

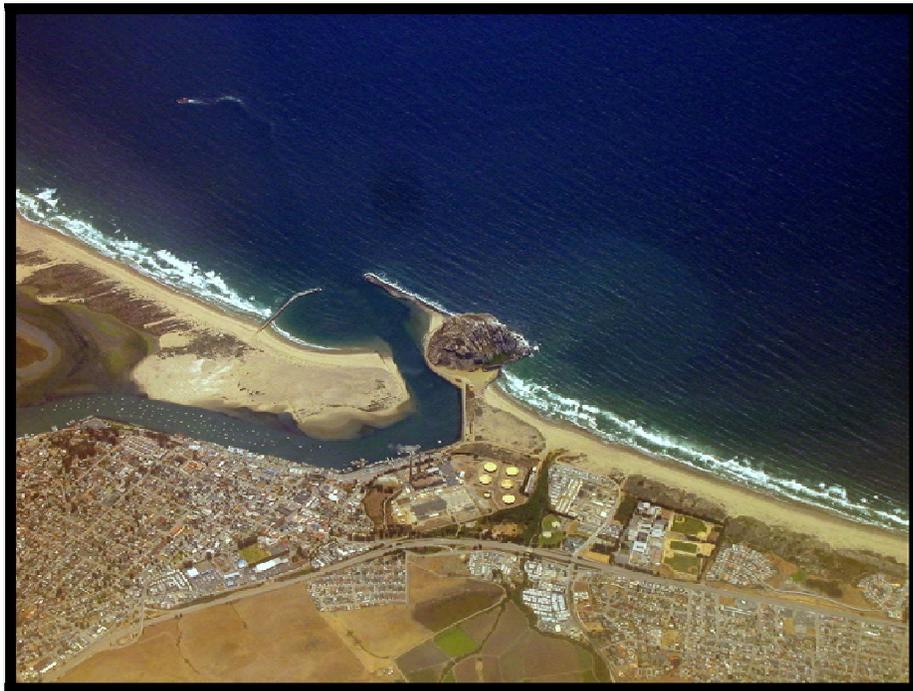
**City of Morro Bay and
Cayucos Sanitary District**

**OFFSHORE MONITORING
AND REPORTING PROGRAM**

**ANNUAL AND SEMIANNUAL EFFLUENT
SAMPLING**

**CHEMICAL AND BIOASSAY
ANALYSIS RESULTS**

JULY 2009



Marine Research Specialists

**3140 Telegraph Rd., Suite A
Ventura, California 93003**

Report to
City of Morro Bay and
Cayucos Sanitary District

955 Shasta Avenue
Morro Bay, California 93442
(805) 772-6272

MONITORING
AND
REPORTING PROGRAM

ANNUAL AND SEMIANNUAL EFFLUENT REPORT

CHEMICAL AND BIOASSAY
ANALYSIS RESULTS

JULY 2009

Prepared by

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Marine Research Specialists

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September 2009

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Mr. Bruce Ambo
City of Morro Bay

Date _____

Bruce Keogh
Wastewater Division Manager
City of Morro Bay
955 Shasta Avenue
Morro Bay, CA 93442

1 September 2009

**Reference: Annual Effluent Self-Monitoring Report for 2009
Semiannual Effluent Self-Monitoring Report for July through December 2009**

Dear Mr. Keogh:

This self-monitoring report documents the chemical and bioassay analysis results for effluent samples collected in July 2009 as required by NPDES discharge permit CA0047881.¹ Analyses of effluent samples collected on 15 July 2009 were conducted in accordance with the monitoring requirements specified in the permit, including:

- Chronic bioassays, and chemical and radionuclide analyses conducted on a composite sample; and
- Phenolic and nutrient compounds measured in a grab sample.

The three attachments to this report demonstrate that all chemical concentrations, radioactivity, and toxicological endpoints were well within the limitations specified in the discharge permit. Attachment A compares the results of the analyses with the limitations established for each of the effluent parameters specified in the permit. The comparisons are based on the minimum-level (ML) reporting requirements of the permit, and all units have been converted to those used in the discharge monitoring forms that were submitted under separate cover to the California Division of Water Quality (Attachment B). Attachment C collates the original laboratory reports, including raw data and results, pertinent QA/QC analyses, and chains of custody.

The comprehensive chemical and bioassay analyses of effluent samples collected in July 2009 augment data collected over the past two decades. Together, the measurements demonstrate the consistently benign character of the discharge from the MBSCD² treatment plant. The general lack of toxicity and chemical contaminants within the effluent samples reflects the absence of heavy industry within the collection area and the high performance of the treatment process. The concentrations of the few chemical compounds detected in the July 2009 samples were typical of wastewater derived from domestic sources, and all concentrations were considerably below the limits specified in the NPDES discharge permit.

Thirteen of the 78 monitored chemical compounds were detected, and of those, only five had concentrations high enough to be reliably quantified above their respective MLs. Three of the quantifiable concentrations were associated with commonly occurring metals: copper, lead, and zinc. These metals enter the wastewater collection system through erosion of natural mineral deposits along the central California coast, and through corrosion of household plumbing systems. The concentrations of all three metals were more than an order of magnitude below levels deemed deleterious to marine organisms.

The concentrations of two organic compounds, bis(2-ethylhexyl) phthalate (BEHP) and dioxin, were also quantified within the effluent samples. Both are ubiquitous compounds consistently detected at low levels within effluent and biosolid samples collected over the past decade.

¹ Regional Water Quality Control Board (RWQCB) - Central Coast Region and the Environmental Protection Agency (EPA) – Region IX. 2009. Waste Discharge Requirements (Order No. R3-2008-0065) and National Pollutant Discharge Elimination System (Permit No. CA0047881) for the Morro Bay and Cayucos Wastewater Treatment Plant Discharges to the Pacific Ocean, Morro Bay, San Luis Obispo County. Effective 1 March 2009.

² City of Morro Bay and the Cayucos Sanitary District, joint owners of the wastewater treatment and disposal facility

Bis(2-ethylhexyl) phthalate is added to plastic resins to soften them. However, it is not covalently bound to the resin so it slowly leaches out of plastic materials through evaporation and dissolution. Due to BEHP's mobility, high vapor pressure, and massive scale of production, this compound has become pervasive in the environment. Although BEHP can adversely affect human health, concentrations would have to be more than 50 times greater than those measured in the July 2009 sample to be of a human-health concern.

Similarly, dioxin concentrations in the July 2009 sample were only one-fifth of the level considered a potential threat to human health. Historically, trace amounts of dioxin were released to the environment primarily through incineration of municipal and chemical wastes, exhaust from automobiles using leaded gasoline, and improper disposal of chlorinated chemical wastes. These chemically stable dioxins do not readily decompose and once produced, they persist in the environment for long periods. Extremely small concentrations of various dioxin congeners are also found in effluent discharged from publicly owned treatment works, after they are formed during the chlorination process. Low concentrations of dioxin have been detected in the majority of MBCSD effluent samples collected during the last decade, although concentrations rarely approach the permitted limit.

Chronic bioassays affirm the effluent's overall low toxicity. As with past bioassays, chronic toxicity tests on the July 2009 effluent samples measured germination and growth response in giant kelp spores (*Macrocystis pyrifera*) after exposure to a range of effluent dilutions. Toxicity screening studies conducted in 1993³ established giant kelp as substantially more sensitive to MBCSD effluent than other standard test species, such as the larvae of the inland silverside (*Menidia beryllina*) and bay mussel (*Mytilus edulis*). As part of an additional screening study conducted on the July 2009 samples, the effluent's effect on the development of larval red abalone (*Haliotis rufescens*) was also tested. Although the larval abalone were found to be somewhat more sensitive than kelp zoospores, adverse effects were not observed in effluent that was four times more concentrated than that allowed by the discharge permit.

Please contact the undersigned if you have questions regarding these results.

Sincerely,

Bonnie Luke
Program Manager

Enclosure (Four Report Copies)

³ Table 2-4, Page 2-7 of the MBCSD 1993 Annual Monitoring. Report to the City of Morro Bay and Cayucos Sanitary District. Prepared by Marine Research Specialists, February 1994.

ATTACHMENT A
MINIMUM LEVEL REPORTING

ATTACHMENT A
Analytical Results for Effluent Samples Collected during July 2009

| Chemical Compound or Parameter | Units | Method | Detection Limit ^a | Practical ^b Quantification Limit | Minimum Level ^c | Permit ^d Limit | Reported Value |
|---|-------|------------------|------------------------------|---|----------------------------|---------------------------|-----------------------|
| Nutrients | | | | | | | |
| Nitrate (as N) | mg/L | 300.0 | 0.002 | 0.1 | 0.1 | — ^e | 0.1 as measured |
| Urea (as N) | mg/L | Mulvenna & Savid | 0.0007 | 0.01 | 10. | — | 0.082 as measured |
| Ortho-Phosphate (as P) | mg/L | 300.0 | 0.003 | 0.1 | 0.1 | — | 2.3 as measured |
| Dissolved Silica (SiO ₂) | mg/L | 4500-SI-E | 0.04 | 0.05 | 0.05 | — | 12.5 as measured |
| Objectives for the Protection of Marine Aquatic Life | | | | | | | |
| Arsenic | mg/L | 200.8 | 0.0011 | 0.002 | 0.002 | 0.67 | ND |
| Cadmium | mg/L | 200.7 | 0.00057 | 0.01 | 0.01 | 0.13 | ND |
| Chromium VI ^f | mg/L | 200.7 | 0.0008 | 0.01 | 0.01 | 0.27 | DNQ 0.0011 Est. Conc. |
| Copper | mg/L | 200.7 | 0.0015 | 0.01 | 0.01 | 0.14 | 0.011 as measured |
| Lead | mg/L | 200.8 | 0.00019 | 0.001 | 0.0005 | 0.27 | 0.0011 as measured |
| Mercury | µg/L | 245.1 | 0.016 | 0.2 | 0.2 | 5.29 | ND |
| Nickel | mg/L | 200.7 | 0.0015 | 0.01 | 0.02 | 0.67 | DNQ 0.0052 Est. Conc. |
| Selenium | mg/L | 200.8 | 0.00054 | 0.002 | 0.002 | 2.01 | DNQ 0.0015 Est. Conc. |
| Silver | mg/L | 200.7 | 0.0019 | 0.01 | 0.01 | 0.07 | ND |
| Zinc | mg/L | 200.7 | 0.0021 | 0.05 | 0.02 | 1.62 | 0.052 as measured |
| Cyanide | mg/L | 335.4 | 0.0028 | 0.005 | 0.005 | 0.13 | DNQ 0.0048 Est. Conc. |

^a The Method Detection Limit (MDL) is the analysis- and instrument-specific minimum concentration at which the presence of a substance can be reported with 99% confidence. It is determined from an analysis of a sample in a matrix containing the analyte.

^b The Practical Quantification Limit (PQL) is the analysis- and instrument-specific minimum concentration of a substance that can be routinely determined with a high degree of certainty (>99.9% confidence).

^c The Minimum Level (ML) is the method-specific minimum concentration of a substance that can be quantitatively measured in a sample given the current analytical performance used by most certified laboratories within California, as specified in the 2005 Ocean Plan.

^d The Permit Limit is the lowest, most-stringent threshold that is associated with the longest-duration averaging period. For limits established to protect marine aquatic life, the six-month median is the most stringent threshold. For other constituents, limits are imposed only on monthly averages.

^e No permit limits have been established for nutrients.

^f Total chromium concentration was reported rather than the concentration of the hexavalent oxidation state alone.

Analytical Results for Effluent Samples Collected during July 2009

| Chemical Compound or Parameter | Units | Method | Detection Limit ^a | Practical ^b Quantification Limit | Minimum Level ^c | Permit ^d Limit | Reported Value |
|--|-------|--------------|------------------------------|---|----------------------------|---------------------------|--------------------------------------|
| Chronic Toxicity <i>M. pyrifera</i> Germination Growth | TUc | 600/R-95/136 | — ^g | — | — | 134. | 10.0 as measured 17.9 as measured |
| Toxicity-Chronic: <i>H. Rufescens</i> | TUc | 600/R-95/136 | — | — | — | 134. | 31.2 as measured |
| Nonchlorinated Phenolics | mg/L | 625 | 0.001 | 0.01 | 0.005 | 4.02 | ND |
| Chlorinated Phenolics | mg/L | 625 | 0.00079 | 0.01 | 0.005 | 0.13 | ND |
| Endosulfan (Sum) | µg/L | 608 | 0.0026 | 0.005 | 0.01 | 1.21 | ND |
| Endrin | µg/L | 608 | 0.00082 | 0.005 | 0.01 | 0.27 | ND |
| HCH | µg/L | 608 | 0.0021 | 0.005 | 0.02 | 0.54 | ND |
| Radioactivity Gross α | pCi/L | 7110C | — | — | — | 15. | 0.201 as measured |
| Radioactivity Gross β | pCi/L | 900 | — | — | — | 50. | 3.1 as measured |
| Objectives for the Protection of Human Health: Noncarcinogens | | | | | | | |
| Acrolein | mg/L | 624 | 0.0073 | 0.02 | 0.005 | 29.5 | ND |
| Antimony | mg/L | 200.7 | 0.034 | 0.1 | 0.05 | 160.8 | ND |
| Bis(2-chloroethoxy) methane | mg/L | 625 | 0.00027 | 0.002 | 0.005 | 0.59 | ND |
| Bis(2-chloroisopropyl)ether | mg/L | 625 | 0.0003 | 0.002 | 0.002 | 160.8 | ND |
| Chlorobenzene | mg/L | 624 | 0.000067 | 0.0005 | 0.002 | 76.4 | ND |
| Chromium III ^h | g/L | 200.7 | 0.0000008 | 0.00001 | 0.05 | 25.5 | DNQ 0.0000011 Est. Conc. |
| Di-n-butyl phthalate | mg/L | 625 | 0.00039 | 0.002 | 0.01 | 469. | ND |
| Dichlorobenzene | mg/L | 624 | 0.000058 | 0.0005 | 0.002 | 683. | ND |
| Diethyl phthalate | mg/L | 625 | 0.00033 | 0.002 | 0.002 | 4,420. | ND |
| Dimethyl phthalate | g/L | 625 | 0.00000039 | 0.000002 | 0.000002 | 109.9 | ND |
| 2-Methyl-4,6-dinitrophenol | mg/L | 625 | 0.00034 | 0.01 | 0.005 | 29.5 | ND |
| 2,4-Dinitrophenol | mg/L | 625 | 0.0002 | 0.01 | 0.005 | 0.54 | ND |
| Ethylbenzene | mg/L | 624 | 0.000068 | 0.0005 | 0.002 | 549. | DNQ 0.00009 Est. Conc. |
| Fluoranthene | mg/L | 625 | 0.0002 | 0.002 | 0.001 | 2. | ND |
| Hexachlorocyclopentadiene | mg/L | 625 | 0.0003 | 0.002 | 0.005 | 7.8 | ND |
| Nitrobenzene | mg/L | 625 | 0.00026 | 0.002 | 0.001 | 0.66 | ND |

^g MDL, PQL, and ML are not specified for this parameter.

^h Total chromium concentration was reported rather than the concentration of the trivalent oxidation state alone.

Analytical Results for Effluent Samples Collected during July 2009

| Chemical Compound or Parameter | Units | Method | Detection Limit ^a | Practical ^b Quantification Limit | Minimum Level ^c | Permit ^d Limit | Reported Value |
|---|-------|--------|------------------------------|---|----------------------------|---------------------------|--------------------------|
| Thallium | mg/L | 200.8 | 0.00011 | 0.001 | 0.001 | 0.27 | ND |
| Toluene | g/L | 624 | 0.00000065 | 0.0000005 | 0.000002 | 11.4 | DNQ 0.0000005 Est. Conc. |
| Tributyltin | µg/L | GC/FPD | 0.07 | 0.1 | 0.1 | 0.188 | ND |
| 1,1,1-Trichloroethane | g/L | 624 | 0.00000063 | 0.0000005 | 0.000002 | 72.4 | ND |
| Objectives for the Protection of Human Health: Carcinogens | | | | | | | |
| Acrylonitrile | µg/L | 624 | 0.97 | 5. | 2. | 13.4 | ND |
| Aldrin | ng/L | 608 | 1.3 | 5. | 5. | 2.95 | ND |
| Benzene | µg/L | 624 | 0.061 | 0.5 | 2. | 791. | ND |
| Benzidine | ng/L | 625 | 7,100. | 20,000. | 5,000. | 9.25 | ND |
| Beryllium | µg/L | 200.7 | 0.44 | 10. | 2. | 4.42 | ND |
| Bis (2-chloroethyl) ether | µg/L | 625 | 0.68 | 2. | 1. | 6.03 | ND |
| Bis(2-ethylhexyl) phthalate | µg/L | 625 | 1.8 | 5. | 5. | 469. | 9.2 as measured |
| Carbon Tetrachloride | µg/L | 624 | 0.074 | 0.5 | 2. | 121. | ND |
| Chlordane | ng/L | 608 | 380. | 500. | 100. | 3.08 | ND |
| Dibromochloromethane | µg/L | 624 | 0.067 | 0.5 | 2. | 1152. | ND |
| Chloroform | mg/L | 624 | 0.00005 | 0.0005 | 0.002 | 17.4 | DNQ 0.00081 Est. Conc. |
| DDT (Sum) | ng/L | 608 | 1.9 | 5. | 50. | 22.8 | ND |
| 1,4-Dichlorobenzene | mg/L | 624 | 0.000058 | 0.0005 | 0.002 | 2.41 | ND |
| 3,3-Dichlorobenzidine | µg/L | 625 | 8.2 | 10. | 5. | 1.09 | ND |
| 1,2-Dichloroethane | mg/L | 624 | 0.00011 | 0.0005 | 0.002 | 3.75 | ND |
| 1,1-Dichloroethene | mg/L | 624 | 0.000092 | 0.0005 | 0.002 | 0.12 | ND |
| Dichlorobromomethane | mg/L | 624 | 0.00015 | 0.0005 | 0.002 | 0.83 | ND |
| Methylene chloride | mg/L | 624 | 0.00028 | 0.001 | 0.002 | 60.3 | ND |
| 1,3-Dichloropropene | mg/L | 624 | 0.000096 | 0.0005 | 5. | 1.19 | ND |
| Dieldrin | ng/L | 608 | 1.2 | 5. | 10. | 5.36 | ND |
| 2,4-Dinitrotoluene | µg/L | 625 | 0.26 | 2. | 5. | 348. | ND |
| 1,2-Diphenylhydrazine | µg/L | 625 | 0.34 | 2. | 1. | 21.4 | ND |
| Halomethanes | mg/L | 624 | 0.00019 | 0.001 | 0.002 | 17.4 | ND |
| Heptachlor | pg/L | 608 | 1,200. | 5,000. | 10,000. | 6.7 | ND |
| Heptachlor Epoxide | pg/L | 608 | 990. | 5,000. | 10,000. | 2.68 | ND |
| Hexachlorobenzene | ng/L | 625 | 200. | 2,000. | 1,000. | 28.1 | ND |

Analytical Results for Effluent Samples Collected during July 2009

| Chemical Compound or Parameter | Units | Method | Detection Limit ^a | Practical ^b Quantification Limit | Minimum Level ^c | Permit ^d Limit | Reported Value |
|--------------------------------|-------|--------|------------------------------|---|----------------------------|---------------------------|------------------|
| Hexachlorobutadiene | mg/L | 625 | 0.00024 | 0.002 | 0.001 | 1.88 | ND |
| Hexachloroethane | µg/L | 625 | 0.32 | 2. | 1. | 335. | ND |
| Isophorone | mg/L | 625 | 0.00031 | 0.002 | 0.001 | 98. | ND |
| N-Nitrosodimethylamine | µg/L | 625 | 0.61 | 2. | 5. | 978. | ND |
| N-Nitrosodi-n-propylamine | µg/L | 625 | 1.3 | 2. | 5. | 50.9 | ND |
| N-Nitrosodiphenylamine | µg/L | 625 | 0.44 | 2. | 1. | 335. | ND |
| PAHs | µg/L | 625 | 0.63 | 3. | 10. | 1.18 | ND |
| Total PCB's | ng/L | 608 | 95. | 200. | 500. | 2.55 | ND |
| Dioxin (TCDD equivalents) | pg/L | 1613 | — | — | — | 0.52 | 0.11 as measured |
| 1,1,2,2-Tetrachloroethane | mg/L | 624 | 0.00031 | 0.0005 | 0.002 | 0.31 | ND |
| Tetrachloroethene | µg/L | 624 | 0.11 | 0.5 | 2. | 268. | ND |
| Toxaphene | ng/L | 608 | 420. | 2,000. | 500. | 28.1 | ND |
| Trichloroethene | mg/L | 624 | 0.00015 | 0.0005 | 0.002 | 3.62 | ND |
| 1,1,2-Trichloroethane | mg/L | 624 | 0.00021 | 0.0005 | 0.002 | 1.26 | ND |
| 2,4,6-Trichlorophenol | mg/L | 625 | 0.0006 | 0.005 | 0.01 | 0.039 | ND |
| Vinyl chloride | mg/L | 624 | 0.00011 | 0.0005 | 0.002 | 4.82 | ND |

ATTACHMENT B
DISCHARGE MONITORING REPORTS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
 OMB No. 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: MORRO BAY, CITY OF AND CAYUCOS SANITARY I

ADDRESS: 160 ATASCADERO ROAD
 MORRO BAY, CA 93442

FACILITY: MORRO BAY/CAYUCOS WWTP

LOCATION: 160 ATASCADERO ROAD
 MORRO BAY, CA 93442

ATTN: BRUCE KEOGH

| |
|----------------------|
| CA0047881 |
| PERMIT NUMBER |

| |
|-------------------------|
| 001S |
| DISCHARGE NUMBER |

DMR Mailing ZIP CODE: 93442
 MAJOR
 (SUBR 03)
 DISCHARGE 001/ SEMIANNUALLY
 External Outfall

| MONITORING PERIOD | | | |
|-------------------|------------|----|------------|
| MM/DD/YYYY | | | MM/DD/YYYY |
| FROM | 07/01/2009 | TO | 12/31/2009 |

No Discharge

| PARAMETER | | QUANTITY OR LOADING | | | QUALITY OR CONCENTRATION | | | | NO. EX | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|---|---------------------------|---------------------|-------|-------|--------------------------|------------------|--------------------|-------|--------|-----------------------|-------------|
| | | VALUE | VALUE | UNITS | VALUE | VALUE | VALUE | UNITS | | | |
| Nitrogen, nitrate total (as N) 00620 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | ***** | 0.1 | mg/L | 0 | Semi-annual | Grab |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | ***** | Req. Mon. DAILY MX | mg/L | | Semiannual | GRAB |
| Cyanide, total (as CN) 00720 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | NODI (Q) | NODI (Q) | NODI (Q) | mg/L | 0 | Semi-annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | .13 6 MO MED | .54 DAILY MX | 1.34 INST MAX | mg/L | | Semiannual | COMP24 |
| Silica, dissolved (as SiO2) 00955 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | ***** | 12.5 | mg/L | 0 | Semi-annual | Grab |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | ***** | Req. Mon. DAILY MX | mg/L | | Semiannual | GRAB |
| Arsenic, total recoverable 00978 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | NODI (B) | NODI (B) | NODI (B) | mg/L | 0 | Semi-annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | .67 6 MO MED | 3.89 DAILY MX | 10.3 INST MAX | mg/L | | Semiannual | COMP24 |
| Selenium, total recoverable 00981 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | NODI (Q) | NODI (Q) | NODI (Q) | mg/L | 0 | Semi-annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | 2.01 6 MO MED | 8.04 DAILY MX | 20.1 INST MAX | mg/L | | Semiannual | COMP24 |
| Chromium, hexavalent (as Cr) 01032 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | NODI (Q) | NODI (Q) | NODI (Q) | mg/L | 0 | Semi-annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | .27 6 MO MED | 1.07 DAILY MX | 2.68 INST MAX | mg/L | | Semiannual | COMP24 |
| Nickel, total recoverable 01074 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | NODI (Q) | NODI (Q) | NODI (Q) | mg/L | 0 | Semi-annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | .67 6 MO MED | 2.68 DAILY MX | 6.7 INST MAX | mg/L | | Semiannual | COMP24 |

| | | | | |
|---|---|---|-----------|---------------------------|
| NAME/TITLE PRINCIPAL EXECUTIVE OFFICER Bruce Keogh Wastewater Division Manager TYPED OR PRINTED | I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. | TELEPHONE (805) 772-6272 | | DATE 09/01/2009 |
| | | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | AREA Code | NUMBER |

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

AFTER SCREENING PERIOD FOR CHRONIC TOXICITY TESTING, REPORT "NODI(Q)" FOR SPECIES NOT TESTED.
 Total chromium is reported for hexavalent chromium.

DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: MORRO BAY, CITY OF AND CAYUCOS SANITARY I

ADDRESS: 160 ATASCADERO ROAD
MORRO BAY, CA 93442

FACILITY: MORRO BAY/CAYUCOS WWTP

LOCATION: 160 ATASCADERO ROAD
MORRO BAY, CA 93442

ATTN: BRUCE KEOGH

| |
|---------------|
| CA0047881 |
| PERMIT NUMBER |

| |
|------------------|
| 001S |
| DISCHARGE NUMBER |

DMR Mailing ZIP CODE: 93442
MAJOR (SUBR 03)
DISCHARGE 001/ SEMIANNUALLY
External Outfall

| MONITORING PERIOD | | | |
|-------------------|------------|------------|------------|
| MM/DD/YYYY | | MM/DD/YYYY | |
| FROM | 07/01/2009 | TO | 12/31/2009 |

No Discharge

| PARAMETER | | QUANTITY OR LOADING | | | QUALITY OR CONCENTRATION | | | | NO. EX | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|----------------------------|--------------------|---------------------|-------|-------|--------------------------|------------------|-----------------------|-------|--------|-----------------------|-------------|
| | | VALUE | VALUE | UNITS | VALUE | VALUE | VALUE | UNITS | | | |
| Silver total recoverable | SAMPLE MEASUREMENT | ***** | ***** | ***** | NODI (B) | NODI (B) | NODI (B) | mg/L | 0 | Semi-annual | Comp24 |
| 01079 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | .07 6 MO MED | .35 DAILY MX | .92 INST MAX | mg/L | | Semiannual | COMP24 |
| Zinc, total recoverable | SAMPLE MEASUREMENT | ***** | ***** | ***** | 0.052 | 0.052 | 0.052 | mg/L | 0 | Semi-annual | Comp24 |
| 01094 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | 1.62 6 MO MED | 9.66 DAILY MX | 25.7 INST MAX | mg/L | | Semiannual | COMP24 |
| Cadmium, total recoverable | SAMPLE MEASUREMENT | ***** | ***** | ***** | NODI (B) | NODI (B) | NODI (B) | mg/L | 0 | Semi-annual | Comp24 |
| 01113 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | .13 6 MO MED | .54 DAILY MX | 1.34 INST MAX | mg/L | | Semiannual | COMP24 |
| Lead, total recoverable | SAMPLE MEASUREMENT | ***** | ***** | ***** | 0.0011 | 0.0011 | 0.0011 | mg/L | 0 | Semi-annual | Comp24 |
| 01114 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | .27 6 MO MED | 1.07 DAILY MX | 2.68 INST MAX | mg/L | | Semiannual | COMP24 |
| Copper, total recoverable | SAMPLE MEASUREMENT | ***** | ***** | ***** | 0.011 | 0.011 | 0.011 | mg/L | 0 | Semi-annual | Comp24 |
| 01119 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | .14 6 MO MED | 1.34 DAILY MX | 3.75 INST MAX | mg/L | | Semiannual | COMP24 |
| Phosphate, ortho (as P) | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | ***** | 2.3 | mg/L | 0 | Semi-annual | Grab |
| 04175 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | ***** | Req. Mon. DAILY MX | mg/L | | Semiannual | GRAB |
| Urea | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | ***** | 0.082 | mg/L | 0 | Semi-annual | Grab |
| 71800 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | ***** | Req. Mon. DAILY MX | mg/L | | Semiannual | GRAB |

| | | | | |
|---|---|----------------|--------|------------|
| NAME/TITLE PRINCIPAL EXECUTIVE OFFICER Bruce Keogh Wastewater Division Manager TYPED OR PRINTED | I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. | TELEPHONE | | DATE |
| | | (805) 772-6272 | | 09/01/2009 |
| SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | | AREA Code | NUMBER | MM/DD/YYYY |

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

AFTER SCREENING PERIOD FOR CHRONIC TOXICITY TESTING, REPORT "NODI(9)" FOR SPECIES NOT TESTED.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: MORRO BAY, CITY OF AND CAYUCOS SANITARY I

CA0047881
PERMIT NUMBER

001S
DISCHARGE NUMBER

DMR Mailing ZIP CODE: 93442

ADDRESS: 160 ATASCADERO ROAD
MORRO BAY, CA 93442

MAJOR

(SUBR 03)

FACILITY: MORRO BAY/CAYUCOS WWTP

DISCHARGE 001/ SEMIANNUALLY

LOCATION: 160 ATASCADERO ROAD
MORRO BAY, CA 93442

External Outfall

ATTN: BRUCE KEOGH

| MONITORING PERIOD | | |
|-------------------|------|---------------|
| MM/DD/YYYY | | MM/DD/YYYY |
| 07/01/2009 | FROM | TO 12/31/2009 |

No Discharge

| PARAMETER | | QUANTITY OR LOADING | | | QUALITY OR CONCENTRATION | | | | NO. EX | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|--|--------------------|---------------------|-------|-------|--------------------------|------------------|------------------|-------------|--------|-----------------------|-------------|
| | | VALUE | VALUE | UNITS | VALUE | VALUE | VALUE | UNITS | | | |
| Mercury, total recoverable | SAMPLE MEASUREMENT | ***** | ***** | ***** | NODI (B) | NODI (B) | NODI (B) | µg/L | 0 | Semi-annual | Comp24 |
| 71901 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | 5.29 6 MO MED | 21.4 DAILY MX | 53.5 INST MAX | ug/L | | Semiannual | COMP24 |
| Static 48Hr Chronic Macrocystis Pyrifera | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | ***** | 17.9 | TUc | 0 | Semi-annual | Comp24 |
| TTK1D 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | ***** | 134 DAILY MX | tox chronic | | Semiannual | COMP24 |
| Static 48Hr Chronic Haliotis Rufescens | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | ***** | 31.2 | TUc | 0 | Semi-annual | Comp24 |
| TTK3R 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | ***** | 134 DAILY MX | tox chronic | | Semiannual | COMP24 |

| | | | | |
|---|---|----------------|--------|------------|
| NAME/TITLE PRINCIPAL EXECUTIVE OFFICER Bruce Keogh Wastewater Division Manager TYPED OR PRINTED | I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. | TELEPHONE | | DATE |
| | | (805) 772-6272 | | 09/01/2009 |
| SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | | AREA Code | NUMBER | MM/DD/YYYY |

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

AFTER SCREENING PERIOD FOR CHRONIC TOXICITY TESTING, REPORT "NODI(9)" FOR SPECIES NOT TESTED.

The growth endpoint of the Macrocystis chronic bioassay is reported above. It was higher than the germination endpoint (10.0 TUc).

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: MORRO BAY, CITY OF AND CAYUCOS SANITARY I
ADDRESS: 160 ATASCADERO ROAD
MORRO BAY, CA 93442
FACILITY: MORRO BAY/CAYUCOS WWTP
LOCATION: 160 ATASCADERO ROAD
MORRO BAY, CA 93442
ATTN: BRUCE KEOGH

| |
|----------------------|
| CA0047881 |
| PERMIT NUMBER |

| |
|-------------------------|
| 001Y |
| DISCHARGE NUMBER |

DMR Mailing ZIP CODE: 93442
MAJOR
(SUBR 03)
DISCHARGE 001/ YEARLY
External Outfall

| MONITORING PERIOD | | | |
|-------------------|------------|------------|------------|
| MM/DD/YYYY | | MM/DD/YYYY | |
| FROM | 03/01/2009 | TO | 12/31/2009 |

No Discharge

| PARAMETER | | QUANTITY OR LOADING | | | QUALITY OR CONCENTRATION | | | | NO. EX | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|--------------------------------------|---------------------------|---------------------|-------|-------|--------------------------|-----------------|-----------------------|-------|--------|-----------------------|-------------|
| | | VALUE | VALUE | UNITS | VALUE | VALUE | VALUE | UNITS | | | |
| Radioactivity | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | ***** | 0.201 | pCi/L | 0 | Annual | Comp24 |
| 00189 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | ***** | Req. Mon. DAILY MX | pCi/L | | Annual | COMP24 |
| Thallium, total recoverable | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| 00982 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | .27 MO AVG | ***** | mg/L | | Annual | COMP24 |
| Beryllium, total recoverable (as Be) | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | µg/L | 0 | Annual | Comp24 |
| 00998 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 4.42 MO AVG | ***** | ug/L | | Annual | COMP24 |
| Chromium, trivalent (as Cr) | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (Q) | ***** | g/L | 0 | Annual | Comp24 |
| 01033 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 25.5 MO AVG | ***** | g/L | | Annual | COMP24 |
| Antimony, total recoverable | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| 01268 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 160.8 MO AVG | ***** | mg/L | | Annual | COMP24 |
| 2-Methyl-4,6-dinitrophenol | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| 03615 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 29.5 MO AVG | ***** | mg/L | | Annual | COMP24 |
| Tributyltin | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | µg/L | 0 | Annual | Comp24 |
| 03824 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | .188 MO AVG | ***** | ug/L | | Annual | COMP24 |

| | | | | |
|---|---|---|--|---------------------------------------|
| NAME/TITLE PRINCIPAL EXECUTIVE OFFICER Bruce Keogh Wastewater Division Manager TYPED OR PRINTED | I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. | TELEPHONE (805) 772-6272 | | DATE 09/01/2009 |
| | | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | | AREA Code NUMBER MM/DD/YYYY |

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Gross alpha activity is reported above for radioactivity. Gross beta activity was 3.1 pCi/L. Both were below their respective drinking-water standards of 15 and 50 pCi/L. Total chromium is reported for trivalent chromium.

DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: MORRO BAY, CITY OF AND CAYUCOS SANITARY I

ADDRESS: 160 ATASCADERO ROAD
MORRO BAY, CA 93442

FACILITY: MORRO BAY/CAYUCOS WWTP

LOCATION: 160 ATASCADERO ROAD
MORRO BAY, CA 93442

ATTN: BRUCE KEOGH

| |
|---------------|
| CA0047881 |
| PERMIT NUMBER |

| |
|------------------|
| 001Y |
| DISCHARGE NUMBER |

DMR Mailing ZIP CODE: 93442
MAJOR (SUBR 03)
DISCHARGE 001/ YEARLY
External Outfall

| MONITORING PERIOD | | | |
|-------------------|------------|------------|------------|
| MM/DD/YYYY | | MM/DD/YYYY | |
| FROM | 03/01/2009 | TO | 12/31/2009 |

No Discharge

| PARAMETER | | QUANTITY OR LOADING | | | QUALITY OR CONCENTRATION | | | | NO. EX | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|---|--------------------|---------------------|-------|-------|--------------------------|----------------|-------|-------|--------|-----------------------|-------------|
| | | VALUE | VALUE | UNITS | VALUE | VALUE | VALUE | UNITS | | | |
| Polynuc aromatic HC per Method 610 22456 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | µg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 1.18 MO AVG | ***** | ug/L | | Annual | COMP24 |
| Dichlorobromomethane 32101 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | .83 MO AVG | ***** | mg/L | | Annual | COMP24 |
| Carbon tetrachloride 32102 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | µg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 121 MO AVG | ***** | ug/L | | Annual | COMP24 |
| 1,2-Dichloroethane 32103 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 3.75 MO AVG | ***** | mg/L | | Annual | COMP24 |
| Dibromochloromethane 32105 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | µg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 1152 MO AVG | ***** | ug/L | | Annual | COMP24 |
| Chloroform 32106 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (Q) | ***** | mg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 17.4 MO AVG | ***** | mg/L | | Annual | COMP24 |
| Toluene 34010 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (Q) | ***** | g/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 11.4 MO AVG | ***** | g/L | | Annual | COMP24 |

| | | | | |
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| | | (805) 772-6272 | | 09/01/2009 |
| SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | | AREA Code | NUMBER | MM/DD/YYYY |

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
Individual concentrations of PAH congeners were determined with Method 625, rather than Method 610, and their sum was reported on this form, as allowed by the discharge permit and the COP.

DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: MORRO BAY, CITY OF AND CAYUCOS SANITARY I

ADDRESS: 160 ATASCADERO ROAD
MORRO BAY, CA 93442

FACILITY: MORRO BAY/CAYUCOS WWTP

LOCATION: 160 ATASCADERO ROAD
MORRO BAY, CA 93442

ATTN: BRUCE KEOGH

| |
|----------------------|
| CA0047881 |
| PERMIT NUMBER |

| |
|-------------------------|
| 001Y |
| DISCHARGE NUMBER |

DMR Mailing ZIP CODE: 93442
MAJOR
(SUBR 03)
DISCHARGE 001/ YEARLY
External Outfall

| MONITORING PERIOD | | | | |
|-------------------|------------|----|------------|--|
| MM/DD/YYYY | | | MM/DD/YYYY | |
| FROM | 03/01/2009 | TO | 12/31/2009 | |

No Discharge

| PARAMETER | | QUANTITY OR LOADING | | | QUALITY OR CONCENTRATION | | | | NO. EX | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|---|--------------------|---------------------|-------|-------|--------------------------|-----------------|-------|-------|--------|-----------------------|-------------|
| | | VALUE | VALUE | UNITS | VALUE | VALUE | VALUE | UNITS | | | |
| Benzene 34030 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | µg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 791 MO AVG | ***** | ug/L | | Annual | COMP24 |
| Acrolein 34210 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 29.5 MO AVG | ***** | mg/L | | Annual | COMP24 |
| Acrylonitrile 34215 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | µg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 13.4 MO AVG | ***** | ug/L | | Annual | COMP24 |
| Bis(2-chloroethyl) ether 34273 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | µg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 6.03 MO AVG | ***** | ug/L | | Annual | COMP24 |
| Bis(2-chloroethoxy)methane 34278 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | .59 MO AVG | ***** | mg/L | | Annual | COMP24 |
| Bis(2-chloroisopropyl) ether 34283 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 160.8 MO AVG | ***** | mg/L | | Annual | COMP24 |
| Chlorobenzene 34301 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 76.4 MO AVG | ***** | mg/L | | Annual | COMP24 |

| | | | | |
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| | | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | | AREA Code |

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: MORRO BAY, CITY OF AND CAYUCOS SANITARY I
ADDRESS: 160 ATASCADERO ROAD
MORRO BAY, CA 93442

| |
|----------------------|
| CA0047881 |
| PERMIT NUMBER |

| |
|-------------------------|
| 001Y |
| DISCHARGE NUMBER |

DMR Mailing ZIP CODE: 93442
MAJOR
(SUBR 03)
DISCHARGE 001/ YEARLY
External Outfall

FACILITY: MORRO BAY/CAYUCOS WWTP
LOCATION: 160 ATASCADERO ROAD
MORRO BAY, CA 93442

| MONITORING PERIOD | | | | |
|-------------------|------------|----|------------|--|
| MM/DD/YYYY | | | MM/DD/YYYY | |
| FROM | 03/01/2009 | TO | 12/31/2009 | |

No Discharge

ATTN: BRUCE KEOGH

| PARAMETER | | QUANTITY OR LOADING | | | QUALITY OR CONCENTRATION | | | | NO. EX | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|-----------------------------|---------------------------|---------------------|-------|-------|--------------------------|-----------------|-------|-------------|----------|-----------------------|---------------|
| | | VALUE | VALUE | UNITS | VALUE | VALUE | VALUE | UNITS | | | |
| Diethyl phthalate | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| 34336 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 4420 MO AVG | ***** | mg/L | | Annual | COMP24 |
| Dimethyl phthalate | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | g/L | 0 | Annual | Comp24 |
| 34341 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 109.9 MO AVG | ***** | g/L | | Annual | COMP24 |
| 1,2-Diphenylhydrazine | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | µg/L | 0 | Annual | Comp24 |
| 34346 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 21.4 MO AVG | ***** | ug/L | | Annual | COMP24 |
| Ethylbenzene | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (Q) | ***** | mg/L | 0 | Annual | Comp24 |
| 34371 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 549 MO AVG | ***** | mg/L | | Annual | COMP24 |
| Fluoranthene | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| 34376 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 2 MO AVG | ***** | mg/L | | Annual | COMP24 |
| Hexachlorocyclopentadiene | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| 34386 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 7.8 MO AVG | ***** | mg/L | | Annual | COMP24 |
| Hexachlorobutadiene | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| 34391 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 1.88 MO AVG | ***** | mg/L | | Annual | COMP24 |

| | | | | |
|---|---|------------------|---------------|-------------------|
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| | | (805) 772-6272 | | 09/01/2009 |
| SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | | AREA Code | NUMBER | MM/DD/YYYY |

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: MORRO BAY, CITY OF AND CAYUCOS SANITARY I

ADDRESS: 160 ATASCADERO ROAD
MORRO BAY, CA 93442

FACILITY: MORRO BAY/CAYUCOS WWTP

LOCATION: 160 ATASCADERO ROAD
MORRO BAY, CA 93442

ATTN: BRUCE KEOGH

| |
|----------------------|
| CA0047881 |
| PERMIT NUMBER |

| |
|-------------------------|
| 001Y |
| DISCHARGE NUMBER |

DMR Mailing ZIP CODE: 93442
MAJOR
(SUBR 03)
DISCHARGE 001/ YEARLY
External Outfall

| MONITORING PERIOD | | | |
|-------------------|------------|------------|------------|
| MM/DD/YYYY | | MM/DD/YYYY | |
| FROM | 03/01/2009 | TO | 12/31/2009 |

No Discharge

| PARAMETER | | QUANTITY OR LOADING | | | QUALITY OR CONCENTRATION | | | | NO. EX | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|--|--------------------|---------------------|-------|-------|--------------------------|----------------|-------|-------|--------|-----------------------|-------------|
| | | VALUE | VALUE | UNITS | VALUE | VALUE | VALUE | UNITS | | | |
| Hexachloroethane 34396 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | µg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 335 MO AVG | ***** | ug/L | | Annual | COMP24 |
| Isophorone 34408 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 98 MO AVG | ***** | mg/L | | Annual | COMP24 |
| Methylene chloride 34423 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 60.3 MO AVG | ***** | mg/L | | Annual | COMP24 |
| N-Nitrosodi-N-propylamine 34428 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | µg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 50.9 MO AVG | ***** | ug/L | | Annual | COMP24 |
| N-Nitrosodiphenylamine 34433 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | µg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 335 MO AVG | ***** | ug/L | | Annual | COMP24 |
| N-Nitrosodimethylamine 34438 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | µg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 978 MO AVG | ***** | ug/L | | Annual | COMP24 |
| Nitrobenzene 34447 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | .66 MO AVG | ***** | mg/L | | Annual | COMP24 |

| | | | | |
|---|---|----------------|--------|------------|
| NAME/TITLE PRINCIPAL EXECUTIVE OFFICER Bruce Keogh Wastewater Division Manager TYPED OR PRINTED | I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. | TELEPHONE | | DATE |
| | | (805) 772-6272 | | 09/01/2009 |
| SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | | AREA Code | NUMBER | MM/DD/YYYY |

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: MORRO BAY, CITY OF AND CAYUCOS SANITARY I

ADDRESS: 160 ATASCADERO ROAD
MORRO BAY, CA 93442

FACILITY: MORRO BAY/CAYUCOS WWTP

LOCATION: 160 ATASCADERO ROAD
MORRO BAY, CA 93442

ATTN: BRUCE KEOGH

| |
|----------------------|
| CA0047881 |
| PERMIT NUMBER |

| |
|-------------------------|
| 001Y |
| DISCHARGE NUMBER |

DMR Mailing ZIP CODE: 93442
MAJOR
(SUBR 03)
DISCHARGE 001/ YEARLY
External Outfall

| MONITORING PERIOD | |
|-------------------|---------------|
| MM/DD/YYYY | MM/DD/YYYY |
| FROM 03/01/2009 | TO 12/31/2009 |

No Discharge

| PARAMETER | | QUANTITY OR LOADING | | | QUALITY OR CONCENTRATION | | | | NO. EX | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|--|--------------------|---------------------|-------|-------|--------------------------|-------------|-------|-------|--------|-----------------------|-------------|
| | | VALUE | VALUE | UNITS | VALUE | VALUE | VALUE | UNITS | | | |
| Tetrachloroethylene 34475 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | µg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 268 MO AVG | ***** | ug/L | | Annual | COMP24 |
| 1,1-Dichloroethylene 34501 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | .12 MO AVG | ***** | mg/L | | Annual | COMP24 |
| 1,1,1-Trichloroethane 34506 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | g/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 72.4 MO AVG | ***** | g/L | | Annual | COMP24 |
| 1,1,2-Trichloroethane 34511 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 1.26 MO AVG | ***** | mg/L | | Annual | COMP24 |
| 1,1,2,2-Tetrachloroethane 34516 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | .31 MO AVG | ***** | mg/L | | Annual | COMP24 |
| 1,4-Dichlorobenzene 34571 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 2.41 MO AVG | ***** | mg/L | | Annual | COMP24 |
| 2,4-Dinitrotoluene 34611 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | µg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 348 MO AVG | ***** | ug/L | | Annual | COMP24 |

| | | | | |
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| | | (805) 772-6272 | | 09/01/2009 |
| SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | | AREA Code | NUMBER | MM/DD/YYYY |

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: MORRO BAY, CITY OF AND CAYUCOS SANITARY I

ADDRESS: 160 ATASCADERO ROAD
MORRO BAY, CA 93442

FACILITY: MORRO BAY/CAYUCOS WWTP

LOCATION: 160 ATASCADERO ROAD
MORRO BAY, CA 93442

ATTN: BRUCE KEOGH

| |
|----------------------|
| CA0047881 |
| PERMIT NUMBER |

| |
|-------------------------|
| 001Y |
| DISCHARGE NUMBER |

DMR Mailing ZIP CODE: 93442
MAJOR
(SUBR 03)
DISCHARGE 001/ YEARLY
External Outfall

| MONITORING PERIOD | | | | |
|-------------------|------------|----|------------|--|
| MM/DD/YYYY | | | MM/DD/YYYY | |
| FROM | 03/01/2009 | TO | 12/31/2009 | |

No Discharge

| PARAMETER | | QUANTITY OR LOADING | | | QUALITY OR CONCENTRATION | | | | NO. EX | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|--|--------------------|---------------------|-------|-------|--------------------------|----------------|-------|-------|--------|-----------------------|-------------|
| | | VALUE | VALUE | UNITS | VALUE | VALUE | VALUE | UNITS | | | |
| 2,4-Dinitrophenol 34616 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | .54 MO AVG | ***** | mg/L | | Annual | COMP24 |
| 2,4,6-Trichlorophenol 34621 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | .039 MO AVG | ***** | mg/L | | Annual | COMP24 |
| 3,3'-Dichlorobenzidine 34631 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | µg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 1.09 MO AVG | ***** | ug/L | | Annual | COMP24 |
| Bis(2-ethylhexyl) phthalate 39100 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | 9.2 | ***** | µg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 469 MO AVG | ***** | ug/L | | Annual | COMP24 |
| Di-n-butyl phthalate 39110 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 469 MO AVG | ***** | mg/L | | Annual | COMP24 |
| Benzidine 39120 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | ng/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 9.25 MO AVG | ***** | ng/L | | Annual | COMP24 |
| Vinyl chloride 39175 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 4.82 MO AVG | ***** | mg/L | | Annual | COMP24 |

| | | | | |
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| | | (805) 772-6272 | | 09/01/2009 |
| SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | | AREA Code | NUMBER | MM/DD/YYYY |

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: MORRO BAY, CITY OF AND CAYUCOS SANITARY I
ADDRESS: 160 ATASCADERO ROAD
MORRO BAY, CA 93442
FACILITY: MORRO BAY/CAYUCOS WWTP
LOCATION: 160 ATASCADERO ROAD
MORRO BAY, CA 93442
ATTN: BRUCE KEOGH

| |
|----------------------|
| CA0047881 |
| PERMIT NUMBER |

| |
|-------------------------|
| 001Y |
| DISCHARGE NUMBER |

DMR Mailing ZIP CODE: 93442
MAJOR
(SUBR 03)
DISCHARGE 001/ YEARLY
External Outfall

| MONITORING PERIOD | | |
|-------------------|------|---------------|
| MM/DD/YYYY | | MM/DD/YYYY |
| 03/01/2009 | FROM | TO 12/31/2009 |

No Discharge

| PARAMETER | | QUANTITY OR LOADING | | | QUALITY OR CONCENTRATION | | | | NO. EX | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|--|--------------------|---------------------|-------|-------|--------------------------|------------------|------------------|-------|--------|-----------------------|-------------|
| | | VALUE | VALUE | UNITS | VALUE | VALUE | VALUE | UNITS | | | |
| Trichloroethylene 39180 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 3.62 MO AVG | ***** | mg/L | | Annual | COMP24 |
| Aldrin 39330 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | ng/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 2.95 MO AVG | ***** | ng/L | | Annual | COMP24 |
| Chlordane (tech mix. and metabolites) 39350 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | ng/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 3.08 MO AVG | ***** | ng/L | | Annual | COMP24 |
| DDT/DDD/DDE, sum of p,p' & o,p' isomers 39379 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | ng/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 22.8 MO AVG | ***** | ng/L | | Annual | COMP24 |
| Dieldrin 39380 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | ng/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 5.36 MO AVG | ***** | ng/L | | Annual | COMP24 |
| Endosulfan, total 39388 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | NODI (B) | NODI (B) | NODI (B) | µg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | 1.21 6 MO MED | 2.41 DAILY MX | 3.62 INST MAX | ug/L | | Annual | COMP24 |
| Endrin 39390 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | NODI (B) | NODI (B) | NODI (B) | µg/L | 0 | Annual | Comp24 |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | .27 6 MO MED | .54 DAILY MX | .8 INST MAX | ug/L | | Annual | COMP24 |

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| SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | | AREA Code | NUMBER | MM/DD/YYYY |

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

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PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

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ATTN: BRUCE KEOGH

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| CA0047881 |
| PERMIT NUMBER |

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DMR Mailing ZIP CODE: 93442
MAJOR
(SUBR 03)
DISCHARGE 001/ YEARLY
External Outfall

| MONITORING PERIOD | | | | |
|-------------------|------------|----|------------|--|
| MM/DD/YYYY | | | MM/DD/YYYY | |
| FROM | 03/01/2009 | TO | 12/31/2009 | |

No Discharge

| PARAMETER | | QUANTITY OR LOADING | | | QUALITY OR CONCENTRATION | | | | NO. EX | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|----------------------------------|--------------------|---------------------|-------|-------|--------------------------|-----------------|------------------|-------|--------|-----------------------|-------------|
| | | VALUE | VALUE | UNITS | VALUE | VALUE | VALUE | UNITS | | | |
| Toxaphene | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | ng/L | 0 | Annual | Comp24 |
| 39400 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 28.1 MO AVG | ***** | ng/L | | Annual | COMP24 |
| Heptachlor | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | pg/L | 0 | Annual | Comp24 |
| 39410 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 6.7 MO AVG | ***** | pg/L | | Annual | COMP24 |
| Heptachlor epoxide | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | pg/L | 0 | Annual | Comp24 |
| 39420 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 2.68 MO AVG | ***** | pg/L | | Annual | COMP24 |
| Polychlorinated biphenyls (PCBs) | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | ng/L | 0 | Annual | Comp24 |
| 39516 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 2.55 MO AVG | ***** | ng/L | | Annual | COMP24 |
| Hexachlorobenzene | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | ng/L | 0 | Annual | Comp24 |
| 39700 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 28.1 MO AVG | ***** | ng/L | | Annual | COMP24 |
| Phenols, chlorinated | SAMPLE MEASUREMENT | ***** | ***** | ***** | NODI (B) | NODI (B) | NODI (B) | mg/L | 0 | Annual | Grab |
| 74015 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | .13 6 MO MED | .54 DAILY MX | 1.34 INST MAX | mg/L | | Annual | GRAB |
| 1,3-Dichloropropene | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | NODI (B) | ***** | mg/L | 0 | Annual | Comp24 |
| 77163 1 0 Effluent Gross | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 1.19 MO AVG | ***** | mg/L | | Annual | COMP24 |

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COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
 OMB No. 2040-0004

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DMR Mailing ZIP CODE: 93442
 MAJOR
 (SUBR 03)
 DISCHARGE 001/ YEARLY
 External Outfall

| MONITORING PERIOD | | |
|-------------------|------|------------|
| MM/DD/YYYY | | MM/DD/YYYY |
| 03/01/2009 | FROM | TO |
| 12/31/2009 | | |

No Discharge

| PARAMETER | | QUANTITY OR LOADING | | | QUALITY OR CONCENTRATION | | | | NO. EX | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|--|---------------------------|---------------------|-------|-------|--------------------------|------------------|------------------|-------|--------|-----------------------|---------------|
| | | VALUE | VALUE | UNITS | VALUE | VALUE | VALUE | UNITS | | | |
| Hexachlorocyclohexane, total 77835 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | <i>NODI (B)</i> | <i>NODI (B)</i> | <i>NODI (B)</i> | µg/L | 0 | <i>Annual</i> | <i>Comp24</i> |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | .54 6 MO MED | 1.07 DAILY MX | 1.61 INST MAX | ug/L | | Annual | COMP24 |
| Phenolic compounds, unchlorinated 78218 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | <i>NODI (B)</i> | <i>NODI (B)</i> | <i>NODI (B)</i> | mg/L | 0 | <i>Annual</i> | <i>Grab</i> |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | 4.02 6 MO MED | 16.1 DAILY MX | 40.2 INST MAX | mg/L | | Annual | GRAB |
| Halomethanes, sum 78456 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | <i>NODI (B)</i> | ***** | mg/L | 0 | <i>Annual</i> | <i>Comp24</i> |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 17.4 MO AVG | ***** | mg/L | | Annual | COMP24 |
| Dichlorobenzene 81524 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | <i>NODI (B)</i> | ***** | mg/L | 0 | <i>Annual</i> | <i>Comp24</i> |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | 683 MO AVG | ***** | mg/L | | Annual | COMP24 |
| TCDD equivalents 82698 1 0 Effluent Gross | SAMPLE MEASUREMENT | ***** | ***** | ***** | ***** | <i>0.11</i> | ***** | pg/L | 0 | <i>Annual</i> | <i>Comp24</i> |
| | PERMIT REQUIREMENT | ***** | ***** | ***** | ***** | .52 MO AVG | ***** | pg/L | | Annual | COMP24 |

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| | | SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT | | AREA Code |

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

ATTACHMENT C
LABORATORY REPORTS



Laboratories, Inc.

Environmental Testing Laboratory Since 1949



Date of Report: 07/28/2009

Doug Coats

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

RE: Semi-Annual Eff
BC Work Order: 0909228
Invoice ID: B065619

Enclosed are the results of analyses for samples received by the laboratory on 7/15/2009. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Tina Green
Client Services Manager

Authorized Signature



Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Laboratory / Client Sample Cross Reference

| Laboratory | Client Sample Information | | | |
|------------|---------------------------|-----------------|-----------------------|------------------|
| 0909228-01 | COC Number: | --- | Receive Date: | 07/15/2009 19:30 |
| | Project Number: | --- | Sampling Date: | 07/15/2009 09:00 |
| | Sampling Location: | --- | Sample Depth: | --- |
| | Sampling Point: | Composite-A.R.S | Sample Matrix: | Water |
| | Sampled By: | --- | | |
| 0909228-02 | COC Number: | --- | Receive Date: | 07/15/2009 19:30 |
| | Project Number: | --- | Sampling Date: | 07/15/2009 00:00 |
| | Sampling Location: | --- | Sample Depth: | --- |
| | Sampling Point: | Travel Blank | Sample Matrix: | Water |
| | Sampled By: | --- | | |



Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Organochlorine Pesticides and PCB's (EPA Method 608)

| BCL Sample ID: 0909228-01 | | Client Sample Name: Composite-A.R.S., 7/15/2009 9:00:00AM | | | | | | | | | | | | |
|---------------------------|--------|---|--------|---------|---------|-----------|----------------|---------|----------------|----------|-------------|---------|-----------|--|
| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instru-ment ID | Dilution | QC Batch ID | MB Bias | Lab Quals | |
| Aldrin | ND | ug/L | 0.0050 | 0.0013 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| alpha-BHC | ND | ug/L | 0.0050 | 0.0011 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| beta-BHC | ND | ug/L | 0.0050 | 0.0021 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| delta-BHC | ND | ug/L | 0.0050 | 0.0014 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| gamma-BHC (Lindane) | ND | ug/L | 0.0050 | 0.00094 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| Chlordane (Technical) | ND | ug/L | 0.50 | 0.38 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| 4,4'-DDD | ND | ug/L | 0.0050 | 0.0017 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| 4,4'-DDE | ND | ug/L | 0.0050 | 0.0019 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| 4,4'-DDT | ND | ug/L | 0.0050 | 0.00076 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| Dieldrin | ND | ug/L | 0.0050 | 0.0012 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| Endosulfan I | ND | ug/L | 0.0050 | 0.0016 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| Endosulfan II | ND | ug/L | 0.0050 | 0.0014 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | V11 | |
| Endosulfan sulfate | ND | ug/L | 0.0050 | 0.0026 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| Endrin | ND | ug/L | 0.0050 | 0.00082 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| Endrin aldehyde | ND | ug/L | 0.010 | 0.0032 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | V11 | |
| Heptachlor | ND | ug/L | 0.0050 | 0.0012 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| Heptachlor epoxide | ND | ug/L | 0.0050 | 0.00099 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| Methoxychlor | ND | ug/L | 0.0050 | 0.0011 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | V11 | |
| Toxaphene | ND | ug/L | 2.0 | 0.42 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| PCB-1016 | ND | ug/L | 0.20 | 0.020 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| PCB-1221 | ND | ug/L | 0.20 | 0.089 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| PCB-1232 | ND | ug/L | 0.20 | 0.090 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |



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Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Organochlorine Pesticides and PCB's (EPA Method 608)

| BCL Sample ID: 0909228-01 | | Client Sample Name: Composite-A.R.S., 7/15/2009 9:00:00AM | | | | | | | | | | | | |
|---------------------------------|--------|---|----------------------|-------|---------|-----------|----------------|---------|----------------|----------|-------------|---------|-----------|--|
| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instru-ment ID | Dilution | QC Batch ID | MB Bias | Lab Quals | |
| PCB-1242 | ND | ug/L | 0.20 | 0.095 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| PCB-1248 | ND | ug/L | 0.20 | 0.025 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| PCB-1254 | ND | ug/L | 0.20 | 0.042 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| PCB-1260 | ND | ug/L | 0.20 | 0.020 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| Total PCB's (Summation) | ND | ug/L | 0.20 | 0.10 | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | ND | | |
| TCMX (Surrogate) | 66.3 | % | 46 - 138 (LCL - UCL) | | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | | | |
| Dibutyl chlorendate (Surrogate) | 57.7 | % | 45 - 136 (LCL - UCL) | | EPA-608 | 07/17/09 | 07/24/09 03:52 | jst | GC-1 | 1 | BSG1005 | | | |



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Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Volatile Organic Analysis (EPA Method 624)

| BCL Sample ID: 09092228-01 | | Client Sample Name: Composite-A.R.S., 7/15/2009 9:00:00AM | | | | | | | | | | | |
|----------------------------|--------------|---|-------------|--------------|----------------|-----------------|-----------------------|------------|----------------|----------|----------------|---------|-----------|
| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instru-ment ID | Dilution | QC Batch ID | MB Bias | Lab Quals |
| Benzene | ND | ug/L | 0.50 | 0.061 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | V11 |
| Bromodichloromethane | ND | ug/L | 0.50 | 0.15 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | |
| Bromoform | ND | ug/L | 0.50 | 0.19 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | V11 |
| Bromomethane | ND | ug/L | 1.0 | 0.085 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | V11 |
| Carbon tetrachloride | ND | ug/L | 0.50 | 0.074 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | |
| Chlorobenzene | ND | ug/L | 0.50 | 0.067 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | |
| Chloroethane | ND | ug/L | 0.50 | 0.086 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | V11 |
| Chloroform | 0.81 | ug/L | 0.50 | 0.050 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | |
| Chloromethane | ND | ug/L | 0.50 | 0.11 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | V11 |
| Dibromochloromethane | ND | ug/L | 0.50 | 0.067 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | |
| 1,2-Dichlorobenzene | ND | ug/L | 0.50 | 0.058 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | |
| 1,3-Dichlorobenzene | ND | ug/L | 0.50 | 0.050 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | |
| 1,4-Dichlorobenzene | ND | ug/L | 0.50 | 0.058 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | |
| 1,1-Dichloroethane | ND | ug/L | 0.50 | 0.081 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | V01,V11 |
| 1,2-Dichloroethane | ND | ug/L | 0.50 | 0.11 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | |
| 1,1-Dichloroethene | ND | ug/L | 0.50 | 0.092 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | V11 |
| trans-1,2-Dichloroethene | ND | ug/L | 0.50 | 0.097 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | V11 |
| 1,2-Dichloropropane | ND | ug/L | 0.50 | 0.097 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | V11 |
| cis-1,3-Dichloropropene | ND | ug/L | 0.50 | 0.096 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | |
| trans-1,3-Dichloropropene | ND | ug/L | 0.50 | 0.072 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | |
| Ethylbenzene | 0.090 | ug/L | 0.50 | 0.068 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | J |
| Methylene chloride | ND | ug/L | 1.0 | 0.28 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | V11 |



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Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Volatile Organic Analysis (EPA Method 624)

| BCL Sample ID: 0909228-01 | | Client Sample Name: Composite-A.R.S., 7/15/2009 9:00:00AM | | | | | | | | | | | | |
|---------------------------------------|-------------|---|----------------------|--------------|----------------|-----------------|-----------------------|------------|----------------|----------|----------------|---------|-----------|--|
| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instru-ment ID | Dilution | QC Batch ID | MB Bias | Lab Quals | |
| Methyl t-butyl ether | ND | ug/L | 0.50 | 0.093 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | V11 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 0.50 | 0.31 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | V11 | |
| Tetrachloroethene | ND | ug/L | 0.50 | 0.11 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | V11 | |
| Toluene | 0.50 | ug/L | 0.50 | 0.065 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | | |
| 1,1,1-Trichloroethane | ND | ug/L | 0.50 | 0.063 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | | |
| 1,1,2-Trichloroethane | ND | ug/L | 0.50 | 0.21 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | V11 | |
| Trichloroethene | ND | ug/L | 0.50 | 0.15 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | | |
| Trichlorofluoromethane | ND | ug/L | 0.50 | 0.077 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | ug/L | 0.50 | 0.072 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | | |
| Vinyl chloride | ND | ug/L | 0.50 | 0.11 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | V11 | |
| Total Xylenes | ND | ug/L | 0.50 | 0.16 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | | |
| Acrolein | ND | ug/L | 20 | 7.3 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | V11 | |
| Acrylonitrile | ND | ug/L | 5.0 | 0.97 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | V11 | |
| p- & m-Xylenes | ND | ug/L | 0.50 | 0.10 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | | |
| o-Xylene | ND | ug/L | 0.50 | 0.059 | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | | |
| 1,2-Dichloroethane-d4 (Surrogate) | 95.5 | % | 76 - 114 (LCL - UCL) | | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | | |
| Toluene-d8 (Surrogate) | 102 | % | 88 - 110 (LCL - UCL) | | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | | |
| 4-Bromofluorobenzene (Surrogate) | 107 | % | 86 - 115 (LCL - UCL) | | EPA-624 | 07/16/09 | 07/17/09 05:08 | MGC | MS-V7 | 1 | BSG0925 | | | |



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Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

| BCL Sample ID: 0909228-01 | | Client Sample Name: Composite-A.R.S, 7/15/2009 9:00:00AM | | | | | | | | | | | | |
|-----------------------------------|------------|--|------------|------------|----------------|-----------------|-----------------------|------------|----------------|--------------|----------------|-----------|----------|--|
| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instru-ment ID | Dilution | QC Batch ID | MB Bias | Lab Quas | |
| Acenaphthene | ND | ug/L | 2.0 | 0.24 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Acenaphthylene | ND | ug/L | 2.0 | 0.28 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Aldrin | ND | ug/L | 2.0 | 0.35 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Aniline | ND | ug/L | 5.0 | 0.69 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Anthracene | ND | ug/L | 2.0 | 0.30 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Benzidine | ND | ug/L | 20 | 7.1 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Benzo[a]anthracene | ND | ug/L | 2.0 | 0.38 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Benzo[b]fluoranthene | ND | ug/L | 2.0 | 0.41 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Benzo[k]fluoranthene | ND | ug/L | 2.0 | 0.31 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Benzo[a]pyrene | ND | ug/L | 2.0 | 0.20 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Benzo[g,h,i]perylene | ND | ug/L | 2.0 | 0.22 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Benzoic acid | ND | ug/L | 10 | 5.8 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Benzyl alcohol | ND | ug/L | 2.0 | 0.34 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Benzyl butyl phthalate | ND | ug/L | 2.0 | 0.47 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| alpha-BHC | ND | ug/L | 2.0 | 0.27 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| beta-BHC | ND | ug/L | 2.0 | 0.27 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| delta-BHC | ND | ug/L | 2.0 | 0.30 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| gamma-BHC (Lindane) | ND | ug/L | 2.0 | 0.22 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| bis(2-Chloroethoxy)methane | ND | ug/L | 2.0 | 0.27 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| bis(2-Chloroethyl) ether | ND | ug/L | 2.0 | 0.68 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| bis(2-Chloroisopropyl)ether | ND | ug/L | 2.0 | 0.30 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| bis(2-Ethylhexyl)phthalate | 9.2 | ug/L | 5.0 | 1.8 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |



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Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

| BCL Sample ID: 09092228-01 | | Client Sample Name: Composite-A.R.S., 7/15/2009 9:00:00AM | | | | | | | | | | | | |
|-----------------------------|--------|---|-----|------|---------|-----------|----------------|---------|----------------|----------|-------------|---------|-----------|--|
| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instru-ment ID | Dilution | QC Batch ID | MB Bias | Lab Quals | |
| 4-Bromophenyl phenyl ether | ND | ug/L | 2.0 | 0.23 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 4-Chloroaniline | ND | ug/L | 2.0 | 0.69 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 2-Chloronaphthalene | ND | ug/L | 2.0 | 0.34 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 4-Chlorophenyl phenyl ether | ND | ug/L | 2.0 | 0.23 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Chrysene | ND | ug/L | 2.0 | 0.63 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 4,4'-DDD | ND | ug/L | 2.0 | 0.48 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 4,4'-DDE | ND | ug/L | 3.0 | 0.41 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 4,4'-DDT | ND | ug/L | 2.0 | 0.43 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Dibenzo[a,h]anthracene | ND | ug/L | 3.0 | 0.26 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Dibenzofuran | ND | ug/L | 2.0 | 0.21 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 1,2-Dichlorobenzene | ND | ug/L | 2.0 | 0.37 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 1,3-Dichlorobenzene | ND | ug/L | 2.0 | 0.35 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 1,4-Dichlorobenzene | ND | ug/L | 2.0 | 0.31 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 3,3-Dichlorobenzidine | ND | ug/L | 10 | 8.2 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Dieldrin | ND | ug/L | 3.0 | 0.41 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Diethyl phthalate | ND | ug/L | 2.0 | 0.33 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Dimethyl phthalate | ND | ug/L | 2.0 | 0.39 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Di-n-butyl phthalate | ND | ug/L | 2.0 | 0.39 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 2,4-Dinitrotoluene | ND | ug/L | 2.0 | 0.26 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 2,6-Dinitrotoluene | ND | ug/L | 2.0 | 0.41 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Di-n-octyl phthalate | ND | ug/L | 2.0 | 0.46 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 1,2-Diphenylhydrazine | ND | ug/L | 2.0 | 0.34 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |



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Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

| BCL Sample ID: 09092228-01 | | Client Sample Name: Composite-A.R.S., 7/15/2009 9:00:00AM | | | | | | | | | | | | |
|----------------------------|--------|---|-----|------|---------|-----------|----------------|---------|----------------|----------|-------------|---------|-----------|--|
| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instru-ment ID | Dilution | QC Batch ID | MB Bias | Lab Quals | |
| Endosulfan I | ND | ug/L | 10 | 1.7 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Endosulfan II | ND | ug/L | 10 | 1.2 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Endosulfan sulfate | ND | ug/L | 3.0 | 0.58 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Endrin | ND | ug/L | 2.0 | 1.1 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Endrin aldehyde | ND | ug/L | 10 | 0.52 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Fluoranthene | ND | ug/L | 2.0 | 0.20 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Fluorene | ND | ug/L | 2.0 | 0.28 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Heptachlor | ND | ug/L | 2.0 | 0.32 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Heptachlor epoxide | ND | ug/L | 2.0 | 0.27 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Hexachlorobenzene | ND | ug/L | 2.0 | 0.20 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Hexachlorobutadiene | ND | ug/L | 2.0 | 0.24 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Hexachlorocyclopentadiene | ND | ug/L | 2.0 | 0.30 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Hexachloroethane | ND | ug/L | 2.0 | 0.32 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Indeno[1,2,3-cd]pyrene | ND | ug/L | 2.0 | 0.26 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Isophorone | ND | ug/L | 2.0 | 0.31 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 2-Methylnaphthalene | ND | ug/L | 2.0 | 0.28 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Naphthalene | ND | ug/L | 2.0 | 0.21 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 2-Naphthylamine | ND | ug/L | 20 | 4.8 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 2-Nitroaniline | ND | ug/L | 2.0 | 0.33 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 3-Nitroaniline | ND | ug/L | 2.0 | 0.66 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 4-Nitroaniline | ND | ug/L | 5.0 | 0.87 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Nitrobenzene | ND | ug/L | 2.0 | 0.26 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |



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Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

| BCL Sample ID: 09092228-01 | | Client Sample Name: Composite-A.R.S, 7/15/2009 9:00:00AM | | | | | | | | | | | | |
|----------------------------|--------|--|----------------------|------|---------|-----------|----------------|---------|----------------|----------|-------------|---------|-----------|--|
| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instru-ment ID | Dilution | QC Batch ID | MB Bias | Lab Quals | |
| N-Nitrosodimethylamine | ND | ug/L | 2.0 | 0.61 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| N-Nitrosodi-N-propylamine | ND | ug/L | 2.0 | 1.3 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| N-Nitrosodiphenylamine | ND | ug/L | 2.0 | 0.44 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Phenanthrene | ND | ug/L | 2.0 | 0.20 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Pyrene | ND | ug/L | 2.0 | 0.26 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 1,2,4-Trichlorobenzene | ND | ug/L | 2.0 | 0.27 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 4-Chloro-3-methylphenol | ND | ug/L | 5.0 | 0.40 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 2-Chlorophenol | ND | ug/L | 2.0 | 0.37 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 2,4-Dichlorophenol | ND | ug/L | 2.0 | 0.43 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 2,4-Dimethylphenol | ND | ug/L | 2.0 | 0.20 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 4,6-Dinitro-2-methylphenol | ND | ug/L | 10 | 0.34 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 2,4-Dinitrophenol | ND | ug/L | 10 | 0.20 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 2-Methylphenol | ND | ug/L | 2.0 | 1.0 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 3- & 4-Methylphenol | ND | ug/L | 2.0 | 1.6 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 2-Nitrophenol | ND | ug/L | 2.0 | 0.28 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 4-Nitrophenol | ND | ug/L | 2.0 | 0.73 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Pentachlorophenol | ND | ug/L | 10 | 0.79 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| Phenol | ND | ug/L | 2.0 | 0.20 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 2,4,5-Trichlorophenol | ND | ug/L | 5.0 | 0.31 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 2,4,6-Trichlorophenol | ND | ug/L | 5.0 | 0.60 | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | ND | | |
| 2-Fluorophenol (Surrogate) | 59.4 | % | 17 - 115 (LCL - UCL) | | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | | | |
| Phenol-d5 (Surrogate) | 51.7 | % | 17 - 77 (LCL - UCL) | | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | | | |



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Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

| BCL Sample ID: 0909228-01 | Client Sample Name: Composite-A.R.S., 7/15/2009 9:00:00AM | | | | | | | | | | | | |
|----------------------------------|--|-------|----------------------|-----|---------|-----------|----------------|---------|----------------|----------|-------------|---------|-----------|
| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instru-ment ID | Dilution | QC Batch ID | MB Bias | Lab Quals |
| Nitrobenzene-d5 (Surrogate) | 96.9 | % | 60 - 136 (LCL - UCL) | | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | | |
| 2-Fluorobiphenyl (Surrogate) | 99.1 | % | 57 - 135 (LCL - UCL) | | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | | |
| 2,4,6-Tribromophenol (Surrogate) | 110 | % | 55 - 172 (LCL - UCL) | | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | | |
| p-Terphenyl-d14 (Surrogate) | 90.8 | % | 46 - 185 (LCL - UCL) | | EPA-625 | 07/17/09 | 07/21/09 19:19 | SKC | MS-B2 | 1.031 | BSG1004 | | |



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Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Organo-Phosphorus Pesticide Analysis (EPA Method 8140)

| BCL Sample ID: 0909228-01 | | Client Sample Name: Composite-A.R.S., 7/15/2009 9:00:00AM | | | | | | | | | | | | |
|--------------------------------|--------|---|----------------------|-------|----------|-----------|----------------|---------|----------------|----------|-------------|---------|-----------|--|
| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instru-ment ID | Dilution | QC Batch ID | MB Bias | Lab Quals | |
| Azinphos methyl | ND | ug/L | 0.20 | 0.055 | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | ND | | |
| Bolstar | ND | ug/L | 0.20 | 0.055 | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | ND | | |
| Chlorpyrifos | ND | ug/L | 0.20 | 0.024 | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | ND | | |
| Coumaphos | ND | ug/L | 0.20 | 0.054 | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | ND | | |
| Demeton O/S | ND | ug/L | 0.20 | 0.026 | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | ND | | |
| Diazinon | ND | ug/L | 0.20 | 0.044 | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | ND | | |
| Dichlorvos | ND | ug/L | 0.20 | 0.070 | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | ND | | |
| Disulfoton | ND | ug/L | 0.50 | 0.039 | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | ND | | |
| Ethoprop | ND | ug/L | 0.20 | 0.025 | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | ND | | |
| Fensulfothion | ND | ug/L | 0.20 | 0.088 | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | ND | | |
| Fenthion | ND | ug/L | 0.20 | 0.033 | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | ND | | |
| Merphos | ND | ug/L | 0.20 | 0.058 | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | ND | | |
| Methyl parathion | ND | ug/L | 0.20 | 0.074 | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | ND | | |
| Mevinphos | ND | ug/L | 0.20 | 0.053 | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | ND | | |
| Naled | ND | ug/L | 0.20 | 0.072 | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | ND | | |
| Phorate | ND | ug/L | 0.20 | 0.041 | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | ND | | |
| Ronnel (Fenclorphos) | ND | ug/L | 0.20 | 0.067 | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | ND | | |
| Stirophos (Tetrachlorvinphos) | ND | ug/L | 0.20 | 0.046 | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | ND | | |
| Tokuthion (Prothiofos) | ND | ug/L | 0.20 | 0.032 | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | ND | | |
| Trichloronate | ND | ug/L | 0.20 | 0.038 | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | ND | | |
| Triphenylphosphate (Surrogate) | 0 | % | 55 - 132 (LCL - UCL) | | EPA-8140 | 07/16/09 | 07/20/09 12:10 | OAA | GC-7 | 1 | BSG1019 | | A18 | |



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Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Water Analysis (General Chemistry)

| | | | | | | | | | | | | | |
|----------------------------------|--|--------------|------------|------------|---------------|------------------|----------------------|----------------|-----------------------|-----------------|--------------------|----------------|------------------|
| BCL Sample ID: 0909228-01 | Client Sample Name: Composite-A.R.S., 7/15/2009 9:00:00AM | | | | | | | | | | | | |
| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instru-ment ID | Dilution | QC Batch ID | MB Bias | Lab Quals |
| Total Cyanide | 0.0048 | mg/L | 0.0050 | 0.0028 | EPA-335.4 | 07/16/09 | 07/17/09 14:05 | TDC | KONE-1 | 1 | BSG0881 | ND | J |



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Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Water Analysis (Metals)

| BCL Sample ID: 09092228-01 | | Client Sample Name: Composite-A.R.S., 7/15/2009 9:00:00AM | | | | | | | | | | | | |
|-----------------------------------|------------|---|------------|-------------|------------------|-----------------|-----------------------|------------|----------------|----------|----------------|------------|-----------|--|
| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instru-ment ID | Dilution | QC Batch ID | MB Bias | Lab Quals | |
| Total Antimony | ND | ug/L | 100 | 34 | EPA-200.7 | 07/17/09 | 07/17/09 14:29 | PPS | PE-OP1 | 1 | BSG0911 | ND | | |
| Total Beryllium | ND | ug/L | 10 | 0.44 | EPA-200.7 | 07/17/09 | 07/17/09 14:29 | PPS | PE-OP1 | 1 | BSG0911 | ND | | |
| Total Cadmium | ND | ug/L | 10 | 0.57 | EPA-200.7 | 07/17/09 | 07/17/09 14:29 | PPS | PE-OP1 | 1 | BSG0911 | ND | | |
| Total Chromium | 1.1 | ug/L | 10 | 0.80 | EPA-200.7 | 07/17/09 | 07/17/09 14:29 | PPS | PE-OP1 | 1 | BSG0911 | ND | J | |
| Total Copper | 11 | ug/L | 10 | 1.5 | EPA-200.7 | 07/17/09 | 07/17/09 14:29 | PPS | PE-OP1 | 1 | BSG0911 | ND | | |
| Total Mercury | ND | ug/L | 0.20 | 0.016 | EPA-245.1 | 07/22/09 | 07/23/09 07:39 | MEV | CETAC1 | 1 | BSG1145 | ND | | |
| Total Nickel | 5.2 | ug/L | 10 | 1.5 | EPA-200.7 | 07/17/09 | 07/17/09 14:29 | PPS | PE-OP1 | 1 | BSG0911 | ND | J | |
| Total Silver | ND | ug/L | 10 | 1.9 | EPA-200.7 | 07/17/09 | 07/17/09 14:29 | PPS | PE-OP1 | 1 | BSG0911 | ND | | |
| Total Zinc | 52 | ug/L | 50 | 2.1 | EPA-200.7 | 07/17/09 | 07/17/09 14:29 | PPS | PE-OP1 | 1 | BSG0911 | 3.0 | | |
| Total Recoverable Arsenic | ND | ug/L | 2.0 | 1.1 | EPA-200.8 | 07/20/09 | 07/24/09 22:43 | PRA | PE-EL1 | 1 | BSG1018 | ND | | |
| Total Recoverable Lead | 1.1 | ug/L | 1.0 | 0.19 | EPA-200.8 | 07/20/09 | 07/24/09 22:43 | PRA | PE-EL1 | 1 | BSG1018 | ND | | |
| Total Recoverable Selenium | 1.5 | ug/L | 2.0 | 0.54 | EPA-200.8 | 07/20/09 | 07/24/09 22:43 | PRA | PE-EL1 | 1 | BSG1018 | ND | J | |
| Total Recoverable Thallium | ND | ug/L | 1.0 | 0.11 | EPA-200.8 | 07/20/09 | 07/24/09 22:43 | PRA | PE-EL1 | 1 | BSG1018 | ND | | |



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Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Volatile Organic Analysis (EPA Method 624)

| BCL Sample ID: | 09092228-02 | | Client Sample Name: | Travel Blank, 7/15/2009 12:00:00AM | | | | | | | | | |
|---------------------------|-------------|-------------|---------------------|------------------------------------|----------------|-----------------|-----------------------|------------|---------------|----------|----------------|-----------|-----------|
| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instrument ID | Dilution | QC Batch ID | MB Bias | Lab Quals |
| Benzene | ND | ug/L | 0.50 | 0.061 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | |
| Bromodichloromethane | ND | ug/L | 0.50 | 0.15 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | |
| Bromoform | ND | ug/L | 0.50 | 0.19 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | |
| Bromomethane | ND | ug/L | 1.0 | 0.085 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | V11 |
| Carbon tetrachloride | ND | ug/L | 0.50 | 0.074 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | |
| Chlorobenzene | ND | ug/L | 0.50 | 0.067 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | |
| Chloroethane | ND | ug/L | 0.50 | 0.086 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | |
| Chloroform | ND | ug/L | 0.50 | 0.050 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | |
| Chloromethane | ND | ug/L | 0.50 | 0.11 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | |
| Dibromochloromethane | ND | ug/L | 0.50 | 0.067 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | |
| 1,2-Dichlorobenzene | ND | ug/L | 0.50 | 0.058 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | |
| 1,3-Dichlorobenzene | ND | ug/L | 0.50 | 0.050 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | |
| 1,4-Dichlorobenzene | ND | ug/L | 0.50 | 0.058 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | |
| 1,1-Dichloroethane | ND | ug/L | 0.50 | 0.081 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | |
| 1,2-Dichloroethane | ND | ug/L | 0.50 | 0.11 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | |
| 1,1-Dichloroethene | ND | ug/L | 0.50 | 0.092 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | |
| trans-1,2-Dichloroethene | ND | ug/L | 0.50 | 0.097 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | |
| 1,2-Dichloropropane | ND | ug/L | 0.50 | 0.097 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | |
| cis-1,3-Dichloropropene | ND | ug/L | 0.50 | 0.096 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | |
| trans-1,3-Dichloropropene | ND | ug/L | 0.50 | 0.072 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | |
| Ethylbenzene | ND | ug/L | 0.50 | 0.068 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | |
| Methylene chloride | 0.28 | ug/L | 1.0 | 0.28 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | J |



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Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Volatile Organic Analysis (EPA Method 624)

| BCL Sample ID: 09092228-02 | | Client Sample Name: Travel Blank, 7/15/2009 12:00:00AM | | | | | | | | | | | | |
|---------------------------------------|--------|--|----------------------|-------|---------|-----------|----------------|---------|----------------|----------|-------------|---------|-----------|--|
| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instru-ment ID | Dilution | QC Batch ID | MB Bias | Lab Quals | |
| Methyl t-butyl ether | ND | ug/L | 0.50 | 0.093 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | | |
| 1,1,2,2-Tetrachloroethane | ND | ug/L | 0.50 | 0.31 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | | |
| Tetrachloroethene | ND | ug/L | 0.50 | 0.11 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | | |
| Toluene | ND | ug/L | 0.50 | 0.065 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | | |
| 1,1,1-Trichloroethane | ND | ug/L | 0.50 | 0.063 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | | |
| 1,1,2-Trichloroethane | ND | ug/L | 0.50 | 0.21 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | | |
| Trichloroethene | ND | ug/L | 0.50 | 0.15 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | | |
| Trichlorofluoromethane | ND | ug/L | 0.50 | 0.077 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | ug/L | 0.50 | 0.072 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | | |
| Vinyl chloride | ND | ug/L | 0.50 | 0.11 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | | |
| Total Xylenes | ND | ug/L | 0.50 | 0.16 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | | |
| Acrolein | ND | ug/L | 20 | 7.3 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | | |
| Acrylonitrile | ND | ug/L | 5.0 | 0.97 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | | |
| p- & m-Xylenes | ND | ug/L | 0.50 | 0.10 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | | |
| o-Xylene | ND | ug/L | 0.50 | 0.059 | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | ND | | |
| 1,2-Dichloroethane-d4 (Surrogate) | 94.9 | % | 76 - 114 (LCL - UCL) | | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | | | |
| Toluene-d8 (Surrogate) | 97.6 | % | 88 - 110 (LCL - UCL) | | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | | | |
| 4-Bromofluorobenzene (Surrogate) | 87.7 | % | 86 - 115 (LCL - UCL) | | EPA-624 | 07/27/09 | 07/27/09 11:37 | MGC | MS-V7 | 1 | BSG1432 | | | |



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Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Organochlorine Pesticides and PCB's (EPA Method 608)

Quality Control Report - Precision & Accuracy

| Constituent | Batch ID | QC Sample Type | Source Sample ID | Source Result | Result | Spike Added | Units | RPD | Percent Recovery | Control Limits | | Lab Quals |
|---------------------------------|----------|------------------------|------------------|---------------|---------|-------------|-------|-----|------------------|----------------|------------------|-----------|
| | | | | | | | | | | RPD | Percent Recovery | |
| Aldrin | BSG1005 | Matrix Spike | 0908002-44 | ND | 0.18607 | 0.25000 | ug/L | | 74.4 | | 31 - 127 | |
| | | Matrix Spike Duplicate | 0908002-44 | ND | 0.18129 | 0.25000 | ug/L | 2.6 | 72.5 | 30 | 31 - 127 | |
| gamma-BHC (Lindane) | BSG1005 | Matrix Spike | 0908002-44 | ND | 0.16394 | 0.25000 | ug/L | | 65.6 | | 37 - 114 | |
| | | Matrix Spike Duplicate | 0908002-44 | ND | 0.16081 | 0.25000 | ug/L | 2.0 | 64.3 | 30 | 37 - 114 | |
| 4,4'-DDT | BSG1005 | Matrix Spike | 0908002-44 | ND | 0.19659 | 0.25000 | ug/L | | 78.6 | | 46 - 116 | |
| | | Matrix Spike Duplicate | 0908002-44 | ND | 0.18274 | 0.25000 | ug/L | 7.3 | 73.1 | 30 | 46 - 116 | |
| Dieldrin | BSG1005 | Matrix Spike | 0908002-44 | ND | 0.19263 | 0.25000 | ug/L | | 77.1 | | 35 - 132 | |
| | | Matrix Spike Duplicate | 0908002-44 | ND | 0.18720 | 0.25000 | ug/L | 2.9 | 74.9 | 30 | 35 - 132 | |
| Endrin | BSG1005 | Matrix Spike | 0908002-44 | ND | 0.20332 | 0.25000 | ug/L | | 81.3 | | 46 - 140 | |
| | | Matrix Spike Duplicate | 0908002-44 | ND | 0.19761 | 0.25000 | ug/L | 2.9 | 79.0 | 30 | 46 - 140 | |
| Heptachlor | BSG1005 | Matrix Spike | 0908002-44 | ND | 0.18574 | 0.25000 | ug/L | | 74.3 | | 39 - 116 | |
| | | Matrix Spike Duplicate | 0908002-44 | ND | 0.18202 | 0.25000 | ug/L | 2.0 | 72.8 | 30 | 39 - 116 | |
| PCB-1260 | BSG1005 | Matrix Spike | 0908002-44 | ND | ND | | ug/L | | | | 60 - 119 | |
| | | Matrix Spike Duplicate | 0908002-44 | ND | ND | | ug/L | | | 25 | 60 - 119 | |
| TCMX (Surrogate) | BSG1005 | Matrix Spike | 0908002-44 | ND | 0.24005 | 0.30000 | ug/L | | 80.0 | | 46 - 138 | |
| | | Matrix Spike Duplicate | 0908002-44 | ND | 0.25609 | 0.30000 | ug/L | | 85.4 | | 46 - 138 | |
| Dibutyl chlorendate (Surrogate) | BSG1005 | Matrix Spike | 0908002-44 | ND | 0.66572 | 0.75000 | ug/L | | 88.8 | | 45 - 136 | |
| | | Matrix Spike Duplicate | 0908002-44 | ND | 0.65259 | 0.75000 | ug/L | | 87.0 | | 45 - 136 | |



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Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Volatile Organic Analysis (EPA Method 624)

Quality Control Report - Precision & Accuracy

| Constituent | Batch ID | QC Sample Type | Source Sample ID | Source Result | Result | Spike Added | Units | RPD | Percent Recovery | Control Limits | | Lab Quals |
|----------------------|----------|------------------------|---------------------|------------------|--------|----------------|-------|------|---------------------|----------------|---------------------|-----------|
| | | | | | | | | | | RPD | Percent Recovery | |
| Benzene | BSG1432 | Matrix Spike | 0909620-01 | ND | 25.160 | 25.000 | ug/L | | 101 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 27.300 | 25.000 | ug/L | 7.6 | 109 | 20 | 70 - 130 | |
| Bromodichloromethane | BSG1432 | Matrix Spike | 0909620-01 | ND | 21.880 | 25.000 | ug/L | | 87.5 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 22.130 | 25.000 | ug/L | 1.1 | 88.5 | 20 | 70 - 130 | |
| Bromoform | BSG1432 | Matrix Spike | 0909620-01 | ND | 23.100 | 25.000 | ug/L | | 92.4 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 24.290 | 25.000 | ug/L | 5.1 | 97.2 | 20 | 70 - 130 | |
| Bromomethane | BSG1432 | Matrix Spike | 0909620-01 | ND | 31.020 | 25.000 | ug/L | | 124 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 36.940 | 25.000 | ug/L | 17.6 | 148 | 20 | 70 - 130 | Q03 |
| Carbon tetrachloride | BSG1432 | Matrix Spike | 0909620-01 | ND | 25.100 | 25.000 | ug/L | | 100 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 25.580 | 25.000 | ug/L | 2.0 | 102 | 20 | 70 - 130 | |
| Chlorobenzene | BSG1432 | Matrix Spike | 0909620-01 | ND | 24.960 | 25.000 | ug/L | | 99.8 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 26.770 | 25.000 | ug/L | 7.0 | 107 | 20 | 70 - 130 | |
| Chloroethane | BSG1432 | Matrix Spike | 0909620-01 | ND | 27.580 | 25.000 | ug/L | | 110 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 29.990 | 25.000 | ug/L | 8.7 | 120 | 20 | 70 - 130 | |
| Chloroform | BSG1432 | Matrix Spike | 0909620-01 | ND | 24.020 | 25.000 | ug/L | | 96.1 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 25.180 | 25.000 | ug/L | 5.0 | 101 | 20 | 70 - 130 | |
| Chloromethane | BSG1432 | Matrix Spike | 0909620-01 | ND | 31.980 | 25.000 | ug/L | | 128 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 33.240 | 25.000 | ug/L | 3.8 | 133 | 20 | 70 - 130 | Q03 |
| Dibromochloromethane | BSG1432 | Matrix Spike | 0909620-01 | ND | 24.610 | 25.000 | ug/L | | 98.4 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 24.330 | 25.000 | ug/L | 1.1 | 97.3 | 20 | 70 - 130 | |
| 1,2-Dichlorobenzene | BSG1432 | Matrix Spike | 0909620-01 | ND | 26.910 | 25.000 | ug/L | | 108 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 27.280 | 25.000 | ug/L | 0.9 | 109 | 20 | 70 - 130 | |
| 1,3-Dichlorobenzene | BSG1432 | Matrix Spike | 0909620-01 | ND | 26.570 | 25.000 | ug/L | | 106 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 27.330 | 25.000 | ug/L | 2.8 | 109 | 20 | 70 - 130 | |
| 1,4-Dichlorobenzene | BSG1432 | Matrix Spike | 0909620-01 | ND | 26.950 | 25.000 | ug/L | | 108 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 27.260 | 25.000 | ug/L | 0.9 | 109 | 20 | 70 - 130 | |



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Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Volatile Organic Analysis (EPA Method 624)

Quality Control Report - Precision & Accuracy

| Constituent | Batch ID | QC Sample Type | Source Sample ID | Source Result | Result | Spike Added | Units | RPD | Percent Recovery | Control Limits | |
|---------------------------|----------|------------------------|------------------|---------------|--------|-------------|-------|------|------------------|----------------|----------------------------|
| | | | | | | | | | | RPD | Percent Recovery Lab Quals |
| 1,1-Dichloroethane | BSG1432 | Matrix Spike | 0909620-01 | ND | 21.180 | 25.000 | ug/L | | 84.7 | | 70 - 130 |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 23.340 | 25.000 | ug/L | 9.8 | 93.4 | 20 | 70 - 130 |
| 1,2-Dichloroethane | BSG1432 | Matrix Spike | 0909620-01 | ND | 23.020 | 25.000 | ug/L | | 92.1 | | 70 - 130 |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 24.530 | 25.000 | ug/L | 6.3 | 98.1 | 20 | 70 - 130 |
| 1,1-Dichloroethene | BSG1432 | Matrix Spike | 0909620-01 | ND | 28.360 | 25.000 | ug/L | | 113 | | 70 - 130 |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 30.420 | 25.000 | ug/L | 7.7 | 122 | 20 | 70 - 130 |
| trans-1,2-Dichloroethene | BSG1432 | Matrix Spike | 0909620-01 | ND | 28.600 | 25.000 | ug/L | | 114 | | 70 - 130 |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 30.250 | 25.000 | ug/L | 6.0 | 121 | 20 | 70 - 130 |
| 1,2-Dichloropropane | BSG1432 | Matrix Spike | 0909620-01 | ND | 23.780 | 25.000 | ug/L | | 95.1 | | 70 - 130 |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 24.170 | 25.000 | ug/L | 1.7 | 96.7 | 20 | 70 - 130 |
| cis-1,3-Dichloropropene | BSG1432 | Matrix Spike | 0909620-01 | ND | 22.470 | 25.000 | ug/L | | 89.9 | | 70 - 130 |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 23.770 | 25.000 | ug/L | 5.6 | 95.1 | 20 | 70 - 130 |
| trans-1,3-Dichloropropene | BSG1432 | Matrix Spike | 0909620-01 | ND | 22.600 | 25.000 | ug/L | | 90.4 | | 70 - 130 |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 23.180 | 25.000 | ug/L | 2.5 | 92.7 | 20 | 70 - 130 |
| Ethylbenzene | BSG1432 | Matrix Spike | 0909620-01 | ND | 24.580 | 25.000 | ug/L | | 98.3 | | 70 - 130 |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 26.010 | 25.000 | ug/L | 5.6 | 104 | 20 | 70 - 130 |
| Methylene chloride | BSG1432 | Matrix Spike | 0909620-01 | ND | 23.770 | 25.000 | ug/L | | 95.1 | | 70 - 130 |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 26.680 | 25.000 | ug/L | 11.8 | 107 | 20 | 70 - 130 |
| Methyl t-butyl ether | BSG1432 | Matrix Spike | 0909620-01 | ND | 23.040 | 25.000 | ug/L | | 92.2 | | 70 - 130 |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 25.150 | 25.000 | ug/L | 9.1 | 101 | 20 | 70 - 130 |
| 1,1,2,2-Tetrachloroethane | BSG1432 | Matrix Spike | 0909620-01 | ND | 24.670 | 25.000 | ug/L | | 98.7 | | 70 - 130 |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 25.710 | 25.000 | ug/L | 4.3 | 103 | 20 | 70 - 130 |
| Tetrachloroethene | BSG1432 | Matrix Spike | 0909620-01 | ND | 24.000 | 25.000 | ug/L | | 96.0 | | 70 - 130 |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 25.580 | 25.000 | ug/L | 6.1 | 102 | 20 | 70 - 130 |
| Toluene | BSG1432 | Matrix Spike | 0909620-01 | ND | 25.310 | 25.000 | ug/L | | 101 | | 70 - 130 |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 26.470 | 25.000 | ug/L | 4.8 | 106 | 20 | 70 - 130 |



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Reported: 07/28/2009 14:25

Volatile Organic Analysis (EPA Method 624)

Quality Control Report - Precision & Accuracy

| Constituent | Batch ID | QC Sample Type | Source Sample ID | Source Result | Result | Spike Added | Units | RPD | Percent Recovery | Control Limits | | Lab Quals |
|---------------------------------------|----------|------------------------|------------------|---------------|--------|-------------|-------|------|------------------|----------------|------------------|-----------|
| | | | | | | | | | | RPD | Percent Recovery | |
| 1,1,1-Trichloroethane | BSG1432 | Matrix Spike | 0909620-01 | ND | 23.110 | 25.000 | ug/L | | 92.4 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 24.190 | 25.000 | ug/L | 4.7 | 96.8 | 20 | 70 - 130 | |
| 1,1,2-Trichloroethane | BSG1432 | Matrix Spike | 0909620-01 | ND | 22.950 | 25.000 | ug/L | | 91.8 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 23.330 | 25.000 | ug/L | 1.6 | 93.3 | 20 | 70 - 130 | |
| Trichloroethene | BSG1432 | Matrix Spike | 0909620-01 | 0.28000 | 23.690 | 25.000 | ug/L | | 93.6 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | 0.28000 | 23.800 | 25.000 | ug/L | 0.5 | 94.1 | 20 | 70 - 130 | |
| Trichlorofluoromethane | BSG1432 | Matrix Spike | 0909620-01 | ND | 27.550 | 25.000 | ug/L | | 110 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 28.930 | 25.000 | ug/L | 5.3 | 116 | 20 | 70 - 130 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | BSG1432 | Matrix Spike | 0909620-01 | ND | 28.200 | 25.000 | ug/L | | 113 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 29.940 | 25.000 | ug/L | 6.0 | 120 | 20 | 70 - 130 | |
| Vinyl chloride | BSG1432 | Matrix Spike | 0909620-01 | ND | 30.630 | 25.000 | ug/L | | 123 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 34.140 | 25.000 | ug/L | 10.8 | 137 | 20 | 70 - 130 | Q03 |
| Total Xylenes | BSG1432 | Matrix Spike | 0909620-01 | ND | 77.900 | 75.000 | ug/L | | 104 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 79.990 | 75.000 | ug/L | 2.8 | 107 | 20 | 70 - 130 | |
| p- & m-Xylenes | BSG1432 | Matrix Spike | 0909620-01 | ND | 52.790 | 50.000 | ug/L | | 106 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 54.030 | 50.000 | ug/L | 1.9 | 108 | 20 | 70 - 130 | |
| o-Xylene | BSG1432 | Matrix Spike | 0909620-01 | ND | 25.110 | 25.000 | ug/L | | 100 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 25.960 | 25.000 | ug/L | 3.9 | 104 | 20 | 70 - 130 | |
| 1,2-Dichloroethane-d4 (Surrogate) | BSG1432 | Matrix Spike | 0909620-01 | ND | 9.5400 | 10.000 | ug/L | | 95.4 | | 76 - 114 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 9.6600 | 10.000 | ug/L | | 96.6 | | 76 - 114 | |
| Toluene-d8 (Surrogate) | BSG1432 | Matrix Spike | 0909620-01 | ND | 10.120 | 10.000 | ug/L | | 101 | | 88 - 110 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 9.6700 | 10.000 | ug/L | | 96.7 | | 88 - 110 | |
| 4-Bromofluorobenzene (Surrogate) | BSG1432 | Matrix Spike | 0909620-01 | ND | 9.3600 | 10.000 | ug/L | | 93.6 | | 86 - 115 | |
| | | Matrix Spike Duplicate | 0909620-01 | ND | 9.1100 | 10.000 | ug/L | | 91.1 | | 86 - 115 | |



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Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

Quality Control Report - Precision & Accuracy

| Constituent | Batch ID | QC Sample Type | Source Sample ID | Source Result | Result | Spike Added | Units | RPD | Percent Recovery | Control Limits | |
|---------------------------|----------|------------------------|------------------|---------------|--------|-------------|-------|-----|------------------|----------------|----------------------------|
| | | | | | | | | | | RPD | Percent Recovery Lab Quals |
| Acenaphthene | BSG1004 | Matrix Spike | 0905143-97 | ND | 39.896 | 50.000 | ug/L | | 79.8 | | 62 - 123 |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 39.830 | 50.000 | ug/L | 0.1 | 79.7 | 26 | 62 - 123 |
| 1,4-Dichlorobenzene | BSG1004 | Matrix Spike | 0905143-97 | ND | 37.039 | 50.000 | ug/L | | 74.1 | | 50 - 122 |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 35.341 | 50.000 | ug/L | 4.7 | 70.7 | 30 | 50 - 122 |
| 2,4-Dinitrotoluene | BSG1004 | Matrix Spike | 0905143-97 | ND | 40.512 | 50.000 | ug/L | | 81.0 | | 47 - 139 |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 39.927 | 50.000 | ug/L | 1.4 | 79.9 | 27 | 47 - 139 |
| Hexachlorobenzene | BSG1004 | Matrix Spike | 0905143-97 | ND | 40.269 | 50.000 | ug/L | | 80.5 | | 62 - 134 |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 40.061 | 50.000 | ug/L | 0.5 | 80.1 | 26 | 62 - 134 |
| Hexachlorobutadiene | BSG1004 | Matrix Spike | 0905143-97 | ND | 27.892 | 50.000 | ug/L | | 55.8 | | 34 - 114 |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 25.785 | 50.000 | ug/L | 7.8 | 51.6 | 30 | 34 - 114 |
| Hexachloroethane | BSG1004 | Matrix Spike | 0905143-97 | ND | 23.963 | 50.000 | ug/L | | 47.9 | | 33 - 128 |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 23.178 | 50.000 | ug/L | 3.2 | 46.4 | 30 | 33 - 128 |
| Nitrobenzene | BSG1004 | Matrix Spike | 0905143-97 | ND | 44.327 | 50.000 | ug/L | | 88.7 | | 61 - 119 |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 43.562 | 50.000 | ug/L | 1.8 | 87.1 | 29 | 61 - 119 |
| N-Nitrosodi-N-propylamine | BSG1004 | Matrix Spike | 0905143-97 | ND | 44.849 | 50.000 | ug/L | | 89.7 | | 47 - 131 |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 43.654 | 50.000 | ug/L | 2.7 | 87.3 | 30 | 47 - 131 |
| Pyrene | BSG1004 | Matrix Spike | 0905143-97 | ND | 48.458 | 50.000 | ug/L | | 96.9 | | 49 - 156 |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 49.092 | 50.000 | ug/L | 1.3 | 98.2 | 24 | 49 - 156 |
| 1,2,4-Trichlorobenzene | BSG1004 | Matrix Spike | 0905143-97 | ND | 36.837 | 50.000 | ug/L | | 73.7 | | 49 - 123 |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 35.428 | 50.000 | ug/L | 3.9 | 70.9 | 30 | 49 - 123 |
| 4-Chloro-3-methylphenol | BSG1004 | Matrix Spike | 0905143-97 | ND | 36.929 | 50.000 | ug/L | | 73.9 | | 56 - 139 |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 39.335 | 50.000 | ug/L | 6.3 | 78.7 | 25 | 56 - 139 |
| 2-Chlorophenol | BSG1004 | Matrix Spike | 0905143-97 | ND | 33.010 | 50.000 | ug/L | | 66.0 | | 47 - 121 |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 36.324 | 50.000 | ug/L | 9.5 | 72.6 | 30 | 47 - 121 |
| 2-Methylphenol | BSG1004 | Matrix Spike | 0905143-97 | ND | 35.501 | 50.000 | ug/L | | 71.0 | | 39 - 125 |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 37.310 | 50.000 | ug/L | 4.9 | 74.6 | 30 | 39 - 125 |



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Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

Quality Control Report - Precision & Accuracy

| Constituent | Batch ID | QC Sample Type | Source Sample ID | Source Result | Result | Spike Added | Units | RPD | Percent Recovery | Control Limits | | Lab Quals |
|----------------------------------|----------|------------------------|------------------|---------------|--------|-------------|-------|------|------------------|----------------|------------------|-----------|
| | | | | | | | | | | RPD | Percent Recovery | |
| 3- & 4-Methylphenol | BSG1004 | Matrix Spike | 0905143-97 | ND | 52.219 | 100.00 | ug/L | | 52.2 | | 36 - 100 | |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 55.459 | 100.00 | ug/L | 6.1 | 55.5 | 28 | 36 - 100 | |
| 4-Nitrophenol | BSG1004 | Matrix Spike | 0905143-97 | ND | 7.4078 | 50.000 | ug/L | | 14.8 | | 15 - 65 | Q03 |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 14.830 | 50.000 | ug/L | 67.0 | 29.7 | 30 | 15 - 65 | Q02 |
| Pentachlorophenol | BSG1004 | Matrix Spike | 0905143-97 | ND | 21.852 | 50.000 | ug/L | | 43.7 | | 30 - 166 | |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 32.786 | 50.000 | ug/L | 40.1 | 65.6 | 30 | 30 - 166 | Q02 |
| Phenol | BSG1004 | Matrix Spike | 0905143-97 | ND | 17.721 | 50.000 | ug/L | | 35.4 | | 21 - 66 | |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 19.316 | 50.000 | ug/L | 8.6 | 38.6 | 30 | 21 - 66 | |
| 2,4,6-Trichlorophenol | BSG1004 | Matrix Spike | 0905143-97 | ND | 30.983 | 50.000 | ug/L | | 62.0 | | 54 - 146 | |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 39.347 | 50.000 | ug/L | 23.7 | 78.7 | 26 | 54 - 146 | |
| 2-Fluorophenol (Surrogate) | BSG1004 | Matrix Spike | 0905143-97 | ND | 44.436 | 80.000 | ug/L | | 55.5 | | 17 - 115 | |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 51.420 | 80.000 | ug/L | | 64.3 | | 17 - 115 | |
| Phenol-d5 (Surrogate) | BSG1004 | Matrix Spike | 0905143-97 | ND | 30.899 | 80.000 | ug/L | | 38.6 | | 17 - 77 | |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 33.754 | 80.000 | ug/L | | 42.2 | | 17 - 77 | |
| Nitrobenzene-d5 (Surrogate) | BSG1004 | Matrix Spike | 0905143-97 | ND | 82.522 | 80.000 | ug/L | | 103 | | 60 - 136 | |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 81.226 | 80.000 | ug/L | | 102 | | 60 - 136 | |
| 2-Fluorobiphenyl (Surrogate) | BSG1004 | Matrix Spike | 0905143-97 | ND | 66.569 | 80.000 | ug/L | | 83.2 | | 57 - 135 | |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 65.619 | 80.000 | ug/L | | 82.0 | | 57 - 135 | |
| 2,4,6-Tribromophenol (Surrogate) | BSG1004 | Matrix Spike | 0905143-97 | ND | 69.499 | 80.000 | ug/L | | 86.9 | | 55 - 172 | |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 79.717 | 80.000 | ug/L | | 99.6 | | 55 - 172 | |
| p-Terphenyl-d14 (Surrogate) | BSG1004 | Matrix Spike | 0905143-97 | ND | 43.890 | 40.000 | ug/L | | 110 | | 46 - 185 | |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 43.606 | 40.000 | ug/L | | 109 | | 46 - 185 | |



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Project: Semi-Annual Eff
Project Number: [none]
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Organo-Phosphorus Pesticide Analysis (EPA Method 8140)

Quality Control Report - Precision & Accuracy

| Constituent | Batch ID | QC Sample Type | Source Sample ID | Source Result | Result | Spike Added | Units | RPD | Percent Recovery | Control Limits | | Lab Quals |
|--------------------------------|----------|------------------------|---------------------|------------------|---------|----------------|-------|------|---------------------|----------------|---------------------|-----------|
| | | | | | | | | | | RPD | Percent Recovery | |
| Bolstar | BSG1019 | Matrix Spike | 0905143-60 | ND | 0.45500 | 1.0000 | ug/L | | 45.5 | | 48 - 117 | Q03 |
| | | Matrix Spike Duplicate | 0905143-60 | ND | 0.32000 | 1.0000 | ug/L | 34.8 | 32.0 | 30 | 48 - 117 | Q03 |
| Chlorpyrifos | BSG1019 | Matrix Spike | 0905143-60 | ND | 0.54000 | 1.0000 | ug/L | | 54.0 | | 30 - 141 | |
| | | Matrix Spike Duplicate | 0905143-60 | ND | 0.41000 | 1.0000 | ug/L | 27.4 | 41.0 | 30 | 30 - 141 | |
| Diazinon | BSG1019 | Matrix Spike | 0905143-60 | ND | 0.54000 | 1.0000 | ug/L | | 54.0 | | 53 - 138 | |
| | | Matrix Spike Duplicate | 0905143-60 | ND | 0.42000 | 1.0000 | ug/L | 25.0 | 42.0 | 27 | 53 - 138 | Q03 |
| Methyl parathion | BSG1019 | Matrix Spike | 0905143-60 | ND | 0.49500 | 1.0000 | ug/L | | 49.5 | | 43 - 136 | |
| | | Matrix Spike Duplicate | 0905143-60 | ND | 0.38500 | 1.0000 | ug/L | 25.0 | 38.5 | 30 | 43 - 136 | Q03 |
| Mevinphos | BSG1019 | Matrix Spike | 0905143-60 | ND | 0.51000 | 1.0000 | ug/L | | 51.0 | | 54 - 148 | Q03 |
| | | Matrix Spike Duplicate | 0905143-60 | ND | 0.36500 | 1.0000 | ug/L | 33.1 | 36.5 | 30 | 54 - 148 | Q03 |
| Ronnel (Fenclorphos) | BSG1019 | Matrix Spike | 0905143-60 | ND | 0.48000 | 1.0000 | ug/L | | 48.0 | | 20 - 150 | |
| | | Matrix Spike Duplicate | 0905143-60 | ND | 0.35500 | 1.0000 | ug/L | 29.9 | 35.5 | 30 | 20 - 150 | |
| Stirophos (Tetrachlorvinphos) | BSG1019 | Matrix Spike | 0905143-60 | ND | 0.56500 | 1.0000 | ug/L | | 56.5 | | 51 - 151 | |
| | | Matrix Spike Duplicate | 0905143-60 | ND | 0.39500 | 1.0000 | ug/L | 35.4 | 39.5 | 30 | 51 - 151 | Q03 |
| Triphenylphosphate (Surrogate) | BSG1019 | Matrix Spike | 0905143-60 | ND | 2.0950 | 2.5000 | ug/L | | 83.8 | | 55 - 132 | |
| | | Matrix Spike Duplicate | 0905143-60 | ND | 1.4300 | 2.5000 | ug/L | | 57.2 | | 55 - 132 | |



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Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

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Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

| Constituent | Batch ID | QC Sample Type | Source Sample ID | Source Result | Result | Spike Added | Units | RPD | Percent Recovery | Control Limits | | Lab Quals |
|---------------|----------|------------------------|---------------------|------------------|-----------|----------------|-------|-----|---------------------|----------------|---------------------|-----------|
| | | | | | | | | | | RPD | Percent Recovery | |
| Total Cyanide | BSG0881 | Duplicate | 0909140-01 | 0.0033040 | 0.0031660 | | mg/L | 4.3 | | 10 | | J |
| | | Matrix Spike | 0909140-01 | 0.0033040 | 0.092882 | 0.10000 | mg/L | | 89.6 | | 90 - 110 | Q03 |
| | | Matrix Spike Duplicate | 0909140-01 | 0.0033040 | 0.095806 | 0.10000 | mg/L | 3.2 | 92.5 | 20 | 90 - 110 | |



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Project Number: [none]
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Water Analysis (Metals)

Quality Control Report - Precision & Accuracy

| Constituent | Batch ID | QC Sample Type | Source Sample ID | Source Result | Result | Spike Added | Units | RPD | Percent Recovery | Control Limits | | Lab Quals |
|---------------------------|----------|------------------------|------------------|---------------|--------|-------------|-------|------|------------------|----------------|------------------|-----------|
| | | | | | | | | | | RPD | Percent Recovery | |
| Total Antimony | BSG0911 | Duplicate | 0909154-01 | ND | ND | | ug/L | | | 20 | | |
| | | Matrix Spike | 0909154-01 | ND | 418.07 | 400.00 | ug/L | | 105 | | 75 - 125 | |
| | | Matrix Spike Duplicate | 0909154-01 | ND | 410.72 | 400.00 | ug/L | 1.9 | 103 | 20 | 75 - 125 | |
| Total Beryllium | BSG0911 | Duplicate | 0909154-01 | ND | ND | | ug/L | | | 20 | | |
| | | Matrix Spike | 0909154-01 | ND | 223.22 | 200.00 | ug/L | | 112 | | 75 - 125 | |
| | | Matrix Spike Duplicate | 0909154-01 | ND | 220.21 | 200.00 | ug/L | 1.8 | 110 | 20 | 75 - 125 | |
| Total Cadmium | BSG0911 | Duplicate | 0909154-01 | ND | ND | | ug/L | | | 20 | | |
| | | Matrix Spike | 0909154-01 | ND | 212.82 | 200.00 | ug/L | | 106 | | 75 - 125 | |
| | | Matrix Spike Duplicate | 0909154-01 | ND | 207.82 | 200.00 | ug/L | 1.9 | 104 | 20 | 75 - 125 | |
| Total Chromium | BSG0911 | Duplicate | 0909154-01 | 4.3264 | 4.7761 | | ug/L | 9.9 | | 20 | | J |
| | | Matrix Spike | 0909154-01 | 4.3264 | 215.40 | 200.00 | ug/L | | 106 | | 75 - 125 | |
| | | Matrix Spike Duplicate | 0909154-01 | 4.3264 | 212.63 | 200.00 | ug/L | 1.9 | 104 | 20 | 75 - 125 | |
| Total Copper | BSG0911 | Duplicate | 0909154-01 | 10.612 | 9.5101 | | ug/L | 11.0 | | 20 | | J |
| | | Matrix Spike | 0909154-01 | 10.612 | 460.64 | 400.00 | ug/L | | 113 | | 75 - 125 | |
| | | Matrix Spike Duplicate | 0909154-01 | 10.612 | 449.26 | 400.00 | ug/L | 2.7 | 110 | 20 | 75 - 125 | |
| Total Nickel | BSG0911 | Duplicate | 0909154-01 | 9.4207 | 9.2029 | | ug/L | 2.3 | | 20 | | J |
| | | Matrix Spike | 0909154-01 | 9.4207 | 446.06 | 400.00 | ug/L | | 109 | | 75 - 125 | |
| | | Matrix Spike Duplicate | 0909154-01 | 9.4207 | 438.65 | 400.00 | ug/L | 1.9 | 107 | 20 | 75 - 125 | |
| Total Silver | BSG0911 | Duplicate | 0909154-01 | ND | ND | | ug/L | | | 20 | | |
| | | Matrix Spike | 0909154-01 | ND | 107.35 | 100.00 | ug/L | | 107 | | 75 - 125 | |
| | | Matrix Spike Duplicate | 0909154-01 | ND | 105.47 | 100.00 | ug/L | 1.9 | 105 | 20 | 75 - 125 | |
| Total Zinc | BSG0911 | Duplicate | 0909154-01 | 110.35 | 106.94 | | ug/L | 3.1 | | 20 | | |
| | | Matrix Spike | 0909154-01 | 110.35 | 672.46 | 500.00 | ug/L | | 112 | | 75 - 125 | |
| | | Matrix Spike Duplicate | 0909154-01 | 110.35 | 666.68 | 500.00 | ug/L | 0.9 | 111 | 20 | 75 - 125 | |
| Total Recoverable Arsenic | BSG1018 | Duplicate | 0909228-01 | ND | ND | | ug/L | | | 20 | | |
| | | Matrix Spike | 0909228-01 | ND | 102.22 | 100.00 | ug/L | | 102 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909228-01 | ND | 103.54 | 100.00 | ug/L | 1.9 | 104 | 20 | 70 - 130 | |



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Water Analysis (Metals)

Quality Control Report - Precision & Accuracy

| Constituent | Batch ID | QC Sample Type | Source Sample ID | Source Result | Result | Spike Added | Units | RPD | Percent Recovery | Control Limits | | Lab Quals |
|----------------------------|----------|------------------------|---------------------|------------------|---------|----------------|-------|------|---------------------|----------------|---------------------|-----------|
| | | | | | | | | | | RPD | Percent Recovery | |
| Total Recoverable Lead | BSG1018 | Duplicate | 0909228-01 | 1.0970 | 1.1200 | | ug/L | 2.1 | | 20 | | |
| | | Matrix Spike | 0909228-01 | 1.0970 | 99.228 | 100.00 | ug/L | | 98.1 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909228-01 | 1.0970 | 102.47 | 100.00 | ug/L | 2.9 | 101 | 20 | 70 - 130 | |
| Total Recoverable Selenium | BSG1018 | Duplicate | 0909228-01 | 1.4750 | 1.6490 | | ug/L | 11.1 | | 20 | | J |
| | | Matrix Spike | 0909228-01 | 1.4750 | 99.027 | 100.00 | ug/L | | 97.6 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909228-01 | 1.4750 | 99.041 | 100.00 | ug/L | 0 | 97.6 | 20 | 70 - 130 | |
| Total Recoverable Thallium | BSG1018 | Duplicate | 0909228-01 | ND | ND | | ug/L | | | 20 | | |
| | | Matrix Spike | 0909228-01 | ND | 39.291 | 40.000 | ug/L | | 98.2 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909228-01 | ND | 40.424 | 40.000 | ug/L | 2.8 | 101 | 20 | 70 - 130 | |
| Total Mercury | BSG1145 | Duplicate | 0909140-04 | ND | ND | | ug/L | | | 20 | | |
| | | Matrix Spike | 0909140-04 | ND | 1.1025 | 1.0000 | ug/L | | 110 | | 70 - 130 | |
| | | Matrix Spike Duplicate | 0909140-04 | ND | 0.96750 | 1.0000 | ug/L | 12.8 | 96.8 | 20 | 70 - 130 | |

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Organochlorine Pesticides and PCB's (EPA Method 608)

Quality Control Report - Laboratory Control Sample

| Constituent | Batch ID | QC Sample ID | QC Type | Result | Spike Level | PQL | Units | Percent Recovery | Control Limits | | Lab Quals |
|---------------------------------|----------|--------------|---------|---------|-------------|--------|-------|------------------|----------------|------------------|-----------|
| | | | | | | | | | RPD | Percent Recovery | |
| Aldrin | BSG1005 | BSG1005-BS1 | LCS | 0.17580 | 0.25000 | 0.0050 | ug/L | 70.3 | | 53 - 115 | |
| gamma-BHC (Lindane) | BSG1005 | BSG1005-BS1 | LCS | 0.15650 | 0.25000 | 0.0050 | ug/L | 62.6 | | 48 - 112 | |
| 4,4'-DDT | BSG1005 | BSG1005-BS1 | LCS | 0.18101 | 0.25000 | 0.0050 | ug/L | 72.4 | | 41 - 130 | |
| Dieldrin | BSG1005 | BSG1005-BS1 | LCS | 0.18258 | 0.25000 | 0.0050 | ug/L | 73.0 | | 57 - 128 | |
| Endrin | BSG1005 | BSG1005-BS1 | LCS | 0.19486 | 0.25000 | 0.0050 | ug/L | 77.9 | | 56 - 158 | |
| Heptachlor | BSG1005 | BSG1005-BS1 | LCS | 0.17655 | 0.25000 | 0.0050 | ug/L | 70.6 | | 55 - 122 | |
| PCB-1260 | BSG1005 | BSG1005-BS1 | LCS | ND | | 0.20 | ug/L | | | 64 - 120 | |
| TCMX (Surrogate) | BSG1005 | BSG1005-BS1 | LCS | 0.24618 | 0.30000 | | ug/L | 82.1 | | 46 - 138 | |
| Dibutyl chlorendate (Surrogate) | BSG1005 | BSG1005-BS1 | LCS | 0.66497 | 0.75000 | | ug/L | 88.7 | | 45 - 136 | |



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Volatile Organic Analysis (EPA Method 624)

Quality Control Report - Laboratory Control Sample

| Constituent | Batch ID | QC Sample ID | QC Type | Result | Spike Level | PQL | Units | Percent Recovery | Control Limits | | Lab Quals |
|---------------------------|----------|--------------|---------|--------|-------------|------|-------|------------------|----------------|------------------|-----------|
| | | | | | | | | | RPD | Percent Recovery | |
| Benzene | BSG1432 | BSG1432-BS1 | LCS | 26.470 | 25.000 | 0.50 | ug/L | 106 | | 70 - 130 | |
| Bromodichloromethane | BSG1432 | BSG1432-BS1 | LCS | 21.480 | 25.000 | 0.50 | ug/L | 85.9 | | 70 - 130 | |
| Bromoform | BSG1432 | BSG1432-BS1 | LCS | 22.470 | 25.000 | 0.50 | ug/L | 89.9 | | 70 - 130 | |
| Bromomethane | BSG1432 | BSG1432-BS1 | LCS | 36.100 | 25.000 | 1.0 | ug/L | 144 | | 70 - 130 | L02 |
| Carbon tetrachloride | BSG1432 | BSG1432-BS1 | LCS | 23.900 | 25.000 | 0.50 | ug/L | 95.6 | | 70 - 130 | |
| Chlorobenzene | BSG1432 | BSG1432-BS1 | LCS | 24.470 | 25.000 | 0.50 | ug/L | 97.9 | | 70 - 130 | |
| Chloroethane | BSG1432 | BSG1432-BS1 | LCS | 29.630 | 25.000 | 0.50 | ug/L | 119 | | 70 - 130 | |
| Chloroform | BSG1432 | BSG1432-BS1 | LCS | 24.300 | 25.000 | 0.50 | ug/L | 97.2 | | 70 - 130 | |
| Chloromethane | BSG1432 | BSG1432-BS1 | LCS | 31.750 | 25.000 | 0.50 | ug/L | 127 | | 70 - 130 | |
| Dibromochloromethane | BSG1432 | BSG1432-BS1 | LCS | 23.920 | 25.000 | 0.50 | ug/L | 95.7 | | 70 - 130 | |
| 1,2-Dichlorobenzene | BSG1432 | BSG1432-BS1 | LCS | 25.300 | 25.000 | 0.50 | ug/L | 101 | | 70 - 130 | |
| 1,3-Dichlorobenzene | BSG1432 | BSG1432-BS1 | LCS | 25.500 | 25.000 | 0.50 | ug/L | 102 | | 70 - 130 | |
| 1,4-Dichlorobenzene | BSG1432 | BSG1432-BS1 | LCS | 25.520 | 25.000 | 0.50 | ug/L | 102 | | 70 - 130 | |
| 1,1-Dichloroethane | BSG1432 | BSG1432-BS1 | LCS | 22.260 | 25.000 | 0.50 | ug/L | 89.0 | | 70 - 130 | |
| 1,2-Dichloroethane | BSG1432 | BSG1432-BS1 | LCS | 23.190 | 25.000 | 0.50 | ug/L | 92.8 | | 70 - 130 | |
| 1,1-Dichloroethene | BSG1432 | BSG1432-BS1 | LCS | 29.890 | 25.000 | 0.50 | ug/L | 120 | | 70 - 130 | |
| trans-1,2-Dichloroethene | BSG1432 | BSG1432-BS1 | LCS | 29.150 | 25.000 | 0.50 | ug/L | 117 | | 70 - 130 | |
| 1,2-Dichloropropane | BSG1432 | BSG1432-BS1 | LCS | 24.490 | 25.000 | 0.50 | ug/L | 98.0 | | 70 - 130 | |
| cis-1,3-Dichloropropene | BSG1432 | BSG1432-BS1 | LCS | 23.440 | 25.000 | 0.50 | ug/L | 93.8 | | 70 - 130 | |
| trans-1,3-Dichloropropene | BSG1432 | BSG1432-BS1 | LCS | 22.490 | 25.000 | 0.50 | ug/L | 90.0 | | 70 - 130 | |
| Ethylbenzene | BSG1432 | BSG1432-BS1 | LCS | 24.000 | 25.000 | 0.50 | ug/L | 96.0 | | 70 - 130 | |
| Methylene chloride | BSG1432 | BSG1432-BS1 | LCS | 25.600 | 25.000 | 1.0 | ug/L | 102 | | 70 - 130 | |
| Methyl t-butyl ether | BSG1432 | BSG1432-BS1 | LCS | 24.060 | 25.000 | 0.50 | ug/L | 96.2 | | 70 - 130 | |

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
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Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

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Volatile Organic Analysis (EPA Method 624)

Quality Control Report - Laboratory Control Sample

| Constituent | Batch ID | QC Sample ID | QC Type | Result | Spike Level | PQL | Units | Percent Recovery | RPD | Control Limits | | Lab Quals |
|---------------------------------------|----------|--------------|---------|--------|-------------|------|-------|------------------|-----|------------------|-----|-----------|
| | | | | | | | | | | Percent Recovery | RPD | |
| 1,1,2,2-Tetrachloroethane | BSG1432 | BSG1432-BS1 | LCS | 24.120 | 25.000 | 0.50 | ug/L | 96.5 | | 70 - 130 | | |
| Tetrachloroethene | BSG1432 | BSG1432-BS1 | LCS | 24.960 | 25.000 | 0.50 | ug/L | 99.8 | | 70 - 130 | | |
| Toluene | BSG1432 | BSG1432-BS1 | LCS | 26.500 | 25.000 | 0.50 | ug/L | 106 | | 70 - 130 | | |
| 1,1,1-Trichloroethane | BSG1432 | BSG1432-BS1 | LCS | 22.480 | 25.000 | 0.50 | ug/L | 89.9 | | 70 - 130 | | |
| 1,1,2-Trichloroethane | BSG1432 | BSG1432-BS1 | LCS | 23.180 | 25.000 | 0.50 | ug/L | 92.7 | | 70 - 130 | | |
| Trichloroethene | BSG1432 | BSG1432-BS1 | LCS | 23.390 | 25.000 | 0.50 | ug/L | 93.6 | | 70 - 130 | | |
| Trichlorofluoromethane | BSG1432 | BSG1432-BS1 | LCS | 26.850 | 25.000 | 0.50 | ug/L | 107 | | 70 - 130 | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | BSG1432 | BSG1432-BS1 | LCS | 28.800 | 25.000 | 0.50 | ug/L | 115 | | 70 - 130 | | |
| Vinyl chloride | BSG1432 | BSG1432-BS1 | LCS | 31.500 | 25.000 | 0.50 | ug/L | 126 | | 70 - 130 | | |
| Total Xylenes | BSG1432 | BSG1432-BS1 | LCS | 77.120 | 75.000 | 0.50 | ug/L | 103 | | 70 - 130 | | |
| p- & m-Xylenes | BSG1432 | BSG1432-BS1 | LCS | 53.000 | 50.000 | 0.50 | ug/L | 106 | | 70 - 130 | | |
| o-Xylene | BSG1432 | BSG1432-BS1 | LCS | 24.120 | 25.000 | 0.50 | ug/L | 96.5 | | 70 - 130 | | |
| 1,2-Dichloroethane-d4 (Surrogate) | BSG1432 | BSG1432-BS1 | LCS | 9.5300 | 10.000 | | ug/L | 95.3 | | 76 - 114 | | |
| Toluene-d8 (Surrogate) | BSG1432 | BSG1432-BS1 | LCS | 9.9400 | 10.000 | | ug/L | 99.4 | | 88 - 110 | | |
| 4-Bromofluorobenzene (Surrogate) | BSG1432 | BSG1432-BS1 | LCS | 9.0400 | 10.000 | | ug/L | 90.4 | | 86 - 115 | | |



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Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

Quality Control Report - Laboratory Control Sample

| Constituent | Batch ID | QC Sample ID | QC Type | Result | Spike Level | PQL | Units | Percent Recovery | Control Limits | | Lab Quals |
|----------------------------------|----------|--------------|---------|--------|-------------|-----|-------|------------------|----------------|------------------|-----------|
| | | | | | | | | | RPD | Percent Recovery | |
| Acenaphthene | BSG1004 | BSG1004-BS1 | LCS | 42.124 | 50.000 | 2.0 | ug/L | 84.2 | | 61 - 127 | |
| 1,4-Dichlorobenzene | BSG1004 | BSG1004-BS1 | LCS | 39.270 | 50.000 | 2.0 | ug/L | 78.5 | | 49 - 126 | |
| 2,4-Dinitrotoluene | BSG1004 | BSG1004-BS1 | LCS | 41.916 | 50.000 | 2.0 | ug/L | 83.8 | | 48 - 139 | |
| Hexachlorobenzene | BSG1004 | BSG1004-BS1 | LCS | 43.313 | 50.000 | 2.0 | ug/L | 86.6 | | 62 - 135 | |
| Hexachlorobutadiene | BSG1004 | BSG1004-BS1 | LCS | 28.492 | 50.000 | 2.0 | ug/L | 57.0 | | 40 - 111 | |
| Hexachloroethane | BSG1004 | BSG1004-BS1 | LCS | 22.642 | 50.000 | 2.0 | ug/L | 45.3 | | 35 - 128 | |
| Nitrobenzene | BSG1004 | BSG1004-BS1 | LCS | 46.516 | 50.000 | 2.0 | ug/L | 93.0 | | 59 - 123 | |
| N-Nitrosodi-N-propylamine | BSG1004 | BSG1004-BS1 | LCS | 46.426 | 50.000 | 2.0 | ug/L | 92.9 | | 36 - 139 | |
| Pyrene | BSG1004 | BSG1004-BS1 | LCS | 55.497 | 50.000 | 2.0 | ug/L | 111 | | 40 - 166 | |
| 1,2,4-Trichlorobenzene | BSG1004 | BSG1004-BS1 | LCS | 38.860 | 50.000 | 2.0 | ug/L | 77.7 | | 55 - 119 | |
| 4-Chloro-3-methylphenol | BSG1004 | BSG1004-BS1 | LCS | 41.455 | 50.000 | 5.0 | ug/L | 82.9 | | 57 - 139 | |
| 2-Chlorophenol | BSG1004 | BSG1004-BS1 | LCS | 37.800 | 50.000 | 2.0 | ug/L | 75.6 | | 51 - 120 | |
| 2-Methylphenol | BSG1004 | BSG1004-BS1 | LCS | 38.192 | 50.000 | 2.0 | ug/L | 76.4 | | 38 - 130 | |
| 3- & 4-Methylphenol | BSG1004 | BSG1004-BS1 | LCS | 58.711 | 100.00 | 2.0 | ug/L | 58.7 | | 36 - 101 | |
| 4-Nitrophenol | BSG1004 | BSG1004-BS1 | LCS | 14.481 | 50.000 | 2.0 | ug/L | 29.0 | | 13 - 66 | |
| Pentachlorophenol | BSG1004 | BSG1004-BS1 | LCS | 34.126 | 50.000 | 10 | ug/L | 68.3 | | 33 - 165 | |
| Phenol | BSG1004 | BSG1004-BS1 | LCS | 19.742 | 50.000 | 2.0 | ug/L | 39.5 | | 19 - 67 | |
| 2,4,6-Trichlorophenol | BSG1004 | BSG1004-BS1 | LCS | 40.902 | 50.000 | 5.0 | ug/L | 81.8 | | 60 - 144 | |
| 2-Fluorophenol (Surrogate) | BSG1004 | BSG1004-BS1 | LCS | 51.533 | 80.000 | | ug/L | 64.4 | | 17 - 115 | |
| Phenol-d5 (Surrogate) | BSG1004 | BSG1004-BS1 | LCS | 33.669 | 80.000 | | ug/L | 42.1 | | 17 - 77 | |
| Nitrobenzene-d5 (Surrogate) | BSG1004 | BSG1004-BS1 | LCS | 84.175 | 80.000 | | ug/L | 105 | | 60 - 136 | |
| 2-Fluorobiphenyl (Surrogate) | BSG1004 | BSG1004-BS1 | LCS | 67.256 | 80.000 | | ug/L | 84.1 | | 57 - 135 | |
| 2,4,6-Tribromophenol (Surrogate) | BSG1004 | BSG1004-BS1 | LCS | 82.850 | 80.000 | | ug/L | 104 | | 55 - 172 | |



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Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

Quality Control Report - Laboratory Control Sample

| Constituent | Batch ID | QC Sample ID | QC Type | Result | Spike Level | PQL | Units | Percent Recovery | RPD | Control Limits | | Lab Quals |
|-----------------------------|----------|--------------|---------|--------|-------------|-----|-------|------------------|-----|------------------|-----|-----------|
| | | | | | | | | | | Percent Recovery | RPD | |
| p-Terphenyl-d14 (Surrogate) | BSG1004 | BSG1004-BS1 | LCS | 49.429 | 40.000 | | ug/L | 124 | | 46 - 185 | | |

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Project Number: [none]
Project Manager: Doug Coats

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Organo-Phosphorus Pesticide Analysis (EPA Method 8140)

Quality Control Report - Laboratory Control Sample

| Constituent | Batch ID | QC Sample ID | QC Type | Result | Spike Level | PQL | Units | Percent Recovery | RPD | Control Limits | | Lab Quals |
|--------------------------------|----------|--------------|---------|---------|-------------|------|-------|------------------|-----|------------------|-----|-----------|
| | | | | | | | | | | Percent Recovery | RPD | |
| Bolstar | BSG1019 | BSG1019-BS1 | LCS | 0.38000 | 1.0000 | 0.20 | ug/L | 38.0 | | 42 - 127 | | L01 |
| Chlorpyrifos | BSG1019 | BSG1019-BS1 | LCS | 0.44500 | 1.0000 | 0.20 | ug/L | 44.5 | | 31 - 142 | | |
| Diazinon | BSG1019 | BSG1019-BS1 | LCS | 0.54000 | 1.0000 | 0.20 | ug/L | 54.0 | | 53 - 137 | | |
| Methyl parathion | BSG1019 | BSG1019-BS1 | LCS | 0.41500 | 1.0000 | 0.20 | ug/L | 41.5 | | 24 - 148 | | |
| Mevinphos | BSG1019 | BSG1019-BS1 | LCS | 0.40500 | 1.0000 | 0.20 | ug/L | 40.5 | | 46 - 140 | | L01 |
| Ronnel (Fenclorphos) | BSG1019 | BSG1019-BS1 | LCS | 0.40000 | 1.0000 | 0.20 | ug/L | 40.0 | | 30 - 136 | | |
| Stirophos (Tetrachlorvinphos) | BSG1019 | BSG1019-BS1 | LCS | 0.44500 | 1.0000 | 0.20 | ug/L | 44.5 | | 36 - 159 | | |
| Triphenylphosphate (Surrogate) | BSG1019 | BSG1019-BS1 | LCS | 1.6500 | 2.5000 | 0.20 | ug/L | 66.0 | | 51 - 141 | | |

| | | |
|--|---|-----------------------------------|
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|--|---|-----------------------------------|

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

| Constituent | Batch ID | QC Sample ID | QC Type | Result | Spike Level | PQL | Units | Percent Recovery | RPD | Control Limits | | Lab Quals |
|---------------|----------|--------------|---------|---------|-------------|--------|-------|------------------|-----|------------------|-----|-----------|
| | | | | | | | | | | Percent Recovery | RPD | |
| Total Cyanide | BSG0881 | BSG0881-BS1 | LCS | 0.14783 | 0.15000 | 0.0050 | mg/L | 98.6 | | 90 - 110 | | |



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Project Manager: Doug Coats

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Water Analysis (Metals)

Quality Control Report - Laboratory Control Sample

| Constituent | Batch ID | QC Sample ID | QC Type | Result | Spike Level | PQL | Units | Percent Recovery | Control Limits | | Lab Quals |
|----------------------------|----------|--------------|---------|---------|-------------|------|-------|------------------|----------------|------------------|-----------|
| | | | | | | | | | RPD | Percent Recovery | |
| Total Antimony | BSG0911 | BSG0911-BS1 | LCS | 420.49 | 400.00 | 100 | ug/L | 105 | | 85 - 115 | |
| Total Beryllium | BSG0911 | BSG0911-BS1 | LCS | 226.53 | 200.00 | 10 | ug/L | 113 | | 85 - 115 | |
| Total Cadmium | BSG0911 | BSG0911-BS1 | LCS | 212.29 | 200.00 | 10 | ug/L | 106 | | 85 - 115 | |
| Total Chromium | BSG0911 | BSG0911-BS1 | LCS | 218.90 | 200.00 | 10 | ug/L | 109 | | 85 - 115 | |
| Total Copper | BSG0911 | BSG0911-BS1 | LCS | 423.11 | 400.00 | 10 | ug/L | 106 | | 85 - 115 | |
| Total Nickel | BSG0911 | BSG0911-BS1 | LCS | 457.44 | 400.00 | 10 | ug/L | 114 | | 85 - 115 | |
| Total Silver | BSG0911 | BSG0911-BS1 | LCS | 105.95 | 100.00 | 10 | ug/L | 106 | | 85 - 115 | |
| Total Zinc | BSG0911 | BSG0911-BS1 | LCS | 566.69 | 500.00 | 50 | ug/L | 113 | | 85 - 115 | |
| Total Recoverable Arsenic | BSG1018 | BSG1018-BS1 | LCS | 96.477 | 100.00 | 2.0 | ug/L | 96.5 | | 85 - 115 | |
| Total Recoverable Lead | BSG1018 | BSG1018-BS1 | LCS | 98.881 | 100.00 | 1.0 | ug/L | 98.9 | | 85 - 115 | |
| Total Recoverable Selenium | BSG1018 | BSG1018-BS1 | LCS | 94.836 | 100.00 | 2.0 | ug/L | 94.8 | | 85 - 115 | |
| Total Recoverable Thallium | BSG1018 | BSG1018-BS1 | LCS | 39.440 | 40.000 | 1.0 | ug/L | 98.6 | | 85 - 115 | |
| Total Mercury | BSG1145 | BSG1145-BS1 | LCS | 0.94000 | 1.0000 | 0.20 | ug/L | 94.0 | | 85 - 115 | |



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Project Manager: Doug Coats

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Organochlorine Pesticides and PCB's (EPA Method 608)

Quality Control Report - Method Blank Analysis

| Constituent | Batch ID | QC Sample ID | MB Result | Units | PQL | MDL | Lab Quals |
|-----------------------|----------|--------------|-----------|-------|--------|---------|-----------|
| Aldrin | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.0050 | 0.0013 | |
| alpha-BHC | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.0050 | 0.0011 | |
| beta-BHC | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.0050 | 0.0021 | |
| delta-BHC | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.0050 | 0.0014 | |
| gamma-BHC (Lindane) | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.0050 | 0.00094 | |
| Chlordane (Technical) | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.50 | 0.38 | |
| 4,4'-DDD | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.0050 | 0.0017 | |
| 4,4'-DDE | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.0050 | 0.0019 | |
| 4,4'-DDT | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.0050 | 0.00076 | |
| Dieldrin | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.0050 | 0.0012 | |
| Endosulfan I | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.0050 | 0.0016 | |
| Endosulfan II | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.0050 | 0.0014 | |
| Endosulfan sulfate | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.0050 | 0.0026 | |
| Endrin | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.0050 | 0.00082 | |
| Endrin aldehyde | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.010 | 0.0032 | |
| Heptachlor | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.0050 | 0.0012 | |
| Heptachlor epoxide | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.0050 | 0.00099 | |
| Methoxychlor | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.0050 | 0.0011 | |
| Toxaphene | BSG1005 | BSG1005-BLK1 | ND | ug/L | 2.0 | 0.42 | |
| PCB-1016 | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.20 | 0.020 | |
| PCB-1221 | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.20 | 0.089 | |
| PCB-1232 | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.20 | 0.090 | |
| PCB-1242 | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.20 | 0.095 | |
| PCB-1248 | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.20 | 0.025 | |



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Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

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Organochlorine Pesticides and PCB's (EPA Method 608)

Quality Control Report - Method Blank Analysis

| Constituent | Batch ID | QC Sample ID | MB Result | Units | PQL | MDL | Lab Quals |
|---------------------------------|----------|--------------|-----------|-------|----------------------|-------|-----------|
| PCB-1254 | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.20 | 0.042 | |
| PCB-1260 | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.20 | 0.020 | |
| Total PCB's (Summation) | BSG1005 | BSG1005-BLK1 | ND | ug/L | 0.20 | 0.10 | |
| TCMX (Surrogate) | BSG1005 | BSG1005-BLK1 | 83.1 | % | 46 - 138 (LCL - UCL) | | |
| Dibutyl chlorendate (Surrogate) | BSG1005 | BSG1005-BLK1 | 93.7 | % | 45 - 136 (LCL - UCL) | | |



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Project Number: [none]
Project Manager: Doug Coats

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Volatile Organic Analysis (EPA Method 624)

Quality Control Report - Method Blank Analysis

| Constituent | Batch ID | QC Sample ID | MB Result | Units | PQL | MDL | Lab Quals |
|---------------------------|----------|--------------|-----------|-------|------|-------|-----------|
| Benzene | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.061 | |
| Bromodichloromethane | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.15 | |
| Bromoform | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.19 | |
| Bromomethane | BSG1432 | BSG1432-BLK1 | ND | ug/L | 1.0 | 0.085 | |
| Carbon tetrachloride | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.074 | |
| Chlorobenzene | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.067 | |
| Chloroethane | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.086 | |
| Chloroform | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.050 | |
| Chloromethane | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.11 | |
| Dibromochloromethane | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.067 | |
| 1,2-Dichlorobenzene | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.058 | |
| 1,3-Dichlorobenzene | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.050 | |
| 1,4-Dichlorobenzene | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.058 | |
| 1,1-Dichloroethane | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.081 | |
| 1,2-Dichloroethane | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.11 | |
| 1,1-Dichloroethene | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.092 | |
| trans-1,2-Dichloroethene | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.097 | |
| 1,2-Dichloropropane | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.097 | |
| cis-1,3-Dichloropropene | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.096 | |
| trans-1,3-Dichloropropene | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.072 | |
| Ethylbenzene | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.068 | |
| Methylene chloride | BSG1432 | BSG1432-BLK1 | ND | ug/L | 1.0 | 0.28 | |
| Methyl t-butyl ether | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.093 | |
| 1,1,2,2-Tetrachloroethane | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.31 | |

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Project: Semi-Annual Eff
Project Number: [none]
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Volatile Organic Analysis (EPA Method 624)

Quality Control Report - Method Blank Analysis

| Constituent | Batch ID | QC Sample ID | MB Result | Units | PQL | MDL | Lab Quals |
|---------------------------------------|----------|--------------|-----------|-------|----------------------|-------|-----------|
| Tetrachloroethene | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.11 | |
| Toluene | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.065 | |
| 1,1,1-Trichloroethane | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.063 | |
| 1,1,2-Trichloroethane | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.21 | |
| Trichloroethene | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.15 | |
| Trichlorofluoromethane | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.077 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.072 | |
| Vinyl chloride | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.11 | |
| Total Xylenes | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.16 | |
| Acrolein | BSG1432 | BSG1432-BLK1 | ND | ug/L | 20 | 7.3 | |
| Acrylonitrile | BSG1432 | BSG1432-BLK1 | ND | ug/L | 5.0 | 0.97 | |
| p- & m-Xylenes | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.10 | |
| o-Xylene | BSG1432 | BSG1432-BLK1 | ND | ug/L | 0.50 | 0.059 | |
| 1,2-Dichloroethane-d4 (Surrogate) | BSG1432 | BSG1432-BLK1 | 93.8 | % | 76 - 114 (LCL - UCL) | | |
| Toluene-d8 (Surrogate) | BSG1432 | BSG1432-BLK1 | 97.6 | % | 88 - 110 (LCL - UCL) | | |
| 4-Bromofluorobenzene (Surrogate) | BSG1432 | BSG1432-BLK1 | 89.5 | % | 86 - 115 (LCL - UCL) | | |



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Project Number: [none]
Project Manager: Doug Coats

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Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

Quality Control Report - Method Blank Analysis

| Constituent | Batch ID | QC Sample ID | MB Result | Units | PQL | MDL | Lab Quals |
|-----------------------------|----------|--------------|-----------|-------|-----|------|-----------|
| Acenaphthene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.24 | |
| Acenaphthylene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.28 | |
| Aldrin | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.35 | |
| Aniline | BSG1004 | BSG1004-BLK1 | ND | ug/L | 5.0 | 0.69 | |
| Anthracene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.30 | |
| Benzidine | BSG1004 | BSG1004-BLK1 | ND | ug/L | 20 | 7.1 | |
| Benzo[a]anthracene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.38 | |
| Benzo[b]fluoranthene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.41 | |
| Benzo[k]fluoranthene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.31 | |
| Benzo[a]pyrene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.20 | |
| Benzo[g,h,i]perylene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.22 | |
| Benzoic acid | BSG1004 | BSG1004-BLK1 | ND | ug/L | 10 | 5.8 | |
| Benzyl alcohol | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.34 | |
| Benzyl butyl phthalate | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.47 | |
| alpha-BHC | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.27 | |
| beta-BHC | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.27 | |
| delta-BHC | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.30 | |
| gamma-BHC (Lindane) | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.22 | |
| bis(2-Chloroethoxy)methane | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.27 | |
| bis(2-Chloroethyl) ether | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.68 | |
| bis(2-Chloroisopropyl)ether | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.30 | |
| bis(2-Ethylhexyl)phthalate | BSG1004 | BSG1004-BLK1 | ND | ug/L | 5.0 | 1.8 | |
| 4-Bromophenyl phenyl ether | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.23 | |
| 4-Chloroaniline | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.69 | |



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Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

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Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

Quality Control Report - Method Blank Analysis

| Constituent | Batch ID | QC Sample ID | MB Result | Units | PQL | MDL | Lab Quals |
|-----------------------------|----------|--------------|-----------|-------|-----|------|-----------|
| 2-Chloronaphthalene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.34 | |
| 4-Chlorophenyl phenyl ether | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.23 | |
| Chrysene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.63 | |
| 4,4'-DDD | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.48 | |
| 4,4'-DDE | BSG1004 | BSG1004-BLK1 | ND | ug/L | 3.0 | 0.41 | |
| 4,4'-DDT | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.43 | |
| Dibenzo[a,h]anthracene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 3.0 | 0.26 | |
| Dibenzofuran | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.21 | |
| 1,2-Dichlorobenzene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.37 | |
| 1,3-Dichlorobenzene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.35 | |
| 1,4-Dichlorobenzene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.31 | |
| 3,3-Dichlorobenzidine | BSG1004 | BSG1004-BLK1 | ND | ug/L | 10 | 8.2 | |
| Dieldrin | BSG1004 | BSG1004-BLK1 | ND | ug/L | 3.0 | 0.41 | |
| Diethyl phthalate | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.33 | |
| Dimethyl phthalate | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.39 | |
| Di-n-butyl phthalate | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.39 | |
| 2,4-Dinitrotoluene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.26 | |
| 2,6-Dinitrotoluene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.41 | |
| Di-n-octyl phthalate | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.46 | |
| 1,2-Diphenylhydrazine | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.34 | |
| Endosulfan I | BSG1004 | BSG1004-BLK1 | ND | ug/L | 10 | 1.7 | |
| Endosulfan II | BSG1004 | BSG1004-BLK1 | ND | ug/L | 10 | 1.2 | |
| Endosulfan sulfate | BSG1004 | BSG1004-BLK1 | ND | ug/L | 3.0 | 0.58 | |
| Endrin | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 1.1 | |



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Project: Semi-Annual Eff
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Project Manager: Doug Coats

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Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

Quality Control Report - Method Blank Analysis

| Constituent | Batch ID | QC Sample ID | MB Result | Units | PQL | MDL | Lab Quals |
|---------------------------|----------|--------------|-----------|-------|-----|------|-----------|
| Endrin aldehyde | BSG1004 | BSG1004-BLK1 | ND | ug/L | 10 | 0.52 | |
| Fluoranthene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.20 | |
| Fluorene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.28 | |
| Heptachlor | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.32 | |
| Heptachlor epoxide | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.27 | |
| Hexachlorobenzene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.20 | |
| Hexachlorobutadiene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.24 | |
| Hexachlorocyclopentadiene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.30 | |
| Hexachloroethane | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.32 | |
| Indeno[1,2,3-cd]pyrene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.26 | |
| Isophorone | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.31 | |
| 2-Methylnaphthalene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.28 | |
| Naphthalene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.21 | |
| 2-Naphthylamine | BSG1004 | BSG1004-BLK1 | ND | ug/L | 20 | 4.8 | |
| 2-Nitroaniline | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.33 | |
| 3-Nitroaniline | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.66 | |
| 4-Nitroaniline | BSG1004 | BSG1004-BLK1 | ND | ug/L | 5.0 | 0.87 | |
| Nitrobenzene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.26 | |
| N-Nitrosodimethylamine | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.61 | |
| N-Nitrosodi-N-propylamine | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 1.3 | |
| N-Nitrosodiphenylamine | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.44 | |
| Phenanthrene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.20 | |
| Pyrene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.26 | |
| 1,2,4-Trichlorobenzene | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.27 | |



Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

Quality Control Report - Method Blank Analysis

| Constituent | Batch ID | QC Sample ID | MB Result | Units | PQL | MDL | Lab Quals |
|----------------------------------|----------|--------------|-----------|-------|----------------------|------|-----------|
| 4-Chloro-3-methylphenol | BSG1004 | BSG1004-BLK1 | ND | ug/L | 5.0 | 0.40 | |
| 2-Chlorophenol | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.37 | |
| 2,4-Dichlorophenol | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.43 | |
| 2,4-Dimethylphenol | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.20 | |
| 4,6-Dinitro-2-methylphenol | BSG1004 | BSG1004-BLK1 | ND | ug/L | 10 | 0.34 | |
| 2,4-Dinitrophenol | BSG1004 | BSG1004-BLK1 | ND | ug/L | 10 | 0.20 | |
| 2-Methylphenol | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 1.0 | |
| 3- & 4-Methylphenol | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 1.6 | |
| 2-Nitrophenol | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.28 | |
| 4-Nitrophenol | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.73 | |
| Pentachlorophenol | BSG1004 | BSG1004-BLK1 | ND | ug/L | 10 | 0.79 | |
| Phenol | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 0.20 | |
| 2,4,5-Trichlorophenol | BSG1004 | BSG1004-BLK1 | ND | ug/L | 5.0 | 0.31 | |
| 2,4,6-Trichlorophenol | BSG1004 | BSG1004-BLK1 | ND | ug/L | 5.0 | 0.60 | |
| 2-Fluorophenol (Surrogate) | BSG1004 | BSG1004-BLK1 | 61.7 | % | 17 - 115 (LCL - UCL) | | |
| Phenol-d5 (Surrogate) | BSG1004 | BSG1004-BLK1 | 40.8 | % | 17 - 77 (LCL - UCL) | | |
| Nitrobenzene-d5 (Surrogate) | BSG1004 | BSG1004-BLK1 | 101 | % | 60 - 136 (LCL - UCL) | | |
| 2-Fluorobiphenyl (Surrogate) | BSG1004 | BSG1004-BLK1 | 82.8 | % | 57 - 135 (LCL - UCL) | | |
| 2,4,6-Tribromophenol (Surrogate) | BSG1004 | BSG1004-BLK1 | 98.1 | % | 55 - 172 (LCL - UCL) | | |
| p-Terphenyl-d14 (Surrogate) | BSG1004 | BSG1004-BLK1 | 109 | % | 46 - 185 (LCL - UCL) | | |



Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Organo-Phosphorus Pesticide Analysis (EPA Method 8140)

Quality Control Report - Method Blank Analysis

| Constituent | Batch ID | QC Sample ID | MB Result | Units | PQL | MDL | Lab Quals |
|--------------------------------|----------|--------------|-----------|-------|----------------------|-------|-----------|
| Azinphos methyl | BSG1019 | BSG1019-BLK1 | ND | ug/L | 0.20 | 0.055 | |
| Bolstar | BSG1019 | BSG1019-BLK1 | ND | ug/L | 0.20 | 0.055 | |
| Chlorpyrifos | BSG1019 | BSG1019-BLK1 | ND | ug/L | 0.20 | 0.024 | |
| Coumaphos | BSG1019 | BSG1019-BLK1 | ND | ug/L | 0.20 | 0.054 | |
| Demeton O/S | BSG1019 | BSG1019-BLK1 | ND | ug/L | 0.20 | 0.026 | |
| Diazinon | BSG1019 | BSG1019-BLK1 | ND | ug/L | 0.20 | 0.044 | |
| Dichlorvos | BSG1019 | BSG1019-BLK1 | ND | ug/L | 0.20 | 0.070 | |
| Disulfoton | BSG1019 | BSG1019-BLK1 | ND | ug/L | 0.50 | 0.039 | |
| Ethoprop | BSG1019 | BSG1019-BLK1 | ND | ug/L | 0.20 | 0.025 | |
| Fensulfothion | BSG1019 | BSG1019-BLK1 | ND | ug/L | 0.20 | 0.088 | |
| Fenthion | BSG1019 | BSG1019-BLK1 | ND | ug/L | 0.20 | 0.033 | |
| Merphos | BSG1019 | BSG1019-BLK1 | ND | ug/L | 0.20 | 0.058 | |
| Methyl parathion | BSG1019 | BSG1019-BLK1 | ND | ug/L | 0.20 | 0.074 | |
| Mevinphos | BSG1019 | BSG1019-BLK1 | ND | ug/L | 0.20 | 0.053 | |
| Naled | BSG1019 | BSG1019-BLK1 | ND | ug/L | 0.20 | 0.072 | |
| Phorate | BSG1019 | BSG1019-BLK1 | ND | ug/L | 0.20 | 0.041 | |
| Ronnel (Fenchlorphos) | BSG1019 | BSG1019-BLK1 | ND | ug/L | 0.20 | 0.067 | |
| Stirophos (Tetrachlorvinphos) | BSG1019 | BSG1019-BLK1 | ND | ug/L | 0.20 | 0.046 | |
| Tokuthion (Prothiofos) | BSG1019 | BSG1019-BLK1 | ND | ug/L | 0.20 | 0.032 | |
| Trichloronate | BSG1019 | BSG1019-BLK1 | ND | ug/L | 0.20 | 0.038 | |
| Triphenylphosphate (Surrogate) | BSG1019 | BSG1019-BLK1 | 77.0 | % | 55 - 132 (LCL - UCL) | | |



Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

| Constituent | Batch ID | QC Sample ID | MB Result | Units | PQL | MDL | Lab Quals |
|---------------|----------|--------------|-----------|-------|--------|--------|-----------|
| Total Cyanide | BSG0881 | BSG0881-BLK1 | ND | mg/L | 0.0050 | 0.0028 | |



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Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Water Analysis (Metals)

Quality Control Report - Method Blank Analysis

| Constituent | Batch ID | QC Sample ID | MB Result | Units | PQL | MDL | Lab Quals |
|----------------------------|----------|--------------|-----------|-------|------|-------|-----------|
| Total Antimony | BSG0911 | BSG0911-BLK1 | ND | ug/L | 100 | 34 | |
| Total Beryllium | BSG0911 | BSG0911-BLK1 | ND | ug/L | 10 | 0.44 | |
| Total Cadmium | BSG0911 | BSG0911-BLK1 | ND | ug/L | 10 | 0.57 | |
| Total Chromium | BSG0911 | BSG0911-BLK1 | ND | ug/L | 10 | 0.80 | |
| Total Copper | BSG0911 | BSG0911-BLK1 | ND | ug/L | 10 | 1.5 | |
| Total Nickel | BSG0911 | BSG0911-BLK1 | ND | ug/L | 10 | 1.5 | |
| Total Silver | BSG0911 | BSG0911-BLK1 | ND | ug/L | 10 | 1.9 | |
| Total Zinc | BSG0911 | BSG0911-BLK1 | 2.9851 | ug/L | 50 | 2.1 | J |
| Total Recoverable Arsenic | BSG1018 | BSG1018-BLK1 | ND | ug/L | 2.0 | 1.1 | |
| Total Recoverable Lead | BSG1018 | BSG1018-BLK1 | ND | ug/L | 1.0 | 0.19 | |
| Total Recoverable Selenium | BSG1018 | BSG1018-BLK1 | ND | ug/L | 2.0 | 0.54 | |
| Total Recoverable Thallium | BSG1018 | BSG1018-BLK1 | ND | ug/L | 1.0 | 0.11 | |
| Total Mercury | BSG1145 | BSG1145-BLK1 | ND | ug/L | 0.20 | 0.016 | |



Marine Research Specialists
3140 Telegraph Road, Suite A
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Ventura, CA 93003-3238

Project: Semi-Annual Eff
Project Number: [none]
Project Manager: Doug Coats

Reported: 07/28/2009 14:25

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference
- A18 Surrogate not reportable due to matrix interference.
- L01 The Laboratory Control Sample Water (LCSW) recovery is not within laboratory established control limits.
- L02 The Laboratory Control Sample Water (LCSW) recovery is not within method established control limits.
- Q02 Matrix spike precision is not within the control limits.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.
- V01 The Initial Calibration Verification (ICV) recovery is not within established control limits.
- V11 The Continuing Calibration Verification (CCV) recovery is not within established control limits.

09-09228

**Analysis Effluent Samples to be collected from the Morro Bay
Wastewater Treatment Plant on Wednesday, July 15, 2009**

| Analysis | Sample | Method |
|--|---------------|--------------------------|
| Level IIA QC Report concentrations that are detected above the MDL, but are below the PQL | | |
| Ammonia as N w/ distillation | Grab | EPA-350.1 |
| Total Chlorinated and Total Non- Chlorinated Phenolic Compounds (Report only the phenolic compounds) | Grab | EPA-625 |
| 13 Metals: | | |
| Ag Silver | Composite | EPA 200.7 |
| As Arsenic | Composite | EPA 200.8 |
| Be Beryllium | Composite | EPA 200.7 |
| Cd Cadmium | Composite | EPA 200.7 |
| Cr Chromium | Composite | EPA 200.7 |
| Cu Copper | Composite | EPA 200.7 |
| Hg Mercury | Composite | EPA 245.1 |
| Ni Nickel | Composite | EPA 200.7 |
| Pb Lead | Composite | EPA 200.8 |
| Sb Antimony | Composite | EPA 200.7 |
| Se Selenium | Composite | EPA 200.8 |
| Tl Thallium | Composite | EPA 200.8 |
| Zn Zinc | Composite | EPA 200.7 |
| Volatile Organics - Low Level Including Acrolein, Acrylonitrile, and MTBE | Composite | EPA 624/8240 |
| Organochlorine Pesticides and PCBs | Composite | EPA 608/8080 |
| Phenolic Compounds: Full list of base- neutral and acid-extractable congeners | Composite | EPA 625/8270 |
| Cyanide | Composite | EPA 335.3 |
| Organophosphorus Pesticides | Composite | EPA 614/8140 |
| Radioactivity: Gross Alpha and Beta | Composite | SM 7110C & EPA 900.0 |
| Asbestos | Composite | EPA 600/R-94/134-(100.2) |

Invoice and Report to be sent to: Dr. Douglas A. Coats (Doug.Coats@mrsenv.com)
Marine Research Specialists
3140 Telegraph Rd., Suite A
Ventura, CA 93003
Telephone: (805) 644-1180

Samples to be collected from: Morro Bay Wastewater Treatment Plant
160 Atascadero Rd.
Morro Bay, CA 93442
Telephone: (805) 772-6272

Submission #: 09-09228

SHIPPING INFORMATION

Federal Express UPS Hand Delivery
 BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER

Ice Chest None
 Box Other (Specify) _____

Refrigerant: Ice Blue Ice None Other Comments:

Custody Seals Ice Chest Containers None Comments:
 Intact? Yes No Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received

YES NO

Emissivity: 0.98 Container: DHC Thermometer ID: TM163

Temperature: A 2.7 °C / C 2.4 °C

Date/Time 7/15/09 1930

Analyst Init JKW

| SAMPLE CONTAINERS | SAMPLE NUMBERS | | | | | | | | | |
|--------------------------------------|----------------|-----|----|---|---|---|---|---|---|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| QT GENERAL MINERAL/ GENERAL PHYSICAL | D | | | | | | | | | |
| PT PE UNPRESERVED | | | | | | | | | | |
| QT INORGANIC CHEMICAL METALS | | | | | | | | | | |
| PT INORGANIC CHEMICAL METALS | C | | | | | | | | | |
| PT CYANIDE | B | | | | | | | | | |
| PT NITROGEN FORMS | | | | | | | | | | |
| PT TOTAL SULFIDE | | | | | | | | | | |
| 2oz NITRATE / NITRITE | | | | | | | | | | |
| PT TOTAL ORGANIC CARBON | | | | | | | | | | |
| PT TOX | | | | | | | | | | |
| PT CHEMICAL OXYGEN DEMAND | | | | | | | | | | |
| PLA PHENOLICS | | | | | | | | | | |
| 40ml VOA VIAL TRAVEL BLANK | | | | | | | | | | |
| 40ml VOA VIAL | A B | A 1 | | | | | | | | |
| QT EPA 413.1, 413.2, 418.1 | | | | | | | | | | |
| PT ODOR | | | | | | | | | | |
| RADIOLOGICAL | EFGH | | | | | | | | | |
| BACTERIOLOGICAL | | | | | | | | | | |
| 40 ml VOA VIAL- 504 | | | | | | | | | | |
| QT EPA 508/608/8080 | C48 | F | | | | | | | | |
| QT EPA 515-1/8150 | 8140/8141 | 072 | JK | | | | | | | |
| QT EPA 525 | | | | | | | | | | |
| QT EPA 525 TRAVEL BLANK | | | | | | | | | | |
| 100ml EPA 547 | | | | | | | | | | |
| 100ml EPA 531.1 | | | | | | | | | | |
| QT EPA 548 | | | | | | | | | | |
| QT EPA 549 | | | | | | | | | | |
| QT EPA 632 | | | | | | | | | | |
| QT EPA 8015M | | | | | | | | | | |
| QT AMBER | | | | | | | | | | |
| 8 OZ. JAR | | | | | | | | | | |
| 32 OZ. JAR | | | | | | | | | | |
| SOIL SLEEVE | | | | | | | | | | |
| PCB VIAL | | | | | | | | | | |
| PLASTIC BAG | | | | | | | | | | |
| FERROUS IRON | | | | | | | | | | |
| ENCORE | | | | | | | | | | |

Comments: No description on vocs for composite - ARS.

Sample Numbering Completed By: JKW Date/Time: 7/15/09 1950

A = Actual / C = Corrected



Laboratories, Inc.

Environmental Testing Laboratory Since 1949



Date of Report: 07/28/2009

Doug Coats

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

RE: Semi-Annual Eff
BC Work Order: 0909227
Invoice ID: B065559

Enclosed are the results of analyses for samples received by the laboratory on 7/15/2009. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Tina Green
Client Services Manager

Authorized Signature



Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Semi-Annual Eff
Project Number: Grab
Project Manager: Doug Coats

Reported: 07/28/2009 7:26

Laboratory / Client Sample Cross Reference

| Laboratory | Client Sample Information | | | |
|------------|---------------------------|--------------|-----------------------|------------------|
| 0909227-01 | COC Number: | --- | Receive Date: | 07/15/2009 19:30 |
| | Project Number: | --- | Sampling Date: | 07/15/2009 09:00 |
| | Sampling Location: | --- | Sample Depth: | --- |
| | Sampling Point: | Grab EFF ARS | Sample Matrix: | Water |
| | Sampled By: | --- | | |
| | | | | |



Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Semi-Annual Eff
Project Number: Grab
Project Manager: Doug Coats

Reported: 07/28/2009 7:26

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

| BCL Sample ID: 0909227-01 | | Client Sample Name: Grab EFF ARS, 7/15/2009 9:00:00AM | | | | | | | | | | | |
|----------------------------------|--------|---|----------------------|------|---------|-----------|----------------|---------|----------------|----------|-------------|---------|-----------|
| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instru-ment ID | Dilution | QC Batch ID | MB Bias | Lab Quals |
| 4-Chloro-3-methylphenol | ND | ug/L | 5.0 | 0.40 | EPA-625 | 07/17/09 | 07/21/09 18:51 | SKC | MS-B2 | 1.020 | BSG1004 | | |
| 2-Chlorophenol | ND | ug/L | 2.0 | 0.37 | EPA-625 | 07/17/09 | 07/21/09 18:51 | SKC | MS-B2 | 1.020 | BSG1004 | | |
| 2,4-Dichlorophenol | ND | ug/L | 2.0 | 0.43 | EPA-625 | 07/17/09 | 07/21/09 18:51 | SKC | MS-B2 | 1.020 | BSG1004 | | |
| 2,4-Dimethylphenol | ND | ug/L | 2.0 | 0.20 | EPA-625 | 07/17/09 | 07/21/09 18:51 | SKC | MS-B2 | 1.020 | BSG1004 | | |
| 4,6-Dinitro-2-methylphenol | ND | ug/L | 10 | 0.34 | EPA-625 | 07/17/09 | 07/21/09 18:51 | SKC | MS-B2 | 1.020 | BSG1004 | | |
| 2,4-Dinitrophenol | ND | ug/L | 10 | 0.20 | EPA-625 | 07/17/09 | 07/21/09 18:51 | SKC | MS-B2 | 1.020 | BSG1004 | | |
| 2-Methylphenol | ND | ug/L | 2.0 | 1.0 | EPA-625 | 07/17/09 | 07/21/09 18:51 | SKC | MS-B2 | 1.020 | BSG1004 | | |
| 3- & 4-Methylphenol | ND | ug/L | 2.0 | 1.6 | EPA-625 | 07/17/09 | 07/21/09 18:51 | SKC | MS-B2 | 1.020 | BSG1004 | ND | |
| 2-Nitrophenol | ND | ug/L | 2.0 | 0.28 | EPA-625 | 07/17/09 | 07/21/09 18:51 | SKC | MS-B2 | 1.020 | BSG1004 | | |
| 4-Nitrophenol | ND | ug/L | 2.0 | 0.73 | EPA-625 | 07/17/09 | 07/21/09 18:51 | SKC | MS-B2 | 1.020 | BSG1004 | | |
| Pentachlorophenol | ND | ug/L | 10 | 0.79 | EPA-625 | 07/17/09 | 07/21/09 18:51 | SKC | MS-B2 | 1.020 | BSG1004 | | |
| Phenol | ND | ug/L | 2.0 | 0.20 | EPA-625 | 07/17/09 | 07/21/09 18:51 | SKC | MS-B2 | 1.020 | BSG1004 | | |
| 2,4,5-Trichlorophenol | ND | ug/L | 5.0 | 0.31 | EPA-625 | 07/17/09 | 07/21/09 18:51 | SKC | MS-B2 | 1.020 | BSG1004 | | |
| 2,4,6-Trichlorophenol | ND | ug/L | 5.0 | 0.60 | EPA-625 | 07/17/09 | 07/21/09 18:51 | SKC | MS-B2 | 1.020 | BSG1004 | | |
| 2-Fluorophenol (Surrogate) | 53.2 | % | 17 - 115 (LCL - UCL) | | EPA-625 | 07/17/09 | 07/21/09 18:51 | SKC | MS-B2 | 1.020 | BSG1004 | | |
| Phenol-d5 (Surrogate) | 48.7 | % | 17 - 77 (LCL - UCL) | | EPA-625 | 07/17/09 | 07/21/09 18:51 | SKC | MS-B2 | 1.020 | BSG1004 | | |
| Nitrobenzene-d5 (Surrogate) | 95.2 | % | 60 - 136 (LCL - UCL) | | EPA-625 | 07/17/09 | 07/21/09 18:51 | SKC | MS-B2 | 1.020 | BSG1004 | | |
| 2-Fluorobiphenyl (Surrogate) | 90.7 | % | 57 - 135 (LCL - UCL) | | EPA-625 | 07/17/09 | 07/21/09 18:51 | SKC | MS-B2 | 1.020 | BSG1004 | | |
| 2,4,6-Tribromophenol (Surrogate) | 98.7 | % | 55 - 172 (LCL - UCL) | | EPA-625 | 07/17/09 | 07/21/09 18:51 | SKC | MS-B2 | 1.020 | BSG1004 | | |
| p-Terphenyl-d14 (Surrogate) | 74.9 | % | 46 - 185 (LCL - UCL) | | EPA-625 | 07/17/09 | 07/21/09 18:51 | SKC | MS-B2 | 1.020 | BSG1004 | | |



Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Semi-Annual Eff
Project Number: Grab
Project Manager: Doug Coats

Reported: 07/28/2009 7:26

Water Analysis (General Chemistry)

| | | | | | | | | | | | | | |
|----------------------------------|--|--------------|------------|------------|---------------|------------------|----------------------|----------------|-----------------------|-----------------|--------------------|----------------|------------------|
| BCL Sample ID: 0909227-01 | Client Sample Name: Grab EFF ARS, 7/15/2009 9:00:00AM | | | | | | | | | | | | |
| Constituent | Result | Units | PQL | MDL | Method | Prep Date | Run Date/Time | Analyst | Instru-ment ID | Dilution | QC Batch ID | MB Bias | Lab Quals |
| Ammonia as N (Distilled) | 32 | mg/L | 5.0 | 2.5 | EPA-350.1 | 07/23/09 | 07/24/09 10:15 | JSM | SC-1 | 50 | BSG1289 | 2.5 | A01 |



Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Semi-Annual Eff
Project Number: Grab
Project Manager: Doug Coats

Reported: 07/28/2009 7:26

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

Quality Control Report - Precision & Accuracy

| Constituent | Batch ID | QC Sample Type | Source Sample ID | Source Result | Result | Spike Added | Units | RPD | Percent Recovery | Control Limits | | Lab Quals |
|----------------------------------|----------|------------------------|------------------|---------------|--------|-------------|-------|-----|------------------|----------------|------------------|-----------|
| | | | | | | | | | | RPD | Percent Recovery | |
| 4-Chloro-3-methylphenol | BSG1004 | Matrix Spike | 0905143-97 | | 36.929 | 50.000 | | | | | 56 - 139 | |
| | | Matrix Spike Duplicate | 0905143-97 | | 39.335 | 50.000 | | | | 25 | 56 - 139 | |
| 2-Chlorophenol | BSG1004 | Matrix Spike | 0905143-97 | | 33.010 | 50.000 | | | | | 47 - 121 | |
| | | Matrix Spike Duplicate | 0905143-97 | | 36.324 | 50.000 | | | | 30 | 47 - 121 | |
| 2-Methylphenol | BSG1004 | Matrix Spike | 0905143-97 | | 35.501 | 50.000 | | | | | 39 - 125 | |
| | | Matrix Spike Duplicate | 0905143-97 | | 37.310 | 50.000 | | | | 30 | 39 - 125 | |
| 3- & 4-Methylphenol | BSG1004 | Matrix Spike | 0905143-97 | ND | 52.219 | 100.00 | | | 52.2 | | 36 - 100 | |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 55.459 | 100.00 | | 6.1 | 55.5 | 28 | 36 - 100 | |
| 4-Nitrophenol | BSG1004 | Matrix Spike | 0905143-97 | | 7.4078 | 50.000 | | | | | 15 - 65 | Q03 |
| | | Matrix Spike Duplicate | 0905143-97 | | 14.830 | 50.000 | | | | 30 | 15 - 65 | Q02 |
| Pentachlorophenol | BSG1004 | Matrix Spike | 0905143-97 | | 21.852 | 50.000 | | | | | 30 - 166 | |
| | | Matrix Spike Duplicate | 0905143-97 | | 32.786 | 50.000 | | | | 30 | 30 - 166 | Q02 |
| Phenol | BSG1004 | Matrix Spike | 0905143-97 | | 17.721 | 50.000 | | | | | 21 - 66 | |
| | | Matrix Spike Duplicate | 0905143-97 | | 19.316 | 50.000 | | | | 30 | 21 - 66 | |
| 2,4,6-Trichlorophenol | BSG1004 | Matrix Spike | 0905143-97 | | 30.983 | 50.000 | | | | | 54 - 146 | |
| | | Matrix Spike Duplicate | 0905143-97 | | 39.347 | 50.000 | | | | 26 | 54 - 146 | |
| 2-Fluorophenol (Surrogate) | BSG1004 | Matrix Spike | 0905143-97 | ND | 44.436 | 80.000 | | | 55.5 | | 17 - 115 | |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 51.420 | 80.000 | | | 64.3 | | 17 - 115 | |
| Phenol-d5 (Surrogate) | BSG1004 | Matrix Spike | 0905143-97 | ND | 30.899 | 80.000 | | | 38.6 | | 17 - 77 | |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 33.754 | 80.000 | | | 42.2 | | 17 - 77 | |
| Nitrobenzene-d5 (Surrogate) | BSG1004 | Matrix Spike | 0905143-97 | ND | 82.522 | 80.000 | | | 103 | | 60 - 136 | |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 81.226 | 80.000 | | | 102 | | 60 - 136 | |
| 2-Fluorobiphenyl (Surrogate) | BSG1004 | Matrix Spike | 0905143-97 | ND | 66.569 | 80.000 | | | 83.2 | | 57 - 135 | |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 65.619 | 80.000 | | | 82.0 | | 57 - 135 | |
| 2,4,6-Tribromophenol (Surrogate) | BSG1004 | Matrix Spike | 0905143-97 | ND | 69.499 | 80.000 | | | 86.9 | | 55 - 172 | |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 79.717 | 80.000 | | | 99.6 | | 55 - 172 | |

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.
4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com
Certifications: California - ELAP Certification Number 1186; Nevada Administrative Code - NAC-445A



Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Semi-Annual Eff
Project Number: Grab
Project Manager: Doug Coats

Reported: 07/28/2009 7:26

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

Quality Control Report - Precision & Accuracy

| Constituent | Batch ID | QC Sample Type | Source Sample ID | Source Result | Result | Spike Added | Units | RPD | Percent Recovery | Control Limits | | Lab Quals |
|-----------------------------|----------|------------------------|---------------------|------------------|--------|----------------|-------|-----|---------------------|----------------|---------------------|-----------|
| | | | | | | | | | | RPD | Percent Recovery | |
| p-Terphenyl-d14 (Surrogate) | BSG1004 | Matrix Spike | 0905143-97 | ND | 43.890 | 40.000 | ug/L | | 110 | | 46 - 185 | |
| | | Matrix Spike Duplicate | 0905143-97 | ND | 43.606 | 40.000 | ug/L | | 109 | | 46 - 185 | |



Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Semi-Annual Eff
Project Number: Grab
Project Manager: Doug Coats

Reported: 07/28/2009 7:26

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

| Constituent | Batch ID | QC Sample Type | Source Sample ID | Source Result | Result | Spike Added | Units | RPD | Percent Recovery | Control Limits | | Lab Quals |
|--------------------------|----------|------------------------|---------------------|------------------|---------|----------------|-------|-----|---------------------|----------------|---------------------|-----------|
| | | | | | | | | | | RPD | Percent Recovery | |
| Ammonia as N (Distilled) | BSG1289 | Duplicate | 0909489-04 | 0.19930 | 0.18260 | | mg/L | 8.7 | | 20 | | |
| | | Matrix Spike | 0909489-04 | 0.19930 | 1.3268 | 1.0000 | mg/L | | 113 | | 80 - 120 | |
| | | Matrix Spike Duplicate | 0909489-04 | 0.19930 | 1.3214 | 1.0000 | mg/L | 0.9 | 112 | 20 | 80 - 120 | |

Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Semi-Annual Eff
Project Number: Grab
Project Manager: Doug Coats

Reported: 07/28/2009 7:26

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

Quality Control Report - Laboratory Control Sample

| Constituent | Batch ID | QC Sample ID | QC Type | Result | Spike Level | PQL | Units | Percent Recovery | Control Limits | | Lab Quals |
|----------------------------------|----------|--------------|---------|--------|-------------|-----|-------|------------------|----------------|----------------------|-----------|
| | | | | | | | | | RPD | Percent Recovery RPD | |
| 4-Chloro-3-methylphenol | BSG1004 | BSG1004-BS1 | LCS | 41.455 | 50.000 | 5.0 | ug/L | 82.9 | | 57 - 139 | |
| 2-Chlorophenol | BSG1004 | BSG1004-BS1 | LCS | 37.800 | 50.000 | 2.0 | ug/L | 75.6 | | 51 - 120 | |
| 2-Methylphenol | BSG1004 | BSG1004-BS1 | LCS | 38.192 | 50.000 | 2.0 | ug/L | 76.4 | | 38 - 130 | |
| 3- & 4-Methylphenol | BSG1004 | BSG1004-BS1 | LCS | 58.711 | 100.00 | 2.0 | ug/L | 58.7 | | 36 - 101 | |
| 4-Nitrophenol | BSG1004 | BSG1004-BS1 | LCS | 14.481 | 50.000 | 2.0 | ug/L | 29.0 | | 13 - 66 | |
| Pentachlorophenol | BSG1004 | BSG1004-BS1 | LCS | 34.126 | 50.000 | 10 | ug/L | 68.3 | | 33 - 165 | |
| Phenol | BSG1004 | BSG1004-BS1 | LCS | 19.742 | 50.000 | 2.0 | ug/L | 39.5 | | 19 - 67 | |
| 2,4,6-Trichlorophenol | BSG1004 | BSG1004-BS1 | LCS | 40.902 | 50.000 | 5.0 | ug/L | 81.8 | | 60 - 144 | |
| 2-Fluorophenol (Surrogate) | BSG1004 | BSG1004-BS1 | LCS | 51.533 | 80.000 | | ug/L | 64.4 | | 17 - 115 | |
| Phenol-d5 (Surrogate) | BSG1004 | BSG1004-BS1 | LCS | 33.669 | 80.000 | | ug/L | 42.1 | | 17 - 77 | |
| Nitrobenzene-d5 (Surrogate) | BSG1004 | BSG1004-BS1 | LCS | 84.175 | 80.000 | | ug/L | 105 | | 60 - 136 | |
| 2-Fluorobiphenyl (Surrogate) | BSG1004 | BSG1004-BS1 | LCS | 67.256 | 80.000 | | ug/L | 84.1 | | 57 - 135 | |
| 2,4,6-Tribromophenol (Surrogate) | BSG1004 | BSG1004-BS1 | LCS | 82.850 | 80.000 | | ug/L | 104 | | 55 - 172 | |
| p-Terphenyl-d14 (Surrogate) | BSG1004 | BSG1004-BS1 | LCS | 49.429 | 40.000 | | ug/L | 124 | | 46 - 185 | |



Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Semi-Annual Eff
Project Number: Grab
Project Manager: Doug Coats

Reported: 07/28/2009 7:26

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

| Constituent | Batch ID | QC Sample ID | QC Type | Result | Spike Level | PQL | Units | Percent Recovery | RPD | Control Limits | | Lab Quals |
|--------------------------|----------|--------------|---------|--------|-------------|------|-------|------------------|-----|------------------|-----|-----------|
| | | | | | | | | | | Percent Recovery | RPD | |
| Ammonia as N (Distilled) | BSG1289 | BSG1289-BS1 | LCS | 1.0348 | 1.0000 | 0.10 | mg/L | 103 | | 85 - 115 | | |



Marine Research Specialists
3140 Telegraph Road, Suite A
Suite A
Ventura, CA 93003-3238

Project: Semi-Annual Eff
Project Number: Grab
Project Manager: Doug Coats

Reported: 07/28/2009 7:26

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

Quality Control Report - Method Blank Analysis

| Constituent | Batch ID | QC Sample ID | MB Result | Units | PQL | MDL | Lab Quals |
|----------------------------------|----------|--------------|-----------|-------|----------------------|-----|-----------|
| 3- & 4-Methylphenol | BSG1004 | BSG1004-BLK1 | ND | ug/L | 2.0 | 1.6 | |
| 2-Fluorophenol (Surrogate) | BSG1004 | BSG1004-BLK1 | 61.7 | % | 17 - 115 (LCL - UCL) | | |
| Phenol-d5 (Surrogate) | BSG1004 | BSG1004-BLK1 | 40.8 | % | 17 - 77 (LCL - UCL) | | |
| Nitrobenzene-d5 (Surrogate) | BSG1004 | BSG1004-BLK1 | 101 | % | 60 - 136 (LCL - UCL) | | |
| 2-Fluorobiphenyl (Surrogate) | BSG1004 | BSG1004-BLK1 | 82.8 | % | 57 - 135 (LCL - UCL) | | |
| 2,4,6-Tribromophenol (Surrogate) | BSG1004 | BSG1004-BLK1 | 98.1 | % | 55 - 172 (LCL - UCL) | | |
| p-Terphenyl-d14 (Surrogate) | BSG1004 | BSG1004-BLK1 | 109 | % | 46 - 185 (LCL - UCL) | | |

| | | |
|--|---|----------------------------------|
| Marine Research Specialists 3140 Telegraph Road, Suite A Suite A Ventura, CA 93003-3238 | Project: Semi-Annual Eff Project Number: Grab Project Manager: Doug Coats | Reported: 07/28/2009 7:26 |
|--|---|----------------------------------|

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

| Constituent | Batch ID | QC Sample ID | MB Result | Units | PQL | MDL | Lab Quals |
|--------------------------|----------|--------------|-----------|-------|------|-------|-----------|
| Ammonia as N (Distilled) | BSG1289 | BSG1289-BLK1 | ND | mg/L | 0.10 | 0.050 | |



| | | |
|--|---|----------------------------------|
| Marine Research Specialists 3140 Telegraph Road, Suite A Suite A Ventura, CA 93003-3238 | Project: Semi-Annual Eff Project Number: Grab Project Manager: Doug Coats | Reported: 07/28/2009 7:26 |
|--|---|----------------------------------|

Notes And Definitions

- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference
- A01 PQL's and MDL's are raised due to sample dilution.
- Q02 Matrix spike precision is not within the control limits.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.

Submission #: 09-09227

SHIPPING INFORMATION

Federal Express UPS Hand Delivery
 BC Lab Field Service Other (Specify) _____

SHIPPING CONTAINER

Ice Chest None
 Box Other (Specify) _____

Refrigerant: Ice Blue Ice None Other Comments:

Custody Seals Ice Chest Containers None Comments:
 Intact? Yes No Intact? Yes No

All samples received? Yes No All samples containers intact? Yes No Description(s) match COC? Yes No

COC Received

YES NO

Emissivity: 0.98 Container: DHc Thermometer ID: TN163

Temperature: A 2.7 °C / C 2.4 °C

Date/Time 7/15/09 ¹⁹³⁰

Analyst Init JRW

| SAMPLE CONTAINERS | SAMPLE NUMBERS | | | | | | | | | |
|--------------------------------------|----------------|---|---|---|---|---|---|---|---|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| QT GENERAL MINERAL/ GENERAL PHYSICAL | | | | | | | | | | |
| PT PE UNPRESERVED | | | | | | | | | | |
| QT INORGANIC CHEMICAL METALS | | | | | | | | | | |
| PT INORGANIC CHEMICAL METALS | | | | | | | | | | |
| PT CYANIDE | | | | | | | | | | |
| PT NITROGEN FORMS | A | | | | | | | | | |
| PT TOTAL SULFIDE | | | | | | | | | | |
| 2oz. NITRATE / NITRITE | | | | | | | | | | |
| PT TOTAL ORGANIC CARBON | | | | | | | | | | |
| PT TOX | | | | | | | | | | |
| PT CHEMICAL OXYGEN DEMAND | | | | | | | | | | |
| PTA PHENOLICS | | | | | | | | | | |
| 40ml VOA VIAL TRAVEL BLANK | | | | | | | | | | |
| 40ml VOA VIAL | (| (| (| (| (| (| (| (| (| (|
| QT EPA 413.1, 413.2, 418.1 | | | | | | | | | | |
| PT ODOR | | | | | | | | | | |
| RADIOLOGICAL | | | | | | | | | | |
| BACTERIOLOGICAL | | | | | | | | | | |
| 40 ml VOA VIAL- 504 | | | | | | | | | | |
| QT EPA 508/608/8080 | | | | | | | | | | |
| QT EPA 515.1/8150 | | | | | | | | | | |
| QT EPA 525 <u>Q25</u> | BC | | | | | | | | | |
| QT EPA 525 TRAVEL BLANK | | | | | | | | | | |
| 100ml EPA 547 | | | | | | | | | | |
| 100ml EPA 531.1 | | | | | | | | | | |
| QT EPA 548 | | | | | | | | | | |
| QT EPA 549 | | | | | | | | | | |
| QT EPA 632 | | | | | | | | | | |
| QT EPA 8015M | | | | | | | | | | |
| QT AMBER | | | | | | | | | | |
| 8 OZ. JAR | | | | | | | | | | |
| 32 OZ. JAR | | | | | | | | | | |
| SOIL SLEEVE | | | | | | | | | | |
| PCB VIAL | | | | | | | | | | |
| PLASTIC BAG | | | | | | | | | | |
| FERROUS IRON | | | | | | | | | | |
| ENCORE | | | | | | | | | | |

Comments:

Sample Numbering Completed By: JRW Date/Time: 7/15/09 1950

A = Actual / C = Corrected



Certificate of Analysis

Report Date: Tuesday, July 28, 2009
Received Date: Friday, July 17, 2009
Received Time: 8:20 am
Turnaround Time: Normal

Client: BC Laboratories
4100 Atlas Court
Bakersfield, CA 93308

Phones: (661) 852-4204
Fax: (661) 327-1918

Attn: Tina Green
Project: 0909228

P.O. #:

Lab Sample ID: 9G17010-01 Sample ID: 0909228-01 Matrix: Water
Sampled by: Client Sampled: 07/15/09 09:00

| Analyte | Result | DL | RL | Units | Dil | Method | Prepared | Analized | Batch | Qualifier |
|--|--------|----|----|-------|-----|-----------|----------|---------------|-------------|-----------|
| Gross Beta | 3.1 | | | pCi/L | 1 | EPA 900.0 | 7/24/09 | 7/27/09 9:28 | abd W9G0768 | |
| Gross Beta counting error (+/-) | 1.6 | | | pCi/L | 1 | EPA 900.0 | 7/24/09 | 7/27/09 9:28 | abd W9G0768 | |
| Gross Beta MDA95 | 2.6 | | | pCi/L | 1 | EPA 900.0 | 7/24/09 | 7/27/09 9:28 | abd W9G0768 | |
| Gross Alpha | 0.201 | | | pCi/L | 1 | SM7110C | 7/20/09 | 7/23/09 13:13 | abd W9G0706 | |
| Gross Alpha counting error (+/-) | 0.756 | | | pCi/L | 1 | SM7110C | 7/20/09 | 7/23/09 13:13 | abd W9G0706 | |
| Gross Alpha MDA95 | 0.343 | | | pCi/L | 1 | SM7110C | 7/20/09 | 7/23/09 13:13 | abd W9G0706 | |



Certificate of Analysis

Quality Control Section

Radiological Parameters by APHA/EPA Methods - Quality Control

Batch W9G0706 - SM7110C

| Blank (W9G0706-BLK1) | | | | | Prepared: 07/20/09 | | Analyzed: 07/23/09 13:13 | | |
|--|---------------|-----------|-----------|-------|---------------------------|------|---------------------------------|-----|-----------|
| Analyte | Sample Result | QC Result | Qualifier | Units | Spike Level | %REC | %REC Limits | RPD | RPD Limit |
| Gross Alpha | | 0.00 | | pCi/L | | | | | |
| Gross Alpha counting error (+/-) | | 0.567 | | pCi/L | | | | | |
| Gross Alpha MDA95 | | 0.343 | | pCi/L | | | | | |

| LCS (W9G0706-BS1) | | | | | Prepared: 07/20/09 | | Analyzed: 07/23/09 13:13 | | |
|--------------------------|---------------|-----------|-----------|-------|---------------------------|------|---------------------------------|-----|-----------|
| Analyte | Sample Result | QC Result | Qualifier | Units | Spike Level | %REC | %REC Limits | RPD | RPD Limit |
| Gross Alpha | | 17.0 | | pCi/L | 18.0 | 94 | 70-130 | | |

| LCS Dup (W9G0706-BSD1) | | | | | Prepared: 07/20/09 | | Analyzed: 07/23/09 13:13 | | |
|-------------------------------|---------------|-----------|-----------|-------|---------------------------|------|---------------------------------|-----|-----------|
| Analyte | Sample Result | QC Result | Qualifier | Units | Spike Level | %REC | %REC Limits | RPD | RPD Limit |
| Gross Alpha | | 16.2 | | pCi/L | 18.0 | 90 | 70-130 | 5 | 30 |

Batch W9G0768 - EPA 900.0

| Blank (W9G0768-BLK1) | | | | | Prepared: 07/24/09 | | Analyzed: 07/25/09 09:24 | | |
|---------------------------------------|---------------|-----------|-----------|-------|---------------------------|------|---------------------------------|-----|-----------|
| Analyte | Sample Result | QC Result | Qualifier | Units | Spike Level | %REC | %REC Limits | RPD | RPD Limit |
| Gross Beta | | 0.0 | | pCi/L | | | | | |
| Gross Beta counting error (+/-) | | 0.63 | | pCi/L | | | | | |
| Gross Beta MDA95 | | 1.1 | | pCi/L | | | | | |

| LCS (W9G0768-BS1) | | | | | Prepared: 07/24/09 | | Analyzed: 07/25/09 09:24 | | |
|--------------------------|---------------|-----------|-----------|-------|---------------------------|------|---------------------------------|-----|-----------|
| Analyte | Sample Result | QC Result | Qualifier | Units | Spike Level | %REC | %REC Limits | RPD | RPD Limit |
| Gross Beta | | 27 | | pCi/L | 30.0 | 88 | 70-130 | | |

| Matrix Spike (W9G0768-MS1) | | | | | Source: 9G15064-01 | | Prepared: 07/24/09 | | Analyzed: 07/25/09 09:24 | |
|-----------------------------------|---------------|-----------|-----------|-------|---------------------------|------|---------------------------|-----|---------------------------------|--|
| Analyte | Sample Result | QC Result | Qualifier | Units | Spike Level | %REC | %REC Limits | RPD | RPD Limit | |
| Gross Beta | 1.2 | 39 | | pCi/L | 30.0 | 126 | 70-130 | | | |

| Matrix Spike Dup (W9G0768-MSD1) | | | | | Source: 9G15064-01 | | Prepared: 07/24/09 | | Analyzed: 07/25/09 09:24 | |
|--|---------------|-----------|-----------|-------|---------------------------|------|---------------------------|-----|---------------------------------|--|
| Analyte | Sample Result | QC Result | Qualifier | Units | Spike Level | %REC | %REC Limits | RPD | RPD Limit | |
| Gross Beta | 1.2 | 40 | | pCi/L | 30.0 | 128 | 70-130 | 1 | 30 | |

Certificate of Analysis

Notes:

The Chain of Custody document is part of the analytical report.
Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services. The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).
For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002



Authorized Signature

Contact: Nicole Van Nas For Kim G Tu (Project Manager)



ELAP # 1132
LACSD # 10143
NELAC # 04229CA

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

- ND NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
- Sub Subcontracted analysis, original report enclosed.
- Dil Dilution Factor
- DL Method Detection Limit
- RL Method Reporting Limit
- MDA Minimum Detectable Activity

July 27, 2009

Vista Project I.D.: 31896

Dr. Douglas A. Coats
Marine Research Specialists
3140 Telegraph Rd., Ste A
Ventura, CA 93003-3238

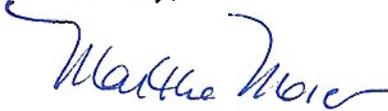
Dear Dr. Coats,

Enclosed are the results for one of the two aqueous samples received at Vista Analytical Laboratory on July 16, 2009 under your Project Name "Morro Bay WWTP". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work. As requested, the travel blank was placed on hold.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Vista's current certifications, and copies of the raw data (if requested).

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com. Thank you for choosing Vista as part of your analytical support team.

Sincerely,



Martha M. Maier
Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAC for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista Analytical Laboratory.



Section I: Sample Inventory Report

Date Received: 7/16/2009

| <u>Vista Lab. ID</u> | <u>Client Sample ID</u> |
|----------------------|-------------------------|
| 31896-001 | COMP EFF #1 |
| 31896-002 | TRAVEL BLANK |

SECTION II

| Method Blank | | | | | EPA Method 1613 | | | |
|---------------------|--------------|-----------------|-------------------|---------------------|---|-----------------------|----------------------|------------|
| Matrix: | Effluent | QC Batch No.: | 2255 | Lab Sample: | 0-MB001 | | | |
| Sample Size: | 1.00 L | Date Extracted: | 23-Jul-09 | Date Analyzed DB-5: | 24-Jul-09 | Date Analyzed DB-225: | NA | |
| Analyte | Conc. (pg/L) | DL ^a | EMPC ^b | Qualifiers | Labeled Standard | %R | LCL-UCL ^d | Qualifiers |
| 2,3,7,8-TCDD | ND | 1.73 | | | <u>IS</u> 13C-2,3,7,8-TCDD | 86.1 | 25 - 164 | |
| 1,2,3,7,8-PeCDD | ND | 1.38 | | | 13C-1,2,3,7,8-PeCDD | 100 | 25 - 181 | |
| 1,2,3,4,7,8-HxCDD | ND | 2.62 | | | 13C-1,2,3,4,7,8-HxCDD | 79.4 | 32 - 141 | |
| 1,2,3,6,7,8-HxCDD | ND | 2.26 | | | 13C-1,2,3,6,7,8-HxCDD | 83.1 | 28 - 130 | |
| 1,2,3,7,8,9-HxCDD | ND | 2.25 | | | 13C-1,2,3,4,6,7,8-HpCDD | 84.0 | 23 - 140 | |
| 1,2,3,4,6,7,8-HpCDD | ND | 1.34 | | | 13C-OCDD | 68.2 | 17 - 157 | |
| OCDD | ND | 3.43 | | | 13C-2,3,7,8-TCDF | 76.9 | 24 - 169 | |
| 2,3,7,8-TCDF | ND | 1.19 | | | 13C-1,2,3,7,8-PeCDF | 76.8 | 24 - 185 | |
| 1,2,3,7,8-PeCDF | ND | 1.40 | | | 13C-2,3,4,7,8-PeCDF | 80.8 | 21 - 178 | |
| 2,3,4,7,8-PeCDF | ND | 1.58 | | | 13C-1,2,3,4,7,8-HxCDF | 76.0 | 26 - 152 | |
| 1,2,3,4,7,8-HxCDF | ND | 0.907 | | | 13C-1,2,3,6,7,8-HxCDF | 74.4 | 26 - 123 | |
| 1,2,3,6,7,8-HxCDF | ND | 0.934 | | | 13C-2,3,4,6,7,8-HxCDF | 79.3 | 28 - 136 | |
| 2,3,4,6,7,8-HxCDF | ND | 1.07 | | | 13C-1,2,3,7,8,9-HxCDF | 86.3 | 29 - 147 | |
| 1,2,3,7,8,9-HxCDF | ND | 1.28 | | | 13C-1,2,3,4,6,7,8-HpCDF | 74.2 | 28 - 143 | |
| 1,2,3,4,6,7,8-HpCDF | ND | 0.988 | | | 13C-1,2,3,4,7,8,9-HpCDF | 81.4 | 26 - 138 | |
| 1,2,3,4,7,8,9-HpCDF | ND | 1.05 | | | 13C-OCDF | 71.8 | 17 - 157 | |
| OCDF | ND | 3.76 | | | <u>CRS</u> 37CI-2,3,7,8-TCDD | 86.5 | 35 - 197 | |
| Totals | | | | | Toxic Equivalent Quotient (TEQ) Data^e | | | |
| Total TCDD | ND | 1.73 | | | TEQ (Min): | 0 | | |
| Total PeCDD | ND | 1.38 | | | a. Sample specific estimated detection limit. | | | |
| Total HxCDD | ND | 2.36 | | | b. Estimated maximum possible concentration | | | |
| Total HpCDD | ND | 1.34 | | | c. Method detection limit. | | | |
| Total TCDF | ND | 1.19 | | | d. Lower control limit - upper control limit. | | | |
| Total PeCDF | ND | 1.49 | | | e. TEQ based on (1997) World Health Organization Toxic Equivalent Factors.(WHO) | | | |
| Total HxCDF | ND | 1.04 | | | | | | |
| Total HpCDF | ND | 1.02 | | | | | | |

Analyst: DMS

Approved By: Martha M. Maier 27-Jul-2009 11:28

| OPR Results | | | | EPA Method 1613 | | | |
|---------------------|-------------|-----------------|------------|------------------------------|-----------|-----------------------|-----------|
| Matrix: | Effluent | QC Batch No.: | 2255 | Lab Sample: | 0-OPR001 | | |
| Sample Size: | 1.00 L | Date Extracted: | 23-Jul-09 | Date Analyzed DB-5: | 24-Jul-09 | Date Analyzed DB-225: | NA |
| Analyte | Spike Conc. | Conc. (ng/mL) | OPR Limits | Labeled Standard | %R | LCL-UCL | Qualifier |
| 2,3,7,8-TCDD | 10.0 | 9.76 | 6.7 - 15.8 | <u>IS</u> 13C-2,3,7,8-TCDD | 74.9 | 25 - 164 | |
| 1,2,3,7,8-PeCDD | 50.0 | 52.1 | 35 - 71 | 13C-1,2,3,7,8-PeCDD | 81.0 | 25 - 181 | |
| 1,2,3,4,7,8-HxCDD | 50.0 | 50.5 | 35 - 82 | 13C-1,2,3,4,7,8-HxCDD | 63.5 | 32 - 141 | |
| 1,2,3,6,7,8-HxCDD | 50.0 | 49.0 | 38 - 67 | 13C-1,2,3,6,7,8-HxCDD | 68.1 | 28 - 130 | |
| 1,2,3,7,8,9-HxCDD | 50.0 | 49.9 | 32 - 81 | 13C-1,2,3,4,6,7,8-HpCDD | 65.8 | 23 - 140 | |
| 1,2,3,4,6,7,8-HpCDD | 50.0 | 46.0 | 35 - 70 | 13C-OCDD | 50.5 | 17 - 157 | |
| OCDD | 100 | 97.6 | 78 - 144 | 13C-2,3,7,8-TCDF | 85.3 | 24 - 169 | |
| 2,3,7,8-TCDF | 10.0 | 9.79 | 7.5 - 15.8 | 13C-1,2,3,7,8-PeCDF | 71.3 | 24 - 185 | |
| 1,2,3,7,8-PeCDF | 50.0 | 47.6 | 40 - 67 | 13C-2,3,4,7,8-PeCDF | 76.2 | 21 - 178 | |
| 2,3,4,7,8-PeCDF | 50.0 | 49.2 | 34 - 80 | 13C-1,2,3,4,7,8-HxCDF | 63.0 | 26 - 152 | |
| 1,2,3,4,7,8-HxCDF | 50.0 | 47.2 | 36 - 67 | 13C-1,2,3,6,7,8-HxCDF | 62.2 | 26 - 123 | |
| 1,2,3,6,7,8-HxCDF | 50.0 | 47.6 | 42 - 65 | 13C-2,3,4,6,7,8-HxCDF | 64.9 | 28 - 136 | |
| 2,3,4,6,7,8-HxCDF | 50.0 | 46.7 | 35 - 78 | 13C-1,2,3,7,8,9-HxCDF | 67.4 | 29 - 147 | |
| 1,2,3,7,8,9-HxCDF | 50.0 | 47.3 | 39 - 65 | 13C-1,2,3,4,6,7,8-HpCDF | 59.2 | 28 - 143 | |
| 1,2,3,4,6,7,8-HpCDF | 50.0 | 44.2 | 41 - 61 | 13C-1,2,3,4,7,8,9-HpCDF | 59.1 | 26 - 138 | |
| 1,2,3,4,7,8,9-HpCDF | 50.0 | 46.7 | 39 - 69 | 13C-OCDF | 52.1 | 17 - 157 | |
| OCDF | 100 | 94.7 | 63 - 170 | <u>CRS</u> 37Cl-2,3,7,8-TCDD | 79.0 | 35 - 197 | |

Analyst: DMS

Approved By: Martha M. Maier 27-Jul-2009 11:28

| Sample ID: COMP EFF #1 | | | | EPA Method 1613 | | | | |
|-------------------------------|-----------------------------|-----------------|-------------------|---------------------|---|-----------------------|----------------------|------------|
| Client Data | | Sample Data | | Laboratory Data | | | | |
| Name: | Marine Research Specialists | Matrix: | Effluent | Lab Sample: | 31896-001 | Date Received: | 16-Jul-09 | |
| Project: | Morro Bay WWTP | Sample Size: | 1.03 L | QC Batch No.: | 2255 | Date Extracted: | 23-Jul-09 | |
| Date Collected: | 15-Jul-09 | | | Date Analyzed DB-5: | 24-Jul-09 | Date Analyzed DB-225: | NA | |
| Time Collected: | 0835 | | | | | | | |
| Analyte | Conc. (pg/L) | DL ^a | EMPC ^b | Qualifiers | Labeled Standard | %R | LCL-UCL ^d | Qualifiers |
| 2,3,7,8-TCDD | ND | 2.00 | | | <u>IS</u> 13C-2,3,7,8-TCDD | 74.7 | 25 - 164 | |
| 1,2,3,7,8-PeCDD | ND | 2.87 | | | 13C-1,2,3,7,8-PeCDD | 84.6 | 25 - 181 | |
| 1,2,3,4,7,8-HxCDD | ND | 3.96 | | | 13C-1,2,3,4,7,8-HxCDD | 64.2 | 32 - 141 | |
| 1,2,3,6,7,8-HxCDD | ND | 3.91 | | | 13C-1,2,3,6,7,8-HxCDD | 68.9 | 28 - 130 | |
| 1,2,3,7,8,9-HxCDD | ND | 3.65 | | | 13C-1,2,3,4,6,7,8-HpCDD | 70.3 | 23 - 140 | |
| 1,2,3,4,6,7,8-HpCDD | 5.94 | | | J | 13C-OCDD | 54.3 | 17 - 157 | |
| OCDD | 50.0 | | | | 13C-2,3,7,8-TCDF | 66.9 | 24 - 169 | |
| 2,3,7,8-TCDF | ND | 1.31 | | | 13C-1,2,3,7,8-PeCDF | 67.6 | 24 - 185 | |
| 1,2,3,7,8-PeCDF | ND | 1.78 | | | 13C-2,3,4,7,8-PeCDF | 71.1 | 21 - 178 | |
| 2,3,4,7,8-PeCDF | ND | 1.70 | | | 13C-1,2,3,4,7,8-HxCDF | 61.9 | 26 - 152 | |
| 1,2,3,4,7,8-HxCDF | ND | 1.06 | | | 13C-1,2,3,6,7,8-HxCDF | 61.8 | 26 - 123 | |
| 1,2,3,6,7,8-HxCDF | ND | 1.07 | | | 13C-2,3,4,6,7,8-HxCDF | 65.5 | 28 - 136 | |
| 2,3,4,6,7,8-HxCDF | ND | 1.21 | | | 13C-1,2,3,7,8,9-HxCDF | 69.1 | 29 - 147 | |
| 1,2,3,7,8,9-HxCDF | ND | 1.51 | | | 13C-1,2,3,4,6,7,8-HpCDF | 60.6 | 28 - 143 | |
| 1,2,3,4,6,7,8-HpCDF | ND | 1.86 | | | 13C-1,2,3,4,7,8,9-HpCDF | 65.4 | 26 - 138 | |
| 1,2,3,4,7,8,9-HpCDF | ND | 2.05 | | | 13C-OCDF | 56.9 | 17 - 157 | |
| OCDF | ND | 5.90 | | | <u>CRS</u> 37Cl-2,3,7,8-TCDD | 90.0 | 35 - 197 | |
| Totals | | | | | Toxic Equivalent Quotient (TEQ) Data ^e | | | |
| Total TCDD | 5.64 | | | | TEQ (Min): | 0.0644 | | |
| Total PeCDD | 4.08 | | | | | | | |
| Total HxCDD | ND | 3.83 | | | | | | |
| Total HpCDD | 5.94 | | | | | | | |
| Total TCDF | ND | 1.31 | | | | | | |
| Total PeCDF | ND | 1.74 | | | | | | |
| Total HxCDF | ND | 1.20 | | | | | | |
| Total HpCDF | ND | 1.94 | | | | | | |

Analyst: DMS

Approved By: Martha M. Maier 27-Jul-2009 11:28

APPENDIX

DATA QUALIFIERS & ABBREVIATIONS

| | |
|--------------|---|
| B | This compound was also detected in the method blank. |
| D | Dilution |
| E | The amount detected is above the High Calibration Limit. |
| P | The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference. |
| H | The signal-to-noise ratio is greater than 10:1. |
| I | Chemical Interference |
| J | The amount detected is below the Low Calibration Limit. |
| * | See Cover Letter |
| Conc. | Concentration |
| DL | Sample-specific estimated detection limit |
| MDL | The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested. |
| EMPC | Estimated Maximum Possible Concentration |
| NA | Not applicable |
| RL | Reporting Limit – concentrations that correspond to low calibration point |
| ND | Not Detected |
| TEQ | Toxic Equivalency |

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

| Accrediting Authority | Certificate Number |
|---|---------------------------|
| State of Alaska, DEC | CA413-2008 |
| State of Arizona | AZ0639 |
| State of Arkansas, DEQ | 08-043-0 |
| State of Arkansas, DOH | Reciprocity through CA |
| State of California – NELAP Primary AA | 02102CA |
| State of Colorado | N/A |
| State of Connecticut | PH-0182 |
| State of Florida, DEP | E87777 |
| State of Indiana Department of Health | C-CA-02 |
| Commonwealth of Kentucky | 90063 |
| State of Louisiana, Health and Hospitals | LA08000 |
| State of Louisiana, DEQ | 01977 |
| State of Maine | 2008024 |
| State of Michigan | 9932 |
| State of Mississippi | Reciprocity through CA |
| Naval Facilities Engineering Service Center | NFESC413 |
| State of Nevada | CA004132007A |
| State of New Jersey | CA003 |
| State of New Mexico | Reciprocity through CA |
| State of New York, DOH | 11411 |
| State of North Carolina | 06700 |
| State of North Dakota, DOH | R-078 |
| State of Oklahoma | D9919 |
| State of Oregon | CA200001-006 |
| State of Pennsylvania | 68-00490 |
| State of South Carolina | 87002001 |
| State of Tennessee | TN02996 |
| State of Texas | T104704189-08-TX |
| U.S. Army Corps of Engineers | N/A |
| State of Utah | CA16400 |
| Commonwealth of Virginia | 00013 |
| State of Washington | C1285 |
| State of Wisconsin | 998036160 |
| State of Wyoming | 8TMS-Q |



CHAIN OF CUSTODY

| | | |
|-------------------------------------|---|-----------------------------|
| FOR LABORATORY USE ONLY | | Storage Secured |
| Laboratory Project ID: <u>31896</u> | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Storage ID: <u>WR</u> | Temp: <u>4</u> | |

Project I.D.: Morro Bay WWTP P.O.# _____ Sampler: Steve Aschenbrenner
(Name)

TAT: (Check One):
Standard: 21 Days
Rush (surcharge may apply):
 14 days 7 days Specify: _____

Invoice to: Name Dr. Doug Coats Company Marine Research Specialists Address 3140 Telegraph Rd Suite A City Ventura State CA Zip 93003 Ph# 805 644 1180 Fax# 209 3435
Relinquished by: (Signature and Printed Name) Date: _____ Time: _____ Received by: (Signature and Printed Name) Date: 7/16/09 Time: 14:23
Relinquished by: (Signature and Printed Name) Date: _____ Time: _____ Received by: (Signature and Printed Name) Date: _____ Time: _____

See "Sample Log-in Checklist" for additional sample information

| SHIP TO: Vista Analytical Laboratory 1104 Windfield Way El Dorado Hills, CA 95762 (916) 673-1520 • Fax (916) 673-0106 | | Method of Shipment: _____ | | Add Analysis(es) Requested | | | | | | | | | | | | | | | |
|--|-------------------|---------------------------|-----------------------------|----------------------------|-----------|-----------|-----------|----------------|-----------|-----------|----------------|-----------|----------------|--------|----------------|---------------|------|-----|--------|
| ATTN: _____ | | Tracking No.: _____ | | Container(s) | | | | | | | | | | | | | | | |
| Sample ID | Date | Time | Location/Sample Description | Quantity | Type | Matrix | 2378-TCDD | 2378-TCDD/TCDF | PCDD/PCDF | 2378-TCDD | 2378-TCDD/TCDF | 2378-TCDD | 2378-TCDD/TCDF | TOTALS | COPLANAR PCB's | 209 CONGENERS | PBDE | PAH | WHO-29 |
| <u>Comp Eff #1</u> | <u>15 JULY 09</u> | <u>0835</u> | <u>24 Hr Comp Eff</u> | <u>1</u> | <u>WW</u> | <u>EF</u> | <u>X</u> | <u>X</u> | <u>X</u> | | | | | | | | | | |
| <u>TRAVEL BLANK</u> | | | | <u>1</u> | <u>A</u> | | | | | | | | | | | | | | |

Special Instructions/Comments: Questions call 8056441180

SEND DOCUMENTATION AND RESULTS TO:

Name: Dr Doug Coats
Company: Marine Research Specialists
Address: 3140 Telegraph Rd Suite A
City: Ventura State: CA Zip: 93003
Phone: 8056441180 Fax: 2093435
Email: Doug.Coats@mrseenv.com
Matrix Types: DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, AQ = Aqueous, O = Other

Container Types: A = 1 Liter Amber, G = Glass Jar
P = PUF, T = MMS Train, O = Other _____

*Bottle Preservative Type: T = Thiosulfate,
O = Other _____

SAMPLE LOG-IN CHECKLIST



Vista Project #: 31896 TAT Standard

| | | | |
|------------------|---|--|---|
| Samples Arrival: | Date/Time <u>7/16/09 0854</u> | Initials: <u>CRAB</u> | Location: <u>WR-2</u> |
| | | | Shelf/Rack: <u>N/A</u> |
| Logged In: | Date/Time <u>7/16/09 1428</u> | Initials: <u>CRAB</u> | Location: <u>WR-2</u> |
| | | | Shelf/Rack: <u>B-4</u> |
| Delivered By: | <input checked="" type="checkbox"/> FedEx | <input type="checkbox"/> UPS | <input type="checkbox"/> Cal |
| | | <input type="checkbox"/> DHL | <input type="checkbox"/> Hand Delivered |
| | <input type="checkbox"/> Other | | |
| Preservation: | <input checked="" type="checkbox"/> Ice | <input checked="" type="checkbox"/> Blue Ice | <input type="checkbox"/> Dry Ice |
| | | | <input type="checkbox"/> None |
| Temp °C | <u>1.4</u> | Time: <u>0908</u> | Thermometer ID: <u>IR-1</u> |

| | YES | NO | NA |
|--|-------------------------------------|--|--|
| Adequate Sample Volume Received? <u>1 liter</u> | <input checked="" type="checkbox"/> | | |
| Holding Time Acceptable? | <input checked="" type="checkbox"/> | | |
| Shipping Container(s) Intact? | <input checked="" type="checkbox"/> | | |
| Shipping Custody Seals Intact? | | | <input checked="" type="checkbox"/> |
| Shipping Documentation Present? | <input checked="" type="checkbox"/> | | |
| Airbill | | | |
| Trk # <u>8463 7613 3056</u> | <input checked="" type="checkbox"/> | | |
| Sample Container Intact? | <input checked="" type="checkbox"/> | | |
| Sample Custody Seals Intact? | | | <input checked="" type="checkbox"/> |
| Chain of Custody / Sample Documentation Present? | | <input checked="" type="checkbox"/> | |
| COC Anomaly/Sample Acceptance Form completed? | | <input checked="" type="checkbox"/> | |
| If Chlorinated or Drinking Water Samples, Acceptable Preservation? | | | <input checked="" type="checkbox"/> |
| Na ₂ S ₂ O ₃ Preservation Documented? | | | <input checked="" type="checkbox"/> None |
| Shipping Container | Vista | <input checked="" type="checkbox"/> Client | Retain |
| | | | <input checked="" type="checkbox"/> Return |
| | | | Dispose |

Comments:



4 Justin Court Suite D, Monterey, CA 93940
 831.375.MBAS
 montereybayanalytical@usa.net

Dr. Doug Coats
 Marine Research Specialists
 3140 Telegraph Road Suite A
 Ventura CA, 93003

ELAP Certification Number: 2385

Lab Number: AA58766

Collection Date/Time: 7/15/2009 9:00 Sample Collector: STEVEN A
 Submittal Date/Time: 7/16/2009 9:50 Sample ID

Sample Description: Morro Bay WWTP, Effluent, ARS

| Analyte | Method | Unit | Result | Qual | PQL | Date Analyzed |
|--|----------------|------|-------------|------|------|---------------|
| Nitrate as NO ₃ -N | 300.0 | mg/L | 0.1 | | 0.1 | 7/17/2009 |
| o-Phosphate-P | 300.0 | mg/L | 2.3 | | 0.1 | 7/17/2009 |
| Silica as SiO ₂ , Dissolved | 4500-SI-E | mg/L | 12.5 | | 0.05 | 7/30/2009 |
| Urea-N | Mulvenna&Savid | ug/L | 82 | | 10 | 7/30/2009 |

Sample Comments: Grab Sample

Report Approved by:

David Holland
 Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

H = Analyzed outside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD

J = Result is less than PQL



4 Justin Court Suite D, Monterey, CA 93940
831.375.MBAS
montereybayanalytical@usa.net

ELAP Certification Number: 2385

Dr. Doug Coats
Marine Research Specialists
3140 Telegraph Road Suite A
Ventura CA, 93003

Page 1 of 1

Thursday, August 13, 2009

Lab Number: AA58767

Collection Date/Time: 7/15/2009 9:00 Sample Collector: STEVEN A
Submittal Date/Time: 7/16/2009 9:50 Sample ID

Sample Description: Morro Bay WWTP, Effluent,

| Analyte | Method | Unit | Result | Qual | PQL | Date Analyzed |
|-------------|---------|------|---------------------|------|-----|---------------|
| Tributyltin | GC /FPD | ug/L | Not detected | E | | 7/24/2009 |

Sample Comments: Composite

Report Approved by:

David Holland
Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

H = Analyzed outside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD

J = Result is less than PQL



Certificate of Analysis

Report Date: Wednesday, August 12, 2009
Received Date: Friday, July 17, 2009
Received Time: 8:20 am
Turnaround Time: Normal

Client: Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey, CA 93940

Phones: (831) 375-6227
Fax: (831) 641-0734

Attn: David Holland
Project:

P.O. #:

Lab Sample ID: 9G17035-01 **Sample ID:** Moro Bay, WWTP Effluent, Comp 58767 **Matrix:** Water
Sampled by: Ashenbrenes, Steven **Sampled:** 07/15/09 09:00

| Analyte | Result | DL | RL | Units | Dil | Method | Prepared | Analyzed | Batch | Qualifier |
|-------------------------|--------|-------|--------|-------|-----|--------|----------|---------------|-------------|-------------|
| Tri-n-butyltin | ND | 0.070 | 0.10 | ug/l | 1 | GC/MS | 7/24/09 | 8/11/09 15:57 | smr W9G0921 | |
| Surrogate: Triphenyltin | 16 % | | 23-146 | | | | | | | S-04 |



Certificate of Analysis

Quality Control Section

Organo Tin by GC/MS - Quality Control

Batch W9G0921 - GC/MS

Blank (W9G0921-BLK1)

Prepared: 07/24/09 Analyzed: 08/11/09 15:57

| Analyte | Sample Result | QC Result | Qualifier | Units | Spike Level | %REC | %REC Limits | RPD | RPD Limit |
|-------------------------|---------------|-----------|-----------|-------|-------------|------|-------------|-----|-----------|
| Surrogate: Triphenyltin | | 0.0932 | | ug/l | 0.200 | 47 | 23-146 | | |
| Tri-n-butyltin | | ND | | ug/l | | | | | |

LCS (W9G0921-BS1)

Prepared: 07/24/09 Analyzed: 08/11/09 15:57

| Analyte | Sample Result | QC Result | Qualifier | Units | Spike Level | %REC | %REC Limits | RPD | RPD Limit |
|-------------------------|---------------|-----------|-----------|-------|-------------|------|-------------|-----|-----------|
| Surrogate: Triphenyltin | | 0.0979 | | ug/l | 0.200 | 49 | 23-146 | | |
| Tri-n-butyltin | | 0.0690 | | ug/l | 0.100 | 69 | 53-154 | | |

LCS Dup (W9G0921-BSD1)

Prepared: 07/24/09 Analyzed: 08/11/09 15:57

| Analyte | Sample Result | QC Result | Qualifier | Units | Spike Level | %REC | %REC Limits | RPD | RPD Limit |
|-------------------------|---------------|-----------|-----------|-------|-------------|------|-------------|-----|-----------|
| Surrogate: Triphenyltin | | 0.0801 | | ug/l | 0.200 | 40 | 23-146 | | |
| Tri-n-butyltin | | 0.0831 | | ug/l | 0.100 | 83 | 53-154 | 19 | 30 |

Certificate of Analysis

Notes:

The Chain of Custody document is part of the analytical report.
Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services. The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL). For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002



Authorized Signature

Contact: Brandon Gee (Project Manager)



ELAP # 1132
LACSD # 10143
NELAC # 04229CA

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

| | |
|-------------|--|
| S-04 | The surrogate recovery for this sample is outside of established control limits due to possible sample matrix effect. |
| ND | NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL). |
| Sub | Subcontracted analysis, original report enclosed. |
| Dil | Dilution Factor |
| DL | Method Detection Limit |
| RL | Method Reporting Limit |
| MDA | Minimum Detectable Activity |

LABORATORY REPORT



**Aquatic
Testing
Laboratories**

"dedicated to providing quality aquatic toxicity testing"

4350 Transport Street, Unit 107
Ventura, CA 93003
(805) 650-0546 FAX (805) 650-0756
CA DOHS ELAP Cert. No.: 1775

Date: July 21, 2009

Client: Marine Research Specialists
3140 Telegraph Road, Suite A
Ventura, CA 93003
Attn: Doug Coats

Laboratory No.: A-09071601
Sample I.D.: Morro Bay Effluent

Sample Control: The samples were received by ATL within the recommended hold time, in a chilled state, and with the chain of custody records attached.

Date Sampled: 07/15/09 (composite)
Date Received: 07/16/09
Temp. Received: 2.4°C
Chlorine (TRC): 0.0 mg/l
Dates Tested: 07/16/09 to 07/18/09

Sample Analysis: The following analyses were performed on your sample:
Abalone Larval Development Short-Term Toxicity Test (EPA 600/R-95/136),
Giant Kelp Germination and Growth Short-Term Toxicity Test (EPA 600/R-95/136).
Attached are the test data generated from the analysis of your sample.

Result Summary:

| <u>Test</u> | <u>NOEC</u> | <u>TU_c</u> |
|----------------------|-------------|-----------------------|
| Abalone Development: | 3.2% | 31.2 |
| Kelp Germination: | 10% | 10.0 |
| Kelp Growth: | 5.6% | 17.9 |

Quality Control: Reviewed and approved by:


Joseph A. LeMay
Laboratory Director



Abalone Larval Development Short-Term Toxicity Test

1. Test and Results Summary

2. Raw Data

3. Statistical Analyses

ABALONE LARVAL DEVELOPMENT SHORT-TERM TOXICITY TEST



Lab No.: A-09071601-001
Client/ID: Morro Bay Effluent

Date tested: 07/16/09 - 07/18/09

TEST SUMMARY

Species: *Haliotis rufescens*.
Protocol: EPA/600/R-95/136.
Test type: Static.
Test chamber: plastic beakers.
Temperature: 15 +/- 1°C.
Number of embryos per chamber: 1600 (approx.).
QA/QC Batch No.: RT-090716 (ran concurrently)

Source: The Cultured Abalone.
Dilution water: Lab seawater.
Endpoints: NOEC.
Test volume: 200 ml.
Aeration: None.
Number of replicates: 5.

RESULTS SUMMARY

| Sample Concentration | Percent Normal Development | |
|---|----------------------------|---|
| Control (Brine) | 96.7% | |
| Control (Dilution) | 95.8% | |
| 3.2% | 96.2% | |
| 5.6% | 36.6% | * |
| 10.0% | 2.7% | * |
| 18.0% | 0% | * |
| 32.0% | 0% | * |
| 56.0% | 0% | * |
| * Statistically significantly less than control at P = 0.05 level | | |

CHRONIC TOXICITY

| | |
|------|------|
| NOEC | 3.2% |
| TUc | 31.2 |

QA/QC TEST ACCEPTABILITY

| Parameter | Result |
|---|----------------------|
| Average control normality ≥ 80% | PASSED (95.8%) |
| %MSD < 20% relative to control | PASSED (%MSD = 6.6%) |
| Please see RT-090716 report for additional test acceptability criteria. | |

Abalone Larval Development Test-Proportion Normal

Start Date: 7/16/2009 16:00 Test ID: 9071601 Sample ID: CA0047881-Morro Bay SD
 End Date: 7/18/2009 16:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: EFF1-POTW
 Sample Date: 7/15/2009 09:05 Protocol: WCCH-EPA-600-R-95-136 Test Species: HR-Haliotis rufescens
 Comments:

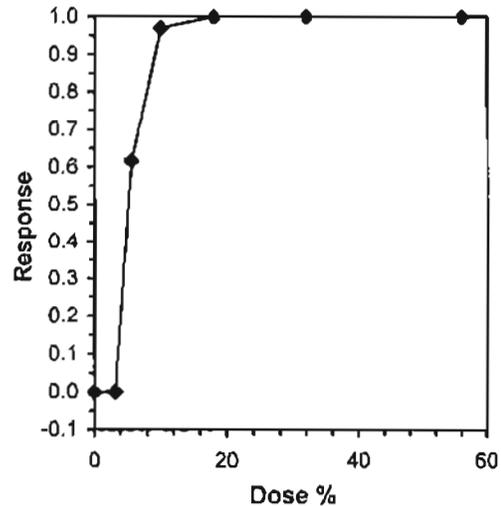
| Conc-% | 1 | 2 | 3 | 4 | 5 |
|-----------|--------|--------|--------|--------|--------|
| B-Control | 0.9636 | 0.9722 | 0.9810 | 0.9811 | 0.9381 |
| D-Control | 0.9537 | 0.9469 | 0.9450 | 0.9811 | 0.9623 |
| 3.2 | 0.9725 | 0.9808 | 0.9138 | 0.9810 | 0.9630 |
| 5.6 | 0.3333 | 0.5278 | 0.2883 | 0.4078 | 0.2736 |
| 10 | 0.0000 | 0.0000 | 0.0000 | 0.0769 | 0.0561 |
| 18 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 32 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 56 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

| Conc-% | Transform: Arcsin Square Root | | | | | | | 1-Tailed | | | Isotonic | |
|-----------|-------------------------------|--------|--------|--------|--------|--------|---|----------|----------|--------|----------|--------|
| | Mean | N-Mean | Mean | Min | Max | CV% | N | t-Stat | Critical | MSD | Mean | N-Mean |
| B-Control | 0.9672 | 1.0098 | 1.3934 | 1.3193 | 1.4330 | 3.383 | 5 | | | | | |
| D-Control | 0.9578 | 1.0000 | 1.3669 | 1.3340 | 1.4330 | 2.952 | 5 | * | | | 0.9594 | 1.0000 |
| 3.2 | 0.9622 | 1.0046 | 1.3836 | 1.2728 | 1.4323 | 4.771 | 5 | -0.300 | 2.230 | 0.1243 | 0.9594 | 1.0000 |
| *5.6 | 0.3662 | 0.3823 | 0.6477 | 0.5504 | 0.8132 | 16.638 | 5 | 12.906 | 2.230 | 0.1243 | 0.3660 | 0.3815 |
| *10 | 0.0266 | 0.0278 | 0.1340 | 0.0500 | 0.2810 | 86.540 | 5 | 22.124 | 2.230 | 0.1243 | 0.0274 | 0.0286 |
| 18 | 0.0000 | 0.0000 | 0.0500 | 0.0500 | 0.0500 | 0.000 | 5 | | | | 0.0000 | 0.0000 |
| 32 | 0.0000 | 0.0000 | 0.0500 | 0.0500 | 0.0500 | 0.000 | 5 | | | | 0.0000 | 0.0000 |
| 56 | 0.0000 | 0.0000 | 0.0500 | 0.0500 | 0.0500 | 0.000 | 5 | | | | 0.0000 | 0.0000 |

| Auxiliary Tests | Statistic | Critical | Skew | Kurt |
|--|-----------|----------|---------|--------|
| Shapiro-Wilk's Test indicates normal distribution (p > 0.05) | 0.94115 | 0.905 | 0.53081 | -0.482 |
| Bartlett's Test indicates equal variances (p = 0.23) | 4.30023 | 11.3449 | | |
| The control means are not significantly different (p = 0.37) | 0.95424 | 2.30601 | | |

| Hypothesis Test (1-tail, 0.05) | NOEC | LOEC | ChV | TU | MSDu | MSDp | MSB | MSE | F-Prob | df |
|--------------------------------|------|------|--------|-------|---------|---------|---------|---------|---------|-------|
| Dunnett's Test | 3.2 | 5.6 | 4.2332 | 31.25 | 0.06288 | 0.06557 | 1.83514 | 0.00776 | 1.9E-13 | 3, 16 |
| Treatments vs D-Control | | | | | | | | | | |

| Point | Linear Interpolation (200 Resamples) | | | | |
|-------|--------------------------------------|--------|-------------|--------|---------|
| | % | SD | 95% CL(Exp) | | Skew |
| IC05 | 3.3940 | 0.0283 | 3.2804 | 3.4231 | -1.7197 |
| IC10 | 3.5881 | 0.0354 | 3.4624 | 3.6461 | -0.4978 |
| IC15 | 3.7821 | 0.0455 | 3.6595 | 3.8692 | 0.1598 |
| IC20 | 3.9761 | 0.0571 | 3.8408 | 4.1082 | 0.4541 |
| IC25 | 4.1701 | 0.0695 | 4.0134 | 4.3483 | 0.5942 |
| IC40 | 4.7522 | 0.1085 | 4.5164 | 5.0625 | 0.7377 |
| IC50 | 5.1403 | 0.1373 | 4.8539 | 5.5281 | 0.9396 |



ABALONE CHRONIC BIOASSAY



Lab No.: A-09071601-001

Client ID: MRS - Morro Bay Effluent

Start Date: 07/16/2009

WATER QUALITY READINGS

| Sample | Initial Readings | | | | Final Readings | | | |
|-----------------|------------------|-----------|-----|-----------------|----------------|-----------|-----|-----------------|
| | Temp (°C) | DO (mg/l) | pH | Salinity (o/oo) | Temp (°C) | DO (mg/l) | pH | Salinity (o/oo) |
| Control (brine) | 15.1 | 7.3 | 8.2 | 34 | 14.8 | 7.2 | 8.2 | 34 |
| Control (lab) | 14.5 | 7.5 | 8.2 | 34 | 14.3 | 7.3 | 8.2 | 34 |
| 3.2% | 14.4 | 7.4 | 8.2 | 34 | 15.4 | 7.3 | 8.2 | 34 |
| 5.6% | 14.2 | 7.2 | 8.2 | 34 | 15.2 | 7.3 | 8.2 | 34 |
| 10% | 14.6 | 7.1 | 8.2 | 34 | 15.4 | 7.2 | 8.2 | 34 |
| 18% | 14.1 | 7.1 | 8.2 | 34 | 15.4 | 7.1 | 8.2 | 34 |
| 32% | 15.0 | 7.0 | 8.2 | 34 | 15.1 | 7.0 | 8.2 | 34 |
| 56% | 14.5 | 7.0 | 8.2 | 34 | 15.2 | 7.0 | 8.3 | 34 |

Sample as received: Chlorine: 0 mg/l; pH: 8.0; Salinity: 0 ppt; Temp: 2.4 °C; DO: 5.8 mg/l.

Initial readings: [Signature] Date/Time: 7-16-09 1500 Final readings: [Signature] Date/Time: 7-18-09 1530

MICROSCOPIC EXAMINATION

| Beaker No. | Sample Conc. | Number Normal | Number Abnormal | Beaker No. | Sample Conc. | Number Normal | Number Abnormal | Beaker No. | Sample Conc. | Number Normal | Number Abnormal |
|------------|--------------|---------------|-----------------|------------|--------------|---------------|-----------------|------------|--------------|---------------|-----------------|
| 1 | 18 | 0 | 100 | 15 | 32 | 0 | 100 | 29 | 56 | 0 | 100 |
| 2 | 10 | 0 | 100 | 16 | BC | 103 | 2 | 30 | BC | 106 | 7 |
| 3 | BC | 106 | 4 | 17 | 18 | 0 | 100 | 31 | 10 | 6 | 101 |
| 4 | 32 | 0 | 100 | 18 | 56 | 0 | 100 | 32 | 5.6 | 29 | 77 |
| 5 | 5.6 | 34 | 68 | 19 | 10 | 0 | 100 | 33 | 18 | 0 | 100 |
| 6 | C | 103 | 5 | 20 | 5.6 | 32 | 79 | 34 | C | 102 | 4 |
| 7 | 56 | 0 | 100 | 21 | 18 | 0 | 100 | 35 | 32 | 0 | 100 |
| 8 | 5.6 | 57 | 51 | 22 | C | 103 | 6 | 36 | 3.2 | 106 | 3 |
| 9 | 32 | 0 | 100 | 23 | 56 | 0 | 100 | 37 | 3.2 | 102 | 2 |
| 10 | 10 | 0 | 100 | 24 | BC | 104 | 2 | 38 | 3.2 | 106 | 10 |
| 11 | BC | 105 | 3 | 25 | 10 | 8 | 96 | 39 | 3.2 | 103 | 3 |
| 12 | C | 107 | 6 | 26 | 32 | 0 | 100 | 40 | 3.2 | 104 | 4 |
| 13 | 18 | 0 | 100 | 27 | 5.6 | 42 | 61 | | | | |
| 14 | 56 | 0 | 100 | 28 | C | 104 | 2 | | | | |

Microscopic examination: Analyst: [Signature] Date: 7-20-09 Time: 1000



ABALONE CHRONIC BIOASSAY

Lab No.: A-09071601-001
 Client ID: MRS - Morro Bay Effluent

Start Date: 07/16/2009

RANDOMIZATION WORKSHEET

| Beaker No. | Sample Conc. | Beaker No. | Sample Conc. | Beaker No. | Sample Conc. | Notes |
|------------|--------------|------------|--------------|------------|--------------|--|
| 1 | 1g | 13 | 1g | 25 | 10 | <div style="text-align: center;"> <p>#36-40 = 3.2% conc</p> </div> <p style="margin-top: 20px;">Add 1600 fertilized eggs per 200 ml test volume.</p> |
| 2 | 10 | 14 | 56 | 26 | 32 | |
| 3 | 13L | 15 | 32 | 27 | 5 | |
| 4 | 32 | 16 | 13L | 28 | L | |
| 5 | 5 | 17 | 1g | 29 | 56 | |
| 6 | L | 18 | 56 | 30 | 13L | |
| 7 | 56 | 19 | 10 | 31 | 10 | |
| 8 | 5 | 20 | 5 | 32 | 5 | |
| 9 | 32 | 21 | 1g | 33 | 1g | |
| 10 | 10 | 22 | L | 34 | L | |
| 11 | 13L | 23 | 56 | 35 | 32 | |
| 12 | L | 24 | 13L | | | |

Analyst: Date: 7-16-09 Time: 1100

Giant Kelp Germination and Germ Tube Growth Short-Term Toxicity Test

- *Test and Result Summary*
- *Data Summary and Statistical Analysis*
- *Raw Test Data: Water Quality &
Test Organism Measurements*

GIANT KELP GERMINATION AND GROWTH SHORT-TERM TOXICITY TEST



Lab No.: A-09071601-001
Client/ID: MRS - Morro Bay Comp. Effluent

Date Tested: 07/16/09 - 07/18/09

TEST SUMMARY

Species: *Macrocystis pyrifera*.
Protocol: EPA Method 1009.0.
Test type: Static.
Test chamber: glass beaker.
Temperature: 15 +/- 1°C.
Number of spores per ml: 7,500 (approx.).
QA/QC Batch No.: RT-090716 (ran concurrently).

Source: Field collected.
Dilution water: Lab seawater.
Endpoints: NOEC, IC25 at 48 hrs.
Test volume: 200 ml.
Aeration: None.
Number of replicates: 5.

RESULTS SUMMARY

| Sample Concentration | Percent Germination | | Mean Germ Tube Length (μm) | |
|---|---------------------|---|---|---|
| Control (Brine) | 84.7% | | 16.45 | |
| Control (Dilution) | 82.8% | | 16.10 | |
| 3.2% | 86.1% | | 16.30 | |
| 5.6% | 85.4% | | 16.25 | |
| 10% | 82.3% | | 15.15 | * |
| 18% | 70.7% | * | 10.80 | * |
| 32% | 61.4% | * | 10.00 | * |
| 56% | 7.6% | * | 6.10 | * |
| * Statistically significantly less than control at $P = 0.05$ level | | | | |

CHRONIC TOXICITY

| END POINT | GERMINATION | GERM TUBE LENGTH |
|----------------|-------------|------------------|
| NOEC | 10% | 5.6% |
| TUc (100/NOEC) | 10.0 | 17.9 |

QA/QC TEST ACCEPTABILITY

| Parameter | Result |
|---|----------------------------|
| Mean control germination $\geq 70\%$ | Yes (82.8%) |
| Mean control germination tube length $> 10 \mu\text{m}$ | Yes (16.10 μm) |
| Please see RT-090716 report for additional test acceptability criteria. | |

Macrocystis Germination and Growth Test-Proportion Germinated

Start Date: 7/16/2009 16:00 Test ID: 9071601k Sample ID: CA0047881-Morro Bay SD
 End Date: 7/18/2009 16:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: EFF1-POTW
 Sample Date: 7/15/2009 09:05 Protocol: MBP 90 Test Species: MP-Macrocystis pyrifera
 Comments:

| Conc-% | 1 | 2 | 3 | 4 | 5 |
|-----------|--------|--------|--------|--------|--------|
| B-Control | 0.8627 | 0.8218 | 0.8824 | 0.8155 | 0.8515 |
| D-Control | 0.8571 | 0.8155 | 0.7961 | 0.8155 | 0.8544 |
| 3.2 | 0.9010 | 0.8627 | 0.8269 | 0.8824 | 0.8300 |
| 5.6 | 0.8627 | 0.8812 | 0.8269 | 0.8515 | 0.8491 |
| 10 | 0.8300 | 0.7670 | 0.8302 | 0.8447 | 0.8447 |
| 18 | 0.7196 | 0.7692 | 0.6990 | 0.7184 | 0.6306 |
| 32 | 0.6990 | 0.5981 | 0.5238 | 0.6389 | 0.6078 |
| 56 | 0.0561 | 0.0194 | 0.0566 | 0.0818 | 0.1667 |

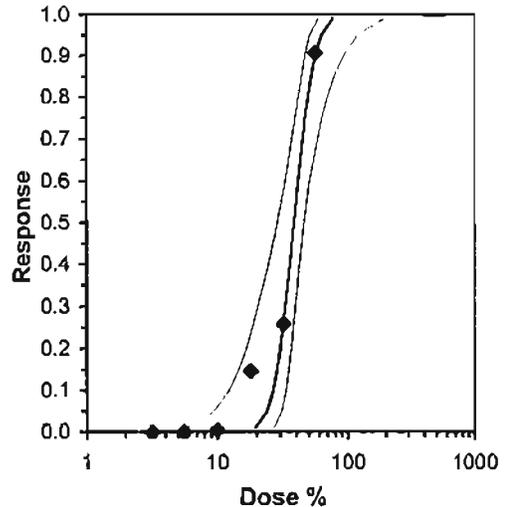
| Conc-% | Transform: ArcsIn Square Root | | | | | | | t-Stat | 1-Tailed Critical | MSD | Number Resp | Total Number |
|-----------|-------------------------------|--------|--------|--------|--------|--------|---|--------|-------------------|--------|-------------|--------------|
| | Mean | N-Mean | Mean | Min | Max | CV% | N | | | | | |
| B-Control | 0.8468 | 1.0230 | 1.1698 | 1.1269 | 1.2207 | 3.348 | 5 | | | | | |
| D-Control | 0.8277 | 1.0000 | 1.1437 | 1.1023 | 1.1832 | 3.123 | 5 | * | | | 89 | 517 |
| 3.2 | 0.8606 | 1.0397 | 1.1900 | 1.1417 | 1.2507 | 3.966 | 5 | -1.258 | 2.409 | 0.0888 | 71 | 509 |
| 5.6 | 0.8543 | 1.0321 | 1.1798 | 1.1417 | 1.2189 | 2.395 | 5 | -0.979 | 2.409 | 0.0888 | 75 | 514 |
| 10 | 0.8233 | 0.9946 | 1.1381 | 1.0670 | 1.1657 | 3.594 | 5 | 0.153 | 2.409 | 0.0888 | 91 | 515 |
| *18 | 0.7074 | 0.8546 | 1.0003 | 0.9176 | 1.0697 | 5.486 | 5 | 3.891 | 2.409 | 0.0888 | 155 | 528 |
| *32 | 0.6135 | 0.7412 | 0.9007 | 0.8092 | 0.9901 | 7.306 | 5 | 6.593 | 2.409 | 0.0888 | 203 | 525 |
| *56 | 0.0761 | 0.0920 | 0.2659 | 0.1398 | 0.4205 | 38.428 | 5 | 23.820 | 2.409 | 0.0888 | 493 | 534 |

| Auxiliary Tests | Statistic | Critical | Skew | Kurt |
|--|-----------|----------|---------|---------|
| Shapiro-Wilk's Test indicates normal distribution (p > 0.05) | 0.97611 | 0.934 | 0.24529 | 1.61949 |
| Bartlett's Test indicates equal variances (p = 0.21) | 8.42372 | 16.8119 | | |
| The control means are not significantly different (p = 0.30) | 1.10083 | 2.30601 | | |

| Hypothesis Test (1-tail, 0.05) | NOEC | LOEC | ChV | TU | MSDu | MSDp | MSB | MSE | F-Prob | df |
|--------------------------------|------|------|---------|----|---------|---------|---------|---------|---------|-------|
| Dunnett's Test | 10 | 18 | 13.4164 | 10 | 0.07173 | 0.08659 | 0.54344 | 0.00339 | 2.4E-20 | 6, 28 |

| Parameter | Value | SE | 95% Fiducial Limits | | Control | Chi-Sq | Critical | P-value | Mu | Sigma | Iter |
|-----------|---------|---------|---------------------|---------|---------|---------|----------|---------|---------|---------|------|
| Slope | 7.85639 | 1.70999 | 3.10868 | 12.6041 | 0.17215 | 51.1205 | 9.48773 | 2.1E-10 | 1.58453 | 0.12728 | 11 |
| Intercept | -7.4487 | 2.78083 | -15.17 | 0.27218 | | | | | | | |
| TSCR | 0.18377 | 0.02765 | 0.10699 | 0.26055 | | | | | | | |

| Point | Probits | % | 95% Fiducial Limits | |
|-------|---------|---------|---------------------|---------|
| EC01 | 2.674 | 19.4275 | 5.72466 | 26.8772 |
| EC05 | 3.355 | 23.7226 | 9.38957 | 30.7453 |
| EC10 | 3.718 | 26.3879 | 12.1869 | 33.1302 |
| EC15 | 3.964 | 28.3533 | 14.5008 | 34.9157 |
| EC20 | 4.158 | 30.0193 | 16.6193 | 36.4691 |
| EC25 | 4.326 | 31.5264 | 18.6481 | 37.925 |
| EC40 | 4.747 | 35.668 | 24.6256 | 42.3701 |
| EC50 | 5.000 | 38.4173 | 28.6933 | 45.9477 |
| EC60 | 5.253 | 41.3784 | 32.8434 | 50.7216 |
| EC75 | 5.674 | 46.8143 | 39.1535 | 62.7706 |
| EC80 | 5.842 | 49.1645 | 41.3621 | 69.3342 |
| EC85 | 6.036 | 52.0533 | 43.7711 | 78.4307 |
| EC90 | 6.282 | 55.9305 | 46.6391 | 92.3039 |
| EC95 | 6.645 | 62.2145 | 50.7463 | 118.647 |
| EC99 | 7.326 | 75.9688 | 58.5509 | 192.939 |



Significant heterogeneity detected (p = 2.11E-10)

Macrocyctis Germination and Growth Test-Growth-Length

Start Date: 7/16/2009 16:00 Test ID: 9071601k Sample ID: CA0047881-Morro Bay SD
 End Date: 7/18/2009 16:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: EFF1-POTW
 Sample Date: 7/15/2009 09:05 Protocol: MBP 90 Test Species: MP-Macrocyctis pyrifera
 Comments:

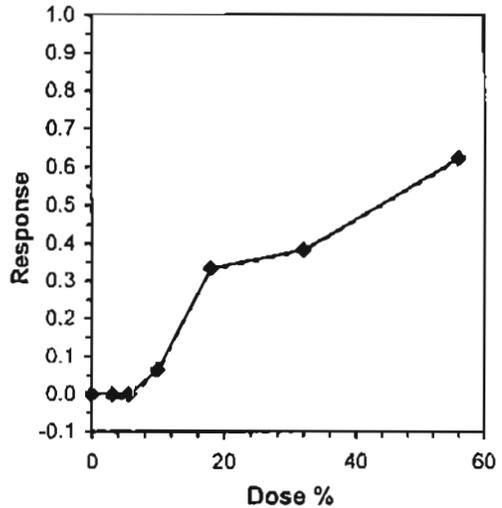
| Conc-% | 1 | 2 | 3 | 4 | 5 |
|-----------|--------|--------|--------|--------|--------|
| B-Control | 16.750 | 16.750 | 16.250 | 16.750 | 15.750 |
| D-Control | 16.500 | 16.000 | 15.750 | 15.750 | 16.500 |
| 3.2 | 15.500 | 16.750 | 16.250 | 16.750 | 16.250 |
| 5.6 | 16.750 | 15.750 | 16.750 | 16.000 | 16.000 |
| 10 | 14.500 | 15.250 | 14.750 | 15.500 | 15.750 |
| 18 | 10.250 | 10.750 | 12.250 | 12.500 | 8.250 |
| 32 | 13.500 | 12.250 | 8.000 | 8.750 | 7.500 |
| 56 | 6.000 | 6.000 | 5.500 | 6.500 | 6.500 |

| Conc-% | Transform: Untransformed | | | | | | | Rank Sum | 1-Tailed Critical | Isotonic | |
|-----------|--------------------------|--------|--------|--------|--------|--------|---|----------|-------------------|----------|--------|
| | Mean | N-Mean | Mean | Min | Max | CV% | N | | | Mean | N-Mean |
| B-Control | 16.450 | 1.0217 | 16.450 | 15.750 | 16.750 | 2.719 | 5 | | | | |
| D-Control | 16.100 | 1.0000 | 16.100 | 15.750 | 16.500 | 2.355 | 5 | * | | 16.217 | 1.0000 |
| 3.2 | 16.300 | 1.0124 | 16.300 | 15.500 | 16.750 | 3.143 | 5 | 31.00 | 16.00 | 16.217 | 1.0000 |
| 5.6 | 16.250 | 1.0093 | 16.250 | 15.750 | 16.750 | 2.878 | 5 | 31.00 | 16.00 | 16.217 | 1.0000 |
| *10 | 15.150 | 0.9410 | 15.150 | 14.500 | 15.750 | 3.422 | 5 | 16.00 | 16.00 | 15.150 | 0.9342 |
| *18 | 10.800 | 0.6708 | 10.800 | 8.250 | 12.500 | 15.903 | 5 | 15.00 | 16.00 | 10.800 | 0.6660 |
| *32 | 10.000 | 0.6211 | 10.000 | 7.500 | 13.500 | 26.984 | 5 | 15.00 | 16.00 | 10.000 | 0.6166 |
| *56 | 6.100 | 0.3789 | 6.100 | 5.500 | 6.500 | 6.858 | 5 | 15.00 | 16.00 | 6.100 | 0.3762 |

| Auxiliary Tests | Statistic | Critical | Skew | Kurt |
|---|-----------|----------|---------|---------|
| Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.05) | 0.91688 | 0.934 | 0.39761 | 2.46722 |
| Bartlett's Test indicates unequal variances (p = 4.43E-05) | 29.7254 | 16.8119 | | |
| The control means are not significantly different (p = 0.22) | 1.33485 | 2.30601 | | |

| Hypothesis Test (1-tail, 0.05) | NOEC | LOEC | ChV | TU |
|--------------------------------|------|------|---------|---------|
| Steel's Many-One Rank Test | 5.6 | 10 | 7.48331 | 17.8571 |
| Treatments vs D-Control | | | | |

| Point | Linear Interpolation (200 Resamples) | | | | |
|-------|--------------------------------------|-------|-------------|--------|---------|
| | % | SD | 95% CL(Exp) | Skew | |
| IC05 | 8.945 | 0.727 | 7.036 | 10.572 | 0.2084 |
| IC10 | 11.021 | 0.408 | 9.889 | 11.895 | -0.0247 |
| IC15 | 12.512 | 0.493 | 11.356 | 13.913 | 0.3029 |
| IC20 | 14.003 | 0.686 | 12.698 | 16.059 | 0.6404 |
| IC25 | 15.494 | 0.932 | 13.838 | 18.369 | 0.9282 |
| IC40 | 33.662 | 5.976 | 13.015 | 41.560 | -0.4583 |
| IC50 | 43.641 | 4.065 | 27.701 | 48.074 | -1.0764 |



**GIANT KELP GERMINATION
AND GROWTH
SHORT-TERM TOXICITY TEST**



Lab No.: A-09071601-001

Start Date: 07/16/2009

| Dish No. | Sample Conc. | Total Number Counted | Number Germin. | Number Non-Germin. | Germ Tube Lengths (micrometer units) | | | | | | | | | |
|----------|--------------|----------------------|----------------|--------------------|--------------------------------------|---|---|---|---|---|---|---|---|---|
| | | | | | A | B | C | D | E | F | G | H | I | J |
| 1 | 32 | 103 | 72 | 31 | 6 | 5 | 7 | 4 | 4 | 5 | 6 | 6 | 5 | 6 |
| 2 | BL | 102 | 88 | 14 | 8 | 6 | 7 | 7 | 6 | 5 | 7 | 8 | 7 | 6 |
| 3 | 10 | 100 | 83 | 17 | 7 | 6 | 5 | 5 | 5 | 7 | 6 | 5 | 8 | 4 |
| 4 | 56 | 107 | 6 | 101 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 4 | 2 | 2 |
| 5 | 18 | 107 | 77 | 30 | 6 | 4 | 3 | 4 | 5 | 4 | 4 | 6 | 3 | 2 |
| 6 | C | 105 | 90 | 15 | 7 | 7 | 6 | 5 | 7 | 8 | 7 | 7 | 6 | 6 |
| 7 | 5-6 | 102 | 88 | 14 | 8 | 7 | 7 | 8 | 6 | 7 | 5 | 5 | 7 | 7 |
| 8 | 18 | 104 | 80 | 24 | 6 | 4 | 6 | 5 | 5 | 3 | 3 | 3 | 4 | 4 |
| 9 | BL | 101 | 83 | 18 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 6 | 7 | 8 |
| 10 | 56 | 103 | 2 | 101 | 3 | 2 | 2 | 4 | 2 | 2 | 3 | 2 | 2 | 2 |
| 11 | C | 103 | 84 | 19 | 7 | 5 | 7 | 6 | 7 | 5 | 8 | 7 | 6 | 6 |
| 12 | 10 | 103 | 79 | 24 | 6 | 4 | 7 | 6 | 7 | 7 | 6 | 5 | 7 | 6 |
| 13 | 56 | 101 | 89 | 12 | 7 | 6 | 7 | 5 | 7 | 6 | 6 | 7 | 5 | 7 |
| 14 | 32 | 107 | 64 | 43 | 4 | 6 | 5 | 4 | 4 | 7 | 5 | 4 | 4 | 6 |
| 15 | 10 | 106 | 88 | 18 | 7 | 6 | 7 | 5 | 4 | 6 | 7 | 7 | 6 | 4 |
| 16 | BL | 102 | 90 | 12 | 8 | 4 | 6 | 7 | 8 | 7 | 7 | 5 | 7 | 6 |
| 17 | 56 | 106 | 6 | 100 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 |
| 18 | 18 | 103 | 72 | 31 | 4 | 5 | 4 | 7 | 6 | 4 | 4 | 5 | 6 | 4 |
| 19 | C | 103 | 82 | 21 | 6 | 7 | 7 | 5 | 7 | 6 | 6 | 7 | 5 | 7 |
| 20 | 10 | 103 | 87 | 16 | 6 | 8 | 4 | 6 | 7 | 7 | 7 | 5 | 6 | 6 |

Comments:

Micrometer conversion factor: 1 unit = 2.5 um at 400X power

**GIANT KELP GERMINATION
AND GROWTH
SHORT-TERM TOXICITY TEST**



Lab No.: A-09071601-001

Start Date: 07/16/2009

| Dish No. | Sample Conc. | Total Number Counted | Number Germin. | Number Non-Germin. | Germ Tube Lengths (micrometer units) | | | | | | | | | |
|----------|--------------|----------------------|-----------------|--------------------|--------------------------------------|---|---|---|---|---|---|---|---|---|
| | | | | | A | B | C | D | E | F | G | H | I | J |
| 21 | 32 | 105 | 55 | 50 | 4 | 3 | 2 | 2 | 3 | 6 | 2 | 4 | 4 | 2 |
| 22 | 5.6 | 104 | 86 | 18 | 7 | 6 | 5 | 7 | 6 | 7 | 8 | 8 | 7 | 6 |
| 23 | C | 103 | 84 | 19 | 6 | 7 | 7 | 7 | 6 | 6 | 5 | 8 | 6 | 5 |
| 24 | 5.6 | 110 | 9 | 101 | 3 | 2 | 4 | 2 | 2 | 3 | 2 | 2 | 3 | 3 |
| 25 | 18 | 103 | 74 | 29 | 5 | 7 | 6 | 6 | 4 | 4 | 6 | 5 | 4 | 3 |
| 26 | BL | 103 | 84 | 19 | 6 | 7 | 7 | 8 | 7 | 7 | 5 | 7 | 6 | 7 |
| 27 | 5.6 | 101 | 86 | 15 | 4 | 8 | 7 | 6 | 6 | 7 | 5 | 7 | 7 | 7 |
| 28 | 32 | 108 | 69 | 39 | 3 | 4 | 2 | 2 | 4 | 5 | 5 | 4 | 3 | 3 |
| 29 | 5.6 | 108 | 18 | 90 | 2 | 3 | 2 | 4 | 2 | 2 | 3 | 3 | 2 | 3 |
| 30 | 18 | 111 | 70 | 41 | 5 | 4 | 2 | 3 | 2 | 2 | 4 | 3 | 5 | 3 |
| 31 | 5.6 | 106 | 90 | 16 | 6 | 7 | 7 | 5 | 6 | 7 | 8 | 8 | 6 | 4 |
| 32 | C | 103 | 88 | 15 | 7 | 6 | 5 | 7 | 7 | 5 | 8 | 8 | 6 | 7 |
| 33 | 32 | 102 | 62 | 40 | 5 | 8 | 2 | 4 | 3 | 3 | 2 | 2 | 4 | 3 |
| 34 | BL | 101 | 86 | 15 | 7 | 6 | 5 | 7 | 7 | 6 | 5 | 7 | 6 | 7 |
| 35 | 10 | 103 | 87 | 16 | 6 | 6 | 6 | 7 | 5 | 6 | 7 | 8 | 5 | 7 |
| 36 | 3.2 | 101 | 91 | 10 | 5 | 7 | 7 | 6 | 5 | 7 | 6 | 4 | 8 | 7 |
| 37 | 3.2 | 102 | 82 ⁸ | 14 | 7 | 5 | 6 | 6 | 8 | 7 | 7 | 8 | 7 | 6 |
| 38 | 3.2 | 104 | 86 | 18 | 7 | 6 | 7 | 7 | 7 | 8 | 7 | 4 | 7 | 5 |
| 39 | 3.2 | 102 | 90 | 12 | 7 | 7 | 7 | 8 | 7 | 5 | 7 | 6 | 6 | 7 |
| 40 | 3.2 | 100 | 83 | 17 | 6 | 7 | 5 | 7 | 8 | 7 | 7 | 6 | 5 | 7 |

Comments:

Micrometer conversion factor: 1 unit = 2.5 um at 400X power

GIANT KELP GERMINATION AND GROWTH SHORT-TERM TOXICITY TEST



Lab No.: A-09071601-001
Client ID: MRS - Morro Bay Effluent

Start Date: 07/16/2009

WATER QUALITY READINGS

| Sample | Initial Readings | | | | Final Readings | | | |
|---------------|------------------|-----------|-----|-----------------|----------------|-----------|-----|-----------------|
| | Temp (°C) | DO (mg/l) | pH | Salinity (o/oo) | Temp (°C) | DO (mg/l) | pH | Salinity (o/oo) |
| Control | 15.1 | 7.5 | 8.2 | 34 | 14.1 | 7.2 | 8.2 | 34 |
| Brine Control | 14.5 | 7.3 | 8.2 | 34 | 14.4 | 7.3 | 8.2 | 34 |
| 3.2% | 14.4 | 7.4 | 8.2 | 34 | 14.5 | 7.4 | 8.2 | 34 |
| 5.6% | 14.2 | 7.2 | 8.2 | 34 | 14.1 | 7.3 | 8.2 | 34 |
| 10% | 14.4 | 7.1 | 8.2 | 34 | 14.6 | 7.2 | 8.2 | 34 |
| 18% | 14.1 | 7.1 | 8.2 | 34 | 14.1 | 7.4 | 8.2 | 34 |
| 32% | 15.0 | 7.0 | 8.2 | 34 | 14.3 | 7.4 | 8.3 | 34 |
| 56% | 14.5 | 7.0 | 8.2 | 34 | 14.2 | 7.2 | 8.3 | 34 |

Sample as received: Chlorine: 0 mg/l; pH: 8.0; Salinity: 0 ppt; Temp: 2.4 °C;
DO: 5.8 mg/l; NH₃-N: 48 mg/l.

Brine Control contains equivalent amount of artificial sea salts as highest effluent concentration.

Initial readings: Analyst: [Signature] Date: 7-16-09 Time: 1500

Final readings: Analyst: [Signature] Date: 7-18-09 Time: 1530



***CHAIN
OF
CUSTODY***

CHAIN OF CUSTODY

Client: City of Morro Bay
 Address: Wastewater Treatment Plant
 160 Atascadero Road
 Morro Bay, CA 93442
 Project Manager: Doug Coats - MRS
 Phone: (805) 644-1180
 Fax: (805) 289-3935
 Purchase Order No:



**Aquatic
 Testing
 Laboratories**

4350 Transport St., Unit 107
 Ventura, CA 93003
 (805) 650-0546 Fax (805) 650-0756

| Sample ID | Sample Date | Sample Time | Sample Type * | Chlorine (TRC)** | Number of Containers | Testing Requested |
|------------|-------------|-------------|---------------|------------------|----------------------|------------------------|
| | | | | | | <i>Abundance &</i> |
| Comp. Eff. | 15 JULY 09 | 0905 | E | 0.00 mg/L | 1 (one gallon) | Giant Kelp Chronic |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Special Instructions:

** Note: Total residual chlorine must be taken immediately after sample collection if sample is a chlorinated effluent.

* L - Liquid, S - Solid, SS - Semi-Solid/sludge, RW - Receiving Water, GW - Ground Water, E - Effluent

CUSTODY TRANSFERS

| Relinquished by (signature) | Received by (signature) | Date (mm/dd/yy) | Time (hh:mm) | Seals Intact? (Yes, No, NA) | Temperature Received (°C) |
|-----------------------------|-------------------------|-----------------|--------------|-----------------------------|---------------------------|
| Steve Aschenbrenner | <i>[Signature]</i> | 15 JULY 09 | 1430 | — | — |
| <i>[Signature]</i> | <i>[Signature]</i> | 7-16-09 | 1020 | NA | 2-4 |
| | | | | | |



Aquatic
Testing
Laboratories

***REFERENCE
TOXICANT
DATA***



Abalone Larval Development Short-Term Toxicity Test

1. Test and Results Summary

2. Raw Data

3. Statistical Analyses

**ABALONE LARVAL DEVELOPMENT
SHORT-TERM TOXICITY TEST
* REFERENCE TOXICANT ***



QA/QC Batch No.: RT-090716

Date tested: 07/16/09 - 07/18/09

TEST SUMMARY

Species: *Haliotis rufescens*.
 Protocol: EPA/600/R-95/136.
 Test type: Static.
 Test chamber: Plastic beakers.
 Temperature: 15 +/- 1°C.
 Number of embryos per chamber: 1600 (approx.).
 Reference Toxicant: ZnSO₄(7H₂O).

Source: The Cultured Abalone.
 Dilution water: Lab seawater.
 Endpoints: NOEC, IC25 at 48 hrs.
 Test volume: 200 ml.
 Aeration: None.
 Number of replicates: 5.
 Ref. Tox. source: Mallinckrodt.
 Lot No.: 8872 KCXG

RESULTS SUMMARY

| SAMPLE CONCENTRATION | PERCENT NORMAL DEVELOPMENT |
|----------------------|----------------------------|
| Control | 96.4% |
| 10 µg/l | 96.3% |
| 18 µg/l | 93.6% |
| 32 µg/l | 19.4% * |
| 56 µg/l | 0% * |
| 100 µg/l | 0% * |

* Statistically significantly less than control at P = 0.05 level

CHRONIC TOXICITY

| | |
|------|-----------|
| NOEC | 18 µg/l |
| IC25 | 21.1 µg/l |

QA/QC TEST ACCEPTABILITY

| Parameter | Result |
|---|----------------------|
| Average control normality ≥ 80% | Yes (96.4%) |
| 56 µg/l treatment response significantly less than control response | Yes (NOEC = 18 µg/l) |
| %MSD < 20% relative to control | Yes (%MSD = 5.3%) |

Abalone Larval Development Test-Proportion Normal

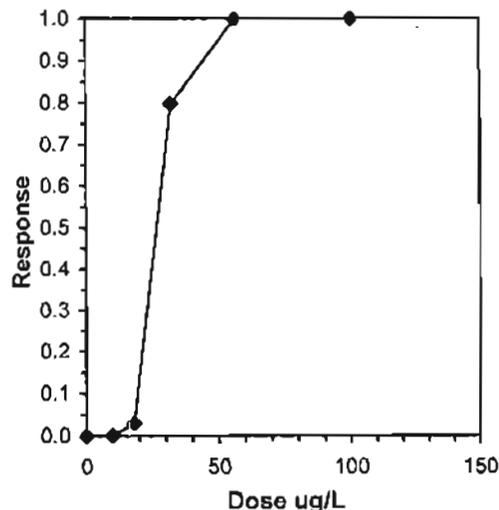
Start Date: 7/16/2009 16:00 Test ID: RT090716a Sample ID: REF-Ref Toxicant
 End Date: 7/18/2009 16:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: ZNSO-Zinc sulfate
 Sample Date: 7/16/2009 Protocol: WCCHEPA-600-R-95-136 Test Species: HR-Haliotis rufescens
 Comments:

| Conc-ug/L | 1 | 2 | 3 | 4 | 5 |
|-----------|--------|--------|--------|--------|--------|
| D-Control | 0.9533 | 0.9906 | 0.9524 | 0.9815 | 0.9439 |
| 10 | 0.9818 | 0.9810 | 0.9640 | 0.9537 | 0.9352 |
| 18 | 0.9811 | 0.9810 | 0.8545 | 0.9115 | 0.9528 |
| 32 | 0.2957 | 0.1863 | 0.1982 | 0.1743 | 0.1132 |
| 56 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 100 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

| Conc-ug/L | Transform: Arcsin Square Root | | | | | | | 1-Tailed | | | Isotonic | |
|-----------|-------------------------------|--------|--------|--------|--------|--------|---|----------|----------|--------|----------|--------|
| | Mean | N-Mean | Mean | Min | Max | CV% | N | t-Stat | Critical | MSD | Mean | N-Mean |
| D-Control | 0.9643 | 1.0000 | 1.3886 | 1.3317 | 1.4735 | 4.444 | 5 | | | | 0.9644 | 1.0000 |
| 10 | 0.9631 | 0.9988 | 1.3830 | 1.3134 | 1.4355 | 3.774 | 5 | 0.112 | 2.230 | 0.1124 | 0.9631 | 0.9987 |
| 18 | 0.9362 | 0.9708 | 1.3331 | 1.1795 | 1.4330 | 8.210 | 5 | 1.103 | 2.230 | 0.1124 | 0.9352 | 0.9698 |
| *32 | 0.1935 | 0.2007 | 0.4513 | 0.3432 | 0.5749 | 18.380 | 5 | 18.602 | 2.230 | 0.1124 | 0.1952 | 0.2024 |
| 56 | 0.0000 | 0.0000 | 0.0500 | 0.0500 | 0.0500 | 0.000 | 5 | | | | 0.0000 | 0.0000 |
| 100 | 0.0000 | 0.0000 | 0.0500 | 0.0500 | 0.0500 | 0.000 | 5 | | | | 0.0000 | 0.0000 |

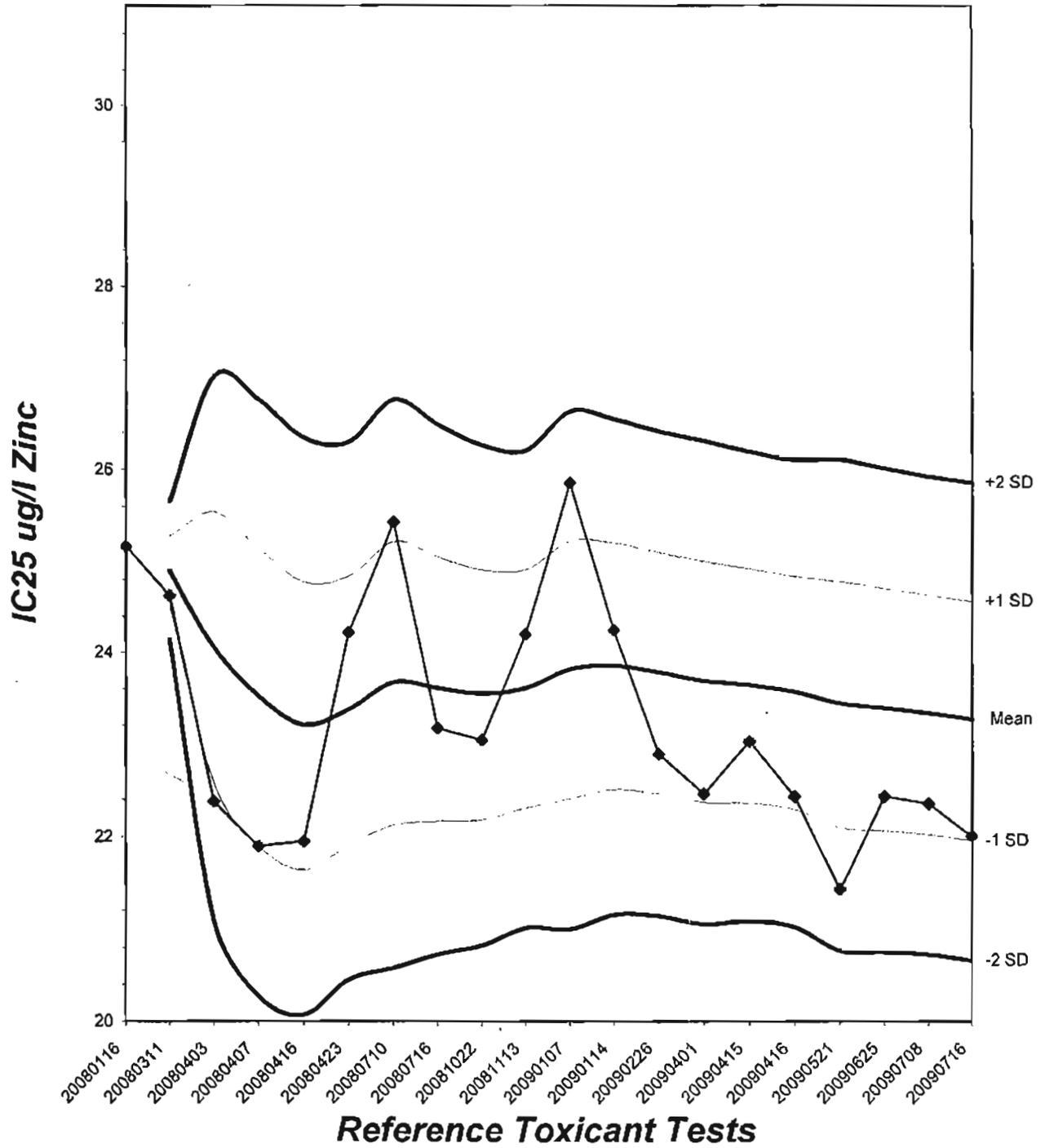
| Auxiliary Tests | | | | | Statistic | Critical | Skew | Kurt | | | |
|--|--|------|------|-----|-----------|----------|---------|---------|---------|---------|-------|
| Shapiro-Wilk's Test indicates normal distribution (p > 0.05) | | | | | 0.98005 | 0.905 | -0.1445 | -0.3822 | | | |
| Bartlett's Test indicates equal variances (p = 0.51) | | | | | 2.32291 | 11.3449 | | | | | |
| Hypothesis Test (1-tail, 0.05) | | NOEC | LOEC | ChV | TU | MSDu | MSDp | MSB | MSE | F-Prob | df |
| Dunnett's Test | | 18 | 32 | 24 | | 0.05145 | 0.05319 | 1.05415 | 0.00635 | 2.9E-12 | 3, 16 |
| Treatments vs D-Control | | | | | | | | | | | |

| Linear Interpolation (200 Resamples) | | | | | |
|--------------------------------------|--------|-------|-------------|--------|---------|
| Point | ug/L | SD | 95% CL(Exp) | | Skew |
| IC05 | 18.360 | 1.029 | 13.277 | 19.137 | -2.3173 |
| IC10 | 19.273 | 0.356 | 18.059 | 20.003 | -0.8115 |
| IC15 | 20.185 | 0.335 | 19.021 | 20.883 | -0.7341 |
| IC20 | 21.097 | 0.318 | 19.982 | 21.855 | -0.6276 |
| IC25 | 22.009 | 0.305 | 20.935 | 22.768 | -0.4936 |
| IC40 | 24.746 | 0.301 | 23.851 | 25.552 | -0.0436 |
| IC50 | 26.571 | 0.325 | 25.645 | 27.560 | 0.1614 |



Abalone Larval Development Laboratory Control Chart

CV% = 5.59



ABALONE CHRONIC BIOASSAY
Reference Toxicant - Zinc Sulfate



QA/QC No.: RT-090716

Start Date: 07/16/2009

WATER QUALITY READINGS

| Sample | Initial Readings | | | | Final Readings | | | |
|-------------|------------------|-----------|-----|-----------------|----------------|-----------|-----|-----------------|
| | Temp (°C) | DO (mg/l) | pH | Salinity (o/oo) | Temp (°C) | DO (mg/l) | pH | Salinity (o/oo) |
| Control | 14.8 | 7.4 | 8.2 | 34 | 15.0 | 7.4 | 8.2 | 34 |
| 10 µg/l Zn | 15.1 | 7.2 | 8.2 | 34 | 14.6 | 7.3 | 8.2 | 34 |
| 18 µg/l Zn | 14.2 | 7.2 | 8.2 | 34 | 14.5 | 7.2 | 8.2 | 34 |
| 32 µg/l Zn | 14.9 | 7.3 | 8.2 | 34 | 15.2 | 7.2 | 8.2 | 34 |
| 56 µg/l Zn | 14.6 | 7.3 | 8.2 | 34 | 15.3 | 7.4 | 8.2 | 34 |
| 100 µg/l Zn | 14.1 | 7.2 | 8.2 | 34 | 14.7 | 7.3 | 8.2 | 34 |

Control and dilutions made with laboratory reference seawater filtered to 0.2 µm.

Initial readings: [Signature] Date/Time: 7-16-09 15:00 Final readings: [Signature] Date/Time: 7-18-09 15:30

MICROSCOPIC EXAMINATION

| Beaker No. | Sample Conc. | Number Normal | Number Abnormal | Beaker No. | Sample Conc. | Number Normal | Number Abnormal | Beaker No. | Sample Conc. | Number Normal | Number Abnormal |
|------------|--------------|---------------|-----------------|------------|--------------|---------------|-----------------|------------|--------------|---------------|-----------------|
| 1 | 100 | 0 | 100 | 11 | 18 | 103 | 2 | 21 | 56 | 0 | 100 |
| 2 | 18 | 104 | 2 | 12 | C | 100 | 5 | 22 | C | 101 | 6 |
| 3 | 56 | 0 | 100 | 13 | 56 | 0 | 100 | 23 | 32 | 19 | 90 |
| 4 | C | 102 | 5 | 14 | 10 | 103 | 2 | 24 | 10 | 103 | 5 |
| 5 | 32 | 34 | 81 | 15 | 18 | 94 | 16 | 25 | 56 | 0 | 100 |
| 6 | 10 | 108 | 2 | 16 | 32 | 22 | 89 | 26 | 18 | 101 | 5 |
| 7 | 100 | 0 | 100 | 17 | 100 | 0 | 100 | 27 | 100 | 0 | 100 |
| 8 | 32 | 19 | 83 | 18 | 10 | 107 | 4 | 28 | 10 | 101 | 7 |
| 9 | C | 105 | 1 | 19 | C | 106 | 2 | 29 | 56 | 0 | 100 |
| 10 | 100 | 0 | 100 | 20 | 18 | 103 | 10 | 30 | 32 | 12 | 94 |

Microscopic examination: Analyst: [Signature] Date: 7-20-09 Time: 1000

ABALONE CHRONIC BIOASSAY
Reference Toxicant - Zinc Sulfate



QA/QC No.: RT-090716

Start Date: 07/16/2009

RANDOMIZATION WORKSHEET

| Beaker No. | Sample Conc. | Beaker No. | Sample Conc. | Beaker No. | Sample Conc. | Notes |
|------------|--------------|------------|--------------|------------|--------------|--|
| 1 | 100 | 11 | 18 | 21 | 56 | Number Males used: <u>4</u> Number females used: <u>6</u> Time H ₂ O ₂ added: <u>12:15</u> Time water changed: <u>14:45</u> Time spawned: <u>15:15</u> ♂ <u>15:30</u> ♀ Time placed in test: <u>16:00</u> Add 1600 fertilized eggs per 200 ml.. Time glutaraldehyde added: <u>16:00</u> |
| 2 | 18 | 12 | 6 | 22 | 6 | |
| 3 | 56 | 13 | 56 | 23 | 32 | |
| 4 | 6 | 14 | 10 | 24 | 10 | |
| 5 | 32 | 15 | 18 | 25 | 56 | |
| 6 | 10 | 16 | 32 | 26 | 18 | |
| 7 | 100 | 17 | 100 | 27 | 100 | |
| 8 | 32 | 18 | 10 | 28 | 10 | |
| 9 | 6 | 19 | 6 | 29 | 56 | |
| 10 | 100 | 20 | 18 | 30 | 32 | |

Analyst: [Signature] Date: 7-16-09 Time: 1100

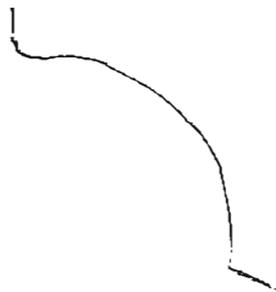
Test Temperature Chart

Test No: RT-090716

Date Tested: 07/16/09 to 07/18/09

Acceptable Range: 15+/- 1°C

2-10-09
"A"
Reactor





Giant Kelp Germination and Germ Tube Growth Short-Term Toxicity Test

- *Test and Result Summary*
- *Data Summary and Statistical Analysis*
- *Raw Test Data: Water Quality &
Test Organism Measurements*

GIANT KELP GERMINATION AND GROWTH TEST REFERENCE TOXICANT - COPPER



QA/QC Batch No.: RT-090716

Date Tested: 07/16/09 - 07/18/09

TEST SUMMARY

Species: *Macrocystis pyrifera*.
 Protocol: EPA/600/R-95/136.
 Test type: Static.
 Test chamber: Plastic beakers.
 Temperature: 15 +/- 1°C.
 Number of spores per ml: 7,500 (approx.).
 Standard toxicant: Copper chloride.
 Lab seawater: 0.2 um filtered seawater.

Source: Field collected.
 Dilution water: Lab seawater.
 Endpoints: NOEC, IC25 at 48 hrs.
 Test volume: 200 ml.
 Aeration: None.
 Number of replicates: 5.
 Ref. tox. source: Mallinckrodt.
 Preservative: none.

RESULTS SUMMARY

| Sample Concentration | Percent Germination | | Mean Germ Tube Length (µm) | |
|----------------------|---------------------|---|----------------------------|---|
| Control | 83.3% | | 15.50 | |
| 10 µg/l | 83.7% | | 16.35 | |
| 18 µg/l | 82.8% | | 15.55 | |
| 32 µg/l | 70.5% | * | 13.30 | * |
| 56 µg/l | 55.7% | * | 11.45 | * |
| 100 µg/l | 24.6% | * | 7.60 | * |
| 180 µg/l | 5.6% | * | 5.60 | * |

* Statistically significantly less than control at P = 0.05 level

CHRONIC TOXICITY

| | |
|-----------------------|-----------|
| Germination NOEC | 18 µg/l |
| Germination IC25 | 44.8 µg/l |
| Germ Tube Growth NOEC | 18 µg/l |
| Germ Tube Growth IC25 | 49.6 µg/l |

QA/QC TEST ACCEPTABILITY

| Parameter | Result |
|---|-----------------------------------|
| Mean control germination ≥ 70% | Yes (83.3%) |
| Mean control germination tube length > 10 µm | Yes (15.50 µm) |
| Germination tube growth NOEC < 35 µg/l Copper | Yes (18 µg/l) |
| %MSD < 20% relative to control (germination & growth) | Yes (germ = 12.2%, growth = 5.9%) |

Macrocystis Germination and Growth Test-Proportion Germinated

Start Date: 7/16/2009 16:00 Test ID: RT090716k Sample ID: REF-Ref Toxicant
 End Date: 7/18/2009 16:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: CUCL-Copper chloride
 Sample Date: 7/16/2009 Protocol: MBP 90 Test Species: MP-Macrocystis pyrifera
 Comments:

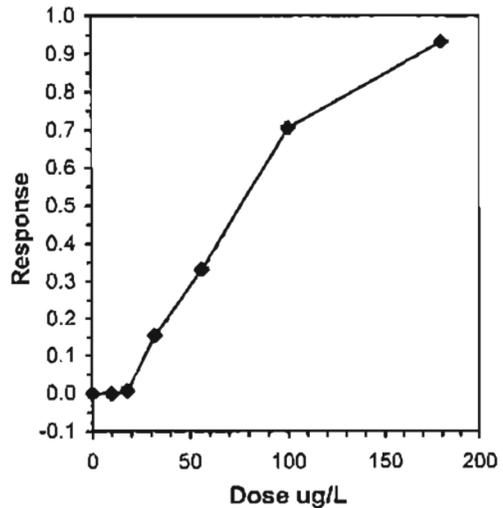
| Conc-ug/L | 1 | 2 | 3 | 4 | 5 |
|-----------|--------|--------|--------|--------|--------|
| D-Control | 0.7961 | 0.8431 | 0.8544 | 0.8077 | 0.8654 |
| 10 | 0.8585 | 0.8000 | 0.8447 | 0.8505 | 0.8317 |
| 18 | 0.8365 | 0.8462 | 0.8155 | 0.7921 | 0.8505 |
| 32 | 0.8037 | 0.6792 | 0.7248 | 0.7087 | 0.6095 |
| 56 | 0.4095 | 0.6699 | 0.5278 | 0.5098 | 0.6667 |
| 100 | 0.1727 | 0.2150 | 0.2830 | 0.1509 | 0.4095 |
| 180 | 0.1068 | 0.0714 | 0.0714 | 0.0190 | 0.0095 |

| Conc-ug/L | Transform: Arcsin Square Root | | | | | | | 1-Tailed | | | Isotonic | |
|-----------|-------------------------------|--------|--------|--------|--------|--------|---|----------|----------|--------|----------|--------|
| | Mean | N-Mean | Mean | Min | Max | CV% | N | t-Stat | Critical | MSD | Mean | N-Mean |
| D-Control | 0.8333 | 1.0000 | 1.1514 | 1.1023 | 1.1951 | 3.485 | 5 | | | | 0.8352 | 1.0000 |
| 10 | 0.8371 | 1.0045 | 1.1560 | 1.1071 | 1.1851 | 2.633 | 5 | -0.088 | 2.409 | 0.1241 | 0.8352 | 1.0000 |
| 18 | 0.8282 | 0.9938 | 1.1441 | 1.0973 | 1.1738 | 2.776 | 5 | 0.143 | 2.409 | 0.1241 | 0.8285 | 0.9919 |
| *32 | 0.7052 | 0.8462 | 0.9991 | 0.8958 | 1.1118 | 7.862 | 5 | 2.956 | 2.409 | 0.1241 | 0.7057 | 0.8449 |
| *56 | 0.5567 | 0.6681 | 0.8434 | 0.6944 | 0.9588 | 13.423 | 5 | 5.978 | 2.409 | 0.1241 | 0.5570 | 0.6669 |
| *100 | 0.2462 | 0.2955 | 0.5130 | 0.3990 | 0.6944 | 23.122 | 5 | 12.390 | 2.409 | 0.1241 | 0.2453 | 0.2937 |
| *180 | 0.0556 | 0.0668 | 0.2220 | 0.0977 | 0.3329 | 44.717 | 5 | 18.037 | 2.409 | 0.1241 | 0.0559 | 0.0669 |

| Auxillary Tests | Statistic | Critical | Skew | Kurt | | | | | | |
|--|-----------|----------|---------|---------|---------|--------|---------|---------|---------|-------|
| Shapiro-Wilk's Test indicates normal distribution (p > 0.05) | 0.97685 | 0.934 | 0.20469 | 0.11233 | | | | | | |
| Bartlett's Test indicates equal variances (p = 0.04) | 12.9197 | 16.8119 | | | | | | | | |
| Hypothesis Test (1-tail, 0.05) | NOEC | LOEC | ChV | TU | MSDu | MSDp | MSB | MSE | F-Prob | df |
| Dunnett's Test | 18 | 32 | 24 | | 0.10161 | 0.1218 | 0.66684 | 0.00664 | 1.3E-17 | 6, 28 |
| Treatments vs D-Control | | | | | | | | | | |

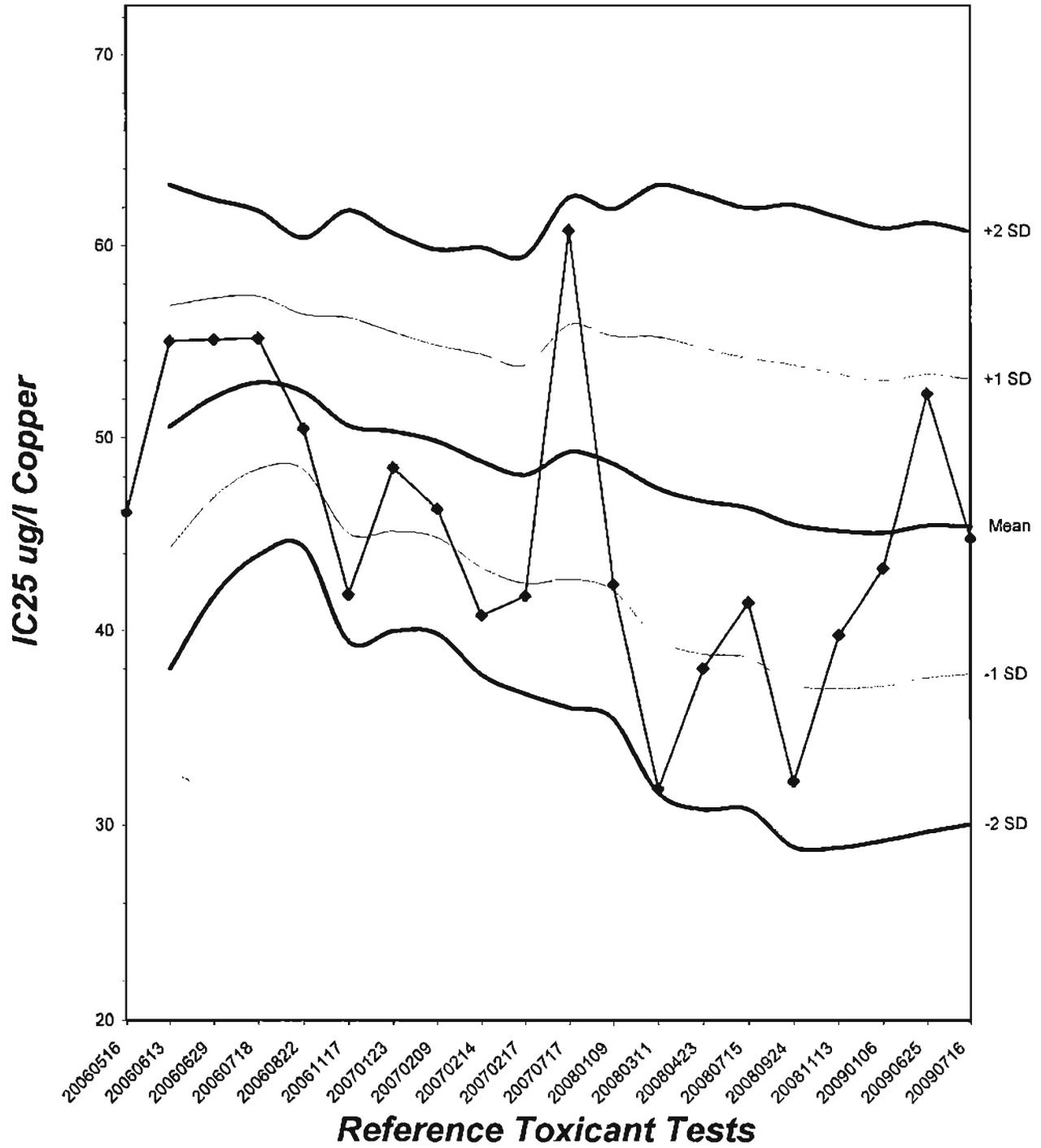
Linear Interpolation (200 Resamples)

| Point | ug/L | SD | 95% CL(Exp) | | Skew |
|-------|--------|-------|-------------|--------|---------|
| IC05 | 21.992 | 1.628 | 18.178 | 27.796 | 0.9995 |
| IC10 | 26.751 | 2.475 | 22.256 | 36.312 | 0.9666 |
| IC15 | 31.510 | 3.145 | 25.137 | 42.252 | 0.5004 |
| IC20 | 38.049 | 4.087 | 27.027 | 51.149 | 0.1186 |
| IC25 | 44.793 | 4.934 | 33.288 | 63.342 | 0.4912 |
| IC40 | 63.888 | 4.962 | 48.952 | 75.137 | -0.3103 |
| IC50 | 75.678 | 4.428 | 62.275 | 86.925 | -0.0119 |



Giant Kelp Germination Laboratory Control Chart

CV% = 16.9



Macrocystis Germination and Growth Test-Growth-Length

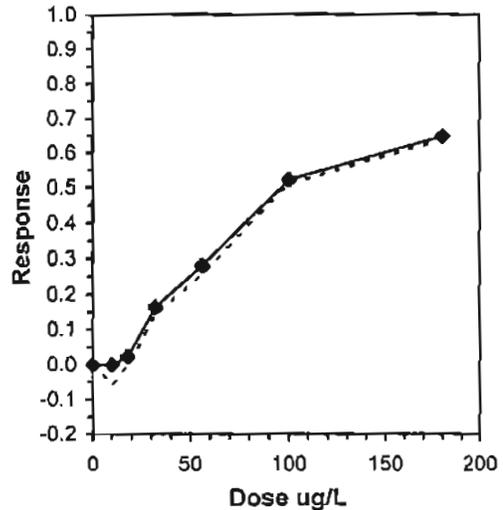
Start Date: 7/16/2009 16:00 Test ID: RT090716k Sample ID: REF-Ref Toxicant
 End Date: 7/18/2009 16:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: CUCL-Copper chloride
 Sample Date: 7/16/2009 Protocol: MBP 90 Test Species: MP-Macrocystis pyrifera
 Comments:

| Conc-ug/L | 1 | 2 | 3 | 4 | 5 |
|-----------|--------|--------|--------|--------|--------|
| D-Control | 15.750 | 15.500 | 15.500 | 15.000 | 15.750 |
| 10 | 16.500 | 16.500 | 15.750 | 16.500 | 16.500 |
| 18 | 15.500 | 15.750 | 15.250 | 15.500 | 15.750 |
| 32 | 13.500 | 13.500 | 13.250 | 13.500 | 12.750 |
| 56 | 12.500 | 9.500 | 12.750 | 11.750 | 10.750 |
| 100 | 8.000 | 7.000 | 8.000 | 7.000 | 8.000 |
| 180 | 6.000 | 5.750 | 5.500 | 5.500 | 5.250 |

| Conc-ug/L | Transform: Untransformed | | Mean | Min | Max | CV% | N | Rank Sum | 1-Tailed Critical | Isotonic | |
|-----------|--------------------------|--------|--------|--------|--------|--------|---|----------|-------------------|----------|--------|
| | Mean | N-Mean | | | | | | | | Mean | N-Mean |
| D-Control | 15.500 | 1.0000 | 15.500 | 15.000 | 15.750 | 1.975 | 5 | | | 15.925 | 1.0000 |
| 10 | 16.350 | 1.0548 | 16.350 | 15.750 | 16.500 | 2.051 | 5 | 39.00 | 16.00 | 15.925 | 1.0000 |
| 18 | 15.550 | 1.0032 | 15.550 | 15.250 | 15.750 | 1.345 | 5 | 28.00 | 16.00 | 15.550 | 0.9765 |
| *32 | 13.300 | 0.8581 | 13.300 | 12.750 | 13.500 | 2.451 | 5 | 15.00 | 16.00 | 13.300 | 0.8352 |
| *56 | 11.450 | 0.7387 | 11.450 | 9.500 | 12.750 | 11.697 | 5 | 15.00 | 16.00 | 11.450 | 0.7190 |
| *100 | 7.600 | 0.4903 | 7.600 | 7.000 | 8.000 | 7.207 | 5 | 15.00 | 16.00 | 7.600 | 0.4772 |
| *180 | 5.600 | 0.3613 | 5.600 | 5.250 | 6.000 | 5.090 | 5 | 15.00 | 16.00 | 5.600 | 0.3516 |

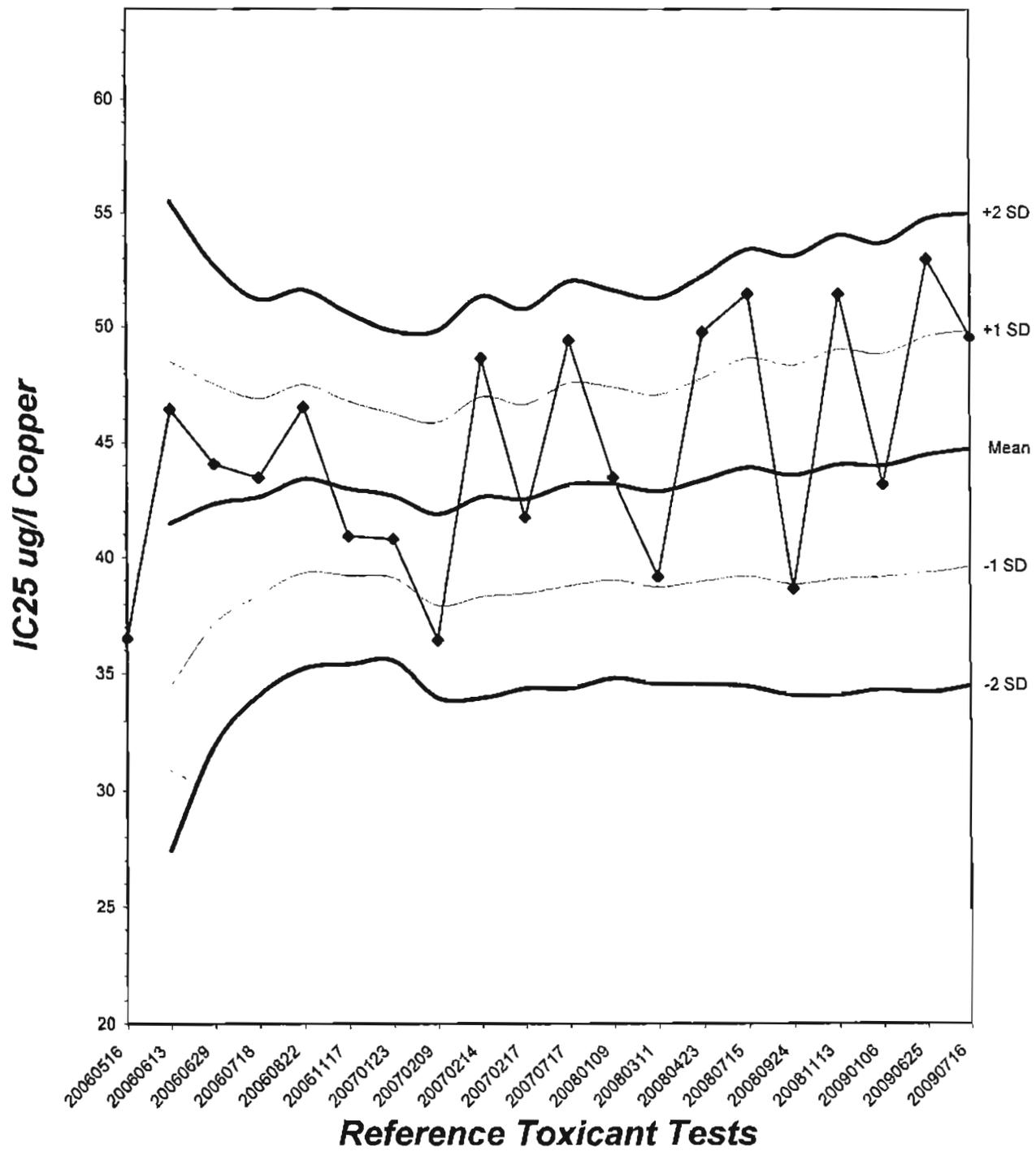
| Auxiliary Tests | Statistic | Critical | Skew | Kurt |
|---|-------------|-------------|------------|-----------|
| Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.05) | 0.89065 | 0.934 | -0.9682 | 4.419 |
| Bartlett's Test indicates unequal variances (p = 1.39E-03) | 21.6871 | 16.8119 | | |
| Hypothesis Test (1-tail, 0.05) | NOEC | LOEC | ChV | TU |
| Steel's Many-One Rank Test | 18 | 32 | 24 | |
| Treatments vs D-Control | | | | |

| Linear Interpolation (200 Resamples) | | | | |
|--------------------------------------|--------|-------|----------------|---------|
| Point | ug/L | SD | 95% CL(Exp) | Skew |
| IC05 | 20.621 | 0.800 | 18.331 22.665 | -0.1652 |
| IC10 | 25.576 | 0.804 | 23.296 28.069 | 0.1035 |
| IC15 | 30.530 | 0.991 | 28.043 34.187 | 0.4760 |
| IC20 | 39.265 | 3.201 | 32.774 51.346 | 1.0679 |
| IC25 | 49.595 | 5.102 | 38.738 65.325 | 0.5150 |
| IC40 | 77.657 | 3.727 | 65.081 84.847 | -0.5626 |
| IC50 | 95.857 | 2.720 | 88.704 105.606 | 0.3739 |



Giant Kelp Germ Tube Growth Laboratory Control Chart

CV% = 11.5



GIANT KELP GERMINATION AND GROWTH SHORT-TERM TOXICITY TEST



QA/QC No.: RT-090716

Start Date: 07/16/2009

| Dish No. | Sample Conc. | Total Number Counted | Number Germin. | Number Non-Germin. | Germ Tube Lengths (micrometer units) | | | | | | | | | |
|----------|--------------|----------------------|----------------|--------------------|--------------------------------------|---|---|---|---|---|---|---|---|---|
| | | | | | A | B | C | D | E | F | G | H | I | J |
| 1 | 10 | 106 | 91 | 15 | 6 | 7 | 6 | 7 | 8 | 8 | 7 | 4 | 2 | 6 |
| 2 | 100 | 110 | 19 | 91 | 4 | 3 | 5 | 2 | 2 | 4 | 3 | 3 | 2 | 4 |
| 3 | 18 | 104 | 87 | 17 | 6 | 7 | 7 | 6 | 5 | 7 | 6 | 6 | 5 | 7 |
| 4 | C | 103 | 82 | 21 | 7 | 6 | 7 | 5 | 7 | 5 | 6 | 7 | 7 | 6 |
| 5 | 32 | 107 | 86 | 21 | 5 | 7 | 5 | 6 | 4 | 4 | 6 | 5 | 6 | 6 |
| 6 | 180 | 103 | 11 | 92 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 4 | 3 | 2 |
| 7 | 56 | 105 | 43 | 62 | 4 | 5 | 5 | 7 | 4 | 6 | 6 | 5 | 4 | 4 |
| 8 | 18 | 104 | 88 | 16 | 7 | 6 | 7 | 7 | 5 | 5 | 6 | 7 | 7 | 6 |
| 9 | 56 | 103 | 69 | 34 | 2 | 5 | 5 | 4 | 6 | 5 | 5 | 3 | 3 | 4 |
| 10 | 180 | 112 | 8 | 104 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 2 |
| 11 | 10 | 105 | 84 | 21 | 6 | 7 | 8 | 7 | 7 | 5 | 7 | 5 | 7 | 7 |
| 12 | 32 | 106 | 72 | 34 | 5 | 5 | 6 | 6 | 4 | 7 | 5 | 6 | 4 | 6 |
| 13 | C | 102 | 86 | 16 | 7 | 6 | 5 | 7 | 6 | 7 | 7 | 6 | 5 | 6 |
| 14 | 100 | 107 | 23 | 84 | 3 | 2 | 4 | 2 | 3 | 3 | 4 | 2 | 3 | 2 |
| 15 | 18 | 103 | 84 | 19 | 6 | 7 | 5 | 5 | 7 | 6 | 5 | 7 | 7 | 6 |
| 16 | 56 | 108 | 57 | 51 | 4 | 6 | 6 | 5 | 7 | 6 | 4 | 4 | 4 | 5 |
| 17 | 180 | 112 | 8 | 104 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 2 |
| 18 | 10 | 103 | 87 | 16 | 7 | 6 | 7 | 7 | 5 | 6 | 7 | 7 | 6 | 5 |
| 19 | 32 | 109 | 79 | 30 | 5 | 6 | 4 | 5 | 5 | 7 | 6 | 4 | 5 | 6 |
| 20 | C | 103 | 88 | 15 | 7 | 5 | 7 | 6 | 6 | 5 | 7 | 7 | 6 | 6 |

Comments:

Micrometer conversion factor: 1 unit = 2.5 um at 400X power

GIANT KELP GERMINATION AND GROWTH SHORT-TERM TOXICITY TEST



QA/QC No.: RT-090716

Start Date: 07/16/2009

| Dish No. | Sample Conc. | Total Number Counted | Number Germin. | Number Non-Germin. | Germ Tube Lengths (micrometer units) | | | | | | | | | |
|----------|--------------|----------------------|----------------|--------------------|--------------------------------------|---|---|---|---|---|---|---|---|---|
| | | | | | A | B | C | D | E | F | G | H | I | J |
| 21 | 100 | 106 | 30 | 76 | 4 | 3 | 5 | 3 | 4 | 3 | 2 | 2 | 3 | 3 |
| 22 | 56 | 102 | 52 | 50 | 4 | 6 | 5 | 4 | 4 | 5 | 3 | 4 | 6 | 6 |
| 23 | C | 104 | 84 | 20 | 7 | 6 | 6 | 5 | 6 | 7 | 5 | 5 | 7 | 6 |
| 24 | 186 | 105 | 2 | 103 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 |
| 25 | 10 | 107 | 91 | 16 | 8 | 7 | 6 | 7 | 5 | 7 | 7 | 6 | 7 | 6 |
| 26 | 32 | 103 | 73 | 30 | 4 | 5 | 7 | 6 | 4 | 4 | 7 | 6 | 6 | 5 |
| 27 | 100 | 106 | 16 | 90 | 3 | 2 | 3 | 4 | 2 | 2 | 3 | 4 | 2 | 3 |
| 28 | 18 | 101 | 80 | 21 | 7 | 6 | 6 | 7 | 5 | 6 | 7 | 7 | 5 | 6 |
| 29 | 100 | 105 | 43 | 61 | 6 | 2 | 2 | 3 | 4 | 4 | 2 | 3 | 4 | 2 |
| 30 | 10 | 101 | 84 | 17 | 6 | 7 | 5 | 7 | 7 | 6 | 7 | 8 | 7 | 6 |
| 31 | 56 | 108 | 72 | 36 | 5 | 4 | 4 | 3 | 4 | 5 | 5 | 4 | 4 | 5 |
| 32 | 180 | 105 | 1 | 104 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 |
| 33 | 32 | 105 | 64 | 41 | 4 | 6 | 6 | 5 | 4 | 6 | 6 | 5 | 4 | 5 |
| 34 | C | 104 | 90 | 14 | 6 | 7 | 7 | 5 | 7 | 5 | 7 | 7 | 6 | 6 |
| 35 | 18 | 107 | 91 | 16 | 7 | 6 | 5 | 7 | 7 | 8 | 6 | 5 | 5 | 7 |
| 36 | | | | | | | | | | | | | | |
| 37 | | | | | | | | | | | | | | |
| 38 | | | | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | | |

Comments:

Micrometer conversion factor: 1 unit = 2.5 um at 400X power

GIANT KELP GERMINATION AND GROWTH SHORT-TERM TOXICITY TEST



QA/QC No.: RT-090716

Start Date: 07/16/2009

WATER QUALITY READINGS

| Sample | Initial Readings | | | | Final Readings | | | |
|----------|------------------|-----------|-----|-----------------|----------------|-----------|-----|-----------------|
| | Temp (°C) | DO (mg/l) | pH | Salinity (o/oo) | Temp (°C) | DO (mg/l) | pH | Salinity (o/oo) |
| Control | 14.9 | 7.3 | 8.2 | 34 | 14.3 | 7.0 | 8.2 | 34 |
| 10 µg/l | 14.2 | 7.2 | 8.2 | 34 | 14.1 | 7.2 | 8.2 | 34 |
| 18 µg/l | 14.6 | 7.2 | 8.2 | 34 | 14.3 | 7.4 | 8.2 | 34 |
| 32 µg/l | 14.4 | 7.3 | 8.2 | 34 | 14.3 | 7.1 | 8.2 | 34 |
| 56 µg/l | 14.1 | 7.3 | 8.2 | 34 | 14.4 | 7.2 | 8.2 | 34 |
| 100 µg/l | 14.3 | 7.2 | 8.2 | 34 | 14.1 | 7.3 | 8.2 | 34 |
| 180 µg/l | 14.8 | 7.2 | 8.2 | 34 | 14.4 | 7.3 | 8.2 | 34 |

Comments:

Reference toxicant: Copper chloride.

All dilutions made with reference lab seawater.

Illumination (16 hr light / 8 hr dark at $50 \pm 10 \text{ uE/m}^2/\text{s}$) at 5 locations in incubator:
(four corners and center): 47, 49, 56, 52, 50 $\text{uE/m}^2/\text{s}$.

Initial readings: Analyst: [Signature] Date: 7-16-09 Time: 1500

Final readings: Analyst: [Signature] Date: 7-18-09 Time: 1530

GIANT KELP GERMINATION AND GROWTH SHORT-TERM TOXICITY TEST



QA/QC No.: RT-090715

Start Date: 07/15/2009

RANDOMIZATION WORKSHEET

| Beaker No. | Sample Conc. | Notes |
|------------|--------------|------------|--------------|------------|--------------|------------|--------------|---|
| 1 | 10 | 11 | 10 | 21 | 100 | 31 | 56 | <p>Need 7500/ml x 200 ml = 1,500,000 spores.</p> <p>Add 1.0 ml spore stock of 6 spores per 5x5 hemacytometer grid</p> |
| 2 | 100 | 12 | 32 | 22 | 56 | 32 | 180 | |
| 3 | 18 | 13 | C | 23 | C | 33 | 32 | |
| 4 | C | 14 | 100 | 24 | 180 | 34 | C | |
| 5 | 32 | 15 | 18 | 25 | 10 | 35 | 18 | |
| 6 | 180 | 16 | 56 | 26 | 32 | 36 | | |
| 7 | 56 | 17 | 180 | 27 | 100 | 37 | | |
| 8 | 18 | 18 | 10 | 28 | 18 | 38 | | |
| 9 | 56 | 19 | 32 | 29 | 100 | 39 | | |
| 10 | 180 | 20 | C | 30 | 10 | 40 | | |

Analyst: *R* Date: *7-16-09* Time: *1100*

Test Temperature Chart

Test No: RT-090716

Date Tested: 07/16/09 to 07/18/09

Acceptable Range: 15+/- 1°C

