	0.5500	0.5500	0.2000	0.9000	52.486	4	3.149	2.540	0.3629	0.5500	0.5500
*72	0.5500	0.5500	0.5500	0.2000	0.9000	52.486	4	3.149	2.540	0.3629	0.5500	0.5500
*96	0.5500	0.5500	0.5500	0.2000	0.9000	52.486	4	3.149	2.540	0.3629	0.5500	0.5500

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.88912	0.919	-0.0982	0.55881
Equality of variance cannot be confirmed				

Hypothesis Test (1-tail, 0.05)	NOET	LOET	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	4	12	6.9282		0.36293	0.36293	0.16789	0.04083	0.00159	9, 30

Linear Interpolation (200 Resamples)

Point	Hours	SD	95% CL(Exp)		Skew
IT05	1.667	0.349	1.133	3.003	0.8992
IT10	2.400	0.646	1.227	4.960	0.7743
IT15	3.200	1.085	1.280	7.496	1.2255
IT20	4.000	2.362	2.167	12.640	3.9069
IT25	6.286	4.978	1.755	34.629	4.0462
IT40	24.000				
IT50	>96				



ToxCalc v5.0.23

Reviewed by: [illegible]

Test: AC-Acute Fish Test
Species: AA-Atherinops affinis
Sample ID: 50 ppt RO Concentrate Comp
Start Date: 1/5/2007 18:05 End Date: 1/9/2007 16:10

Test ID: C070105.0262
Protocol: EPAA 02-EPA Acute
Sample Type: DMR-Discharge Monitoring Report
Lab ID: CCA-Weston, Carlsbad

Pos	ID	Rep	Hour	Start	# Alive	Notes
	1	1	0.000	10	10	
	2	2	0.000	10	10	
	3	3	0.000	10	10	
	4	4	0.000	10	10	
	5	1	0.500	10	10	
	6	2	0.500	10	10	
	7	3	0.500	10	10	
	8	4	0.500	10	10	
	9	1	1.000	10	10	
	10	2	1.000	10	10	
	11	3	1.000	10	10	
	12	4	1.000	10	10	
	13	1	2.000	10	9	
	14	2	2.000	10	10	
	15	3	2.000	10	10	
	16	4	2.000	10	8	
	17	1	4.000	10	6	
	18	2	4.000	10	9	
	19	3	4.000	10	9	
	20	4	4.000	10	8	
	21	1	12.000	10	3	
	22	2	12.000	10	9	
	23	3	12.000	10	6	
	24	4	12.000	10	7	
	25	1	24.000	10	3	
	26	2	24.000	10	9	
	27	3	24.000	10	5	
	28	4	24.000	10	7	
	29	1	48.000	10	2	
	30	2	48.000	10	9	
	31	3	48.000	10	5	
	32	4	48.000	10	6	
	33	1	72.000	10	2	
	34	2	72.000	10	9	
	35	3	72.000	10	5	
	36	4	72.000	10	6	
	37	1	96.000	10	2	
	38	2	96.000	10	9	
	39	3	96.000	10	5	
	40	4	96.000	10	6	

Comments: Used to compare survival of fish to time exposed to 50 ppt concentration.

Acute Fish Test

Start Date:	1/5/2007 18:05	Test ID:	C070105.0262	Sample ID:	52 ppt RO Concentrate Comp
End Date:	1/9/2007 16:10	Lab ID:	CCA-Weston, Carlsbad	Sample Type:	DMR-Discharge Monitoring Report
Sample Date:	1/4/2007 08:00	Protocol:	EPAA 02-EPA Acute	Test Species:	AA-Atherinops affinis
Comments:	Used to compare survival of fish to time exposed to 52 ppt concentration.				

Conc-Hours	1	2	3	4
0	1.0000	1.0000	1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000
1	1.0000	1.0000	0.7000	1.0000
2	1.0000	1.0000	0.6000	0.8000
4	1.0000	0.8000	0.5000	0.6000
12	1.0000	0.8000	0.4000	0.5000
24	0.9000	0.8000	0.4000	0.4000
48	0.9000	0.8000	0.4000	0.4000
72	0.9000	0.8000	0.4000	0.4000
96	0.9000	0.8000	0.4000	0.4000

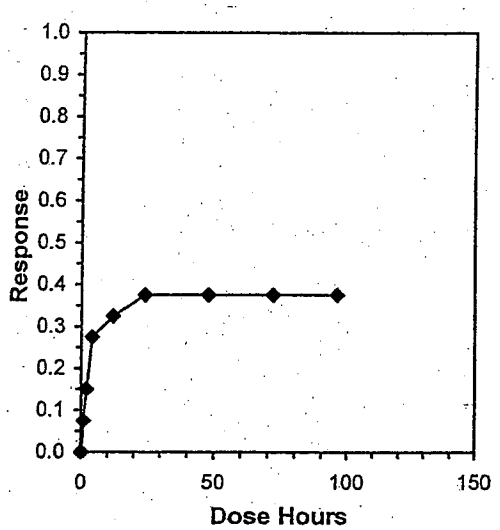
			Transform: Untransformed						1-Tailed		Isotonic	
Conc-Hours	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
0	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4				1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4	0.000	2.540	0.3856	1.0000	1.0000
1	0.9250	0.9250	0.9250	0.7000	1.0000	16.216	4	0.494	2.540	0.3856	0.9250	0.9250
2	0.8500	0.8500	0.8500	0.6000	1.0000	22.528	4	0.988	2.540	0.3856	0.8500	0.8500
4	0.7250	0.7250	0.7250	0.5000	1.0000	30.584	4	1.812	2.540	0.3856	0.7250	0.7250
12	0.6750	0.6750	0.6750	0.4000	1.0000	40.797	4	2.141	2.540	0.3856	0.6750	0.6750
24	0.6250	0.6250	0.6250	0.4000	0.9000	42.079	4	2.470	2.540	0.3856	0.6250	0.6250
48	0.6250	0.6250	0.6250	0.4000	0.9000	42.079	4	2.470	2.540	0.3856	0.6250	0.6250
72	0.6250	0.6250	0.6250	0.4000	0.9000	42.079	4	2.470	2.540	0.3856	0.6250	0.6250
96	0.6250	0.6250	0.6250	0.4000	0.9000	42.079	4	2.470	2.540	0.3856	0.6250	0.6250

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.89327	0.919	0.05004	-1.3097
Equality of variance cannot be confirmed				

Hypothesis Test (1-tail, 0.05)	NOET	LOET	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	96	>96			0.38556	0.38556	0.10281	0.04608	0.04811	9, 30

Linear Interpolation (200 Resamples)

Point	Hours	SD	95% CL(Exp)		Skew
IT05	0.8333	0.4189	0.5206	2.8602	1.3821
IT10	1.3333	0.7443	0.4413	4.3520	1.7363
IT15	2.0000	2.2555	0.2619	18.0000	3.7135
IT20	2.8000	3.5646	0.7171	22.6814	2.3143
IT25	3.6000	12.3323	1.0400	76.4869	3.0286
IT40	>96				
IT50	>96				



ToxCalc v5.0.23

Reviewed by: [illegible]

Test: AC-Acute Fish Test
Species: AA-Atherinops affinis
Sample ID: 52 ppt RO Concentrate Comp
Start Date: 1/5/2007 18:05 End Date: 1/9/2007 16:10

Test ID: C070105.0262
Protocol: EPAA 02-EPA Acute
Sample Type: DMR-Discharge Monitoring Report
Lab ID: CCA-Weston, Carlsbad

Pos	ID	Rep	Hour	Start	# Alive	Notes
	1	1	0.000	10	10	
	2	2	0.000	10	10	
	3	3	0.000	10	10	
	4	4	0.000	10	10	
	5	1	0.500	10	10	
	6	2	0.500	10	10	
	7	3	0.500	10	10	
	8	4	0.500	10	10	
	9	1	1.000	10	10	
	10	2	1.000	10	10	
	11	3	1.000	10	7	
	12	4	1.000	10	10	
	13	1	2.000	10	10	
	14	2	2.000	10	10	
	15	3	2.000	10	6	
	16	4	2.000	10	8	
	17	1	4.000	10	10	
	18	2	4.000	10	8	
	19	3	4.000	10	5	
	20	4	4.000	10	6	
	21	1	12.000	10	10	
	22	2	12.000	10	8	
	23	3	12.000	10	4	
	24	4	12.000	10	5	
	25	1	24.000	10	9	
	26	2	24.000	10	8	
	27	3	24.000	10	4	
	28	4	24.000	10	4	
	29	1	48.000	10	9	
	30	2	48.000	10	8	
	31	3	48.000	10	4	
	32	4	48.000	10	4	
	33	1	72.000	10	9	
	34	2	72.000	10	8	
	35	3	72.000	10	4	
	36	4	72.000	10	4	
	37	1	96.000	10	9	
	38	2	96.000	10	8	
	39	3	96.000	10	4	
	40	4	96.000	10	4	

Comments: Used to compare survival of fish to time exposed to 52 ppt concentration.

Acute Fish Test-24 Hr Survival

Start Date:	1/5/2007 18:05	Test ID:	C070105.0262	Sample ID:	54 ppt RO Concentrate Comp
End Date:	1/9/2007 16:10	Lab ID:	CCA-Weston, Carlsbad	Sample Type:	DMR-Discharge Monitoring Report
Sample Date:	1/4/2007 08:00	Protocol:	EPAA 02-EPA Acute	Test Species:	AA-Atherinops affinis
Comments:	Used to compare survival of fish to time exposed to 54 ppt concentration.				

Conc-Hours	1	2	3	4
0	1.0000	1.0000	1.0000	1.0000
0.5	1.0000	1.0000	0.9000	1.0000
1	0.8000	0.9000	0.7000	1.0000
2	0.7000	0.8000	0.5000	0.9000
4	0.7000	0.8000	0.5000	0.7000
12	0.6000	0.5000	0.4000	0.4000
24	0.6000	0.5000	0.4000	0.4000
48	0.6000	0.5000	0.4000	0.4000
72	0.5000	0.5000	0.4000	0.4000
96	0.5000	0.5000	0.4000	0.4000

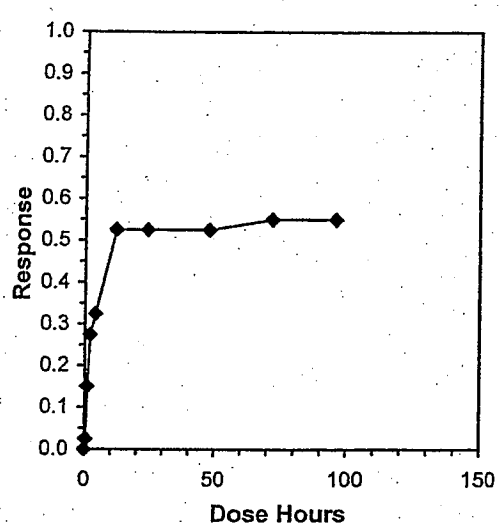
			Transform: Untransformed						1-Tailed		Isotonic	
Conc-Hours	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
0	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4				1.0000	1.0000
0.5	0.9750	0.9750	0.9750	0.9000	1.0000	5.128	4	0.357	2.540	0.1781	0.9750	0.9750
1	0.8500	0.8500	0.8500	0.7000	1.0000	15.188	4	2.139	2.540	0.1781	0.8500	0.8500
*2	0.7250	0.7250	0.7250	0.5000	0.9000	23.556	4	3.922	2.540	0.1781	0.7250	0.7250
*4	0.6750	0.6750	0.6750	0.5000	0.8000	18.642	4	4.635	2.540	0.1781	0.6750	0.6750
*12	0.4750	0.4750	0.4750	0.4000	0.6000	20.156	4	7.487	2.540	0.1781	0.4750	0.4750
*24	0.4750	0.4750	0.4750	0.4000	0.6000	20.156	4	7.487	2.540	0.1781	0.4750	0.4750
*48	0.4750	0.4750	0.4750	0.4000	0.6000	20.156	4	7.487	2.540	0.1781	0.4750	0.4750
*72	0.4500	0.4500	0.4500	0.4000	0.5000	12.830	4	7.844	2.540	0.1781	0.4500	0.4500
*96	0.4500	0.4500	0.4500	0.4000	0.5000	12.830	4	7.844	2.540	0.1781	0.4500	0.4500

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.96222	0.919	-0.2462	0.28143
Equality of variance cannot be confirmed				

Hypothesis Test (1-tail, 0.05)	NOET	LOET	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	1	2	1.41421		0.1781	0.1781	0.19822	0.00983	2.1E-10	9, 30

Linear Interpolation (200 Resamples)

Point	Hours	SD	95% CL(Exp)		Skew
IT05	0.600	0.157	0.173	1.240	0.9174
IT10	0.800	0.186	0.480	1.579	1.2044
IT15	1.000	0.352	0.600	2.607	1.4602
IT20	1.400	0.534	0.582	3.562	0.7827
IT25	1.800	0.823	0.760	5.320	0.7784
IT40	7.000	1.757	1.799	11.800	-0.5099
IT50	11.000	14.147	8.835	85.560	1.6031



 ToxCalc v5.0.23 Reviewed by: JM

Test: AC-Acute Fish Test
Species: AA-Atherinops affinis
Sample ID: 54 ppt RO Concentrate Comp
Start Date: 1/5/2007 18:05 End Date: 1/9/2007 16:10

Test ID: C070105.02C2
Protocol: EPAA 02-EPA Acute
Sample Type: DMR-Discharge Monitoring Report
Lab ID: CCA-Weston, Carlsbad

Pos	ID	Rep	Hour	Start	# Alive	Notes
	1	1	0.000	10	10	
	2	2	0.000	10	10	
	3	3	0.000	10	10	
	4	4	0.000	10	10	
	5	1	0.500	10	10	
	6	2	0.500	10	10	
	7	3	0.500	10	9	
	8	4	0.500	10	10	
	9	1	1.000	10	8	
	10	2	1.000	10	9	
	11	3	1.000	10	7	
	12	4	1.000	10	10	
	13	1	2.000	10	7	
	14	2	2.000	10	8	
	15	3	2.000	10	5	
	16	4	2.000	10	9	
	17	1	4.000	10	7	
	18	2	4.000	10	8	
	19	3	4.000	10	5	
	20	4	4.000	10	7	
	21	1	12.000	10	6	
	22	2	12.000	10	5	
	23	3	12.000	10	4	
	24	4	12.000	10	4	
	25	1	24.000	10	6	
	26	2	24.000	10	5	
	27	3	24.000	10	4	
	28	4	24.000	10	4	
	29	1	48.000	10	6	
	30	2	48.000	10	5	
	31	3	48.000	10	4	
	32	4	48.000	10	4	
	33	1	72.000	10	5	
	34	2	72.000	10	5	
	35	3	72.000	10	4	
	36	4	72.000	10	4	
	37	1	96.000	10	5	
	38	2	96.000	10	5	
	39	3	96.000	10	4	
	40	4	96.000	10	4	

Comments: Used to compare survival of fish to time exposed to 54 ppt concentration.

Acute Fish Test

Start Date:	1/5/2007 18:05	Test ID:	C070105.0262	Sample ID:	56 ppt RO Concentrate Comp
End Date:	1/9/2007 16:10	Lab ID:	CCA-Weston, Carlsbad	Sample Type:	DMR-Discharge Monitoring Report
Sample Date:	1/4/2007 08:00	Protocol:	EPAA 02-EPA Acute	Test Species:	AA-Atherinops affinis
Comments:	Used to compare survival of fish to time exposed to 56 ppt concentration.				

Conc-Hours	1	2	3	4
0	1.0000	1.0000	1.0000	1.0000
0.5	1.0000	1.0000	0.9000	1.0000
1	1.0000	1.0000	0.7000	1.0000
2	1.0000	0.9000	0.6000	1.0000
4	1.0000	0.7000	0.2000	0.7000
12	1.0000	0.7000	0.2000	0.4000
24	1.0000	0.7000	0.2000	0.3000
48	1.0000	0.7000	0.2000	0.3000
72	1.0000	0.7000	0.2000	0.3000
96	1.0000	0.7000	0.2000	0.3000

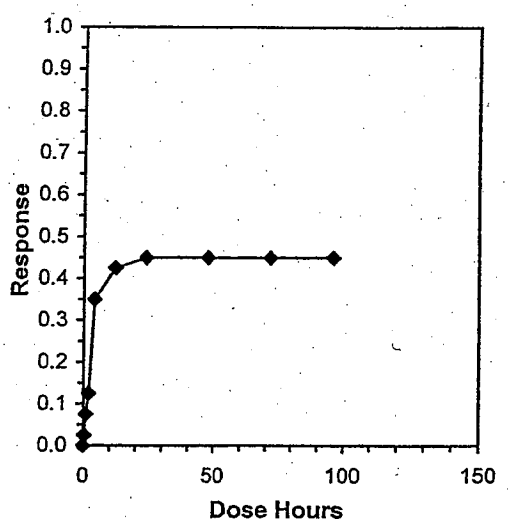
			Transform: Untransformed						1-Tailed		Isotonic	
Conc-Hours	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
0	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4				1.0000	1.0000
0.5	0.9750	0.9750	0.9750	0.9000	1.0000	5.128	4	0.122	2.540	0.5205	0.9750	0.9750
1	0.9250	0.9250	0.9250	0.7000	1.0000	16.216	4	0.366	2.540	0.5205	0.9250	0.9250
2	0.8750	0.8750	0.8750	0.6000	1.0000	21.634	4	0.610	2.540	0.5205	0.8750	0.8750
4	0.6500	0.6500	0.6500	0.2000	1.0000	51.025	4	1.708	2.540	0.5205	0.6500	0.6500
12	0.5750	0.5750	0.5750	0.2000	1.0000	60.870	4	2.074	2.540	0.5205	0.5750	0.5750
24	0.5500	0.5500	0.5500	0.2000	1.0000	67.215	4	2.196	2.540	0.5205	0.5500	0.5500
48	0.5500	0.5500	0.5500	0.2000	1.0000	67.215	4	2.196	2.540	0.5205	0.5500	0.5500
72	0.5500	0.5500	0.5500	0.2000	1.0000	67.215	4	2.196	2.540	0.5205	0.5500	0.5500
96	0.5500	0.5500	0.5500	0.2000	1.0000	67.215	4	2.196	2.540	0.5205	0.5500	0.5500

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.92623	0.919	0.14666	-0.6651
Equality of variance cannot be confirmed				

Hypothesis Test (1-tail, 0.05)	NOET	LOET	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	96	>96			0.52055	0.52055	0.156	0.084	0.09845	9, 30

Linear Interpolation (200 Resamples)

Point	Hours	SD	95% CL(Exp)		Skew
IT05	0.7500	0.6153	0.0833	3.2646	0.7859
IT10	1.5000	0.8438	0.2989	4.7096	1.6439
IT15	2.2222	1.7731	0.1720	8.5770	4.3444
IT20	2.6667	2.7816	0.9950	18.0505	3.9266
IT25	3.1111	9.2279	1.2243	41.6843	5.0088
IT40	9.3333				
IT50	>96				



 ToxCalc v5.0.23 Reviewed by:

Test: AC-Acute Fish Test
Species: AA-Atherinops affinis
Sample ID: 56 ppt RO Concentrate Comp
Start Date: 1/5/2007 18:05 End Date: 1/9/2007 16:10

Test ID: C070105.0262
Protocol: EPAA 02-EPA Acute
Sample Type: DMR-Discharge Monitoring Report
Lab ID: CCA-Weston, Carlsbad

Pos	ID	Rep	Hour	Start	# Alive	Notes
	1	1	0.000	10	10	
	2	2	0.000	10	10	
	3	3	0.000	10	10	
	4	4	0.000	10	10	
	5	1	0.500	10	10	
	6	2	0.500	10	10	
	7	3	0.500	10	9	
	8	4	0.500	10	10	
	9	1	1.000	10	10	
	10	2	1.000	10	10	
	11	3	1.000	10	7	
	12	4	1.000	10	10	
	13	1	2.000	10	10	
	14	2	2.000	10	9	
	15	3	2.000	10	6	
	16	4	2.000	10	10	
	17	1	4.000	10	10	
	18	2	4.000	10	7	
	19	3	4.000	10	2	
	20	4	4.000	10	7	
	21	1	12.000	10	10	
	22	2	12.000	10	7	
	23	3	12.000	10	2	
	24	4	12.000	10	4	
	25	1	24.000	10	10	
	26	2	24.000	10	7	
	27	3	24.000	10	2	
	28	4	24.000	10	3	
	29	1	48.000	10	10	
	30	2	48.000	10	7	
	31	3	48.000	10	2	
	32	4	48.000	10	3	
	33	1	72.000	10	10	
	34	2	72.000	10	7	
	35	3	72.000	10	2	
	36	4	72.000	10	3	
	37	1	96.000	10	10	
	38	2	96.000	10	7	
	39	3	96.000	10	2	
	40	4	96.000	10	3	

Comments: Used to compare survival of fish to time exposed to 56 ppt concentration.

Acute Fish Test

Start Date:	1/5/2007 18:05	Test ID:	C070105.0262	Sample ID:	58 ppt RO Concentrate Comp
End Date:	1/9/2007 16:10	Lab ID:	CCA-Weston, Carlsbad	Sample Type:	DMR-Discharge Monitoring Report
Sample Date:	1/4/2007 08:00	Protocol:	EPAA 02-EPA Acute	Test Species:	AA-Atherinops affinis

Comments: Used to compare survival of fish to time exposed to 58 ppt concentration.

Conc-Hours	1	2	3	4
0	1.0000	1.0000	1.0000	1.0000
0.5	1.0000	1.0000	0.8000	1.0000
1	1.0000	1.0000	0.5000	1.0000
2	0.9000	0.9000	0.5000	1.0000
4	0.9000	0.8000	0.5000	0.7000
12	0.8000	0.8000	0.5000	0.5000
24	0.8000	0.8000	0.5000	0.5000
48	0.8000	0.8000	0.5000	0.5000
72	0.8000	0.8000	0.5000	0.5000
96	0.8000	0.8000	0.5000	0.5000

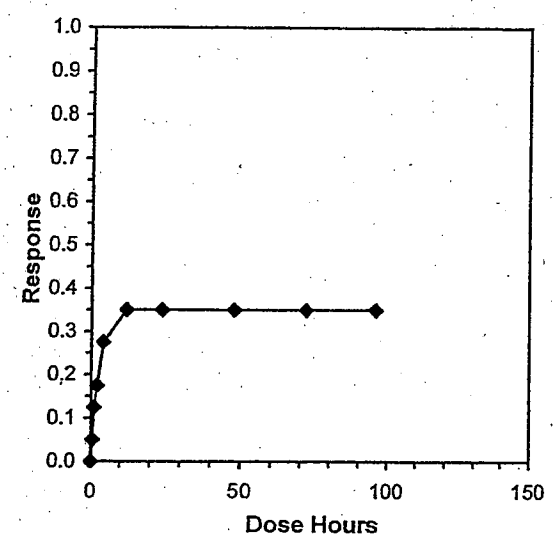
			Transform: Untransformed						1-Tailed		Isotonic	
Conc-Hours	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
0	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4				1.0000	1.0000
0.5	0.9500	0.9500	0.9500	0.8000	1.0000	10.526	4	0.408	2.540	0.3115	0.9500	0.9500
1	0.8750	0.8750	0.8750	0.5000	1.0000	28.571	4	1.019	2.540	0.3115	0.8750	0.8750
2	0.8250	0.8250	0.8250	0.5000	1.0000	26.877	4	1.427	2.540	0.3115	0.8250	0.8250
4	0.7250	0.7250	0.7250	0.5000	0.9000	23.556	4	2.242	2.540	0.3115	0.7250	0.7250
*12	0.6500	0.6500	0.6500	0.5000	0.8000	26.647	4	2.854	2.540	0.3115	0.6500	0.6500
*24	0.6500	0.6500	0.6500	0.5000	0.8000	26.647	4	2.854	2.540	0.3115	0.6500	0.6500
*48	0.6500	0.6500	0.6500	0.5000	0.8000	26.647	4	2.854	2.540	0.3115	0.6500	0.6500
*72	0.6500	0.6500	0.6500	0.5000	0.8000	26.647	4	2.854	2.540	0.3115	0.6500	0.6500
*96	0.6500	0.6500	0.6500	0.5000	0.8000	26.647	4	2.854	2.540	0.3115	0.6500	0.6500

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.862352	0.919	-0.64117	-0.62886
Equality of variance cannot be confirmed				

Hypothesis Test (1-tail, 0.05)	NOET	LOET	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	4	12	6.928203		0.311517	0.311517	0.076806	0.030083	0.026038	9, 30

Linear Interpolation (200 Resamples)

Point	Hours	SD	95% CL(Exp)		Skew
IT05	0.5000	0.5035	0.0000	2.9000	1.2106
IT10	0.8333	0.6940	0.0333	3.7667	0.7702
IT15	1.5000	0.8912	0.0950	4.8067	0.7341
IT20	2.5000	1.7351	0.0000	8.8600	2.6173
IT25	3.5000	3.8666	0.0000	23.5000	2.1085
IT40	>96				
IT50	>96				



ToxCalc v5.0.23

Reviewed by:

Test: AC-Acute Fish Test
Species: AA-Atherinops affinis
Sample ID: 58 ppt RO Concentrate Comp
Start Date: 1/5/2007 18:05 End Date: 1/9/2007 16:10

Test ID: C070105.0262
Protocol: EPAA 02-EPA Acute
Sample Type: DMR-Discharge Monitoring Report
Lab ID: CCA-Weston, Carlsbad

Pos	ID	Rep	Hour	Start	# Alive	Notes
	1	1	0.000	10	10	
	2	2	0.000	10	10	
	3	3	0.000	10	10	
	4	4	0.000	10	10	
	5	1	0.500	10	10	
	6	2	0.500	10	10	
	7	3	0.500	10	8	
	8	4	0.500	10	10	
	9	1	1.000	10	10	
	10	2	1.000	10	10	
	11	3	1.000	10	5	
	12	4	1.000	10	10	
	13	1	2.000	10	9	
	14	2	2.000	10	9	
	15	3	2.000	10	5	
	16	4	2.000	10	10	
	17	1	4.000	10	9	
	18	2	4.000	10	8	
	19	3	4.000	10	5	
	20	4	4.000	10	7	
	21	1	12.000	10	8	
	22	2	12.000	10	8	
	23	3	12.000	10	5	
	24	4	12.000	10	5	
	25	1	24.000	10	8	
	26	2	24.000	10	8	
	27	3	24.000	10	5	
	28	4	24.000	10	5	
	29	1	48.000	10	8	
	30	2	48.000	10	8	
	31	3	48.000	10	5	
	32	4	48.000	10	5	
	33	1	72.000	10	8	
	34	2	72.000	10	8	
	35	3	72.000	10	5	
	36	4	72.000	10	5	
	37	1	96.000	10	8	
	38	2	96.000	10	8	
	39	3	96.000	10	5	
	40	4	96.000	10	5	

Comments: Used to compare survival of fish to time exposed to 58 ppt concentration.

Acute Fish Test

Start Date:	1/5/2007 18:05	Test ID:	C070105.0262	Sample ID:	60 ppt RO Concentrate Comp
End Date:	1/9/2007 16:10	Lab ID:	CCA-Weston, Carlsbad	Sample Type:	DMR-Discharge Monitoring Report
Sample Date:	1/4/2007 08:00	Protocol:	EPAA 02-EPA Acute	Test Species:	AA-Atherinops affinis

Comments: Used to compare survival of fish to time exposed to 60 ppt concentration.

Conc-Hours	1	2	3	4
0	1.0000	1.0000	1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000
1	1.0000	1.0000	1.0000	1.0000
2	0.9000	0.9000	0.8000	1.0000
4	0.5000	0.8000	0.7000	0.7000
12	0.3000	0.3000	0.4000	0.5000
24	0.3000	0.3000	0.4000	0.5000
48	0.3000	0.3000	0.4000	0.5000
72	0.3000	0.3000	0.4000	0.5000
96	0.3000	0.3000	0.4000	0.5000

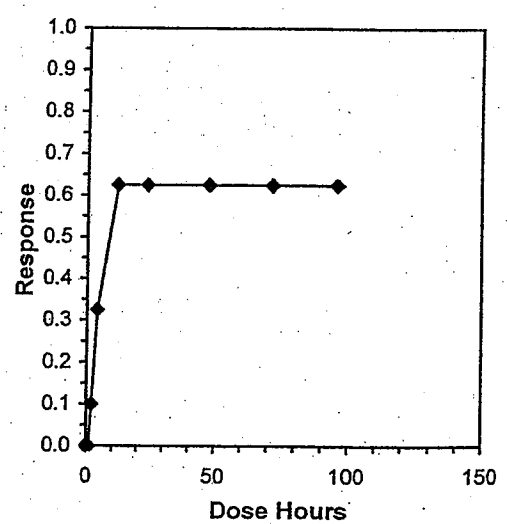
			Transform: Untransformed						1-Tailed		Isotonic	
Conc-Hours	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
0	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4				1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4	0.000	2.540	0.1485	1.0000	1.0000
1	1.0000	1.0000	1.0000	1.0000	1.0000	0.000	4	0.000	2.540	0.1485	1.0000	1.0000
2	0.9000	0.9000	0.9000	0.8000	1.0000	9.072	4	1.711	2.540	0.1485	0.9000	0.9000
*4	0.6750	0.6750	0.6750	0.5000	0.8000	18.642	4	5.560	2.540	0.1485	0.6750	0.6750
*12	0.3750	0.3750	0.3750	0.3000	0.5000	25.531	4	10.692	2.540	0.1485	0.3750	0.3750
*24	0.3750	0.3750	0.3750	0.3000	0.5000	25.531	4	10.692	2.540	0.1485	0.3750	0.3750
*48	0.3750	0.3750	0.3750	0.3000	0.5000	25.531	4	10.692	2.540	0.1485	0.3750	0.3750
*72	0.3750	0.3750	0.3750	0.3000	0.5000	25.531	4	10.692	2.540	0.1485	0.3750	0.3750
*96	0.3750	0.3750	0.3750	0.3000	0.5000	25.531	4	10.692	2.540	0.1485	0.3750	0.3750

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.89025	0.919	0.15935	-0.0825
Equality of variance cannot be confirmed				

Hypothesis Test (1-tail, 0.05)	NOET	LOET	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	2	4	2.82843		0.14847	0.14847	0.35933	0.00683	6.4E-16	9, 30

Linear Interpolation (200 Resamples)

Point	Hours	SD	95% CL(Exp)		Skew
IT05	1.5000	0.2499	1.1571	2.5680	0.9107
IT10	2.0000	0.2547	1.3143	2.8013	0.1212
IT15	2.4444	0.2663	1.5048	3.3333	-0.2839
IT20	2.8889	0.3003	2.1067	4.0267	0.0375
IT25	3.3333	0.4021	2.5329	5.2171	0.5887
IT40	6.0000	1.2092	2.5293	8.8632	-0.5447
IT50	8.6667	0.9805	5.9891	11.4507	-1.4042



ToxCalc v5.0.23

Reviewed by:

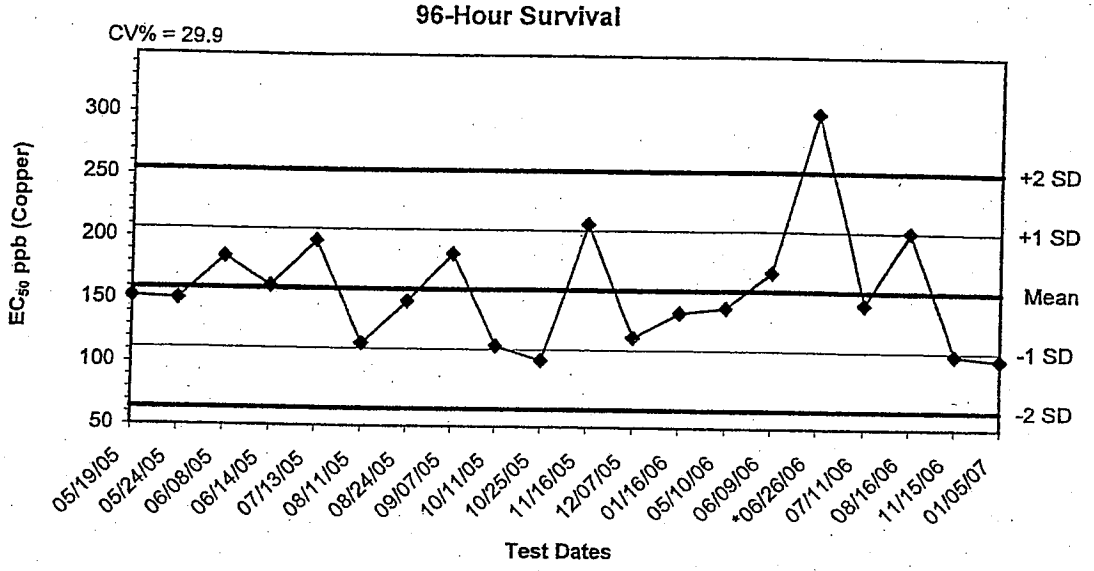
Test: AC-Acute Fish Test
Species: AA-Atherinops affinis
Sample ID: 60 ppt RO Concentrate Comp
Start Date: 1/5/2007 18:05 End Date: 1/9/2007 16:10

Test ID: C070105.0262
Protocol: EPAA 02-EPA Acute
Sample Type: DMR-Discharge Monitoring Report
Lab ID: CCA-Weston, Carlsbad

Pos	ID	Rep	Hour	Start	# Alive	Notes
	1	1	0.000	10	10	
	2	2	0.000	10	10	
	3	3	0.000	10	10	
	4	4	0.000	10	10	
	5	1	0.500	10	10	
	6	2	0.500	10	10	
	7	3	0.500	10	10	
	8	4	0.500	10	10	
	9	1	1.000	10	10	
	10	2	1.000	10	10	
	11	3	1.000	10	10	
	12	4	1.000	10	10	
	13	1	2.000	10	9	
	14	2	2.000	10	9	
	15	3	2.000	10	8	
	16	4	2.000	10	10	
	17	1	4.000	10	5	
	18	2	4.000	10	8	
	19	3	4.000	10	7	
	20	4	4.000	10	7	
	21	1	12.000	10	3	
	22	2	12.000	10	3	
	23	3	12.000	10	4	
	24	4	12.000	10	5	
	25	1	24.000	10	3	
	26	2	24.000	10	3	
	27	3	24.000	10	4	
	28	4	24.000	10	5	
	29	1	48.000	10	3	
	30	2	48.000	10	3	
	31	3	48.000	10	4	
	32	4	48.000	10	5	
	33	1	72.000	10	3	
	34	2	72.000	10	3	
	35	3	72.000	10	4	
	36	4	72.000	10	5	
	37	1	96.000	10	3	
	38	2	96.000	10	3	
	39	3	96.000	10	4	
	40	4	96.000	10	5	

Comments: Used to compare survival of fish to time exposed to 60 ppt concentration.

Atherinops affinis Reference Toxicant Control Chart: 96-Hour Survival



Dates	Values	Mean	-1 SD	-2 SD	+1 SD	+2 SD
05/19/05	152.2400	159.0758	111.5070	63.9382	206.6446	254.2134
05/24/05	150.3620	159.0758	111.5070	63.9382	206.6446	254.2134
06/08/05	184.3200	159.0758	111.5070	63.9382	206.6446	254.2134
06/14/05	160.9600	159.0758	111.5070	63.9382	206.6446	254.2134
07/13/05	197.3020	159.0758	111.5070	63.9382	206.6446	254.2134
08/11/05	115.8480	159.0758	111.5070	63.9382	206.6446	254.2134
08/24/05	149.5050	159.0758	111.5070	63.9382	206.6446	254.2134
09/07/05	187.2600	159.0758	111.5070	63.9382	206.6446	254.2134
10/11/05	114.3980	159.0758	111.5070	63.9382	206.6446	254.2134
10/25/05	103.1990	159.0758	111.5070	63.9382	206.6446	254.2134
11/16/05	211.7200	159.0758	111.5070	63.9382	206.6446	254.2134
12/07/05	121.6290	159.0758	111.5070	63.9382	206.6446	254.2134
01/16/06	141.4220	159.0758	111.5070	63.9382	206.6446	254.2134
05/10/06	145.3200	159.0758	111.5070	63.9382	206.6446	254.2134
06/09/06	174.0000	159.0758	111.5070	63.9382	206.6446	254.2134
*06/26/06	301.4970	159.0758	111.5070	63.9382	206.6446	254.2134
07/11/06	148.8500	159.0758	111.5070	63.9382	206.6446	254.2134
08/16/06	206.7660	159.0758	111.5070	63.9382	206.6446	254.2134
11/15/06	109.2980	159.0758	111.5070	63.9382	206.6446	254.2134
01/05/07	105.6200	159.0758	111.5070	63.9382	206.6446	254.2134

*Value out of 95% CI range.
Updated 1/12/07 EB

Acute Fish Test-96 Hr Survival

Start Date:	1/5/2007 16:40	Test ID:	C060525.74	Sample ID:	REF-Ref Toxicant
End Date:	1/9/2007 14:50	Lab ID:	CCA-Weston Solutions Carls	Sample Type:	CUSO-Copper sulfate
Sample Date:		Protocol:	EPAA 02-EPA Acute	Test Species:	AA-Atherinops affinis
Comments:					

Conc-ppb	1	2	3	4
Control	1.0000	1.0000	1.0000	1.0000
25	0.9000	1.0000	1.0000	1.0000
50	1.0000	0.9000	0.9000	1.0000
100	0.7000	0.6000	0.6000	0.5000
200	0.0000	0.0000	0.0000	0.1000
400	0.0000	0.0000	0.0000	0.0000

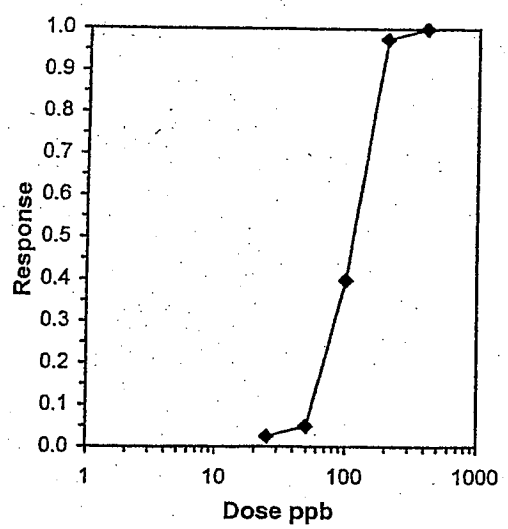
			Transform: Arcsin Square Root					Rank	1-Tailed	Number	Total
Conc-ppb	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical	Resp	Number
Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4			0	40
25	0.9750	0.9750	1.3713	1.2490	1.4120	5.942	4	16.00	10.00	1	40
50	0.9500	0.9500	1.3305	1.2490	1.4120	7.072	4	14.00	10.00	2	40
*100	0.6000	0.6000	0.8872	0.7854	0.9912	9.469	4	10.00	10.00	16	40
*200	0.0250	0.0250	0.1995	0.1588	0.3218	40.840	4	10.00	10.00	39	40
*400	0.0000	0.0000	0.1588	0.1588	0.1588	0.000	4	10.00	10.00	40	40

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.94414	0.884	0.0141	-0.0718
Equality of variance cannot be confirmed				

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Steel's Many-One Rank Test	50	100	70.7107	

Trimmed Spearman-Karber

Trim Level	EC50	95% CL	
0.0%			
5.0%	107.02	94.60	121.07
10.0%	108.00	94.15	123.88
20.0%	109.93	91.09	132.68
Auto-2.5%	105.62	93.09	119.85



ToxCalc v5.0.23

Reviewed by: Am

Test: AC-Acute Fish Test
Species: AA-Atherinops affinis
Sample ID: REF-Ref Toxicant
Start Date: 1/5/2007 16:40 End Date: 1/9/2007 14:50

Test ID: C060525.74
Protocol: EPAA 02-EPA Acute
Sample Type: CUSO-Copper sulfate
Lab ID: CCA-Weston Solutions Carlsbad, CA

Pos	ID	Rep	Group	Start	24 Hr	48 Hr	72 Hr	96 Hr	Notes
	1	1	Control	10				10	
	2	2	Control	10				10	
	3	3	Control	10				10	
	4	4	Control	10				10	
	5	1	25.000	10				9	
	6	2	25.000	10				10	
	7	3	25.000	10				10	
	8	4	25.000	10				10	
	9	1	50.000	10				10	
	10	2	50.000	10				9	
	11	3	50.000	10				9	
	12	4	50.000	10				10	
	13	1	100.000	10				7	
	14	2	100.000	10				6	
	15	3	100.000	10				6	
	16	4	100.000	10				5	
	17	1	200.000	10				0	
	18	2	200.000	10				0	
	19	3	200.000	10				0	
	20	4	200.000	10				1	
	21	1	400.000	10				0	
	22	2	400.000	10				0	
	23	3	400.000	10				0	
	24	4	400.000	10				0	

Comments:

96 Hour Topsmelt
Reference Toxicant Test

Test ID: C060525.74	Replicates: 4	Study Director: E. Bathher	Location: Rm 3
Dilution Water Batch: S10122906	Organism Batch: ABS3444	Associated Test(s): Poseidon	No. of Organisms: 10
Toxicant: Copper Sulfate (0.509gCu/L $CuSO_4$)	Lot #: 1605565	Date Prepared: (stock) 11/28/06	Initials: KS
Target Concentrations: 400 ppb	Quantity of Stock: Target: 1.572 mL	Quantity of Diluent: Target: 2000 mL	
400 ppb	Actual: 1.5720	Actual: 2000.0	

Serial Dilute by ½ to obtain concentrations of 200, 100, 50, and 25 ppb.

0 Hours Date: 1/5/07 WQ Time: 1540 EB Start Time: 1640 Initials: AL

STOCK

	Control	25	50	100	200	400
D.O. (mg/L)	7.4	7.3	7.3	7.2	7.2	7.2
Temperature	21.6	21.6	21.5	21.5	21.4	21.4
Salinity	33.1	33.1	33.1	33.1	33.1	33.1
pH	8.0	8.2	8.2	8.2	8.2	8.2

24 Hours Date: 1/6/07 Time: 1530 Initials: KS

Renewal Information Toxicant Amount: 1.5728 Diluent Amount: 2000.4 Initials: KS

	Control	25	50	100	200	400
No. Alive Rep 1	10	9(1)	10	8(2)	2(8)	Ø(10)
No. Alive Rep 2	10	10	9(1)	8(2)	Ø(10)	Ø(10)
No. Alive Rep 3	10	10	9(1)	8(2)	1(9)	Ø(10)
No. Alive Rep 4	10	10	10	8(2)	3(7)	Ø(10)

48 Hours Date: 1/7/07 Time: 1507 Initials: KS

Renewal Information Toxicant Amount: 0.7860 Diluent Amount: 2000.0 Initials: KS

	Control	25	50	100	200	400
No. Alive Rep 1	10	9	10	8	1(1)	—
No. Alive Rep 2	10	10	9	7(1)	—	—
No. Alive Rep 3	10	10	9	6(2)	Ø(1)	—
No. Alive Rep 4	10	10	10	7(1)	1(2)	—

96 Hour Topsmelt
Reference Toxicant Test

C060525.74

72 Hours	Date: 1/8/07	Time: 1250	Initials: KS
Renewal Information	Toxicant Amount: 0.7863	Diluent Amount: 2000.8	Initials: KS

	Control	25	50	100	200	400
No. Alive Rep 1	10	9	10	7(1)	∅(1)	—
No. Alive Rep 2	10	10	9	6(1)	—	—
No. Alive Rep 3	10	10	9	6	—	—
No. Alive Rep 4	10	10	10	5(2)	1	—

96 Hours	Date: 1/9/07	WQ Time: 1035 am	Replicate: 4	Initials: AM
		STOCK		

	Control	25	50	100	200	400
D.O. (mg/L)	6.1	6.2	6.1	6.8	7.1	
Temperature	20.8	20.7	20.8	20.7	20.6	
Salinity	33.7	33.7	33.7	33.7	33.6	
pH	7.9	7.9	7.9	7.9	8.0	

96 Hour Survival Data	End Time: 1450	Initials: BA

	Control	25	50	100	200	400
No. Alive Rep 1	10	9	10	7	—	—
No. Alive Rep 2	10	10	9	6	—	—
No. Alive Rep 3	10	10	9	6	—	—
No. Alive Rep 4	10	10	10	5	1	—

☒ Pass ☐ Fail

Notes:

BIOASSAY SAMPLE RECEIPT

Client: Poseidon	Project: Desal Pilot Topsmelt Toxicity Study		
Weston Sample ID:	C070104.01	C070104.02	C070104.03
Client Sample ID:	UF Filtrate	RO Concentrate	UF Filtrate
Renewal Sample (Y/N):	N	N	N
Date/Time Received:	1/4/07 1020	1/4/07 1020	1/4/07 1020
Airbill #:	N/A	N/A	N/A
Sample Tracking Information Kept for Records: (Y/N)	N/A	N/A	N/A
Collection Date/Time:	1/3/07 composite at 0800 & 1600	1/3/07 composite at 0800 & 1600	1/4/07 composite at 0000 & 0800
Condition of Shipping Container:	good	good	good
Type and Capacity of Sample Container:	20L cubi	20L cubi	20L cubi
Total Sample Volume (L):	20L	20L	20L
Condition of Sampling Container:	good	good	good
Sample Container Appropriate: (Y/N)	y	y	y
Custody Seals Intact: (Y/N)	N/A	N/A	N/A
Ice or Frozen Blue Ice Present During Shipment/Transport: (Y/N)	y	y	y
Sampler's Name Present on COC Form: (Y/N)	y	y	y

TAKE THE FOLLOWING MEASUREMENTS UPON ARRIVAL

WESTON ID	Temp. (°C) (0-6°C) *	Dissolved Oxygen (mg/L)	pH	Conductivity (mS/cm) or Salinity (ppt)	Hardness (mg $CaCO_3$/L)	Alkalinity (mg $CaCO_3$/L)	Total Chlorine (mg/L)	Total Ammonia (mg NH_3/L)	Tech
C070104.01	14.9	7.9	7.9	33.0	—	—	0.00	<0.5	EB/JH
C070104.02	14.1	7.2	7.8	66.6	—	—	0.00	<0.5	EB/JH
C070104.03	15.3	7.8	8.1	33.3	—	—	0.01	<0.5	EB/JH

*Notify project manager or study director of temperatures above 6°C. Client must be notified ASAP.

If there are sample receipt problems, complete the following:

Reason for unacceptability:	
Name of Client Contact:	Contacted by:
Client Response and/or Action to be Taken:	Date Action Taken:

BIOASSAY SAMPLE RECEIPT

Client: Poseidon		Project: Desal Pilot Topsmelt Toxicity Study	
Weston Sample ID:	070104.04		
Client Sample ID:	RO Concentrate		
Renewal Sample (Y/N):	N		
Date/Time Received:	1/4/07 1020		
Airbill #:	N/A		
Sample Tracking Information Kept for Records: (Y/N)	N/A		
Collection Date/Time:	1/4/07 composite at 0000 & 0800		
Condition of Shipping Container:	good		
Type and Capacity of Sample Container:	20L cubi		
Total Sample Volume (L):	20L		
Condition of Sampling Container:	good		
Sample Container Appropriate: (Y/N)	Y		
Custody Seals Intact: (Y/N)	Y		
Ice or Frozen Blue Ice Present During Shipment/Transport: (Y/N)	Y		
Sampler's Name Present on COC Form: (Y/N)	Y		

TAKE THE FOLLOWING MEASUREMENTS UPON ARRIVAL

WESTON ID	Temp. (°C) (0-6°C) *	Dissolved Oxygen (mg/L)	pH	Conductivity (mS/cm) or Salinity (ppt)	Hardness (mg $CaCO_3$/L)	Alkalinity (mg $CaCO_3$/L)	Total Chlorine (mg/L)	Total Ammonia (mg NH_3/L)	Tech
070104.04	16.4	7.1	7.8	66.3	—	—	0.01	<0.5	EB/JH

*Notify project manager or study director of temperatures above 6°C. Client must be notified ASAP.

If there are sample receipt problems, complete the following:

Reason for unacceptability:	
Name of Client Contact:	Contacted by:
Client Response and/or Action to be Taken:	Date Action Taken:

WESTON SOLUTIONS

BIOASSAY SAMPLE RECEIPT

Client: Poseidon	Project: Desal Pilot Topsmelt Toxicity Study	
Weston Sample ID:	C070105.01	C070105.02
Client Sample ID:	4F Filtrate-Comp	20-Concentrate-Comp
Renewal Sample (Y/N):	N	N
Date/Time Received:	1/5/07 1040	1/5/07 1040
Airbill #:	N/A	N/A
Sample Tracking Information Kept for Records: (Y/N)	N/A	N/A
Collection Date/Time:	1/5/07 1040 @	1/5/07 1040 @
Condition of Shipping Container:	good	good
Type and Capacity of Sample Container:	20 L x 2	20 L x 2
Total Sample Volume (L):	40 L	40 L
Condition of Sampling Container:	good	good
Sample Container Appropriate: (Y/N)	Y	Y
Custody Seals Intact: (Y/N)	N/A	N/A
Ice or Frozen Blue Ice Present During Shipment/Transport: (Y/N)	Y	Y
Sampler's Name Present on COC Form: (Y/N)	Y	Y

TAKE THE FOLLOWING MEASUREMENTS UPON ARRIVAL

WESTON ID	Temp. (°C) (0-6°C) *	Dissolved Oxygen (mg/L)	pH	Conductivity (mS/cm) or Salinity (ppt)	Hardness (mg $CaCO_3$/L)	Alkalinity (mg $CaCO_3$/L)	Total Chlorine (mg/L)	Total Ammonia (mg NH_3/L)	Tech
C070105.01	7.4	9.3	8.2	32.9	—	—	0.01		KS
C070105.02	6.9	8.3	8.0	66.4	—	—	0.00		KS

*Notify project manager or study director of temperatures above 6°C. Client must be notified ASAP.

If there are sample receipt problems, complete the following:

Reason for unacceptability:	
Name of Client Contact:	Contacted by:
Client Response and/or Action to be Taken:	Date Action Taken:

@ Time that Comp was created. 1/10/07 CK

WESTON SOLUTIONS

☒ 2433 Impala Drive • Carlsbad, CA 9[illegible] • (760) 931-8081, FAX 931-1580
☐ 98 Main St., Ste. #428 • Tiburon, CA 94920 • (415) 435-1847, FAX 435-0479
☐ 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

CHAIN OF CUSTODY

13576

DATE 1-4-07 PAGE 1 OF 1

PROJECT NAME / SURVEY / PROJECT NUMBER: DESAL PILOT TOPSMELT TOXICITY STUDY

PROJECT MANAGER:

COMPANY: POSEIDON

ADDRESS: 4600 CARLSBAD BLVD

PHONE/~~FAX~~: 760-438-4843

	SAMPLE I.D.	DATE	TIME	MATRIX	INITIALS	NUMBER & TYPE OF CONTAINERS	ANALYSIS/TEST REQUESTED	PRESERVED HOW/ COMMENTS	SAMPLE TEMP UPON RECEIPT	WESTON LAB ID
5②	UF FILTRATE	1/3	16:00	RSW	DM	1		N/A	14.9	C070104.01
4①	RO CONCENTRATE	1/3	16:00	RSW	DM	1			14.1	C070104.02
5②	UF FILTRATE	1/4	8:00	RSW	DM	1			15.3	C070104.03
4①	RO CONCENTRATE	1/4	8:00	RSW	DM	1			14.4	C070104.04

FOR WESTON USE ONLY

SPECIAL INSTRUCTIONS/COMMENTS: 1/3 COMPOSITE SAMPLE TAKEN AT 0800 & 1600
(EACH UF & RO) 1/4 " " " 0000 & 0800

SHIPPING:

Shipping VIA: Airbill No:

SAMPLE CONDITION UPON RECEIPT (FOR WESTON USE ONLY):

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Daniel J. Marden	Elizabeth M. Battin	Elizabeth M. Battin	Vasey Skrivseth		
Signature	Signature	Signature	Signature	Signature	Signature
POSEIDON	Weston Solutions	Weston Solutions	Weston Solutions		
Firm	Firm	Firm	Firm	Firm	Firm
1-4-07	1/4/07 0950	1/4/07 1020	1/4/07 1020		
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

WHITE – return to originator • YELLOW – lab • PINK – retained by originator

① both RO Concentrate samples composited in Lab to create 24 hr. Composite. New sample name RO Concentrate Comp. 1/5/07 EV
② Both UF Filtrate samples composited in Lab to create 24 hr. [illegible]