Nautilus Environmental

Results of Toxicity Testing for Aliso, Poggi, and Chollas Creeks

Samples Collected: June 1 - 2, 2006

Prepared for: Weck Laboratories, Inc.
Analytical & Environmental Services
14859 East Clark Avenue
City of Industry, CA 91745

Testing Location: Nautilus Environmental
5550 Morehouse Drive, Ste. 150
San Diego, CA 92121

Submitted: June 30, 2006

Data Quality Assurance:

- Nautilus Environmental is a state certified laboratory under the California Department of Health Services – Environmental Laboratory Accreditation Program (ELAP), Certificate No. 1802.
- All test results included in this report have met internal Quality Assurance requirements, as well as all minimum acceptability criteria for test controls under the EPA protocol requirements.
- All data have been reviewed and verified.

Results Verified By: Steve Carlson **Date:** 6-30-06

Sample Information

Client/Project Management:	Weck Laboratories, Inc.		
Sample ID Names:	Aliso Creek 6	Poggi Creek 3	Chollas Creek 4
Sample ID Code:	ALC 6	POG 3	CHL 4
Work Order No.:	6060129	6060219	6060235
Weck Lab ID:	Pathn-0506-10	Pathn-0506-19	Pathn-0506-17
Sample Collection Date/Time:	6/1/06, 09:30	6/2/06, 10:25	6/2/06, 11:50
Sample Receipt Date/Time:	6/2/06, 11:50	6/2/06, 11:50	6/2/06, 14:15

Materials Tested: Both a water sample and a sediment sample were received for each of the 3 sites. The water sample was tested with *Selenastrum* and *Ceriodaphnia*, while the sediment sample was tested with *Hyalella*.

Selenastrum Chronic Test Specifications

Test Period:	6/2/06 – 6/6/06
Test Organism:	*Selenastrum capricornutum* (green algae)
Test Organism Source/Age:	In-house culture/ 8 days log phase (the protocol requires an age range of 4 to 7 days log phase. Our in-house culture is of the proper age Monday through Thursday. Since the sample was received on Friday, only 8-day algae was available for testing)
Test Concentrations:	100% undiluted water sample; Lab and Conductivity Controls
Lab Control Water:	Nutrient-enriched nanopure deionized water
Conductivity Control:	Laboratory water spiked with a small amount of seawater, raising the conductivity level to match the sample water. The conductivity control was used for comparison purposes only.
Sample Treatment:	Filtered to 0.45 µm (per EPA protocol requirements; however, a 100% unfiltered sample was also tested for comparison)
Test Protocol:	EPA/ 821/R-02/013, Oct. 2002
Test Data Analysis:	CETIS, version 1.025B statistical software

Ceriodaphnia Chronic Test Specifications

Test Period:	6/2/06 – 6/9/06
Test Organism:	*Ceriodaphnia dubia* (water flea)
Test Organism Source/Age:	In-house culture / <24 hours old
Test Concentrations:	100% undiluted water sample; Lab and Conductivity Controls
Lab Control Water:	EPA laboratory freshwater (diluted mineral water)
Conductivity Control:	Laboratory water spiked with a small amount of seawater, raising the conductivity level to match the sample water. The conductivity control was used for comparison purposes only.
Test Protocol:	EPA/ 821/R-02/013, Oct. 2002
Test Data Analysis:	CETIS, version 1.025B statistical software

Hyalella Chronic Test Specifications (Sediment Sample)

Test Period:	6/13/06 – 6/23/06
Test Organism:	*Hyalella azteca* (freshwater amphipod)
Test Organism Source/Age:	Aquatic Biosystems, Inc. / 12-14 days old
Test Concentrations:	Whole sediment sample; plus Lab Control sediment
Control Sediment:	Natural beach sand - rinsed and cleaned with deionized water
Overlying Test Water:	Laboratory freshwater – passed through a series of Culligan filters to remove impurities
Test Protocol:	EPA/600/R-99/064, 2000; and ASTM/ E-1383-94, 1994
Test Procedural Endpoints:	10-day Survival and Growth of the amphipods
Test Data Analysis:	Standard T-tests using GraphPad Prism Software, version 4.02

Results

Statistical results for the 3 sample sites are summarized in Tables 1, 2, and 3. Table 4 provides a complete summary of all the testing, for all 3 sites. Table 4 also provides data on the Conductivity Controls conducted with the *Ceriodaphnia* and *Selenastrum* tests for comparison purposes. All 3 sample sites resulted in different degrees of toxicity with *Ceriodaphnia*, however responses were similar to their respective Conductivity Control, indicating that the high conductivity levels in the samples were the primary driver of toxicity. The sample with the highest conductivity level (Chollas Creek), also resulted in toxicity with the *Selenastrum* test. It should be noted, however, that the Selenastrum growth in the Chollas Creek sample was approximately half that of its respective Conductivity Control, indicating that conductivity may not be the only driver of toxicity. Only the Poggi Creek sample produced a toxic response in the *Hyalella* test. Bench datasheets and statistical analyses for each test species are presented in Appendices A, B, and C. Sample information upon receipt can be found in Appendix D, and the chain-of-custody forms can be found in Appendix E.

Table 1. Summary of Statistical Results: Aliso Creek 6 (ALC6)

Test Species & Endpoint	NOEC (% sample)	Toxic Response	TU value
Selenastrum: Cell Density Growth	100	No	1.0
Ceriodaphnia: Survival	100	No	1.0
Reproduction	< 100	**Yes**	> 1.0
Hyalella (sediment): Survival	100	No	1.0
Growth	100	No	1.0

NOEC = No Observed Effect Concentration

Toxic Response: whether there was a statistical difference compared to the Lab Control, indicating toxicity

TU = chronic Toxicity Units: 100 ÷ NOEC

Table 2. Summary of Statistical Results: Poggi Creek 3 (POG3)

Test Species & Endpoint	NOEC (% sample)	Toxic Response	TU value
Selenastrum: Cell Density Growth	100	No	1.0
Ceriodaphnia: Survival	100	No	1.0
Reproduction	< 100	**Yes**	> 1.0
Hyalella (sediment): Survival	< 100	**Yes**	> 1.0
Growth	< 100	**Yes**	> 1.0

Table 3. Summary of Statistical Results: Chollas Creek 4 (CHL4)

Test Species & Endpoint	NOEC (% sample)	Toxic Response	TU value
Selenastrum: Cell Density Growth	< 100	**Yes**	> 1.0
Ceriodaphnia: Survival	< 100	**Yes**	> 1.0
Reproduction	< 100	**Yes**	> 1.0
Hyalella (sediment): Survival	100	No	1.0
Growth	100	No	1.0

Table 4. Detailed Results of Chronic Testing

Sample Site Name (100%)	*Selenastrum*	*Ceriodaphnia*		*Hyalella* Amphipod	
	Algal Growth (cells/ml)	Mean Survival (%)	Mean Reproduction (# produced)	Mean Survival (%)	Dry Weight (mg)
Lab Control	1,580,000	100	22.8	90	0.239
Aliso Creek 6	1,860,000	100	18.2 *	92	0.201
Poggi Creek 3	1,480,000	100	16.5 *	48 *	0.169 *
Chollas Creek 4	578,000 *	0 *	0 *	99	0.329
Conductivity Control (3,200)	1,940,000	100	15.6 *	na	na
Conductivity Control (9,800)	901,000 *	0 *	0 *	na	na

Notes: 1) An asterisk (*) indicates a significant difference compared to the Lab Control, indicating a toxic response.

2) The 1st Conductivity Control has a conductivity of 3,200 uS/cm, matching the Aliso and Poggi Creek samples. The 2nd Conductivity Control has a conductivity of 9,800 uS/cm, matching the Chollas Creek sample.

Nautilus Environmental

Results of Toxicity Testing for Keys Creek & Santa Margarita River

Samples Collected: June 6, 2006

Prepared for: Weck Laboratories, Inc.
Analytical & Environmental Services
14859 East Clark Avenue
City of Industry, CA 91745

Testing Location: Nautilus Environmental
5550 Morehouse Drive, Ste. 150
San Diego, CA 92121

Submitted: June 30, 2006

Data Quality Assurance:

- Nautilus Environmental is a state certified laboratory under the California Department of Health Services – Environmental Laboratory Accreditation Program (ELAP), Certificate No. 1802.
- All test results included in this report have met internal Quality Assurance requirements, as well as all minimum acceptability criteria for test controls under the EPA protocol requirements.
- All data have been reviewed and verified.

Results Verified By: Steve Carlson **Date:** 6-30-06

Sample Information

Client/Project Management:	Weck Laboratories, Inc.	
Sample ID Names:	Keys Creek 3	Santa Margarita River 1
Sample ID Code:	KYS 3	SMR 1
Work Order No.:	6060632	6060619
Weck Lab ID:	Pathn-0506-12	Pathn-0506-11
Sample Collection Date/Time:	6/6/06, 11:20	6/6/06, 09:18
Sample Receipt Date/Time:	6/6/06, 14:00	6/6/06, 14:00

Materials to be Tested: Both a water sample and a sediment sample were received for each site. The water sample was tested with *Selenastrum* and *Ceriodaphnia*, while the sediment sample was tested with the *Hyalella* amphipod.

Selenastrum Chronic Test Specifications

Test Period:	6/6/06 – 6/10/06
Test Organism:	*Selenastrum capricornutum* (green algae)
Test Organism Source/Age:	In-house culture/ 5 days log phase
Test Concentrations:	100% undiluted water sample; Lab and Conductivity Controls
Lab Control Water:	Nutrient-enriched nanopure deionized water
Conductivity Control:	Laboratory water spiked with a small amount of seawater, raising the conductivity level to match the sample water. The conductivity control was tested for comparison purposes only.
Sample Treatment:	Filtered to 0.45 µm (per EPA protocol requirements; however, a 100% unfiltered sample was also tested for comparison)
Test Protocol:	EPA/ 821/R-02/013, Oct. 2002
Test Data Analysis:	CETIS, version 1.025B statistical software

Ceriodaphnia Chronic Test Specifications

Test Period:	6/6/06 – 6/13/06
Test Organism:	*Ceriodaphnia dubia* (water flea)
Test Organism Source/Age:	In-house culture / <24 hours old
Test Concentrations:	100% undiluted water sample; Lab and Conductivity Controls
Lab Control Water:	EPA laboratory freshwater (diluted mineral water)
Conductivity Control:	Laboratory water spiked with a small amount of seawater, raising the conductivity level to match the sample water. The conductivity control was tested for comparison purposes only.
Test Protocol:	EPA/ 821/R-02/013, Oct. 2002
Test Data Analysis:	CETIS, version 1.025B statistical software

Hyalella Chronic Test Specifications

Test Period:	6/13/06 – 6/23/06
Test Organism:	*Hyalella azteca* (freshwater amphipod)
Test Organism Source/Age:	Aquatic Biosystems, Inc. / 12-14 days old
Test Concentrations:	Whole sediment sample; plus Lab Control sediment
Control Sediment:	Natural beach sand - rinsed and cleaned with deionized water
Overlying Test Water:	Laboratory freshwater – passed through a series of Culligan filters to remove impurities
Test Protocol:	EPA/600/R-99/064, 2000; and ASTM/ E-1383-94, 1994
Test Procedural Endpoints:	10-day Survival and Growth of the amphipods
Test Data Analysis:	Standard T-tests using GraphPad Prism Software, version 4.02

Results

Statistical results for the 2 sample sites are summarized in Tables 1 and 2. Table 3 provides a complete summary of all the testing, for both sites. Table 3 also provides data on the Conductivity Control conducted with the *Ceriodaphnia* and *Selenastrum* tests for comparison purposes. The only test to result in a toxic response was the Keys Creek sample, with regards to the *Ceriodaphnia* reproduction endpoint. However, the Conductivity Control also showed similar toxic response with the *Ceriodaphnia* reproduction, indicating the high conductivity levels in the Keys Creek sample may be the primary driver of toxicity. Bench datasheets and statistical analyses for each test species are presented in Appendices A, B, and C. Sample information upon receipt can be found in Appendix D, and the chain-of-custody forms can be found in Appendix E.

Table 1. Summary of Statistical Results: Keys Creek 3 (KYS3)

Test Species & Endpoint	NOEC (% sample)	Toxic Response	TU value
Selenastrum: Cell Density Growth	100	No	1.0
Ceriodaphnia: Survival	100	No	1.0
Reproduction	< 100	**Yes**	> 1.0
Hyalella (sediment): Survival	100	No	1.0
Growth	100	No	1.0

NOEC = No Observed Effect Concentration

Toxic Response: whether there was a statistical difference compared to the Lab Control, indicating toxicity

TU = chronic Toxicity Units: 100 ÷ NOEC

Table 2. Summary of Statistical Results: Santa Margarita River 1 (SMR1)

Test Species & Endpoint	NOEC (% sample)	Toxic Response	TU value
Selenastrum: Cell Density Growth	100	No	1.0
Ceriodaphnia: Survival	100	No	1.0
Reproduction	100	No	1.0
Hyalella (sediment): Survival	100	No	1.0
Growth	100	No	1.0

Table 3. Detailed Results of Chronic Testing

Sample Site Name (100%)	*Selenastrum*	*Ceriodaphnia*		*Hyalella* Amphipod	
	Algal Growth (cells/ml)	Mean Survival (%)	Reproduction (# produced)	Mean Survival (%)	Dry Weight (mg)
Lab Control	1,310,000	100	23.3	90	0.239
Keys Creek 3	2,390,000	100	16.6 *	95	0.227
Santa Margarita 1	2,930,000	100	23.9	95	0.239
Conductivity Control (2,600)	1,450,000	100	19.7 *	na	na

Notes: 1) An asterisk (*) indicates a significant difference compared to the Lab Control, indicating a toxic response.

2) The Conductivity Control has a conductivity of 2,600 µS/cm, matching the highest sample level (Keys Creek).

Nautilus Environmental

Results of Toxicity Testing for Samples Collected June 8 - 9, 2006

Sample Sites: Lawson Valley Creek
Santa Ysabel Creek
San Vicente Creek

Prepared for: Weck Laboratories, Inc.
Analytical & Environmental Services
14859 East Clark Avenue
City of Industry, CA 91745

Testing Location: Nautilus Environmental
5550 Morehouse Drive, Ste. 150
San Diego, CA 92121

Submitted: June 30, 2006

Data Quality Assurance:

- Nautilus Environmental is a state certified laboratory under the California Department of Health Services – Environmental Laboratory Accreditation Program (ELAP), Certificate No. 1802.
- All test results included in this report have met internal Quality Assurance requirements, as well as all minimum acceptability criteria for test controls under the EPA protocol requirements.
- All data have been reviewed and verified.

Results Verified By: Steve Carlson **Date:** 6-30-06

Sample Information

Client/Project Management: Weck Laboratories, Inc.

Sample ID Names:	Lawson Valley Creek2	Santa Ysabel Creek4	San Vicente Creek3
Sample ID Code:	LAW 2	YSA 4	SVC 3
Work Order No.:	6060813	6060924	6060931
Weck Lab ID:	Pathn-0506-18	Pathn-0506-14	Pathn-0506-16
Sample Collection Dates/Times:	6/8/06, 09:00	6/9/06, 10:20	6/9/06, 12:50
Sample Receipt Dates/Times:	6/8/06, 11:15	6/9/06, 12:25	6/9/06, 15:45

Materials Tested: Both a water sample and a sediment sample were received for each of the three sites. The water sample was tested with *Selenastrum* and *Ceriodaphnia*, while the sediment sample was tested with *Hyalella*.

Selenastrum Chronic Test Specifications

Test Period:	6/9/06 – 6/13/06
Test Organism:	*Selenastrum capricornutum* (green algae)
Test Organism Source/Age:	In-house culture/ 8 days log phase (the protocol requires an age range of 4 to 7 days log phase. Our in-house culture is of the proper age Monday through Thursday. Since the sample was received on Friday, only 8-day algae was available for testing)
Test Concentrations:	100% undiluted water sample; plus Lab Control
Lab Control Water:	Nutrient-enriched nanopure deionized water
Sample Treatment:	Filtered to 0.45 µm (per EPA protocol requirements; however, a 100% unfiltered sample was also tested for comparison)
Test Protocol:	EPA/821/R-02/013, Oct. 2002
Test Data Analysis:	CETIS, version 1.025B statistical software

Ceriodaphnia Chronic Test Specifications

Test Period:	6/9/06 – 6/16/06
Test Organism:	*Ceriodaphnia dubia* (water flea)
Test Organism Source/Age:	In-house culture / <8 hours old
Test Concentrations:	100% undiluted water sample; plus Lab Control
Lab Control Water:	EPA laboratory freshwater (diluted mineral water)
Test Protocol:	EPA/821/R-02/013, Oct. 2002
Test Data Analysis:	CETIS, version 1.025B statistical software

Hyalella Chronic Test Specifications

Test Period:	6/16/06 – 6/26/06
Test Organism:	*Hyalella azteca* (freshwater amphipod)
Test Organism Source/Age:	Aquatic Biosystems, Inc. / 12-14 days old
Test Concentrations:	Whole sediment sample; plus Lab Control sediment
Control Sediment:	Natural beach sand - rinsed and cleaned with deionized water.
Overlying Test Water:	Laboratory freshwater – passed through a series of Culligan filters to remove impurities
Test Protocol:	EPA/600/R-99/064, 2000; and ASTM/ E-1383-94, 1994
Test Procedural Endpoints:	10-day Survival and Growth
Test Data Analysis:	Standard T-tests using GraphPad Prism Software, version 4.02

Results

Statistical results for the 3 sample sites are summarized in Tables 1, 2, and 3. Table 4 provides a complete summary of all the testing, for all 3 sites. No toxicity was observed in any of the three water samples to either *Ceriodaphnia* or *Selenastrum*. Similarly, the sediment tested for all three sites showed no toxic effect to *Hyalella.* Bench datasheets and statistical analyses for each test species are presented in Appendices A, B, and C. Sample information upon receipt can be found in Appendix D, and the chain-of-custody forms can be found in Appendix E.

Table 1. Summary of Statistical Results: Lawson Valley Creek 2 (LAW2)

Test Species & Endpoint	NOEC (% sample)	Toxic Response	TU value
Selenastrum: Cell Density Growth	100	No	1.0
Ceriodaphnia: Survival	100	No	1.0
Reproduction	100	No	1.0
Hyalella (sediment): Survival	100	No	1.0
Growth	100	No	1.0

NOEC = No Observed Effect Concentration
Toxic Response: whether there was a statistical difference compared to the Lab Control, indicating toxicity
TU = chronic Toxicity Units: 100 ÷ NOEC

Table 2. Summary of Statistical Results: Santa Ysabel Creek 4 (YSA4)

Test Species & Endpoint	NOEC (% sample)	Toxic Response	TU value
Selenastrum: Cell Density Growth	100	No	1.0
Ceriodaphnia: Survival	100	No	1.0
Reproduction	100	No	1.0
Hyalella (sediment): Survival	100	No	1.0
Growth	100	No	1.0

Table 3. Summary of Statistical Results: San Vicente Creek 3 (SVC3)

Test Species & Endpoint	NOEC (% sample)	Toxic Response	TU value
Selenastrum: Cell Density Growth	100	No	1.0
Ceriodaphnia: Survival	100	No	1.0
Reproduction	100	No	1.0
Hyalella (sediment): Survival	100	No	1.0
Growth	100	No	1.0

Table 4. Detailed Results of Chronic Testing

Sample Site Name (100%)	*Selenastrum*	*Ceriodaphnia*		*Hyalella* Amphipod	
	Algal Growth (cells/ml)	Mean Survival (%)	Mean Reproduction (# produced)	Mean Survival (%)	Dry Weight (mg)
Lab Control	1,140,000	90	18.3	93	0.121
Lawson Valley Creek	2,990,000	100	24.8	85	0.121
Santa Ysabel Creek	2,810,000	100	26.1	95	0.124
San Vicente Creek	2,710,000	100	23.6	93	0.146

Nautilus Environmental

Results of Toxicity Testing for Rose Canyon & Escondido Creeks

Samples Collected: June 13, 2006

Prepared for: Weck Laboratories, Inc.
Analytical & Environmental Services
14859 East Clark Avenue
City of Industry, CA 91745

Testing Location: Nautilus Environmental
5550 Morehouse Drive, Ste. 150
San Diego, CA 92121

Submitted: June 30, 2006

Data Quality Assurance:

- Nautilus Environmental is a state certified laboratory under the California Department of Health Services – Environmental Laboratory Accreditation Program (ELAP), Certificate No. 1802.
- All test results included in this report have met internal Quality Assurance requirements, as well as all minimum acceptability criteria for test controls under the EPA protocol requirements.
- All data have been reviewed and verified.

Results Verified By: _____ **Date:** 6/30/06

Sample Information

Client:	Weck Laboratories, Inc.	
Sample ID Names:	Rose Canyon Creek 4	Escondido Creek 5
Sample ID Code:	RCC4	EC5
Work Order No.:	6061322	6061321
Weck Lab ID:	Pathn-0506-15	Pathn-0506-13
Sample Collection Date/Time:	6/13/06, 10:54	6/13/06, 08:47
Sample Receipt Date/Time:	6/13/06, 12:00	6/13/06, 12:00

Materials Tested: A water sample was received for both sites; no sediment was collected for this study. The water samples were tested with *Selenastrum* and *Ceriodaphnia*.

Selenastrum Chronic Test Specifications

Test Period:	6/13/06 – 6/17/06
Test Organism:	*Selenastrum capricornutum* (green algae)
Test Organism Source/Age:	In-house culture/ 5 days log phase
Test Concentrations:	100% undiluted water sample; Lab and Conductivity Controls
Lab Control Water:	Nutrient-enriched nanopure deionized water
Conductivity Control:	Laboratory water spiked with a small amount of seawater, raising the conductivity level to match the sample water.
Sample Treatment:	Filtered to 0.45 µm (per EPA protocol requirements; however, a 100% unfiltered sample was also tested for comparison)
Test Protocol:	EPA/ 821/R-02/013, Oct. 2002
Test Data Analysis:	CETIS, version 1.025B statistical software

Ceriodaphnia Chronic Test Specifications

Test Period:	6/13/06 – 6/20/06
Test Organism:	*Ceriodaphnia dubia* (water flea)
Test Organism Source/Age:	In-house culture / <8 hours old
Test Concentrations:	100% undiluted water sample; Lab and Conductivity Controls
Lab Control Water:	EPA laboratory freshwater (diluted mineral water)
Conductivity Control:	Laboratory water spiked with a small amount of seawater, raising the conductivity level to match the sample water.
Test Protocol:	EPA/ 821/R-02/013, Oct. 2002
Test Data Analysis:	CETIS, version 1.025B statistical software

Results

Statistical results for both sites are summarized in Tables 1 and 2. Table 3 provides a detailed summary of test results, for both sites. Table 3 also provides data on the Conductivity Controls that were conducted with the *Ceriodaphnia* and *Selenastrum*. Both samples were received with conductivity levels exceeding 2,000 µS/cm, a level at which freshwater organisms can be stressed. A Conductivity Control was tested concurrently for comparison purposes. However, all statistical analyses were performed comparing the sample to the Lab Control. The Rose Canyon Creek sample did result in a toxic response with regards to the *Ceriodaphnia* reproduction endpoint. However, the Conductivity Control also showed toxicity with the *Ceriodaphnia* reproduction. Because of the similar response, the high conductivity level in the Rose Canyon Creek sample (~4,600 µS/cm) was probably the primary driver of toxicity.

No statistically significant difference from the lab control was detected for either sample with the *Selenastrum* test. The *Selenastrum* test met the minimum control criteria for growth (mean density must exceed 1.0×10^6 cells/ml), however the variability between replicates was greater than the excepted amount required under the protocol (< 20% CV). The final results for the 2 samples are still deemed worthy of reporting, since both samples resulted in *Selenastrum* growth which exceeded the control growth, indicating that neither sample produced a toxic response. Also, there was much lower variability between replicates of the 2 sample sites, which further supports our judgment that neither sample is toxic with *Selenastrum*. Bench datasheets and statistical analyses for both test species are presented in Appendices A, and B. Sample information upon receipt can be found in Appendix C, and the chain-of-custody forms can be found in Appendix D.

Table 1. Summary of Statistical Results: Rose Canyon Creek 4 (RCC4)

Test Species & Endpoint	NOEC (% sample)	Toxic Response	TU value
Selenastrum: Cell Density Growth	100	No	1.0
Ceriodaphnia: Survival	100	No	1.0
Reproduction	< 100	**Yes**	> 1.0

Table 2. Summary of Statistical Results: Escondido Creek 5 (EC5)

Test Species & Endpoint	NOEC (% sample)	Toxic Response	TU value
Selenastrum: Cell Density Growth	100	No	1.0
Ceriodaphnia: Survival	100	No	1.0
Reproduction	100	No	1.0

NOEC = No Observed Effect Concentration
Toxic Response: whether there was a statistical difference compared to the Lab Control, indicating toxicity
TU = chronic Toxicity Units: 100 ÷ NOEC

Table 3. Detailed Results of Chronic Testing

Sample Site Name (100%)	*Selenastrum*	*Ceriodaphnia*	
	Algal Growth (cells/ml)	Mean Survival (%)	Mean Reproduction (# produced)
Lab Control	1,100,000	100	23.3
Conductivity Control (RCC4)	530,000	80	5.9 *
Rose Canyon Creek 4	1,020,000	100	16.7 *
Conductivity Control (EC5)	945,000	100	17.7 *
Escondido Creek 5	2,120,000	100	28.7

Notes: 1) An asterisk (*) indicates a significant difference compared to the Lab Control, indicating a toxic response.
2) The Conductivity Control has a conductivity matching that of its corresponding sample.