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Final
2011 ANNUAL GROUNDWATER MONITORING REPORT INSTALLATION RESTORATION PROGRAM SITE 40

Naval Weapons Station Seal Beach
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TABLE OF CONTENTS

SECTION **PAGE**

INTRODUCTION **1**

1.0 LAND USE CONTROLS **1**

2.0 SUMMARY OF DATA **2**
- 2.1 HRC Distribution and COCs in Regularly Monitored Wells 2
- 2.2 Chemical Oxygen Demand 2
- 2.3 COC Concentrations 2
- 2.4 Plume Interpretations 3
- 2.5 Microbiological and Geochemical Parameters 4
- 2.6 Soil Gas Data and Water Level Measurements 5

3.0 CONCLUSIONS **6**

4.0 RECOMMENDATIONS **6**

5.0 REFERENCES **8**

TABLES

Table 1 Summary of Monitoring Activities Conducted in December 2011

Table 2 COD and DHC Data Collected in December 2011

Table 3 Anions, TDS, TOC, DO, ORP, and pH Data Collected in December 2011

Table 4 Cation Concentrations in Samples Collected in December 2011

Table 5 PCE, TCE, DCE, and VC Concentrations in Soil Gas Samples Collected in December 2011

FIGURES

Figure 1 COC Concentrations in Select Shallow and Mid-Shallow Monitoring Wells and Injection Wells – December 2011

Figure 2 Composite of Interpreted Plume Extents for all COCs Based on December 2011 Data

APPENDICES

A Laboratory Data (included on CD)

B Regulatory Comments

INTRODUCTION

This report provides an overview of site activities conducted in December 2011 associated with enhanced in situ bioremediation (EISB) of groundwater at Installation Restoration Program Site 40 at Naval Weapons Station Seal Beach, Seal Beach, California. This report includes the presentation and assessment of relevant monitoring data collected during this period. This is the third sampling event conducted after the final application of Hydrogen Release Compound (HRC®) in November 2008 to address the residual contamination present as limits of the EISB effort are approached. A summary of the general status of the project and recommendations based on the conclusions are also provided.

The field activities for this period included groundwater and soil gas monitoring in various wells/locations, and surface gas emissions monitoring. These activities, along with the dates they were conducted, are listed in Table 1. For this monitoring event (December 2011), chemicals of concern (COCs) and a focused suite of microbial and geochemical parameters were assessed in groundwater samples from monitoring wells MW-40-06, -07, -08, -13, -14, -22, -30, -31 -32, -34, -35, -36, and -37; and injection wells IW-2, -4, -10, and -18. These wells were proposed for annual monitoring based on established criteria as discussed in the Final Comprehensive Performance Monitoring Report (October 2005 through May 2010) (TtEC 2011). Most of these wells are key compliance wells located in the central portion of the site where low-level contamination is still being reported. Results of the monitoring are discussed below.

1.0 LAND USE CONTROLS

Land use controls and their implementation were inspected and reviewed as part of the Navy's Project Review Process in accordance with the National Environmental Policy Act Compliance Procedures Handbook (DON 1998). The land use controls for Site 40 are as follows:

- No new groundwater extraction, injection, or drinking water wells shall be installed within the IR Site 40 groundwater plume or associated buffer zone without prior review and written concurrence from the DON and DTSC
- Injection and monitoring wells and associated piping and equipment that are included in the remedial action shall not be altered, disturbed, or removed without the prior review and written concurrence from the DON and DTSC.
- The DON, DTSC, and their authorized agents, employees, contractors, and subcontractors will have the right to:
  - enter the premises to conduct investigations, tests, or surveys;
  - inspect field activities;
  - construct, operate, and maintain the remedial action described in this ROD/RAP; and
  - undertake any other remedial response or remedial action as required or necessary under the cleanup program.

During the 2011 reporting period, no new groundwater wells were installed in IRP Site 40 or the 500-foot buffer zone and all existing wells and associated piping were in proper working order and did not appear to be tampered with or altered. The DON, regulatory agencies, and contractors had full access to the Site to perform monitoring activities as prescribed in the ROD. The LUCs will be inspected and reviewed during the next annual monitoring event and summarized in the 2012 groundwater monitoring report.

2.0 SUMMARY OF DATA

Data from the December 2011 sampling event, along with data from past monitoring events for the above

wells, are presented on Figure 1. The analytical data from the laboratory is included on CD in Appendix A. Current (December 2011) COC concentrations and inferred plume delineations for the above wells are presented on Figure 2. The regulatory comments on the draft report are included as Appendix B.

2.1 HRC Distribution and COCs in Regularly Monitored Wells

A final HRC injection event was conducted in November 2008. This subsection provides a summary of data collected in December 2011 to assess HRC distribution, followed by key observations regarding COC concentrations in the selected groundwater monitoring wells sampled during the December 2011 event. Note that for the following discussions, a concentration followed by the letter "J" indicates that the concentration is an estimated level.

Evaluation of HRC presence primarily included assessment of shallow interval groundwater monitoring wells MW-40-07, -30, -32, -34, -36, and -37 (refer to Figure 1 for well locations). With the exception of MW-40-34, each of these wells still contains one or more COCs at concentrations exceeding their respective target cleanup goal (TCG), and each is located in the area expected to be influenced by the HRC. MW-40-34 has had no COCs at concentrations exceeding TCGs since 2008. Also included in this assessment are monitoring wells MW-40-06, -08, -13, -14, -22, -31, and -35; and injection wells IW-2, -4, -10, and -18 (used for sodium lactate injection during the initial injection phase). These wells were not the target of the HRC injections but were monitored to further assess the plume dynamics. A discussion on the sampling results for all wells is contained in the subsequent sections of the report. Chemical oxygen demand (COD) has been measured over the duration of the project to evaluate lactate presence and to assess the migration and persistence of HRC near these wells. Volatile fatty acids (VFAs), including acetic acid, propionic acid, and butyric acid, which were measured in previous events, were not measured in the 2011 event. These compounds are breakdown products of HRC, and their presence indicates that microbial activity is occurring as microbes degrade the HRC. As total chlorinated ethenes have decreased to levels below what is required (50 µg/L) for vigorous growth of dechlorinating microorganisms, measurement of VFAs is no longer useful.

2.2 Chemical Oxygen Demand

COD data are presented in Table 2 and discussed below:

- COD levels were lower in most wells as compared to levels in the prior two events; however, COD concentrations in MW-40-13 (76 mg/L) and MW-40-34 (70 mg/L) were slightly elevated over concentrations measured in these wells during the prior event (15.6 mg/L in May 2009 and 29.5 mg/L in May 2010, respectively). This indicates a general reduction of HRC in the entire plume area.

- COD levels in all locations were low, ranging from below detection (MW-40-06 and MW-40-08) to 210 mg/L (IW-4).

In summary, some variability in COD data suggests that the HRC distribution was not uniform, which is consistent with results from past efforts to achieve substrate distribution at this site. However, given the low contaminant levels (see next section), it is unlikely that further addition of HRC substrate would be beneficial.

2.3 COC Concentrations

Figure 1 presents historical COC concentrations over the life of the project through December 2011 for the shallow and mid-shallow wells. All wells sampled in the December 2011 monitoring event had concentrations of the primary COC concentrations, tetrachloroethene (PCE) and trichloroethene (TCE), below the TCGs. Combined with the May 2010 sampling data, the key wells sampled have had at least two consecutive sampling events with COC concentrations below the TCGs. The only COC concentrations

remaining above the TCGs at the site are cis-1,2-dichloroethene (DCE) and vinyl chloride (VC).

Figure 2 contains only the concentrations measured during the December 2011 event, and interpreted plume delineations based on the December 2011 data. Some observations on the fate of COC are made below:

- As can be seen on Figure 1, decreases in COC concentrations in MW-40-37 in comparing with prior results were:
  - TCE from 4 to 2.5 micrograms per liter (µg/L), DCE from 90 to 61 µg/L, and VC from 37 to 8.7 µg/L),
- Other minor COC decreases in monitoring wells include:
  - MW-40-07 (DCE from 0.67J to 0.5 U µg/L, VC from 0.78 to 0.5 µg/L);
  - MW-40-30 (DCE from 3.7 to 0.95 µg/L, VC from 4 to 1.2 µg/L);
  - MW-40-31 (DCE from 0.83 J to 0.5 U µg/L, VC from 0.6 to 0.5 U µg/L);
  - MW-40-32 (DCE from 1.2 to 0.72 µg/L, VC from 2.1 to 0.8 µg/L); and
  - MW-40-36 (DCE from 1.5 to 1.4 µg/L, VC from 2.2 to 1.2 µg/L).
- A COC increase in MW-40-08 includes:
  - DCE from 38 to 56 µg/L.
- Other minor COC increases in monitoring wells include:
  - MW-40-14 (TCE from 0.92 J to 1.9 µg/L, DCE from 1.3 to 3.7 µg/L, VC from 3.1 to 5.3 µg/L);
  - MW-40-22 (DCE from 2.5 to 7.9 µg/L, VC from 4.6 to 4.8 µg/L);
  - MW-40-34 (VC from 0.33J to 0.38J µg/L); and
  - MW-40-35 (DCE from 3 to 3.4 µg/L, VC from 0.5U to 0.55 µg/L).
- A COC increase in IW-4 includes:
  - VC from 1.0 to 1.2 µg/L.

Of the six wells (MW-40-08, MW-40-14, MW-40-22, MW-40-34, MW-40-35 and IW-4) that had increased concentrations of DCE and VC for the 2011 event, all but two have shown some minor fluctuation over the past several monitoring events. MW-40-08 and MW-40-22 both showed increases for DCE over the past three monitoring events. MW-40-22 also showed increases of VC in the last three monitoring events. The differences in COC increases and decreases are considered minor and are expected based on the relatively low concentrations observed at the site. The contaminants are affected more dramatically at low concentrations by their surrounding environment. Overall there do not appear to be large increases in concentrations that would demonstrate the occurrence of rebound.

2.4 Plume Interpretations

- As shown on Figure 2, concentrations of PCE and TCE have not exceeded the TCGs (5 µg/L for both COCs) in any wells for the past two events (May 2010 and December 2011).
- Concentrations of DCE exceed the TCG (6 µg/L) in only three of the 17 monitored wells (MW-40-08, MW-40-22 and MW-40-37); however, the levels in two (MW-40-08 and MW-40-37) of these wells are nearly ten times the TCG. In two (MW-40-08 and MW-40-22) of the wells, DCE concentrations have increased from the levels measured in the prior (May 2010) event.
- Low concentrations of VC, generally in the 1 to 2 µg/L range, form a residual plume in the

central portion of the site. In addition, three wells (MW-40-14, MW-40-22 and MW-40-37) had concentrations close to and/or slightly exceeding 5 µg/L (ten times the TCG of 0.5 µg/L).

While increases in COC levels in MW-40-08 and to a lesser extent MW-40-22 were noted during this event, in most wells COC concentrations are below TCGs or are near TCGs and decreasing. It is clear that substantial reductions in COCs have been achieved following the two rounds of HRC injections in the central area of the site (conducted in April 2007 and November 2008).

2.5 Microbiological and Geochemical Parameters

Data from the December 2011 event reflecting concentrations of *Dehalococcoides* spp. (DHC) organisms, which are critical to the reductive dechlorination process, are included in Table 2. Dissolved oxygen (DO) levels and oxidation reduction potential (ORP) provide additional indication of microbial metabolism of the HRC (effectiveness in generating/maintaining reducing conditions). Anions, totals dissolved solids (TDS), total organic carbon (TOC), DO, ORP, and pH data are included in Table 3, and cation (calcium, magnesium, potassium, iron, and sodium) concentrations are presented in Table 4.

Key observations regarding microbiological parameters are as follows (refer to Table 2):

- DHC levels ranged from 3.5×10^3 to 6.62×10^6 cells/L, a range which is slightly lower, but comparable with, the range of levels measured in May 2010 (2.63×10^4 to 1.14×10^7 cells/L). Because DHC organisms are obligate chloroethene respirers (require chloroethenes to survive), it is expected that DHC populations would decline as COC concentrations are reduced.

Key observations regarding select geochemical parameters for monitored wells are as follows (refer to Tables 2, 3 and 4):

- Based on the December 2011 readings, DO concentrations in the monitoring wells remained at or less than 0.9 mg/L (given limitations associated with this measurement, this essentially represents not detected).
- ORP values measured during the December 2011 event were negative for all 17 monitoring points, ranging from -94.6 millivolts (mV) to -190.7 mV. These values reflect reducing conditions favorable for reductive dechlorination.
- Nitrate was either not detected or detected at very low concentrations, and sulfate levels were low in treatment area wells relative to well MW-40-13, which is located downgradient and just outside the active treatment zone. These data also reflect reducing conditions favorable for reductive dechlorination.
- The pH readings ranged from 7.18 to 8.56 pH units. In general, these values fell within the 6.5 to 8.5 range that is considered favorable for bioremediation.
- Cation data are of interest mainly to track the persistence of sodium, a component of the originally injected electron donor (sodium lactate). Concentrations of sodium in the monitoring wells measured during the December 2011 event ranged from 178 to 1,860 mg/L. These concentrations are somewhat higher than those measured in monitoring wells during the May 2010 event (153 to 360 mg/L); however, the three very high concentrations occurred in wells that were not measured for sodium in May 2010. Sodium concentrations measured in injection wells IW-2, -4, -10 and -18 ranged from 206 to 463 mg/L.
- As tabulated in Table 2, chemical oxygen demand (COD) concentrations ranged from non-detect (MW-40-06 and MW-40-08) to 210 mg/L. COD is a measure of the oxygen equivalent of the organic matter content of a sample that is susceptible to dichromate oxidation. In other words, COD does not include many organic compounds that are partially or completely resistant to dichromate oxidation. In general, total organic carbon (TOC) is a more convenient and direct measurement of the total organic content by combustion infrared method than COD with dichromate oxidation. In this sampling

event, TOC was also measured in several wells to supplement COD readings in assessing HRC migration. TOC concentrations ranged from 8.5 mg/L (MW-40-06) to 250 mg/L (IW-4). In examining TOC (Table 3) and COD (Table 2) concentrations at correspondent wells, a general correlation exists, except in the samples from IW-18 and MW-40-13.

- Total dissolved solids (TDS) were measured during this event to help in assessment of secondary groundwater quality effects due to the injections. High TDS levels were measured in MW-40-13 (7,320 mg/L), MW-40-35 (4,830 mg/L) and MW-40-32 (3,700 mg/L), which correlated closely to high concentrations of sodium cation (Table 4). These values are higher than the average of 2,000 mg/L to 3,000 mg/L prior to bioaugmentation in 2005.

The December 2011 microbiological and geochemical data generally indicate the presence of sufficient microorganisms and maintenance of reducing conditions supportive of reductive dechlorination in most areas. Substrate levels (as indicated by the COD data) were low, but it appears that there is still ample electron donor present within the subsurface.

2.6 Soil Gas Data and Water Level Measurements

Methane gas surface emissions monitoring was performed on December 21, 2011. During this monitoring event, methane gas emissions were not detected within Buildings 239 or 240, or in the surrounding areas.

Soil gas monitoring of probes was conducted on December 19–21, 2011. The results indicated that the 15 probes tested in the field had methane gas present at concentrations from 0.0 to 75.7 percent (%) in air during the December 2011 monitoring event. The highest methane concentration was in the soil gas probe in injection well IW-7. The average methane concentration in all 15 wells was 56 % in air, which is lower than the average of 67% recorded in May 2010. Hydrogen sulfide was reported in 5 of 15 probes with concentrations ranging from 2 to 38 parts per million (ppm). The highest hydrogen sulfide concentration was in the soil gas probe in monitoring well MW-40-37.

In addition, soil gas samples were collected in 6-liter SUMMA™ canisters from four vapor monitoring wells (VW-40-02, -03, -04, and -06) and soil gas monitoring probes that are installed in groundwater monitoring wells MW-40-32 and -37 and injection wells IW-1 and -3. Table 5 lists the analytical results for the soil gas analyses. VC was reported in all sampled wells at concentrations from 2.8 (estimated) micrograms per cubic meter ($\mu g/m^3$) (or 1.1 J parts per billion in volume [ppbv]) in the vapor monitoring well VW-40-04 to 4,600 $\mu g/m^3$ (or 1,800 ppbv) in vapor monitoring well VW-40-02. In comparing with past results in 2008 through 2010, except in VW-40-02, all VC concentrations are significantly lower, reflecting the continuing reductive dechlorination.

DCE was reported in all sampled wells at concentrations ranging from 25 $\mu g/m^3$ in the soil gas probe installed in injection well IW-3 to 7,200 $\mu g/m^3$ in soil gas monitoring well VW-40-04. In comparison with past results in 2008 through 2010, except in MW-40-37 and VW-40-02, all DCE concentrations are significantly lower, reflecting the continuing reductive dechlorination. PCE was reported in all soil gas samples at concentrations from 7.5 $\mu g/m^3$ in injection well IW-3 to 7,200 $\mu g/m^3$ in soil gas monitoring well VW-40-04. In comparison with past results in 2008 through 2010, all PCE concentrations are significantly lower, reflecting the continuing reductive dechlorination. TCE was reported in all soil gas samples at concentrations from 16 $\mu g/m^3$ in the soil gas probe installed in injection well IW-3 to 3,600 $\mu g/m^3$ in soil gas monitoring well VW-40-03. In comparison with past results in 2008 through 2010, as in the case of PCE, all TCE concentrations are significantly lower, reflecting the continuing reductive dechlorination.

Methane gas concentrations in samples collected in SUMMA™ canisters from the soil gas monitoring probes and vapor monitoring wells, and analyzed in the laboratory, ranged from below detection limit in soil gas monitoring well VW-40-04 to 57.8 % in the soil gas monitoring well VW-40-03. In comparison

with past results in 2008 through 2010, except in MW-40-37, all methane gas concentrations are significantly lower, reflecting the diminishing reductive dechlorination. Soil gas is expected to be present as a result of bio-fermentation. The surface measurements demonstrated that constituent of concern, methane gas, is not present in the breathing zone of the adjacent inhabitable structures. Therefore, no hazards exist to the occupants. The readings are consistent with historical readings at the site.

Groundwater Levels. Groundwater level measurements were collected on December 19–21, 2011. Groundwater elevations within the site ranged from 1.14 feet above mean sea level (msl) in MW-40-13 to 2.53 feet above msl in MW-40-30. In general, water level measurements collected in December 2011 were higher in comparison with the elevations measured during the previous monitoring event in May 2010. This is likely due to seasonal variation in precipitation. Groundwater elevation trends since the start of the project (March 2005) show an overall general declining trend in groundwater level at the site. Groundwater levels ranged from approximately 1.5 to 2.5 feet above msl in November 2005 to about 1 to 2 feet above msl in May 2010. These differences do not appear to be significant enough to have an impact on achieving the remedial goals of this project.

3.0 CONCLUSIONS

While the contaminant plume boundaries have shifted slightly (as expected due to dechlorination activity), significant reductions in total chloroethene concentrations have been observed in all monitoring wells over the life of the project. Microbiological and geochemical data suggest an environment favorable for reductive dechlorination to continue. However, while DHC microorganisms are still present at reasonably high levels in key locations, COC concentrations have decreased to very low levels, which would limit vigorous growth of key dechlorinating microorganisms.

Therefore, with the possible exception of the areas represented by MW-40-08, -14 and -37, the potential for enhanced bioremediation of chloroethenes has probably reached its limit at this point, and slower, localized biodegradation, along with other natural attenuation processes, will likely dominate the further reduction of COC levels. The final round of HRC injection conducted in critical areas to reestablish a condition supportive of reductive dechlorination was successful in reducing residual COCs concentrations and maximizing the extent of the EISB treatment. Concentrations of COCs are now very low, and it is unlikely that additional remedial efforts will result in significant cost benefits. As anticipated, monitored natural attenuation (MNA) will likely be sufficient to reach remedial action goals.

4.0 RECOMMENDATIONS

The Record of Decision (ROD) (Department of the Navy [DON] 2004) stipulates that, "when the subsurface benefits of enhanced bioremediation have been maximized, the remedy will revert to monitored natural attenuation (MNA) on a site wide basis." At this time, the COC levels in the majority of wells are less than their respective TCGs, or are close to the TCGs and are exhibiting decreasing trends. With this in mind, and because additional remedial efforts would likely have a very limited effect, the following recommendations are made:

1. Based on Navy's discussions with the RWQCB and DTSC on 4 December 2008, conduct the next round of monitoring at Site 40 one year after the December 2011 event, which will be in December 2012.

2. Remove data points MW-40-06. MW-40-06 is an outlier and has no recent evidence of elevated levels of COCs (all COCs have been below TCGs over two consecutive monitoring events). Although recent data illustrates a rise in COCs in this area it is unlikely that elevated COCs will migrate that far west due to the flat gradient at the site and groundwater flow is to the southeast. This point would be replaced by MW-40-25 that is the next farthest west data point and will be used to further define the plume boundaries of VC and DCE.

3. Remove MW-40-13 because COC concentrations in this well have been below TCGs for at least 2 years.

4. Add data points to help delineate recent plume boundaries including MW-40-27 and MW-40-25. MW-40-25 is located at the western edge of the most recent plume boundaries for VC and DCE. MW-40-27 is recommended to evaluate the concentrations, if any, of VC and DCE as it is located at the intersection of the plume boundaries.

5. Based on the MNA status of the site, it is recommended that COD, microbial monitoring, and dissolved gases (ethene, ethane, methane) be eliminated from the sampling program.

5.0 REFERENCES

Department of the Navy (DON). 1998. Weapons Support Facility Seal Beach Instruction 5090.5, Implementation of Environmental Project Review Procedures, 30 September.

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TABLES

TABLE 1

SUMMARY OF MONITORING ACTIVITIES CONDUCTED IN DECEMBER 2011

Date	Event	Wells Sampled[a]	Analytes/Parameters	Notes
12/20 and 12/21	Soil vapor sampling	Probes in wells VW-40-02, 03, 04, and VW-40-06, and nested probes in MW-40-32 and -37, and IW-1 and IW-3	VOCs and fixed gases	Laboratory analysis
12/19, 12/20 and 12/21	Groundwater level measurement	MW-40-06, 07, 08, -13, -14, -22, -30, -31, 32, -34, -35, 36, and -37, and IW-2, -4, -10, and -18.	Not applicable	Groundwater level measurements
12/19 and 12/21	Soil vapor/gas probe monitoring	Probes in wells VW-40-01, -02, -03, -04, and -06, and nested probes in MW-40-32, -34, -35, -36, and -37 and IW-1, -3, -7, 10, -18 (MW-40-30 and -31 were scheduled for monitoring but the presence of water in the probe prevented the measurement of parameters.)	Methane, oxygen, carbon dioxide, hydrogen sulfide, VOCs, and carbon monoxide	Field testing
12/21/11	Surface emissions monitoring	Not applicable	Methane gas concentrations	Inside Building 240 and western portion of Building 239, and areas surrounding the above buildings
12/20/11	Groundwater sampling	MW-40-06, 07, -08, -13, -14, -22, -30, -31, -32, -34, -35, -36, and -37, and injection wells IW-2, -4, -10, and -18	VOCs, dissolved gases, TDS, cations, anions, COD, TOC, and DNA,	Laboratory and field parameters

Notes:

[a] Refer to figures for well/sampling locations.

Abbreviations and Acronyms:

COD – chemical oxygen demand
DNA – deoxyribonucleic acid
TDS – total dissolved solid
TOC – total organic carbon
VOC – volatile organic compound

TABLE 2

COD AND DHC DATA
COLLECTED IN DECEMBER 2011

Location	COD (mg/L)	DHC (cells/L)
IW-2	16 J	2.38E+03
IW-4	210	4.78E+01
IW-10	26	4.74E+03
IW-18	88	1.15E+02
MW-40-06	ND	1.66E+01
MW-40-07	18 J	4.33E+01
MW-40-08	ND	7.94E+01
MW-40-13	76	3.50E+00
MW-40-14	19 J	2.18E+02
MW-40-22	18 J	6.62E+03
MW-40-30	34	1.84E+02
MW-40-31	44	1.66E+01
MW-40-32	31	3.17E+03
MW-40-34	70	2.80E+02
MW-40-35	60	1.80E+02
MW-40-36	29	6.40E+03
MW-40-37	19 J	1.33E+02

Notes:

J indicates an estimated concentration below the limit of detection

Abbreviations and Acronyms:

cells/L – cells per liter
COD – chemical oxygen demand
DHC – *Dehalococcoides* spp.
mg/L – milligrams per liter
NA – not analyzed
ND – not detected above the limit of detection

TABLE 3

ANIONS, TDS, TOC, DO, ORP, AND pH DATA COLLECTED IN DECEMBER 2011

Location	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	TDS (mg/L)	TOC (mg/L)	DO (mg/L)	ORP (mV)	pH (pH units)
IW-2	270	ND	ND	93	1,360	41	0.79	-137.8	8.05
IW-4	160	ND	ND	2.4	1,160	250	0.35	-120.9	7.77
IW-10	87	ND	ND	18	1,220	92	0.37	-117.3	7.69
IW-18	380	ND	ND	190	1,720	66 J	0.24	-168.7	7.54
MW-40-06	420	ND	3.1	210	1,240	8.5	0.49	-190.7	7.81
MW-40-07	140	ND	ND	33	1,090	58	0.85	-132.1	7.79
MW-40-08	220	ND	ND	110	1,070	32	0.61	-152.7	7.80
MW-40-13	3,700	ND	ND	410	7,320	12	0.52	-131.8	7.57
MW-40-14	220	ND	ND	91	1,820	120	0.47	-152.3	7.18
MW-40-22	390	ND	ND	9.4	1,470	57	0.35	-155.8	7.65
MW-40-30	98	ND	ND	41	1,460	100	0.90	-94.6	7.70
MW-40-31	580	ND	ND	ND	3,700	140	0.12	-155.2	7.28
MW-40-32	97	ND	0.054 J	15	1,200	76	0.41	-156.4	8.17
MW-40-34	140	ND	ND	3.2	1,010	77	0.18	-131.6	8.28
MW-40-35	330	ND	ND	ND	4,830	190	0.33	-171.2	8.56
MW-40-36	220	ND	ND	26	1,400	77	0.21	-161.3	8.10
MW-40-37	500	ND	ND	160	2,100	100	0.47	-106.8	8.14

Abbreviations and Acronyms:

DO – dissolved oxygen
mg/L – milligrams per liter
mV – millivolt
- – not analyzed
ND – not detected
ORP – oxidation/reduction potential
TDS – total dissolved solids
TOC – total organic carbon

TABLE 4

CATION CONCENTRATIONS IN SAMPLES COLLECTED IN DECEMBER 2011

Location	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
IW-2	84.9	21.4	22.9	2.40	409
IW-4	92.1	11.5	32.3	14.6	206
IW-10	101	25.6	44.4	2.04	285
IW-18	140	11.1	46.2	2.81	463
MW-40-06	129	ND	35.9	3.92	252
MW-40-07	146	17.7	40.9	3.78	192
MW-40-08	129	11.0	39.4	2.29	245
MW-40-13	623	10.8	464	14.3	1,280
MW-40-14	274	28.9	71.3	5.23	381
MW-40-22	45.4	3.24	18.9	4.24	557
MW-40-30	180	25.2	49.1	4.65	317
MW-40-31	154	18.7	80.8	5.93	1,210
MW-40-32	155	27.1	52.4	4.38	208
MW-40-34	127	10.2	34.2	5.32	178
MW-40-35	74.5	6.74	90.4	9.55	1,860
MW-40-36	141	28.0	55.6	3.93	288
MW-40-37	244	17.3	93.1	4.44	355

Abbreviations and Acronyms:

mg/L – milligrams per liter

TABLE 5

PCE, TCE, DCE, AND VC CONCENTRATIONS IN SOIL GAS SAMPLES COLLECTED IN DECEMBER 2011

Probe/Well ID	PCE		TCE		cis-1,2-DCE		Vinyl Chloride		methane
	ppbv	µg/m^3	ppbv	µg/m^3	ppbv	µg/m^3	ppbv	µg/m^3	%v
IW-1	2.6	18	35	190	520	2,100	1,200	3,100	22.6
IW-3	1.1 J	7.5	2.9	16	6.3	25	390	1,000	51.9
MW-40-32	5.1	35	21	110	84	3400	140	360	26.7
MW-40-37	1.8	12	13	71	34	1400	380	980	57.8
VW-40-02	15	100	67	360	1,800	7,200	1,800	4,600	54.3
VW-40-02 (FD)	16	110	72	390	1,900	7,600	1,900	4,900	55.8
VW-40-03	9.8	67	660	3,600	1,300	5,200	740	1,900	59.7
VW-40-04	43	290	4.6	25	8.2	33	1.1	2.8	0.25 U
VW-40-06	5.0	34	56	300	43	170	180	470	53.4

Abbreviations and Acronyms:

µg/m^3 – micrograms per cubic meter
DCE – dichloroethene
FD – field duplicate
ID – identification
J – estimated value
PCE – tetrachloroethene
ppbv – parts per billion by volume
TCE – trichloroethene
U – not detected below the associated reporting limit

FIGURES

NOTES:

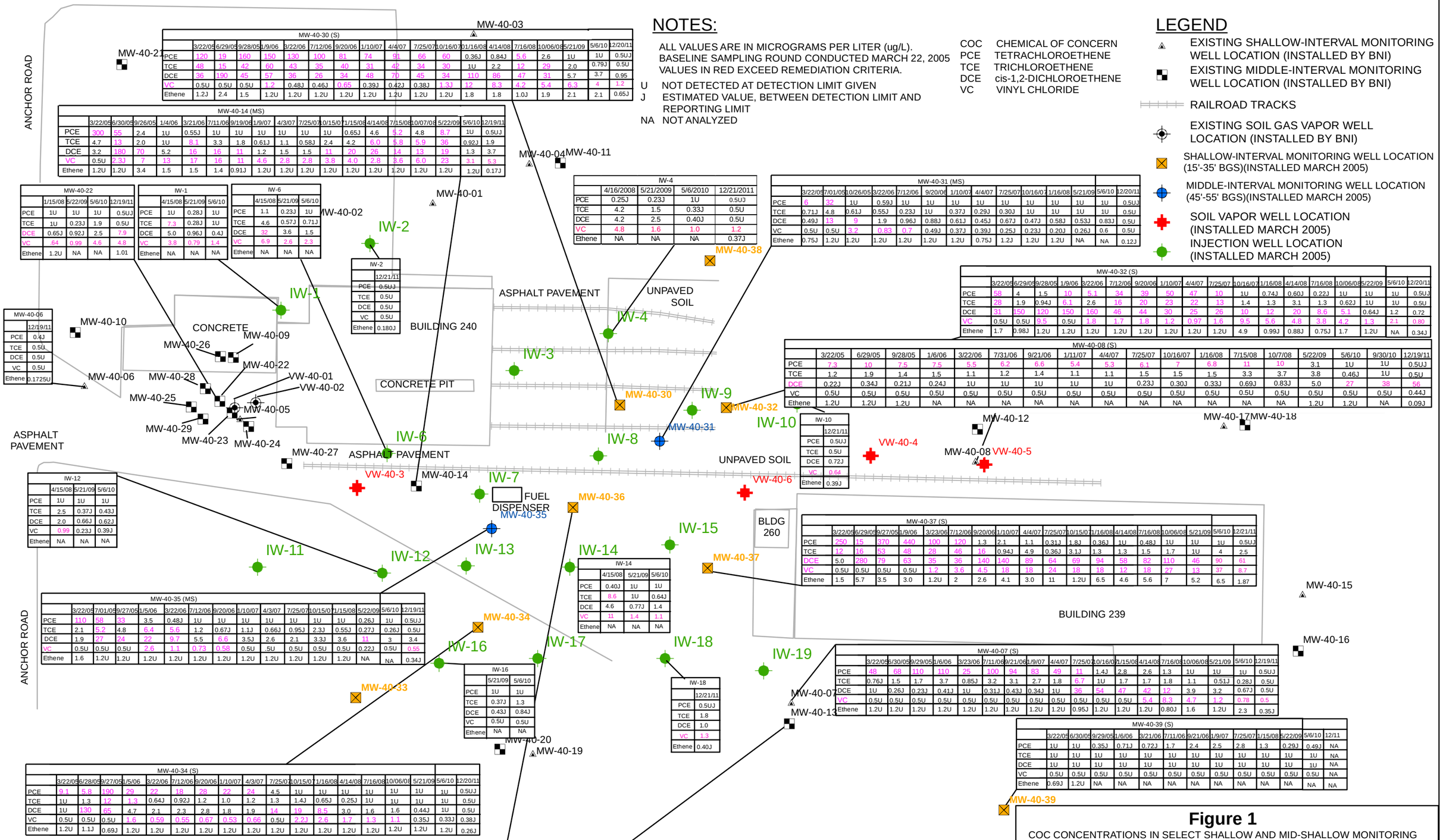
ALL VALUES ARE IN MICROGRAMS PER LITER (ug/L).
BASELINE SAMPLING ROUND CONDUCTED MARCH 22, 2005
VALUES IN RED EXCEED REMEDIATION CRITERIA.

U NOT DETECTED AT DETECTION LIMIT GIVEN
J ESTIMATED VALUE, BETWEEN DETECTION LIMIT AND REPORTING LIMIT
NA NOT ANALYZED

COC CHEMICAL OF CONCERN
PCE TETRACHLOROETHENE
TCE TRICHLOROETHENE
DCE cis-1,2-DICHLOROETHENE
VC VINYL CHLORIDE

LEGEND

- EXISTING SHALLOW-INTERVAL MONITORING WELL LOCATION (INSTALLED BY BNI)
- EXISTING MIDDLE-INTERVAL MONITORING WELL LOCATION (INSTALLED BY BNI)
- RAILROAD TRACKS
- EXISTING SOIL GAS VAPOR WELL LOCATION (INSTALLED BY BNI)
- SHALLOW-INTERVAL MONITORING WELL LOCATION (15'-35' BGS)(INSTALLED MARCH 2005)
- MIDDLE-INTERVAL MONITORING WELL LOCATION (45'-55' BGS)(INSTALLED MARCH 2005)
- SOIL VAPOR WELL LOCATION (INSTALLED MARCH 2005)
- INJECTION WELL LOCATION (INSTALLED MARCH 2005)



MW-40-30 (S)	3/22/05	6/29/05	9/28/05	1/9/06	3/22/06	7/12/06	9/20/06	1/10/07	4/4/07	7/25/07	10/16/07	01/16/08	4/14/08	7/16/08	10/06/08	5/21/09	5/6/10	12/20/11
PCE	120	19	160	150	130	100	81	74	91	66	60	0.36J	0.84J	5.6	2.6	1U	1U	0.5UJ
TCE	48	15	42	60	43	35	40	31	42	34	30	1U	2.2	12	29	2.0	0.79J	0.5U
DCE	36	190	45	57	36	26	34	48	70	45	34	110	86	47	31	5.7	3.7	0.95
VC	0.5U	0.5U	0.5U	1.2	0.48J	0.46J	0.65	0.39J	0.42J	0.38J	1.3J	12	8.3	4.2	5.4	6.3	4	1.2
Ethene	1.2J	2.4	1.5	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.8	1.8	1.0J	1.9	2.1	2.1	0.65J

MW-40-14 (MS)	3/22/05	6/30/05	9/26/05	1/4/06	3/21/06	7/11/06	9/19/06	1/9/07	4/3/07	7/25/07	10/15/07	1/15/08	4/14/08	7/15/08	10/07/08	5/22/09	5/6/10	12/19/11
PCE	300	55	2.4	1U	0.55J	1U	1U	1U	1U	1U	1U	0.65J	4.6	5.2	4.8	8.7	1U	0.5UJ
TCE	4.7	13	2.0	1U	8.1	3.3	1.8	0.61J	1.1	0.58J	2.4	4.2	6.0	5.8	5.9	36	0.92J	1.9
DCE	3.2	180	70	5.2	16	16	11	1.2	1.5	1.5	11	20	26	14	13	19	1.3	3.7
VC	0.5U	2.3J	7	13	17	16	11	4.6	2.8	2.8	3.8	4.0	2.8	3.6	6.0	23	3.1	5.3
Ethene	1.2U	1.2U	3.4	1.5	1.5	1.4	0.91J	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	0.17J

MW-40-22	1/15/08	5/22/09	5/6/10	12/19/11
PCE	1U	1U	1U	0.5UJ
TCE	1U	0.23J	1.9	0.5U
DCE	0.65J	0.92J	2.5	7.9
VC	.64	0.99	4.6	4.8
Ethene	1.2U	NA	NA	1.01

IW-1	4/15/08	5/21/09	5/6/10
PCE	1U	0.28J	1U
TCE	7.3	0.28J	1U
DCE	5.0	0.96J	0.4J
VC	3.8	0.79	1.4
Ethene	NA	NA	NA

IW-6	4/15/08	5/21/09	5/6/10
PCE	1.1	0.23J	1U
TCE	4.6	0.57J	0.71J
DCE	32	3.6	1.5
VC	6.9	2.6	2.3
Ethene	NA	NA	NA

IW-2	12/21/11
PCE	0.5UJ
TCE	0.5U
DCE	0.5U
VC	0.5U
Ethene	0.180J

IW-4	4/16/2008	5/21/2009	5/6/2010	12/21/2011
PCE	0.25J	0.23J	1U	0.5UJ
TCE	4.2	1.5	0.33J	0.5U
DCE	4.2	2.5	0.40J	0.5U
VC	4.8	1.6	1.0	1.2
Ethene	NA	NA	NA	0.37J

MW-40-31 (MS)	3/22/05	7/01/05	10/26/05	3/22/06	7/12/06	9/20/06	1/10/07	4/4/07	7/25/07	10/16/07	1/16/08	5/21/09	5/6/10	12/20/11
PCE	6	32	1U	0.59J	1U	1U	1U	1U	1U	1U	1U	1U	1U	0.5UJ
TCE	0.71J	4.8	0.61J	0.55J	0.23J	1U	0.37J	0.29J	0.30J	1U	1U	1U	1U	0.5U
DCE	0.49J	13	9	1.9	0.96J	0.88J	0.61J	0.45J	0.67J	0.47J	0.58J	0.53J	0.83J	0.5U
VC	0.5U	0.5U	3.2	0.83	0.7	0.49J	0.37J	0.39J	0.25J	0.23J	0.20J	0.26J	0.6	0.5U
Ethene	0.75J	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	0.75J	1.2J	1.2U	1.2U	NA	NA	0.12J

MW-40-32 (S)	3/22/05	6/29/05	9/28/05	1/9/06	3/22/06	7/12/06	9/20/06	1/10/07	4/4/07	7/25/07	10/16/07	1/16/08	4/14/08	7/16/08	10/06/08	5/22/09	5/6/10	12/20/11
PCE	58	4	1.5	10	5.1	34	39	50	47	10	1U	0.74J	0.60J	0.22J	1U	1U	1U	0.5UJ
TCE	28	1.9	0.94J	6.1	2.6	16	20	23	22	13	1.4	1.3	3.1	1.3	0.62J	1U	1U	0.5U
DCE	31	150	120	150	160	46	44	30	25	26	10	12	20	8.6	5.1	0.64J	1.2	0.72
VC	0.5U	0.5U	9.5	0.5U	1.8	1.7	1.8	1.2	0.97	1.6	9.5	5.6	4.8	3.8	4.2	1.3	2.1	0.80
Ethene	1.7	0.98J	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	4.9	0.99J	0.88J	0.75J	1.7	1.2U	NA	0.34J

MW-40-06	12/19/11
PCE	0.4J
TCE	0.5U
DCE	0.5U
VC	0.5U
Ethene	0.1725UJ

MW-40-08 (S)	3/22/05	6/29/05	9/28/05	1/6/06	3/22/06	7/31/06	9/21/06	1/11/07	4/4/07	7/25/07	10/16/07	1/16/08	7/15/08	10/7/08	5/22/09	5/6/10	9/30/10	12/19/11
PCE	7.3	10	7.5	7.5	5.5	6.2	6.6	5.4	5.3	6.1	7	6.8	11	10	3.1	1U	1U	0.5UJ
TCE	1.2	1.9	1.4	1.5	1.1	1.2	1.4	1.1	1.1	1.5	1.5	1.5	3.3	3.7	3.8	0.46J	1U	0.5U
DCE	0.22J	0.34J	0.21J	0.24J	1U	1U	1U	1U	1U	0.23J	0.30J	0.33J	0.69J	0.83J	5.0	27	38	56
VC	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.44J
Ethene	1.2U	1.2U	1.2U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2U	1.2U	NA	0.09J

IW-10	12/21/11
PCE	0.5UJ
TCE	0.5U
DCE	0.72J
VC	0.64
Ethene	0.39J

IW-12	4/15/08	5/21/09	5/6/10
PCE	1U	1U	1U
TCE	2.5	0.37J	0.43J
DCE	2.0	0.66J	0.62J
VC	0.99	0.23J	0.39J
Ethene	NA	NA	NA

MW-40-37 (S)	3/22/05	6/29/05	9/27/05	1/9/06	3/23/06	7/12/06	9/20/06	1/10/07	4/4/07	7/25/07	10/15/07	1/16/08	4/14/08	7/16/08	10/06/08	5/21/09	5/6/10	12/21/11
PCE	250	15	370	440	100	120	1.3	2.1	1.1	0.31J	1.8J	0.36J	1U	0.48J	1U	1U	1U	0.5UJ
TCE	12	16	53	48	28	46	16	0.94J	4.9	0.36J	3.1J	1.3	1.3	1.5	1.7	1U	4	2.5
DCE	5.0	280	79	63	35	36	140	140	89	64	69	94	58	82	110	46	90	61
VC	0.5U	0.5U	0.5U	0.5U	1.2	3.6	4.5	18	18	24	18	18	12	18	27	13	37	8.7
Ethene	1.5	5.7	3.5	3.0	1.2U	2	2.6	4.1	3.0	11	1.2U	6.5	4.6	5.6	7	5.2	6.5	1.87

IW-14	4/15/08	5/21/09	5/6/10
PCE	0.40J	1U	1U
TCE	8.6	1U	0.64J
DCE	4.6	0.77J	1.4
VC	11	1.4	1.1
Ethene	NA	NA	NA

MW-40-35 (MS)	3/22/05	7/01/05	9/27/05	1/5/06	3/22/06	7/12/06	9/20/06	1/10/07	4/3/07	7/25/07	10/15/07	1/15/08	5/22/09	5/6/10	12/19/11
PCE	110	58	33	3.5	0.48J	1U	1U	1U	1U	1U	1U	1U	0.26J	1U	0.5UJ
TCE	2.1	5.2	4.8	6.4	5.6	1.2	0.67J	1.1J	0.66J	0.95J	2.3J	0.55J	0.27J	0.26J	0.5U
DCE	1.9	27	24	22	9.7	5.5	6.6	3.5J	2.6	2.1	3.3J	3.6	11	3	3.4
VC	0.5U	0.5U	0.5U	2.6	1.1	0.73	0.58	0.5U	.5U	0.5U	0.5U	0.5U	0.22J	0.5U	0.55
Ethene	1.6	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	NA	NA	0.34J

IW-16	5/21/09	5/6/10
PCE	1U	1U
TCE	0.37J	1.3
DCE	0.43J	0.84J
VC	0.5U	0.5U
Ethene	NA	NA

IW-18	12/21/11
PCE	0.5UJ
TCE	1.8
DCE	1.0
VC	1.3
Ethene	0.40J

MW-40-07 (S)	3/22/05	6/30/05	9/29/05	1/6/06	3/23/06	7/11/06	9/21/06	1/9/07	4/4/07	7/25/07	10/16/07	1/15/08	4/14/08	7/16/08	10/06/08	5/21/09	5/6/10	12/19/11
PCE	48	68	110	110	25	100	94	83	49	11	1.4J	2.8	2.6	1.3	1U	1U	1U	0.5UJ
TCE	0.76J	1.5	1.7	3.7	0.85J	3.2	3.1	2.7	1.8	6.7	1U	1.7	1.7	1.8	1.1	0.51J	0.28J	0.5U
DCE	1U	0.26J	0.23J	0.41J	1U	0.31J	0.43J	0.34J	1U	36	54	47	42	12	3.9	3.2	0.67J	0.5U
VC	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	5.4	8.3	4.7	1.2	0.78	0.5
Ethene	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	0.95J	1.2U	1.2U	1.2U	0.80J	1.6	1.2U	2.3	0.35J

MW-40-39 (S)	3/22/05	6/30/05	9/29/05	1/6/06	3/21/06	7/11/06	9/21/06	1/9/07	7/25/07	1/15/08	5/22/09	5/6/10	12/11
PCE	1U	1U	0.35J	0.71J	0.72J	1.7	2.4	2.5	2.8	1.3	0.29J	0.49J	NA
TCE	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	NA
DCE	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	NA
VC	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	NA
Ethene	0.69J	1.2U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

MW-40-34 (S)	3/22/05	6/28/05	9/27/05	1/5/06	3/22/06	7/12/06	9/20/06	1/10/07	4/3/07	7/25/07	10/15/07	1/16/08	4/14/08	7/16/08	10/06/08	5/21/09	5/6/10	12/20/11
PCE	9.1	5.8	190	29	22	18	28	22	24	4.5	1U	1U	1U	1U	1U	1U	1U	0.5UJ
TCE	1U	1.3	12	1.3	0.64J	0.92J	1.2	1.0	1.2	1.3	1.4J	0.65J	0.25J	1U	1U	1U	1U	0.5U
DCE	1U	130	65	4.7	2.1	2.3	2.8	1.8	1.9	14	19	8.5	3.0	1.6	1.6	0.44J	1U	0.5U
VC	0.5U	0.5U	0.5U	1.6	0.59	0.55	0.67	0.53	0.66	0.5U	2.2J	2.6	1.7	1.3	1.1	0.35J	0.33J	0.38J
Ethene	1.2U	1.1J	0.69J	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	0.26J

MW-40-36 (S)	3/22/05	6/29/05	9/27/05	1/6/06	3/22/06	7/12/06	9/20/06	1/10/07	4/3/07	7/25/07	10/15/07	1/16/08	4/14/08	7/16/08	10/6/08	5/22/09	5/6/10	12/20/11
PCE	110	360	190	160	140	160	150	87	44	1.0	2.8J	1.1	1U	1U	1U	1U	1U	0.5UJ
TCE	13	34	14	16	15	18	24	30	85	2.0	4.7J	2.1	0.68J	1U	1U	0.42J	0.56J	0.41J
DCE	11	49	13	22	20	18	20	26	18	35	19	17	11	4.8	1.6	1.5	1.5	1.4
VC	0.5U	10	0.5U	0.6	0.41J	0.42J	0.6	0.95	0.65	9.6	7.2	6.5	4.6	3.5	2.3	1.9	2.2	1.2
Ethene	2.2	1.2U	1.2U	NA	1.2U	1.2U	1.2U	1.2U	1.2U	6.9	1.2U	2.9	2.1	0.92J	4.0	2.5	3.2	0.82J

MW-40-13 (MS)	3/22/05	7/01/05	9/29/05	1/9/06	3/23/06	7/12/06	9/20/06	1/10/07	7/25/07	1/15/08	5/21/09	5/6/10	12/19/11
PCE	1U	1U	1U	8.2	1U	1U	1U	1U	1U	1U	1U	1U	0.5UJ
TCE	1U	1U	1U	9	0.38J	1U	1U	1U	1U	1U	1U	1U	0.5U
DCE	1U	1U	1U	0.68J	4	1.6	1.3	0.88J	1.7	0.40J	1U	1U	0.5U
VC	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Ethene	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	1.2U	NA	NA	NA	NA	NA	0.1725U

Figure 1

COC CONCENTRATIONS IN SELECT SHALLOW AND MID-SHALLOW MONITORING WELLS AND INJECTION WELLS - DECEMBER 2011

IRP SITE 40
NAVAL WEAPONS STATION SEAL BEACH
SEAL BEACH, CALIFORNIA

CKY Incorporated

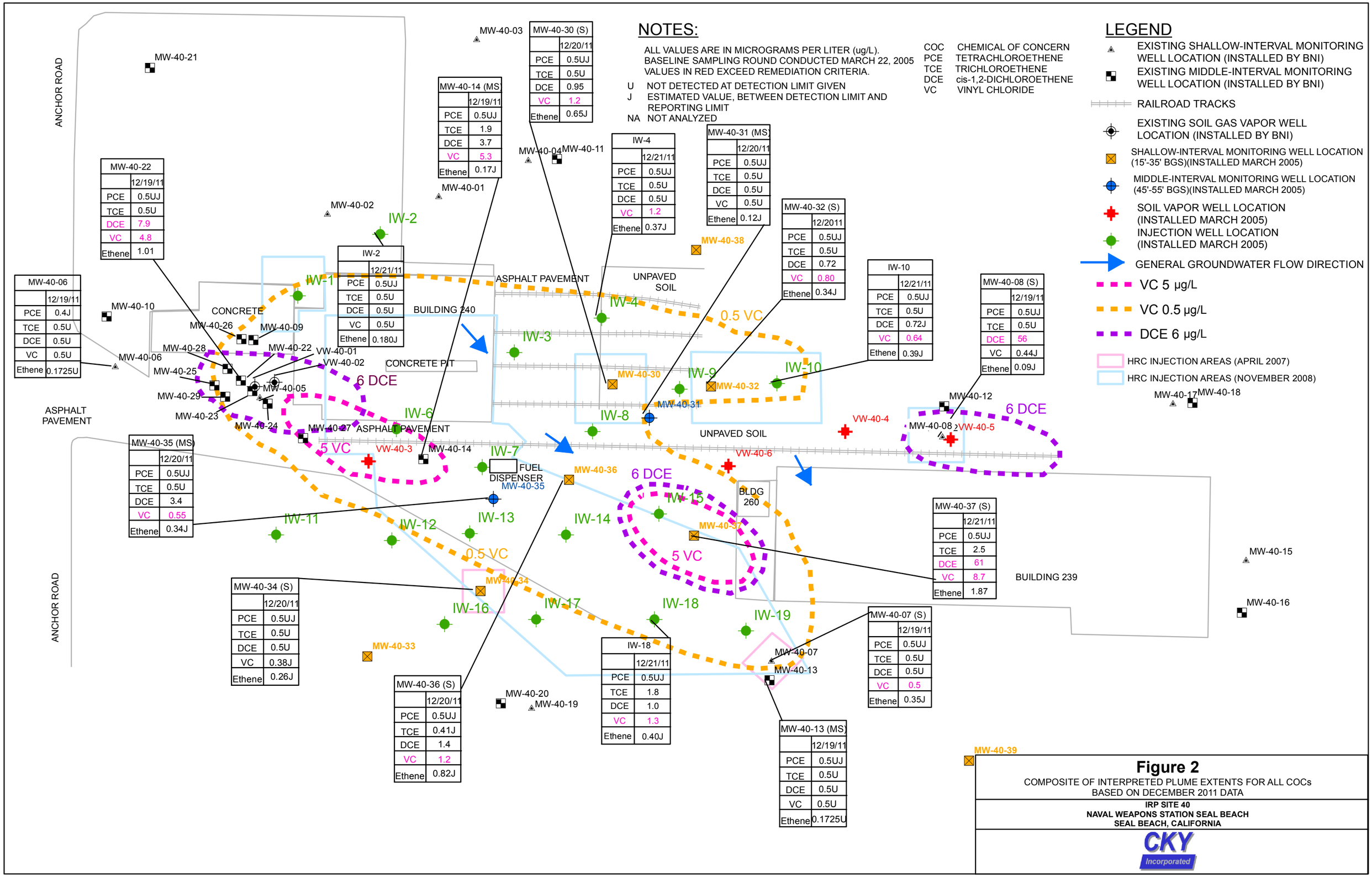


Figure 2

COMPOSITE OF INTERPRETED PLUME EXTENTS FOR ALL COCs
BASED ON DECEMBER 2011 DATA

IRP SITE 40
NAVAL WEAPONS STATION SEAL BEACH
SEAL BEACH, CALIFORNIA

APPENDIX A
LABORATORY DATA

(Included on CD)

Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 11-12-1457

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: CKY, Incorporated

Client Project Name: Seal Beach NWS

Attention: Howard Wittenberg
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Approved for release on 01/5/2012 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1457
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 1 (TB-1, Aqueous) Sampled: 12/19/11 08:00										
EPA 8260B Volatile Organics (Sample: 11-12-1457-1-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 15:04	EPA 8260B	111221L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/21/11 15:04	EPA 8260B	111221L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/21/11 15:04	EPA 8260B	111221L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/21/11 15:04	EPA 8260B	111221L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/21/11 15:04	EPA 8260B	111221L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 15:04	EPA 8260B	111221L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/21/11 15:04	EPA 8260B	111221L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/21/11 15:04	EPA 8260B	111221L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/21/11 15:04	EPA 8260B	111221L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/21/11 15:04	EPA 8260B	111221L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/21/11 15:04	EPA 8260B	111221L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/21/11 15:04	EPA 8260B	111221L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 15:04	EPA 8260B	111221L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 15:04	EPA 8260B	111221L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/21/11 15:04	EPA 8260B	111221L01
c-1,2-Dichloroethene	<0.5	U	ug/L	0.48	0.50	1.00	1	12/21/11 15:04	EPA 8260B	111221L01
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 15:04	EPA 8260B	111221L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 15:04	EPA 8260B	111221L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/21/11 15:04	EPA 8260B	111221L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/21/11 15:04	EPA 8260B	111221L01
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	1	12/21/11 15:04	EPA 8260B	111221L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/21/11 15:04	EPA 8260B	111221L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/21/11 15:04	EPA 8260B	111221L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/21/11 15:04	EPA 8260B	111221L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 15:04	EPA 8260B	111221L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/21/11 15:04	EPA 8260B	111221L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/21/11 15:04	EPA 8260B	111221L01
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 15:04	EPA 8260B	111221L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/21/11 15:04	EPA 8260B	111221L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/21/11 15:04	EPA 8260B	111221L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 15:04	EPA 8260B	111221L01
Vinyl Chloride	<0.5	U	ug/L	0.30	0.50	1.00	1	12/21/11 15:04	EPA 8260B	111221L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/21/11 15:04	EPA 8260B	111221L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 15:04	EPA 8260B	111221L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/21/11 15:04	EPA 8260B	111221L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/21/11 15:04	EPA 8260B	111221L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*99%*							*12/21/11 15:04*	*EPA 8260B*	*111221L01*
Surr: Dibromofluoromethane (85-115%)	*95%*							*12/21/11 15:04*	*EPA 8260B*	*111221L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*101%*							*12/21/11 15:04*	*EPA 8260B*	*111221L01*
Surr: Toluene-d8 (85-120%)	*99%*							*12/21/11 15:04*	*EPA 8260B*	*111221L01*

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1457
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 2 (MW-40-07, Aqueous) Sampled: 12/19/11 10:38										
EPA 300.0 Anions (Sample: 11-12-1457-2-I)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	140		mg/L	0.66	0.50	2.00	5	12/19/11 21:28	EPA 300.0	111219L01
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	1	12/19/11 21:28	EPA 300.0	111219L01
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	1	12/19/11 21:28	EPA 300.0	111219L01
Sulfate	33		mg/L	0.13	0.50	2.00	1	12/19/11 21:28	EPA 300.0	111219L01
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1457-2-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	18	J	mg/L	10	21.00	25.00	1	12/22/11 18:00	EPA 410.4	B1222ODL3
EPA 6010B ICP Metals (Sample: 11-12-1457-2-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	146		mg/L	0.0118	0.03	0.10	1	12/27/11 12:13	EPA 6010B	111222LA4
Iron	17.7		mg/L	0.0101	0.03	0.10	1	12/27/11 12:13	EPA 6010B	111222LA4
Magnesium	40.9		mg/L	0.00336	0.01	0.10	1	12/27/11 12:13	EPA 6010B	111222LA4
Potassium	3.78		mg/L	0.103	0.17	0.50	1	12/27/11 12:13	EPA 6010B	111222LA4
Sodium	192		mg/L	0.103	0.17	0.50	1	12/27/11 12:13	EPA 6010B	111222LA4
EPA 8260B Volatile Organics (Sample: 11-12-1457-2-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 15:33	EPA 8260B	111221L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/21/11 15:33	EPA 8260B	111221L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/21/11 15:33	EPA 8260B	111221L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/21/11 15:33	EPA 8260B	111221L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/21/11 15:33	EPA 8260B	111221L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 15:33	EPA 8260B	111221L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/21/11 15:33	EPA 8260B	111221L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/21/11 15:33	EPA 8260B	111221L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/21/11 15:33	EPA 8260B	111221L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/21/11 15:33	EPA 8260B	111221L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/21/11 15:33	EPA 8260B	111221L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/21/11 15:33	EPA 8260B	111221L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 15:33	EPA 8260B	111221L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 15:33	EPA 8260B	111221L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/21/11 15:33	EPA 8260B	111221L01
c-1,2-Dichloroethene	<0.5	U	ug/L	0.48	0.50	1.00	1	12/21/11 15:33	EPA 8260B	111221L01
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 15:33	EPA 8260B	111221L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 15:33	EPA 8260B	111221L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/21/11 15:33	EPA 8260B	111221L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/21/11 15:33	EPA 8260B	111221L01
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	1	12/21/11 15:33	EPA 8260B	111221L01

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1457
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 2 (MW-40-07, Aqueous) Sampled: 12/19/11 10:38										
EPA 8260B Volatile Organics (Sample: 11-12-1457-2-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/21/11 15:33	EPA 8260B	111221L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/21/11 15:33	EPA 8260B	111221L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/21/11 15:33	EPA 8260B	111221L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 15:33	EPA 8260B	111221L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/21/11 15:33	EPA 8260B	111221L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/21/11 15:33	EPA 8260B	111221L01
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 15:33	EPA 8260B	111221L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/21/11 15:33	EPA 8260B	111221L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/21/11 15:33	EPA 8260B	111221L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 15:33	EPA 8260B	111221L01
Vinyl Chloride	0.50		ug/L	0.30	0.50	1.00	1	12/21/11 15:33	EPA 8260B	111221L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/21/11 15:33	EPA 8260B	111221L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 15:33	EPA 8260B	111221L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/21/11 15:33	EPA 8260B	111221L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/21/11 15:33	EPA 8260B	111221L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*100%*							*12/21/11 15:33*	*EPA 8260B*	*111221L01*
Surr: Dibromofluoromethane (85-115%)	*97%*							*12/21/11 15:33*	*EPA 8260B*	*111221L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*102%*							*12/21/11 15:33*	*EPA 8260B*	*111221L01*
Surr: Toluene-d8 (85-120%)	*100%*							*12/21/11 15:33*	*EPA 8260B*	*111221L01*
RSK-175M Dissolved Gases (Sample: 11-12-1457-2-E)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	1	12/21/11 13:41	RSK-175M	111221L01
Ethylene	0.350	J	ug/L	0.0566	0.17	0.43	1	12/21/11 13:41	RSK-175M	111221L01
Methane	7800		ug/L	1.34	0.07	0.17	40	12/21/11 13:41	RSK-175M	111221L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1457-2-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	1090		mg/L	0.820	1.60	2.00	1	12/20/11 18:00	SM 2540 C	B1220TDSB2
SM 5310 B Total Organic Carbon (Sample: 11-12-1457-2-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	58		mg/L	0.24	2.00	5.00	1	12/27/11 21:38	SM 5310 B	B1227TOCL2
Sample ID: 3 (MW-40-08, Aqueous) Sampled: 12/19/11 11:22										
EPA 300.0 Anions (Sample: 11-12-1457-3-I)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	220		mg/L	0.66	0.50	2.00	5	12/19/11 21:43	EPA 300.0	111219L01
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	1	12/19/11 21:43	EPA 300.0	111219L01
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	1	12/19/11 21:43	EPA 300.0	111219L01
Sulfate	110		mg/L	0.66	0.50	2.00	5	12/19/11 21:43	EPA 300.0	111219L01

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1457
		Project Name:	Seal Beach NWS
		Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 3 (MW-40-08, Aqueous) Sampled: 12/19/11 11:22										
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1457-3-N)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	<42	U	mg/L	21	42.00	50.00	2	12/22/11 18:00	EPA 410.4	B1222ODL3
EPA 6010B ICP Metals (Sample: 11-12-1457-3-T)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	129		mg/L	0.0118	0.03	0.10	1	12/27/11 11:50	EPA 6010B	111222LA4
Iron	11.0		mg/L	0.0101	0.03	0.10	1	12/27/11 11:50	EPA 6010B	111222LA4
Magnesium	39.4		mg/L	0.00336	0.01	0.10	1	12/27/11 11:50	EPA 6010B	111222LA4
Potassium	2.29		mg/L	0.103	0.17	0.50	1	12/27/11 11:50	EPA 6010B	111222LA4
Sodium	245		mg/L	0.103	0.17	0.50	1	12/27/11 11:50	EPA 6010B	111222LA4
EPA 8260B Volatile Organics (Sample: 11-12-1457-3-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 16:02	EPA 8260B	111221L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/21/11 16:02	EPA 8260B	111221L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/21/11 16:02	EPA 8260B	111221L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/21/11 16:02	EPA 8260B	111221L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/21/11 16:02	EPA 8260B	111221L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 16:02	EPA 8260B	111221L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/21/11 16:02	EPA 8260B	111221L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/21/11 16:02	EPA 8260B	111221L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/21/11 16:02	EPA 8260B	111221L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/21/11 16:02	EPA 8260B	111221L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/21/11 16:02	EPA 8260B	111221L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/21/11 16:02	EPA 8260B	111221L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 16:02	EPA 8260B	111221L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 16:02	EPA 8260B	111221L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/21/11 16:02	EPA 8260B	111221L01
c-1,2-Dichloroethene	56		ug/L	0.48	0.50	1.00	1	12/21/11 16:02	EPA 8260B	111221L01
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 16:02	EPA 8260B	111221L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 16:02	EPA 8260B	111221L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/21/11 16:02	EPA 8260B	111221L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/21/11 16:02	EPA 8260B	111221L01
Methylene Chloride	0.82	J	ug/L	0.64	1.00	10.00	1	12/21/11 16:02	EPA 8260B	111221L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/21/11 16:02	EPA 8260B	111221L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/21/11 16:02	EPA 8260B	111221L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/21/11 16:02	EPA 8260B	111221L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 16:02	EPA 8260B	111221L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/21/11 16:02	EPA 8260B	111221L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/21/11 16:02	EPA 8260B	111221L01
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 16:02	EPA 8260B	111221L01

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1457
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 3 (MW-40-08, Aqueous) Sampled: 12/19/11 11:22										
EPA 8260B Volatile Organics (Sample: 11-12-1457-3-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/21/11 16:02	EPA 8260B	111221L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/21/11 16:02	EPA 8260B	111221L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 16:02	EPA 8260B	111221L01
Vinyl Chloride	0.44	J	ug/L	0.30	0.50	1.00	1	12/21/11 16:02	EPA 8260B	111221L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/21/11 16:02	EPA 8260B	111221L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 16:02	EPA 8260B	111221L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/21/11 16:02	EPA 8260B	111221L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/21/11 16:02	EPA 8260B	111221L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*100%*							*12/21/11 16:02*	*EPA 8260B*	*111221L01*
Surr: Dibromofluoromethane (85-115%)	*98%*							*12/21/11 16:02*	*EPA 8260B*	*111221L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*101%*							*12/21/11 16:02*	*EPA 8260B*	*111221L01*
Surr: Toluene-d8 (85-120%)	*100%*							*12/21/11 16:02*	*EPA 8260B*	*111221L01*
RSK-175M Dissolved Gases (Sample: 11-12-1457-3-E)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	1	12/21/11 14:01	RSK-175M	111221L01
Ethylene	0.0900	J	ug/L	0.0566	0.17	0.43	1	12/21/11 14:01	RSK-175M	111221L01
Methane	5180		ug/L	1.34	2.67	6.68	40	12/21/11 14:01	RSK-175M	111221L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1457-3-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	1070		mg/L	0.820	1.60	2.00	1	12/20/11 18:00	SM 2540 C	B1220TDSB2
SM 5310 B Total Organic Carbon (Sample: 11-12-1457-3-O)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	32		mg/L	1.2	10.00	25.00	5	12/27/11 21:38	SM 5310 B	B1227TOCL2
Sample ID: 4 (DUP-1, Aqueous) Sampled: 12/19/11 00:00										
EPA 300.0 Anions (Sample: 11-12-1457-4-I)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	220		mg/L	0.66	0.50	2.00	5	12/19/11 21:59	EPA 300.0	111219L01
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	1	12/19/11 21:59	EPA 300.0	111219L01
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	1	12/19/11 21:59	EPA 300.0	111219L01
Sulfate	110		mg/L	0.66	0.50	2.00	5	12/19/11 21:59	EPA 300.0	111219L01
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1457-4-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	15	J	mg/L	10	21.00	25.00	1	12/22/11 18:00	EPA 410.4	B1222ODL3
EPA 6010B ICP Metals (Sample: 11-12-1457-4-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1457
		Project Name:	Seal Beach NWS
		Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 4 (DUP-1, Aqueous) Sampled: 12/19/11 00:00										
EPA 6010B ICP Metals (Sample: 11-12-1457-4-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	126		mg/L	0.0118	0.03	0.10	1	12/27/11 12:14	EPA 6010B	111222LA4
Iron	11.0		mg/L	0.0101	0.03	0.10	1	12/27/11 12:14	EPA 6010B	111222LA4
Magnesium	39.4		mg/L	0.00336	0.01	0.10	1	12/27/11 12:14	EPA 6010B	111222LA4
Potassium	2.37		mg/L	0.103	0.17	0.50	1	12/27/11 12:14	EPA 6010B	111222LA4
Sodium	245		mg/L	0.103	0.17	0.50	1	12/27/11 12:14	EPA 6010B	111222LA4
EPA 8260B Volatile Organics (Sample: 11-12-1457-4-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 17:55	EPA 8260B	111221L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/21/11 17:55	EPA 8260B	111221L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/21/11 17:55	EPA 8260B	111221L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/21/11 17:55	EPA 8260B	111221L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/21/11 17:55	EPA 8260B	111221L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 17:55	EPA 8260B	111221L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/21/11 17:55	EPA 8260B	111221L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/21/11 17:55	EPA 8260B	111221L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/21/11 17:55	EPA 8260B	111221L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/21/11 17:55	EPA 8260B	111221L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/21/11 17:55	EPA 8260B	111221L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/21/11 17:55	EPA 8260B	111221L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 17:55	EPA 8260B	111221L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 17:55	EPA 8260B	111221L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/21/11 17:55	EPA 8260B	111221L01
c-1,2-Dichloroethene	58		ug/L	0.48	0.50	1.00	1	12/21/11 17:55	EPA 8260B	111221L01
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 17:55	EPA 8260B	111221L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 17:55	EPA 8260B	111221L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/21/11 17:55	EPA 8260B	111221L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/21/11 17:55	EPA 8260B	111221L01
Methylene Chloride	0.74	J	ug/L	0.64	1.00	10.00	1	12/21/11 17:55	EPA 8260B	111221L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/21/11 17:55	EPA 8260B	111221L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/21/11 17:55	EPA 8260B	111221L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/21/11 17:55	EPA 8260B	111221L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 17:55	EPA 8260B	111221L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/21/11 17:55	EPA 8260B	111221L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/21/11 17:55	EPA 8260B	111221L01
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 17:55	EPA 8260B	111221L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/21/11 17:55	EPA 8260B	111221L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/21/11 17:55	EPA 8260B	111221L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 17:55	EPA 8260B	111221L01
Vinyl Chloride	0.45	J	ug/L	0.30	0.50	1.00	1	12/21/11 17:55	EPA 8260B	111221L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/21/11 17:55	EPA 8260B	111221L01

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The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1457
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 4 (DUP-1, Aqueous) Sampled: 12/19/11 00:00										
EPA 8260B Volatile Organics (Sample: 11-12-1457-4-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 17:55	EPA 8260B	111221L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/21/11 17:55	EPA 8260B	111221L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/21/11 17:55	EPA 8260B	111221L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*99%*							*12/21/11 17:55*	*EPA 8260B*	*111221L01*
Surr: Dibromofluoromethane (85-115%)	*96%*							*12/21/11 17:55*	*EPA 8260B*	*111221L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*102%*							*12/21/11 17:55*	*EPA 8260B*	*111221L01*
Surr: Toluene-d8 (85-120%)	*100%*							*12/21/11 17:55*	*EPA 8260B*	*111221L01*
RSK-175M Dissolved Gases (Sample: 11-12-1457-4-E)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	1	12/21/11 14:22	RSK-175M	111221L01
Ethylene	0.110	J	ug/L	0.0566	0.17	0.43	1	12/21/11 14:22	RSK-175M	111221L01
Methane	6370		ug/L	1.34	0.07	0.17	40	12/21/11 14:22	RSK-175M	111221L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1457-4-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	1080		mg/L	0.820	1.60	2.00	1	12/20/11 18:00	SM 2540 C	B1220TDSB2
SM 5310 B Total Organic Carbon (Sample: 11-12-1457-4-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	38		mg/L	0.24	2.00	5.00	1	12/27/11 21:38	SM 5310 B	B1227TOCL2
Sample ID: 5 (MW-40-13, Aqueous) Sampled: 12/19/11 12:24										
EPA 300.0 Anions (Sample: 11-12-1457-5-I)										
-The reporting limit is elevated resulting from matrix interference.										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	3700		mg/L	13	1.00	4.00	100	12/19/11 22:14	EPA 300.0	111219L01
Nitrite (as N)	<0.1	U	mg/L	0.043	0.10	0.40	2	12/19/11 22:14	EPA 300.0	111219L01
Nitrate (as N)	<0.1	U	mg/L	0.042	0.10	0.20	2	12/19/11 22:14	EPA 300.0	111219L01
Sulfate	410		mg/L	1.3	1.00	4.00	10	12/19/11 22:14	EPA 300.0	111219L01
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1457-5-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	76		mg/L	10	21.00	25.00	1	12/22/11 16:00	EPA 410.4	B1222ODB2
EPA 6010B ICP Metals (Sample: 11-12-1457-5-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	623		mg/L	0.0118	0.03	0.10	1	12/27/11 12:15	EPA 6010B	111222LA4
Iron	10.8		mg/L	0.0101	0.03	0.10	1	12/27/11 12:15	EPA 6010B	111222LA4
Magnesium	464		mg/L	0.00336	0.01	0.10	1	12/27/11 12:15	EPA 6010B	111222LA4
Potassium	14.3		mg/L	0.103	0.17	0.50	1	12/27/11 12:15	EPA 6010B	111222LA4

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1457
		Project Name:	Seal Beach NWS
		Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 5 (MW-40-13, Aqueous) Sampled: 12/19/11 12:24										
EPA 6010B ICP Metals (Sample: 11-12-1457-5-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Sodium	1280		mg/L	1.03	1.67	5.00	10	12/27/11 12:15	EPA 6010B	111222LA4
EPA 8260B Volatile Organics (Sample: 11-12-1457-5-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 18:23	EPA 8260B	111221L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/21/11 18:23	EPA 8260B	111221L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/21/11 18:23	EPA 8260B	111221L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/21/11 18:23	EPA 8260B	111221L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/21/11 18:23	EPA 8260B	111221L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 18:23	EPA 8260B	111221L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/21/11 18:23	EPA 8260B	111221L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/21/11 18:23	EPA 8260B	111221L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/21/11 18:23	EPA 8260B	111221L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/21/11 18:23	EPA 8260B	111221L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/21/11 18:23	EPA 8260B	111221L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/21/11 18:23	EPA 8260B	111221L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 18:23	EPA 8260B	111221L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 18:23	EPA 8260B	111221L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/21/11 18:23	EPA 8260B	111221L01
c-1,2-Dichloroethene	<0.5	U	ug/L	0.48	0.50	1.00	1	12/21/11 18:23	EPA 8260B	111221L01
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 18:23	EPA 8260B	111221L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 18:23	EPA 8260B	111221L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/21/11 18:23	EPA 8260B	111221L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/21/11 18:23	EPA 8260B	111221L01
Methylene Chloride	0.82	J	ug/L	0.64	1.00	10.00	1	12/21/11 18:23	EPA 8260B	111221L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/21/11 18:23	EPA 8260B	111221L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/21/11 18:23	EPA 8260B	111221L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/21/11 18:23	EPA 8260B	111221L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 18:23	EPA 8260B	111221L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/21/11 18:23	EPA 8260B	111221L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/21/11 18:23	EPA 8260B	111221L01
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 18:23	EPA 8260B	111221L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/21/11 18:23	EPA 8260B	111221L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/21/11 18:23	EPA 8260B	111221L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 18:23	EPA 8260B	111221L01
Vinyl Chloride	<0.5	U	ug/L	0.30	0.50	1.00	1	12/21/11 18:23	EPA 8260B	111221L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/21/11 18:23	EPA 8260B	111221L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 18:23	EPA 8260B	111221L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/21/11 18:23	EPA 8260B	111221L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/21/11 18:23	EPA 8260B	111221L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*99%*							*12/21/11 18:23*	*EPA 8260B*	*111221L01*

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1457
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 5 (MW-40-13, Aqueous) Sampled: 12/19/11 12:24										
EPA 8260B Volatile Organics (Sample: 11-12-1457-5-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Surr: Dibromofluoromethane (85-115%)	*96%*							*12/21/11 18:23*	*EPA 8260B*	*111221L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*103%*							*12/21/11 18:23*	*EPA 8260B*	*111221L01*
Surr: Toluene-d8 (85-120%)	*99%*							*12/21/11 18:23*	*EPA 8260B*	*111221L01*
RSK-175M Dissolved Gases (Sample: 11-12-1457-5-E)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	1	12/21/11 17:35	RSK-175M	111221L01
Ethylene	<0.1725	U	ug/L	0.0566	0.17	0.43	1	12/21/11 17:35	RSK-175M	111221L01
Methane	731		ug/L	0.0334	0.07	0.17	1	12/21/11 17:35	RSK-175M	111221L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1457-5-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	7320		mg/L	0.820	1.60	2.00	1	12/20/11 18:00	SM 2540 C	B1220TDSB2
SM 5310 B Total Organic Carbon (Sample: 11-12-1457-5-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	12		mg/L	0.24	2.00	5.00	1	12/27/11 21:38	SM 5310 B	B1227TOCL2
Sample ID: 6 (MW-40-14, Aqueous) Sampled: 12/19/11 13:08										
EPA 300.0 Anions (Sample: 11-12-1457-6-I)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	220		mg/L	0.66	0.50	2.00	5	12/19/11 22:29	EPA 300.0	111219L01
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	1	12/19/11 22:29	EPA 300.0	111219L01
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	1	12/19/11 22:29	EPA 300.0	111219L01
Sulfate	91		mg/L	0.66	0.50	2.00	5	12/19/11 22:29	EPA 300.0	111219L01
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1457-6-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	19	J	mg/L	10	21.00	25.00	1	12/27/11 20:00	EPA 410.4	B1227ODB3
EPA 6010B ICP Metals (Sample: 11-12-1457-6-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	274		mg/L	0.0118	0.03	0.10	1	12/27/11 12:16	EPA 6010B	111222LA4
Iron	28.9		mg/L	0.0101	0.03	0.10	1	12/27/11 12:16	EPA 6010B	111222LA4
Magnesium	71.3		mg/L	0.00336	0.01	0.10	1	12/27/11 12:16	EPA 6010B	111222LA4
Potassium	5.23		mg/L	0.103	0.17	0.50	1	12/27/11 12:16	EPA 6010B	111222LA4
Sodium	381		mg/L	0.103	0.17	0.50	1	12/27/11 12:16	EPA 6010B	111222LA4
EPA 8260B Volatile Organics (Sample: 11-12-1457-6-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 18:51	EPA 8260B	111221L01

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Client:	CKY, Incorporated	Work Order:	11-12-1457
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 6 (MW-40-14, Aqueous) Sampled: 12/19/11 13:08										
EPA 8260B Volatile Organics (Sample: 11-12-1457-6-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/21/11 18:51	EPA 8260B	111221L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/21/11 18:51	EPA 8260B	111221L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/21/11 18:51	EPA 8260B	111221L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/21/11 18:51	EPA 8260B	111221L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 18:51	EPA 8260B	111221L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/21/11 18:51	EPA 8260B	111221L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/21/11 18:51	EPA 8260B	111221L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/21/11 18:51	EPA 8260B	111221L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/21/11 18:51	EPA 8260B	111221L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/21/11 18:51	EPA 8260B	111221L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/21/11 18:51	EPA 8260B	111221L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 18:51	EPA 8260B	111221L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 18:51	EPA 8260B	111221L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/21/11 18:51	EPA 8260B	111221L01
c-1,2-Dichloroethene	3.7		ug/L	0.48	0.50	1.00	1	12/21/11 18:51	EPA 8260B	111221L01
t-1,2-Dichloroethene	0.59	J	ug/L	0.37	0.50	1.00	1	12/21/11 18:51	EPA 8260B	111221L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 18:51	EPA 8260B	111221L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/21/11 18:51	EPA 8260B	111221L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/21/11 18:51	EPA 8260B	111221L01
Methylene Chloride	1.2	J	ug/L	0.64	1.00	10.00	1	12/21/11 18:51	EPA 8260B	111221L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/21/11 18:51	EPA 8260B	111221L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/21/11 18:51	EPA 8260B	111221L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/21/11 18:51	EPA 8260B	111221L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 18:51	EPA 8260B	111221L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/21/11 18:51	EPA 8260B	111221L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/21/11 18:51	EPA 8260B	111221L01
Trichloroethene	1.9		ug/L	0.37	0.50	1.00	1	12/21/11 18:51	EPA 8260B	111221L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/21/11 18:51	EPA 8260B	111221L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/21/11 18:51	EPA 8260B	111221L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 18:51	EPA 8260B	111221L01
Vinyl Chloride	5.3		ug/L	0.30	0.50	1.00	1	12/21/11 18:51	EPA 8260B	111221L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/21/11 18:51	EPA 8260B	111221L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 18:51	EPA 8260B	111221L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/21/11 18:51	EPA 8260B	111221L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/21/11 18:51	EPA 8260B	111221L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*99%*							*12/21/11 18:51*	*EPA 8260B*	*111221L01*
Surr: Dibromofluoromethane (85-115%)	*99%*							*12/21/11 18:51*	*EPA 8260B*	*111221L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*105%*							*12/21/11 18:51*	*EPA 8260B*	*111221L01*
Surr: Toluene-d8 (85-120%)	*101%*							*12/21/11 18:51*	*EPA 8260B*	*111221L01*

RSK-175M Dissolved Gases (Sample: 11-12-1457-6-E)

Calscience Environmental Laboratories, Inc.

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Client:	CKY, Incorporated	Work Order:	11-12-1457
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 6 (MW-40-14, Aqueous) Sampled: 12/19/11 13:08										
RSK-175M Dissolved Gases (Sample: 11-12-1457-6-E)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	1	12/21/11 17:55	RSK-175M	111221L01
Ethylene	0.170	J	ug/L	0.0566	0.17	0.43	1	12/21/11 17:55	RSK-175M	111221L01
Methane	5600		ug/L	1.34	0.07	0.17	40	12/21/11 17:55	RSK-175M	111221L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1457-6-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	1820		mg/L	0.820	1.60	2.00	1	12/20/11 18:00	SM 2540 C	B1220TDSB2
SM 5310 B Total Organic Carbon (Sample: 11-12-1457-6-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	120		mg/L	0.24	2.00	5.00	1	12/27/11 21:38	SM 5310 B	B1227TOCL2
Sample ID: 7 (MW-40-22, Aqueous) Sampled: 12/19/11 14:00										
EPA 300.0 Anions (Sample: 11-12-1457-7-I)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	390		mg/L	0.66	0.50	2.00	5	12/19/11 22:45	EPA 300.0	111219L01
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	1	12/19/11 22:45	EPA 300.0	111219L01
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	1	12/19/11 22:45	EPA 300.0	111219L01
Sulfate	9.4		mg/L	0.13	0.50	2.00	1	12/19/11 22:45	EPA 300.0	111219L01
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1457-7-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	18	J	mg/L	10	21.00	25.00	1	12/27/11 20:00	EPA 410.4	B1227ODB3
EPA 6010B ICP Metals (Sample: 11-12-1457-7-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	45.4		mg/L	0.0118	0.03	0.10	1	12/27/11 12:17	EPA 6010B	111222LA4
Iron	3.24		mg/L	0.0101	0.03	0.10	1	12/27/11 12:17	EPA 6010B	111222LA4
Magnesium	18.9		mg/L	0.00336	0.01	0.10	1	12/27/11 12:17	EPA 6010B	111222LA4
Potassium	4.24		mg/L	0.103	0.17	0.50	1	12/27/11 12:17	EPA 6010B	111222LA4
Sodium	557		mg/L	0.103	0.17	0.50	1	12/27/11 12:17	EPA 6010B	111222LA4
EPA 8260B Volatile Organics (Sample: 11-12-1457-7-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 19:20	EPA 8260B	111221L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/21/11 19:20	EPA 8260B	111221L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/21/11 19:20	EPA 8260B	111221L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/21/11 19:20	EPA 8260B	111221L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/21/11 19:20	EPA 8260B	111221L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 19:20	EPA 8260B	111221L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/21/11 19:20	EPA 8260B	111221L01

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1457
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 7 (MW-40-22, Aqueous) Sampled: 12/19/11 14:00										
EPA 8260B Volatile Organics (Sample: 11-12-1457-7-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/21/11 19:20	EPA 8260B	111221L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/21/11 19:20	EPA 8260B	111221L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/21/11 19:20	EPA 8260B	111221L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/21/11 19:20	EPA 8260B	111221L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/21/11 19:20	EPA 8260B	111221L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 19:20	EPA 8260B	111221L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 19:20	EPA 8260B	111221L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/21/11 19:20	EPA 8260B	111221L01
c-1,2-Dichloroethene	7.9		ug/L	0.48	0.50	1.00	1	12/21/11 19:20	EPA 8260B	111221L01
t-1,2-Dichloroethene	6.0		ug/L	0.37	0.50	1.00	1	12/21/11 19:20	EPA 8260B	111221L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 19:20	EPA 8260B	111221L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/21/11 19:20	EPA 8260B	111221L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/21/11 19:20	EPA 8260B	111221L01
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	1	12/21/11 19:20	EPA 8260B	111221L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/21/11 19:20	EPA 8260B	111221L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/21/11 19:20	EPA 8260B	111221L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/21/11 19:20	EPA 8260B	111221L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 19:20	EPA 8260B	111221L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/21/11 19:20	EPA 8260B	111221L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/21/11 19:20	EPA 8260B	111221L01
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 19:20	EPA 8260B	111221L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/21/11 19:20	EPA 8260B	111221L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/21/11 19:20	EPA 8260B	111221L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 19:20	EPA 8260B	111221L01
Vinyl Chloride	4.8		ug/L	0.30	0.50	1.00	1	12/21/11 19:20	EPA 8260B	111221L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/21/11 19:20	EPA 8260B	111221L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 19:20	EPA 8260B	111221L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/21/11 19:20	EPA 8260B	111221L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/21/11 19:20	EPA 8260B	111221L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*99%*							*12/21/11 19:20*	*EPA 8260B*	*111221L01*
Surr: Dibromofluoromethane (85-115%)	*96%*							*12/21/11 19:20*	*EPA 8260B*	*111221L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*101%*							*12/21/11 19:20*	*EPA 8260B*	*111221L01*
Surr: Toluene-d8 (85-120%)	*100%*							*12/21/11 19:20*	*EPA 8260B*	*111221L01*
RSK-175M Dissolved Gases (Sample: 11-12-1457-7-E)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	1	12/21/11 18:15	RSK-175M	111221L01
Ethylene	1.01		ug/L	0.0566	0.17	0.43	1	12/21/11 18:15	RSK-175M	111221L01
Methane	5440		ug/L	1.34	0.07	0.17	40	12/21/11 18:15	RSK-175M	111221L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1457-7-J)										

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Client:	CKY, Incorporated	Work Order:	11-12-1457
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 7 (MW-40-22, Aqueous) Sampled: 12/19/11 14:00										
SM 2540 C Total Dissolved Solids (Sample: 11-12-1457-7-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	1470		mg/L	0.820	1.60	2.00	1	12/20/11 18:00	SM 2540 C	B1220TDSB2
SM 5310 B Total Organic Carbon (Sample: 11-12-1457-7-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	57		mg/L	0.24	2.00	5.00	1	12/27/11 21:38	SM 5310 B	B1227TOCL2

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Client:	CKY, Incorporated	Work Order:	11-12-1457
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
EPA 300.0 Anions									
099-14-547-2									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Chloride	<0.5	U	mg/L	0.13	0.50	2.00	111219L01	099-14-547-2	12/19/11 19:55
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	111219L01	099-14-547-2	12/19/11 19:55
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	111219L01	099-14-547-2	12/19/11 19:55
Sulfate	<0.5	U	mg/L	0.13	0.50	2.00	111219L01	099-14-547-2	12/19/11 19:55
099-14-547-3									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Chloride	<0.5	U	mg/L	0.13	0.50	2.00	111220L01	099-14-547-3	12/20/11 14:11
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	111220L01	099-14-547-3	12/20/11 14:11
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	111220L01	099-14-547-3	12/20/11 14:11
Sulfate	<0.5	U	mg/L	0.13	0.50	2.00	111220L01	099-14-547-3	12/20/11 14:11
EPA 410.4 Chemical Oxygen Demand									
099-05-062-4,347									
Chemical Oxygen Demand	<21	U	mg/L	10	21.00	25.00	B1222ODB2	099-05-062-4,347	12/22/11 16:00
099-05-062-4,348									
Chemical Oxygen Demand	<21	U	mg/L	10	21.00	25.00	B1222ODL3	099-05-062-4,348	12/22/11 18:00
099-05-062-4,349									
Chemical Oxygen Demand	<21	U	mg/L	10	21.00	25.00	B1227ODB3	099-05-062-4,349	12/27/11 20:00
EPA 6010B ICP Metals									
099-14-483-4									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Calcium	<0.03333	U	mg/L	0.0118	0.03	0.10	111222LA4	099-14-483-4	12/27/11 11:39
Iron	<0.03333	U	mg/L	0.0101	0.03	0.10	111222LA4	099-14-483-4	12/27/11 11:39
Magnesium	<0.01	U	mg/L	0.0033	0.01	0.10	111222LA4	099-14-483-4	12/27/11 11:39
Potassium	<0.16667	U	mg/L	0.103	0.17	0.50	111222LA4	099-14-483-4	12/27/11 11:39
Sodium	<0.16667	U	mg/L	0.103	0.17	0.50	111222LA4	099-14-483-4	12/27/11 11:39
EPA 8260B Volatile Organics									
099-14-479-21									
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35

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Client:	CKY, Incorporated	Work Order:	11-12-1457
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
EPA 8260B Volatile Organics 099-14-479-21									
Bromoform	<1	U	ug/L	0.50	1.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
c-1,2-Dichloroethene	<0.5	U	ug/L	0.48	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	111221L01	099-14-479-21	12/21/11 14:35
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Vinyl Chloride	<0.5	U	ug/L	0.30	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	111221L01	099-14-479-21	12/21/11 14:35

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Client:	CKY, Incorporated	Work Order:	11-12-1457
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
EPA 8260B Volatile Organics									
099-14-479-21									
Surr: 1,4-Bromofluorobenzene (75-120%)	*103%*						*111221L01*	*099-14-479-21*	*12/21/11 14:35*
Surr: Dibromofluoromethane (85-115%)	*95%*						*111221L01*	*099-14-479-21*	*12/21/11 14:35*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*102%*						*111221L01*	*099-14-479-21*	*12/21/11 14:35*
Surr: Toluene-d8 (85-120%)	*100%*						*111221L01*	*099-14-479-21*	*12/21/11 14:35*
RSK-175M Dissolved Gases									
099-14-531-3									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	111221L01	099-14-531-3	12/21/11 11:39
Ethylene	<0.1725	U	ug/L	0.0566	0.17	0.43	111221L01	099-14-531-3	12/21/11 11:39
Methane	<0.0668	U	ug/L	0.0334	0.07	0.17	111221L01	099-14-531-3	12/21/11 11:39
SM 2540 C Total Dissolved Solids									
099-14-577-1									
Solids, Total Dissolved	<1.6	U	mg/L	0.82	1.60	2.00	B1220TDSB2	099-14-577-1	12/20/11 18:00
SM 5310 B Total Organic Carbon									
099-05-097-4,480									
Carbon, Total Organic	<2	U	mg/L	0.24	2.00	5.00	B1227TOCL2	099-05-097-4,480	12/27/11 21:38

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Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1457
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
Matrix Spike

Analyte	Orig. Val.	MS Val.	Q	Units	Spike Conc.	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
EPA 300.0 Anions										
11-12-1457-3										
Chloride	250	5700	BB	mg/L	5000	4X	80-120	111219S01	11-12-1457-3	12/19/11 23:46
Nitrite (as N)	ND	250		mg/L	250	100	80-120	111219S01	11-12-1457-3	12/19/11 23:46
Nitrate (as N)	ND	510		mg/L	500	102	80-120	111219S01	11-12-1457-3	12/19/11 23:46
Sulfate	120	5300		mg/L	5000	104	80-120	111219S01	11-12-1457-3	12/19/11 23:46
11-12-1560-1										
Chloride	98	5300		mg/L	5000	104	80-120	111220S01	11-12-1560-1	12/20/11 19:44
Sulfate	41	5100		mg/L	5000	102	80-120	111220S01	11-12-1560-1	12/20/11 19:44
EPA 6010B ICP Metals										
11-12-1457-3										
Calcium	129.0	133.5	BB	mg/L	0.5000	4X	80-120	111222SA4	11-12-1457-3	12/27/11 11:52
Iron	11.02	11.80	BB	mg/L	0.5000	4X	80-120	111222SA4	11-12-1457-3	12/27/11 11:52
Magnesium	39.40	40.70	BB	mg/L	0.5000	4X	80-120	111222SA4	11-12-1457-3	12/27/11 11:52
Potassium	2.288	7.741		mg/L	5.000	109	80-120	111222SA4	11-12-1457-3	12/27/11 11:52
Sodium	244.9	255.6	BB	mg/L	5.000	4X	80-120	111222SA4	11-12-1457-3	12/27/11 11:52
EPA 8260B Volatile Organics										
11-12-1457-3										
Acetone	ND	46.39		ug/L	50.00	93	40-140	111221S01	11-12-1457-3	12/21/11 16:30
Benzene	ND	48.89		ug/L	50.00	98	80-120	111221S01	11-12-1457-3	12/21/11 16:30
Bromobenzene	ND	49.34		ug/L	50.00	99	75-125	111221S01	11-12-1457-3	12/21/11 16:30
Bromochloromethane	ND	49.40		ug/L	50.00	99	65-135	111221S01	11-12-1457-3	12/21/11 16:30
Bromodichloromethane	ND	50.66		ug/L	50.00	101	75-120	111221S01	11-12-1457-3	12/21/11 16:30
Bromoform	ND	43.91		ug/L	50.00	88	70-130	111221S01	11-12-1457-3	12/21/11 16:30
Bromomethane	ND	54.46		ug/L	50.00	109	30-145	111221S01	11-12-1457-3	12/21/11 16:30
2-Butanone	ND	43.96		ug/L	50.00	88	30-150	111221S01	11-12-1457-3	12/21/11 16:30
n-Butylbenzene	ND	51.79		ug/L	50.00	104	70-135	111221S01	11-12-1457-3	12/21/11 16:30
sec-Butylbenzene	ND	51.14		ug/L	50.00	102	70-125	111221S01	11-12-1457-3	12/21/11 16:30
tert-Butylbenzene	ND	50.18		ug/L	50.00	100	70-130	111221S01	11-12-1457-3	12/21/11 16:30
Carbon Disulfide	ND	48.74		ug/L	50.00	97	35-160	111221S01	11-12-1457-3	12/21/11 16:30
Carbon Tetrachloride	ND	51.39		ug/L	50.00	103	65-140	111221S01	11-12-1457-3	12/21/11 16:30
Chlorobenzene	ND	49.54		ug/L	50.00	99	80-120	111221S01	11-12-1457-3	12/21/11 16:30
Chloroethane	ND	51.27		ug/L	50.00	103	60-135	111221S01	11-12-1457-3	12/21/11 16:30
Chloroform	ND	50.73		ug/L	50.00	101	65-135	111221S01	11-12-1457-3	12/21/11 16:30
Chloromethane	ND	49.35		ug/L	50.00	99	40-125	111221S01	11-12-1457-3	12/21/11 16:30
2-Chlorotoluene	ND	48.96		ug/L	50.00	98	75-125	111221S01	11-12-1457-3	12/21/11 16:30
4-Chlorotoluene	ND	50.96		ug/L	50.00	102	75-130	111221S01	11-12-1457-3	12/21/11 16:30
Dibromochloromethane	ND	49.01		ug/L	50.00	98	60-135	111221S01	11-12-1457-3	12/21/11 16:30
1,2-Dibromo-3-Chloropropane	ND	44.40		ug/L	50.00	89	50-130	111221S01	11-12-1457-3	12/21/11 16:30
1,2-Dibromoethane	ND	49.42		ug/L	50.00	99	80-120	111221S01	11-12-1457-3	12/21/11 16:30
Dibromomethane	ND	50.83		ug/L	50.00	102	75-125	111221S01	11-12-1457-3	12/21/11 16:30
1,2-Dichlorobenzene	ND	49.89		ug/L	50.00	100	70-120	111221S01	11-12-1457-3	12/21/11 16:30

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1457
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
Matrix Spike

Analyte	Orig. Val.	MS Val.	Q	Units	Spike Conc.	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
EPA 8260B Volatile Organics										
1,3-Dichlorobenzene	ND	49.49		ug/L	50.00	99	75-125	111221S01	11-12-1457-3	12/21/11 16:30
1,4-Dichlorobenzene	ND	49.29		ug/L	50.00	99	75-125	111221S01	11-12-1457-3	12/21/11 16:30
Dichlorodifluoromethane	ND	52.57		ug/L	50.00	105	30-155	111221S01	11-12-1457-3	12/21/11 16:30
1,1-Dichloroethane	ND	50.48		ug/L	50.00	101	70-135	111221S01	11-12-1457-3	12/21/11 16:30
1,2-Dichloroethane	ND	48.95		ug/L	50.00	98	70-130	111221S01	11-12-1457-3	12/21/11 16:30
1,1-Dichloroethene	ND	50.10		ug/L	50.00	100	70-130	111221S01	11-12-1457-3	12/21/11 16:30
c-1,2-Dichloroethene	56.49	103.9		ug/L	50.00	95	70-125	111221S01	11-12-1457-3	12/21/11 16:30
t-1,2-Dichloroethene	ND	49.16		ug/L	50.00	98	60-140	111221S01	11-12-1457-3	12/21/11 16:30
1,2-Dichloropropane	ND	49.92		ug/L	50.00	100	75-125	111221S01	11-12-1457-3	12/21/11 16:30
1,3-Dichloropropane	ND	49.25		ug/L	50.00	99	75-125	111221S01	11-12-1457-3	12/21/11 16:30
2,2-Dichloropropane	ND	48.96		ug/L	50.00	98	70-135	111221S01	11-12-1457-3	12/21/11 16:30
1,1-Dichloropropene	ND	50.76		ug/L	50.00	102	75-130	111221S01	11-12-1457-3	12/21/11 16:30
c-1,3-Dichloropropene	ND	48.87		ug/L	50.00	98	70-130	111221S01	11-12-1457-3	12/21/11 16:30
t-1,3-Dichloropropene	ND	46.95		ug/L	50.00	94	55-140	111221S01	11-12-1457-3	12/21/11 16:30
Ethylbenzene	ND	49.51		ug/L	50.00	99	75-125	111221S01	11-12-1457-3	12/21/11 16:30
2-Hexanone	ND	45.94		ug/L	50.00	92	55-130	111221S01	11-12-1457-3	12/21/11 16:30
Isopropylbenzene	ND	49.79		ug/L	50.00	100	75-125	111221S01	11-12-1457-3	12/21/11 16:30
p-Isopropyltoluene	ND	51.16		ug/L	50.00	102	75-130	111221S01	11-12-1457-3	12/21/11 16:30
Methylene Chloride	ND	50.16		ug/L	50.00	100	55-140	111221S01	11-12-1457-3	12/21/11 16:30
4-Methyl-2-Pentanone	ND	46.71		ug/L	50.00	93	60-135	111221S01	11-12-1457-3	12/21/11 16:30
Naphthalene	ND	46.16		ug/L	50.00	92	55-140	111221S01	11-12-1457-3	12/21/11 16:30
n-Propylbenzene	ND	49.71		ug/L	50.00	99	70-130	111221S01	11-12-1457-3	12/21/11 16:30
Styrene	ND	50.04		ug/L	50.00	100	65-135	111221S01	11-12-1457-3	12/21/11 16:30
1,1,1,2-Tetrachloroethane	ND	49.54		ug/L	50.00	99	80-130	111221S01	11-12-1457-3	12/21/11 16:30
1,1,2,2-Tetrachloroethane	ND	48.21		ug/L	50.00	96	65-130	111221S01	11-12-1457-3	12/21/11 16:30
Tetrachloroethene	ND	53.48		ug/L	50.00	107	45-150	111221S01	11-12-1457-3	12/21/11 16:30
Toluene	ND	49.44		ug/L	50.00	99	75-120	111221S01	11-12-1457-3	12/21/11 16:30
1,2,3-Trichlorobenzene	ND	46.31		ug/L	50.00	93	55-140	111221S01	11-12-1457-3	12/21/11 16:30
1,2,4-Trichlorobenzene	ND	48.18		ug/L	50.00	96	65-135	111221S01	11-12-1457-3	12/21/11 16:30
1,1,1-Trichloroethane	ND	50.21		ug/L	50.00	100	65-130	111221S01	11-12-1457-3	12/21/11 16:30
1,1,2-Trichloroethane	ND	49.90		ug/L	50.00	100	75-125	111221S01	11-12-1457-3	12/21/11 16:30
Trichloroethene	ND	50.94		ug/L	50.00	102	70-125	111221S01	11-12-1457-3	12/21/11 16:30
Trichlorofluoromethane	ND	53.68		ug/L	50.00	107	60-145	111221S01	11-12-1457-3	12/21/11 16:30
1,2,3-Trichloropropane	ND	46.75		ug/L	50.00	93	75-125	111221S01	11-12-1457-3	12/21/11 16:30
1,2,4-Trimethylbenzene	ND	50.90		ug/L	50.00	102	75-130	111221S01	11-12-1457-3	12/21/11 16:30
1,3,5-Trimethylbenzene	ND	49.87		ug/L	50.00	100	75-130	111221S01	11-12-1457-3	12/21/11 16:30
Vinyl Chloride	ND	52.84		ug/L	50.00	106	50-145	111221S01	11-12-1457-3	12/21/11 16:30
p/m-Xylene	ND	98.10		ug/L	100.0	98	75-130	111221S01	11-12-1457-3	12/21/11 16:30
o-Xylene	ND	49.55		ug/L	50.00	99	80-120	111221S01	11-12-1457-3	12/21/11 16:30
Methyl-t-Butyl Ether (MTBE)	ND	48.69		ug/L	50.00	97	65-125	111221S01	11-12-1457-3	12/21/11 16:30
Tert-Butyl Alcohol (TBA)	ND	254.2		ug/L	250.0	102	46-154	111221S01	11-12-1457-3	12/21/11 16:30

SM 5310 B Total Organic Carbon
11-12-1457-3

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1457 Seal Beach NWS 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
Matrix Spike

Analyte	Orig. Val.	MS Val.	Q	Units	Spike Conc.	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
SM 5310 B Total Organic Carbon										
Carbon, Total Organic	32	78		mg/L	50	92	70-130	B1227TOCS2	11-12-1457-3	12/27/11 21:38

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1457
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
Matrix Spike Dup

Analyte	Orig Val.	Duplicate	Q	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 300.0 Anions												
11-12-1457-3												
Chloride	250	5700	BB	mg/L	5000	4X	80-120	4X	0-20	111219S01	11-12-1457-3	12/20/11 00:02
Nitrite (as N)	ND	250		mg/L	250	100	80-120	0	0-20	111219S01	11-12-1457-3	12/20/11 00:02
Nitrate (as N)	ND	510		mg/L	500	101	80-120	0	0-20	111219S01	11-12-1457-3	12/20/11 00:02
Sulfate	120	5300		mg/L	5000	104	80-120	0	0-20	111219S01	11-12-1457-3	12/20/11 00:02
11-12-1560-1												
Chloride	98	5300		mg/L	5000	104	80-120	0	0-20	111220S01	11-12-1560-1	12/20/11 19:59
Sulfate	41	5100		mg/L	5000	102	80-120	0	0-20	111220S01	11-12-1560-1	12/20/11 19:59
EPA 6010B ICP Metals												
11-12-1457-3												
Calcium	129.0	127.2	BB	mg/L	0.5000	4X	80-120	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:53
Iron	11.02	11.33	BB	mg/L	0.5000	4X	80-120	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:53
Magnesium	39.40	39.20	BB	mg/L	0.5000	4X	80-120	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:53
Potassium	2.288	7.463		mg/L	5.000	104	80-120	4	0-20	111222SA4	11-12-1457-3	12/27/11 11:53
Sodium	244.9	245.4	BB	mg/L	5.000	4X	80-120	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:53
EPA 8260B Volatile Organics												
11-12-1457-3												
Acetone	ND	48.11		ug/L	50.00	96	40-140	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Benzene	ND	50.21		ug/L	50.00	100	80-120	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Bromobenzene	ND	52.03		ug/L	50.00	104	75-125	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Bromochloromethane	ND	51.65		ug/L	50.00	103	65-135	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Bromodichloromethane	ND	52.06		ug/L	50.00	104	75-120	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Bromoform	ND	46.43		ug/L	50.00	93	70-130	6	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Bromomethane	ND	53.96		ug/L	50.00	108	30-145	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
2-Butanone	ND	46.25		ug/L	50.00	92	30-150	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
n-Butylbenzene	ND	53.12		ug/L	50.00	106	70-135	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
sec-Butylbenzene	ND	51.98		ug/L	50.00	104	70-125	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
tert-Butylbenzene	ND	50.53		ug/L	50.00	101	70-130	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Carbon Disulfide	ND	50.88		ug/L	50.00	102	35-160	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Carbon Tetrachloride	ND	53.59		ug/L	50.00	107	65-140	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Chlorobenzene	ND	51.48		ug/L	50.00	103	80-120	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Chloroethane	ND	52.33		ug/L	50.00	105	60-135	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Chloroform	ND	52.30		ug/L	50.00	105	65-135	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Chloromethane	ND	50.75		ug/L	50.00	102	40-125	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
2-Chlorotoluene	ND	50.86		ug/L	50.00	102	75-125	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
4-Chlorotoluene	ND	51.25		ug/L	50.00	103	75-130	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Dibromochloromethane	ND	52.00		ug/L	50.00	104	60-135	6	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2-Dibromo-3-Chloropropane	ND	45.23		ug/L	50.00	90	50-130	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2-Dibromoethane	ND	51.13		ug/L	50.00	102	80-120	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1457
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
Matrix Spike Dup

Analyte	Orig Val.	Duplicate	Q	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 8260B Volatile Organics												
Dibromomethane	ND	50.67		ug/L	50.00	101	75-125	0	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2-Dichlorobenzene	ND	50.69		ug/L	50.00	101	70-120	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,3-Dichlorobenzene	ND	50.32		ug/L	50.00	101	75-125	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,4-Dichlorobenzene	ND	49.77		ug/L	50.00	100	75-125	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Dichlorodifluoromethane	ND	51.69		ug/L	50.00	103	30-155	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1-Dichloroethane	ND	51.72		ug/L	50.00	103	70-135	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2-Dichloroethane	ND	50.75		ug/L	50.00	101	70-130	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1-Dichloroethene	ND	52.41		ug/L	50.00	105	70-130	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
c-1,2-Dichloroethene	56.49	104.4		ug/L	50.00	96	70-125	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
t-1,2-Dichloroethene	ND	51.33		ug/L	50.00	103	60-140	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2-Dichloropropane	ND	51.20		ug/L	50.00	102	75-125	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,3-Dichloropropane	ND	51.36		ug/L	50.00	103	75-125	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
2,2-Dichloropropane	ND	51.33		ug/L	50.00	103	70-135	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1-Dichloropropene	ND	52.29		ug/L	50.00	105	75-130	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
c-1,3-Dichloropropene	ND	50.57		ug/L	50.00	101	70-130	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
t-1,3-Dichloropropene	ND	49.57		ug/L	50.00	99	55-140	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Ethylbenzene	ND	51.35		ug/L	50.00	103	75-125	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
2-Hexanone	ND	48.53		ug/L	50.00	97	55-130	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Isopropylbenzene	ND	52.06		ug/L	50.00	104	75-125	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
p-Isopropyltoluene	ND	52.12		ug/L	50.00	104	75-130	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Methylene Chloride	ND	51.41		ug/L	50.00	103	55-140	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
4-Methyl-2-Pentanone	ND	48.31		ug/L	50.00	97	60-135	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Naphthalene	ND	48.19		ug/L	50.00	96	55-140	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
n-Propylbenzene	ND	51.66		ug/L	50.00	103	70-130	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Styrene	ND	51.38		ug/L	50.00	103	65-135	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1,1,2-Tetrachloroethane	ND	51.68		ug/L	50.00	103	80-130	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1,2,2-Tetrachloroethane	ND	49.05		ug/L	50.00	98	65-130	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Tetrachloroethene	ND	56.01		ug/L	50.00	112	45-150	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Toluene	ND	50.37		ug/L	50.00	101	75-120	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2,3-Trichlorobenzene	ND	49.22		ug/L	50.00	98	55-140	6	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2,4-Trichlorobenzene	ND	50.39		ug/L	50.00	101	65-135	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1,1-Trichloroethane	ND	52.42		ug/L	50.00	105	65-130	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1,2-Trichloroethane	ND	51.23		ug/L	50.00	102	75-125	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Trichloroethene	ND	52.01		ug/L	50.00	104	70-125	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Trichlorofluoromethane	ND	52.95		ug/L	50.00	106	60-145	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2,3-Trichloropropane	ND	48.50		ug/L	50.00	97	75-125	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2,4-Trimethylbenzene	ND	51.20		ug/L	50.00	102	75-130	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,3,5-Trimethylbenzene	ND	52.07		ug/L	50.00	104	75-130	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Vinyl Chloride	ND	53.08		ug/L	50.00	106	50-145	0	0-20	111221S01	11-12-1457-3	12/21/11 16:58
p/m-Xylene	ND	101.3		ug/L	100.0	101	75-130	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
o-Xylene	ND	51.52		ug/L	50.00	103	80-120	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Methyl-t-Butyl Ether (MTBE)	ND	50.36		ug/L	50.00	101	65-125	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Tert-Butyl Alcohol (TBA)	ND	255.5		ug/L	250.0	102	46-154	1	0-35	111221S01	11-12-1457-3	12/21/11 16:58

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1457
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
Matrix Spike Dup

Analyte	Orig Val.	Duplicate	Q	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
SM 5310 B Total Organic Carbon												
11-12-1457-3												
Carbon, Total Organic	32	88		mg/L	50	110	70-130	11	0-25	B1227TOCS2	11-12-1457-3	12/27/11 21:38

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1457
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
Post Digestion Spike

Analyte	Orig. Val.	MS Val.	Q	Units	Spike Conc.	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
EPA 6010B ICP Metals										
11-12-1457-3										
Calcium	129.0	129.2	BB	mg/L	0.5000	4X	75-125	111222SA4	11-12-1457-3	12/27/11 11:54
Iron	11.02	11.46	BB	mg/L	0.5000	4X	75-125	111222SA4	11-12-1457-3	12/27/11 11:54
Magnesium	39.40	39.58	BB	mg/L	0.5000	4X	75-125	111222SA4	11-12-1457-3	12/27/11 11:54
Potassium	2.288	7.294		mg/L	5.000	100	75-125	111222SA4	11-12-1457-3	12/27/11 11:54
Sodium	244.9	246.8	BB	mg/L	5.000	4X	75-125	111222SA4	11-12-1457-3	12/27/11 11:54

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1457
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
Post Digestion Spike Dup

Analyte	Orig Val.	Duplicate	Q	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 6010B ICP Metals												
11-12-1457-3												
Calcium	129.0	128.2	BB	mg/L	0.5000	4X	75-125	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:56
Iron	11.02	11.48	BB	mg/L	0.5000	4X	75-125	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:56
Magnesium	39.40	39.78	BB	mg/L	0.5000	4X	75-125	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:56
Potassium	2.288	7.411		mg/L	5.000	102	75-125	2	0-20	111222SA4	11-12-1457-3	12/27/11 11:56
Sodium	244.9	244.8	BB	mg/L	5.000	4X	75-125	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:56

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1457 Seal Beach NWS 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
Sample Dup

Analyte	Orig Val.	Duplicate	Q	Units	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 410.4									
11-12-1560-7									
Chemical Oxygen Demand	29	26		mg/L	11	0-25	B1222ODD2	11-12-1560-7	12/22/11 16:00
11-12-1639-3									
Chemical Oxygen Demand	ND	ND		mg/L	NA	0-25	B1227ODD3	11-12-1639-3	12/27/11 20:00
11-12-1457-3									
Chemical Oxygen Demand	ND	ND		mg/L	NA	0-25	B1222ODD3	MW-40-08	12/22/11 18:00
RSK-175M									
11-12-1457-3									
Ethane	ND	ND		ug/L	NA	0-20	111221D01	MW-40-08	12/21/11 17:14
Ethylene	ND	ND		ug/L	NA	0-20	111221D01	MW-40-08	12/21/11 17:14
Methane	5183	4837		ug/L	7	0-20	111221D01	MW-40-08	12/21/11 17:14
SM 2540 C									
11-12-1457-3									
Solids, Total Dissolved	1070	1060		mg/L	0	0-10	B1220TDSD2	MW-40-08	12/20/11 18:00

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1457 Seal Beach NWS 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA 300.0 Anions								
099-14-547-2								
Chloride	50	51		mg/L	101	90-110	111219L01	12/19/11 20:11
Nitrite (as N)	2.5	2.5		mg/L	99	90-110	111219L01	12/19/11 20:11
Nitrate (as N)	5.0	4.9		mg/L	99	90-110	111219L01	12/19/11 20:11
Sulfate	50	50		mg/L	99	90-110	111219L01	12/19/11 20:11
099-14-547-3								
Chloride	50	51		mg/L	102	90-110	111220L01	12/20/11 14:26
Nitrite (as N)	2.5	2.5		mg/L	100	90-110	111220L01	12/20/11 14:26
Nitrate (as N)	5.0	5.0		mg/L	99	90-110	111220L01	12/20/11 14:26
Sulfate	50	50		mg/L	100	90-110	111220L01	12/20/11 14:26
EPA 6010B ICP Metals								
099-14-483-4								
Calcium	0.5000	0.5143		mg/L	103	80-120	111222LA4	12/27/11 11:41
Iron	0.5000	0.5123		mg/L	102	80-120	111222LA4	12/27/11 11:41
Magnesium	0.5000	0.5117		mg/L	102	80-120	111222LA4	12/27/11 11:41
Potassium	5.000	4.974		mg/L	99	80-120	111222LA4	12/27/11 11:41
Sodium	5.000	5.171		mg/L	103	80-120	111222LA4	12/27/11 11:41
EPA 8260B Volatile Organics								

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1457
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA 8260B Volatile Organics								
099-14-479-21								
Acetone	50.00	53.13		ug/L	106	40-140	111221L01	12/21/11 13:11
Benzene	50.00	50.04		ug/L	100	80-120	111221L01	12/21/11 13:11
Bromobenzene	50.00	51.20		ug/L	102	75-125	111221L01	12/21/11 13:11
Bromochloromethane	50.00	50.27		ug/L	101	65-130	111221L01	12/21/11 13:11
Bromodichloromethane	50.00	53.02		ug/L	106	75-120	111221L01	12/21/11 13:11
Bromoform	50.00	47.27		ug/L	95	70-130	111221L01	12/21/11 13:11
Bromomethane	50.00	58.82		ug/L	118	30-145	111221L01	12/21/11 13:11
2-Butanone	50.00	50.91		ug/L	102	30-150	111221L01	12/21/11 13:11
n-Butylbenzene	50.00	54.04		ug/L	108	70-135	111221L01	12/21/11 13:11
sec-Butylbenzene	50.00	53.67		ug/L	107	70-125	111221L01	12/21/11 13:11
tert-Butylbenzene	50.00	50.49		ug/L	101	70-130	111221L01	12/21/11 13:11
Carbon Disulfide	50.00	50.58		ug/L	101	35-160	111221L01	12/21/11 13:11
Carbon Tetrachloride	50.00	53.70		ug/L	107	65-140	111221L01	12/21/11 13:11
Chlorobenzene	50.00	51.01		ug/L	102	80-120	111221L01	12/21/11 13:11
Chloroethane	50.00	52.76		ug/L	106	60-135	111221L01	12/21/11 13:11
Chloroform	50.00	51.39		ug/L	103	65-135	111221L01	12/21/11 13:11
Chloromethane	50.00	51.36		ug/L	103	40-125	111221L01	12/21/11 13:11
2-Chlorotoluene	50.00	50.23		ug/L	100	75-125	111221L01	12/21/11 13:11
4-Chlorotoluene	50.00	52.12		ug/L	104	75-130	111221L01	12/21/11 13:11
Dibromochloromethane	50.00	52.16		ug/L	104	60-135	111221L01	12/21/11 13:11
1,2-Dibromo-3-Chloropropane	50.00	45.83		ug/L	92	50-130	111221L01	12/21/11 13:11
1,2-Dibromoethane	50.00	51.12		ug/L	102	80-120	111221L01	12/21/11 13:11
Dibromomethane	50.00	50.74		ug/L	101	75-125	111221L01	12/21/11 13:11
1,2-Dichlorobenzene	50.00	51.19		ug/L	102	70-120	111221L01	12/21/11 13:11
1,3-Dichlorobenzene	50.00	51.12		ug/L	102	75-125	111221L01	12/21/11 13:11
1,4-Dichlorobenzene	50.00	50.07		ug/L	100	75-125	111221L01	12/21/11 13:11
Dichlorodifluoromethane	50.00	52.90		ug/L	106	30-155	111221L01	12/21/11 13:11
1,1-Dichloroethane	50.00	51.18		ug/L	102	70-135	111221L01	12/21/11 13:11
1,2-Dichloroethane	50.00	50.19		ug/L	100	70-130	111221L01	12/21/11 13:11
1,1-Dichloroethene	50.00	51.95		ug/L	104	70-130	111221L01	12/21/11 13:11
c-1,2-Dichloroethene	50.00	52.14		ug/L	104	70-125	111221L01	12/21/11 13:11
t-1,2-Dichloroethene	50.00	52.06		ug/L	104	60-140	111221L01	12/21/11 13:11
1,2-Dichloropropane	50.00	50.84		ug/L	102	75-125	111221L01	12/21/11 13:11
1,3-Dichloropropane	50.00	51.23		ug/L	102	75-125	111221L01	12/21/11 13:11
2,2-Dichloropropane	50.00	51.86		ug/L	104	70-135	111221L01	12/21/11 13:11
1,1-Dichloropropene	50.00	51.85		ug/L	104	75-130	111221L01	12/21/11 13:11
c-1,3-Dichloropropene	50.00	50.48		ug/L	101	70-130	111221L01	12/21/11 13:11
t-1,3-Dichloropropene	50.00	50.24		ug/L	100	55-140	111221L01	12/21/11 13:11
Ethylbenzene	50.00	51.28		ug/L	103	75-125	111221L01	12/21/11 13:11

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1457 Seal Beach NWS 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA 8260B Volatile Organics								
2-Hexanone	50.00	48.87		ug/L	98	55-130	111221L01	12/21/11 13:11
Isopropylbenzene	50.00	51.71		ug/L	103	75-125	111221L01	12/21/11 13:11
p-Isopropyltoluene	50.00	53.12		ug/L	106	75-130	111221L01	12/21/11 13:11
Methylene Chloride	50.00	50.37		ug/L	101	55-140	111221L01	12/21/11 13:11
4-Methyl-2-Pentanone	50.00	47.97		ug/L	96	60-135	111221L01	12/21/11 13:11
Naphthalene	50.00	46.55		ug/L	93	55-140	111221L01	12/21/11 13:11
n-Propylbenzene	50.00	51.92		ug/L	104	70-130	111221L01	12/21/11 13:11
Styrene	50.00	51.58		ug/L	103	65-135	111221L01	12/21/11 13:11
1,1,1,2-Tetrachloroethane	50.00	52.28		ug/L	105	80-130	111221L01	12/21/11 13:11
1,1,2,2-Tetrachloroethane	50.00	46.26		ug/L	93	65-130	111221L01	12/21/11 13:11
Tetrachloroethene	50.00	65.39		ug/L	131	45-150	111221L01	12/21/11 13:11
Toluene	50.00	50.51		ug/L	101	75-120	111221L01	12/21/11 13:11
1,2,3-Trichlorobenzene	50.00	47.71		ug/L	95	55-140	111221L01	12/21/11 13:11
1,2,4-Trichlorobenzene	50.00	49.90		ug/L	100	65-135	111221L01	12/21/11 13:11
1,1,1-Trichloroethane	50.00	52.76		ug/L	106	65-130	111221L01	12/21/11 13:11
1,1,2-Trichloroethane	50.00	51.78		ug/L	104	75-125	111221L01	12/21/11 13:11
Trichloroethene	50.00	53.32		ug/L	107	70-125	111221L01	12/21/11 13:11
Trichlorofluoromethane	50.00	53.47		ug/L	107	60-145	111221L01	12/21/11 13:11
1,2,3-Trichloropropane	50.00	47.88		ug/L	96	75-125	111221L01	12/21/11 13:11
1,2,4-Trimethylbenzene	50.00	52.72		ug/L	105	75-130	111221L01	12/21/11 13:11
1,3,5-Trimethylbenzene	50.00	51.63		ug/L	103	75-130	111221L01	12/21/11 13:11
Vinyl Chloride	50.00	54.45		ug/L	109	50-145	111221L01	12/21/11 13:11
p/m-Xylene	100.0	101.5		ug/L	102	75-130	111221L01	12/21/11 13:11
o-Xylene	50.00	50.78		ug/L	102	80-120	111221L01	12/21/11 13:11
Methyl-t-Butyl Ether (MTBE)	50.00	50.31		ug/L	101	65-125	111221L01	12/21/11 13:11
Tert-Butyl Alcohol (TBA)	250.0	254.8		ug/L	102	46-154	111221L01	12/21/11 13:11

Total number of LCS compounds:	65
Total number of ME compounds:	0
Total number of ME compound allowed:	3
LCS ME CL validation result:	Pass

RSK-175M Dissolved Gases								
099-14-531-3								
Ethane	101.0	90.50		ug/L	90	80-120	111221L01	12/21/11 09:37
Methane	100.0	91.98		ug/L	92	79-109	111221L01	12/21/11 09:37

SM 5310 B Total Organic Carbon

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1457 Seal Beach NWS 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
SM 5310 B Total Organic Carbon								
099-05-097-4,480								
Carbon, Total Organic	10	10		mg/L	104	80-120	B1227TOCL2	12/27/11 21:38

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1457
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 300.0 Anions											
099-14-547-2											
Chloride	50	51		mg/L	101	90-110	0	0-15	111219L01	099-14-547-2	12/19/11 20:26
Nitrite (as N)	2.5	2.5		mg/L	99	90-110	0	0-15	111219L01	099-14-547-2	12/19/11 20:26
Nitrate (as N)	5.0	4.9		mg/L	99	90-110	0	0-15	111219L01	099-14-547-2	12/19/11 20:26
Sulfate	50	50		mg/L	99	90-110	0	0-15	111219L01	099-14-547-2	12/19/11 20:26
099-14-547-3											
Chloride	50	51		mg/L	102	90-110	0	0-15	111220L01	099-14-547-3	12/20/11 14:41
Nitrite (as N)	2.5	2.5		mg/L	101	90-110	0	0-15	111220L01	099-14-547-3	12/20/11 14:41
Nitrate (as N)	5.0	5.0		mg/L	99	90-110	0	0-15	111220L01	099-14-547-3	12/20/11 14:41
Sulfate	50	50		mg/L	100	90-110	0	0-15	111220L01	099-14-547-3	12/20/11 14:41
EPA 6010B ICP Metals											
099-14-483-4											
Calcium	0.5000	0.5014		mg/L	100	80-120	3	0-20	111222LA4	099-14-483-4	12/27/11 11:43
Iron	0.5000	0.5000		mg/L	100	80-120	2	0-20	111222LA4	099-14-483-4	12/27/11 11:43
Magnesium	0.5000	0.5064		mg/L	101	80-120	1	0-20	111222LA4	099-14-483-4	12/27/11 11:43
Potassium	5.000	4.797		mg/L	96	80-120	4	0-20	111222LA4	099-14-483-4	12/27/11 11:43
Sodium	5.000	5.007		mg/L	100	80-120	3	0-20	111222LA4	099-14-483-4	12/27/11 11:43
EPA 8260B Volatile Organics											
099-14-479-21											
Acetone	50.00	54.05		ug/L	108	40-140	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
Benzene	50.00	50.18		ug/L	100	80-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Bromobenzene	50.00	51.29		ug/L	103	75-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Bromochloromethane	50.00	51.63		ug/L	103	65-130	3	0-20	111221L01	099-14-479-21	12/21/11 13:39
Bromodichloromethane	50.00	52.83		ug/L	106	75-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Bromoform	50.00	48.68		ug/L	97	70-130	3	0-20	111221L01	099-14-479-21	12/21/11 13:39
Bromomethane	50.00	57.89		ug/L	116	30-145	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
2-Butanone	50.00	53.34		ug/L	107	30-150	5	0-20	111221L01	099-14-479-21	12/21/11 13:39
n-Butylbenzene	50.00	54.21		ug/L	108	70-135	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
sec-Butylbenzene	50.00	53.93		ug/L	108	70-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
tert-Butylbenzene	50.00	50.86		ug/L	102	70-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Carbon Disulfide	50.00	51.15		ug/L	102	35-160	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Carbon Tetrachloride	50.00	54.58		ug/L	109	65-140	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
Chlorobenzene	50.00	50.90		ug/L	102	80-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Chloroethane	50.00	52.12		ug/L	104	60-135	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Chloroform	50.00	52.18		ug/L	104	65-135	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
Chloromethane	50.00	51.69		ug/L	103	40-125	1	0-20	111221L01	099-14-479-21	12/21/11 13:39

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1457
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 8260B Volatile Organics											
2-Chlorotoluene	50.00	50.41		ug/L	101	75-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
4-Chlorotoluene	50.00	52.78		ug/L	106	75-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Dibromochloromethane	50.00	52.50		ug/L	105	60-135	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2-Dibromo-3-Chloropropane	50.00	48.91		ug/L	98	50-130	7	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2-Dibromoethane	50.00	51.98		ug/L	104	80-120	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
Dibromomethane	50.00	52.29		ug/L	105	75-125	3	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2-Dichlorobenzene	50.00	51.26		ug/L	103	70-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,3-Dichlorobenzene	50.00	51.63		ug/L	103	75-125	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,4-Dichlorobenzene	50.00	50.92		ug/L	102	75-125	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
Dichlorodifluoromethane	50.00	52.83		ug/L	106	30-155	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1-Dichloroethane	50.00	52.19		ug/L	104	70-135	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2-Dichloroethane	50.00	51.28		ug/L	103	70-130	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1-Dichloroethene	50.00	52.66		ug/L	105	70-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
c-1,2-Dichloroethene	50.00	52.04		ug/L	104	70-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
t-1,2-Dichloroethene	50.00	51.97		ug/L	104	60-140	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2-Dichloropropane	50.00	52.11		ug/L	104	75-125	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,3-Dichloropropane	50.00	51.83		ug/L	104	75-125	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
2,2-Dichloropropane	50.00	52.78		ug/L	106	70-135	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1-Dichloropropene	50.00	53.01		ug/L	106	75-130	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
c-1,3-Dichloropropene	50.00	51.62		ug/L	103	70-130	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
t-1,3-Dichloropropene	50.00	49.64		ug/L	99	55-140	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Ethylbenzene	50.00	51.09		ug/L	102	75-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
2-Hexanone	50.00	51.10		ug/L	102	55-130	4	0-20	111221L01	099-14-479-21	12/21/11 13:39
Isopropylbenzene	50.00	51.13		ug/L	102	75-125	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
p-Isopropyltoluene	50.00	53.34		ug/L	107	75-130	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Methylene Chloride	50.00	51.40		ug/L	103	55-140	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
4-Methyl-2-Pentanone	50.00	50.92		ug/L	102	60-135	6	0-20	111221L01	099-14-479-21	12/21/11 13:39
Naphthalene	50.00	48.02		ug/L	96	55-140	3	0-20	111221L01	099-14-479-21	12/21/11 13:39
n-Propylbenzene	50.00	51.33		ug/L	103	70-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Styrene	50.00	51.72		ug/L	103	65-135	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1,1,2-Tetrachloroethane	50.00	51.55		ug/L	103	80-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1,2,2-Tetrachloroethane	50.00	48.69		ug/L	97	65-130	5	0-20	111221L01	099-14-479-21	12/21/11 13:39
Tetrachloroethene	50.00	62.53		ug/L	125	45-150	4	0-20	111221L01	099-14-479-21	12/21/11 13:39
Toluene	50.00	50.70		ug/L	101	75-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2,3-Trichlorobenzene	50.00	47.71		ug/L	95	55-140	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2,4-Trichlorobenzene	50.00	49.98		ug/L	100	65-135	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1,1-Trichloroethane	50.00	53.08		ug/L	106	65-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1,2-Trichloroethane	50.00	51.87		ug/L	104	75-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1457
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 8260B Volatile Organics											
Trichloroethene	50.00	53.10		ug/L	106	70-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Trichlorofluoromethane	50.00	52.94		ug/L	106	60-145	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2,3-Trichloropropane	50.00	50.23		ug/L	100	75-125	5	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2,4-Trimethylbenzene	50.00	53.30		ug/L	107	75-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,3,5-Trimethylbenzene	50.00	51.41		ug/L	103	75-130	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Vinyl Chloride	50.00	53.60		ug/L	107	50-145	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
p/m-Xylene	100.0	101.3		ug/L	101	75-130	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
o-Xylene	50.00	50.99		ug/L	102	80-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Methyl-t-Butyl Ether (MTBE)	50.00	52.26		ug/L	105	65-125	4	0-20	111221L01	099-14-479-21	12/21/11 13:39
Tert-Butyl Alcohol (TBA)	250.0	253.2		ug/L	101	46-154	1	0-25	111221L01	099-14-479-21	12/21/11 13:39

Total number of LCS compounds: 65
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RSK-175M Dissolved Gases											
099-14-531-3											
Ethane	101.0	90.72		ug/L	90	80-120	0	0-20	111221L01	099-14-531-3	12/21/11 09:57
Methane	100.0	92.17		ug/L	92	79-109	0	0-20	111221L01	099-14-531-3	12/21/11 09:57
SM 5310 B Total Organic Carbon											
099-05-097-4,480											
Carbon, Total Organic	10	11		mg/L	110	80-120	6	0-20	B1227TOCL2	099-05-097-4,480	12/27/11 21:38

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 11-12-1457

Qualifier	Definition
AZ	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BA	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
BB	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
BU	Sample analyzed after holding time expired.
DF	Reporting limits elevated due to matrix interferences.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
GE	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
HD	Chromat. profile inconsistent with pattern(s) of ref. fuel stnds.
HO	High concentration matrix spike recovery out of limits
HT	Analytical value calculated using results from associated tests.
HX	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
IL	Relative percent difference out of control.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
LD	Analyte presence was not confirmed by second column or GC/MS analysis.
LP	The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.
ND	Parameter not detected at the indicated reporting limit.
QO	Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.
RU	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
SG	A silica gel cleanup procedure was performed.
SN	See applicable analysis comment.
U	Undetected at detection limit.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 12/19/11
PAGE: 1 OF 1

LABORATORY CLIENT: CKY
ADDRESS: 302 W 5th St, San Pedro, CA 90731
TEL: (310) 519-4000 FAX: (310) 519-4029 E-MAIL: howard@ckyinc.com

CLIENT PROJECT NAME / NUMBER: Seal Beach NWS
PROJECT CONTACT: Howard Wittenberg
SAMPLER(S): (SIGNATURE)
COELT LOG CODE
P.O. NO.:
LAB USE ONLY: 11-12-1457
COOLER RECEIPT Temp = °C

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ Standard

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ COELT EDF ☐

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	CEL SAMPLE #	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	VOCs	Anions	Cations	TDS	COD	TOC	Dissolved Gases	Dhc		Level III
1	TB-1		12-19-11	0800	W	2	X									X
2	MW-40-07		12-19-11	1038	W	11	X	X	X	X	X	X	X	X		X
3	MW-40-08		12-19-11	1122	W	26	X	X	X	X	X	X	X	X		X
4	Dup 1		12-19-11	—	W	10	X	X	X	X	X	X	X			X
5	MW-40-13		12-19-11	1224	W	11	X	X	X	X	X	X	X	X		X
6	MW-40-14		12-19-11	1308	W	11	X	X	X	X	X	X	X	X		X
7	MW-40-22		12-19-11	1400	W	11	X	X	X	X	X	X	X	X		X
																X
																X
																X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	Nicole (SC)	12/19/11	1530
Nicole (Sample Custodian)	CEL	12/19/11	1550
		12/19/11	1655

Revision: 072611

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-12-1457

SAMPLE RECEIPT FORM

Cooler 1 of 2

CLIENT: CKY

DATE: 12/19/11

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.3 °C - 0.3 °C (CF) = 2.0 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: AM

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: AM

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: DEE

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☐	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☑250CGB**s** ☑1PB ☐1PB**na** ☐500PB ☑250PB ☑250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** DEE

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** DEE

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:**

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-12-1457

SAMPLE RECEIPT FORM

Cooler 2 of 2

CLIENT: CKY

DATE: 12/19/11

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.6 °C - 0.3 °C (CF) = 2.3 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: AH

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: AH

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: DEE

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☐	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☑250CGB**s** ☑1PB ☐1PB**na** ☐500PB

☑250PB ☑250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 111208B **Labeled/Checked by:** DEE

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** [illegible]

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** [illegible]

Calscience Environmental Laboratories, Inc.

Subcontractor Analysis Report

Work Order # 11-12-1457

One or more samples in this Work Order have tests that were subcontracted. The subcontract report(s) follows.

For subcontracted tests, please reference the laboratory information noted below.

1 Microbial Insights - Rockford, TN

Microbiology

2340 Stock Creek Blvd.
Rockford TN 37853-3044
Phone: (865) 573-8188
Fax: (865) 573-8133
Email: info@microbe.com

Client: Richard Villafania
Calscience Environmental Laboratories
7440 Lincoln Way
Garden Grove, CA 92841-1427

Phone: 714-895-5494

Fax: 714-895-7501

Identifier: 057IL **Date Rec:** 12/20/2011 **Report Date:** 12/21/2011

Client Project #: 11-12-1457 **Client Project Name:**

Purchase Order #: 11-12-1457

Analysis Requested: CENSUS

Reviewed By:

Anita Biernacki

NOTICE: This report is intended only for the addressee shown above and may contain confidential or privileged information. If the recipient of this material is not the intended recipient or if you have received this in error, please notify Microbial Insights, Inc. immediately. The data and other information in this report represent only the sample(s) analyzed and are rendered upon condition that it is not to be reproduced without approval from Microbial Insights, Inc. Thank you for your cooperation.

Client: **Calscience Environmental Laboratories**
Project:

MI Project Number: **057IL**
Date Received: 12/20/2011

Sample Information

Client Sample ID:		**MW-40-07**	**MW-40-08**	**MW-40-13**	**MW-40-14**	**MW-40-22**
Sample Date:		12/19/2011	12/19/2011	12/19/2011	12/19/2011	12/19/2011
Units:		cells/mL	cells/mL	cells/mL	cells/mL	cells/mL
Analyst:		AB	AB	AB	AB	AB
Dechlorinating Bacteria						
Dehalococcoides spp.	*DHC*	**4.33E+01**	**7.94E+01**	**3.50E+00**	**2.18E+02**	**6.62E+03**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

TO: **Microbial Insights, Inc.**
2340 Stock Creek Blvd
Rockford, TN 37853-3044
P: (865) 573-8188
Attn: Sample Custodian

CHAIN OF CUSTODY RECORD

DATE: December 19, 2011
PAGE: 1 OF 1

LABORATORY CLIENT: CALSCIENCE ENVIRONMENTAL LABORATORIES, INC.
ADDRESS: 7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: 714 895 5494 x204 | FAX: 714 895 7501 | E-MAIL: rvillafania@calscience.com

CLIENT PROJECT NAME / NUMBER: 11-12-1457
P.O. NO: 11-12-1457
PROJECT CONTACT: Richard Villafania
LAB USE ONLY
SAMPLER(S): (PRINT NAME) BlaineTech
COELT LOG CODE
COOLER RECEIPT Temp = ____ °C

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ COELT EDF ☒ NEDD

SPECIAL INSTRUCTIONS

NEDD required.

Level III Data Package required.

12/20/11 - analysis for Dup-1 cancelled.

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Dehalococcoides -DHC by CENSUS qPCR	CONTAINER TYPE:
057iL 1	MW-40-07	12/19/11	1038	water	1	X	(1) 1L poly
2	MW-40-08	12/19/11	1122	water	1	X	(1) 1L poly
3	Dup-1	12/19/11		water	1	X	(1) 1L poly
4	MW-40-13	12/19/11	1224	water	1	X	(1) 1L poly
5	MW-40-14	12/19/11	1308	water	1	X	(1) 1L poly
6	MW-40-22	12/19/11	1400	water	1	X	(1) 1L poly

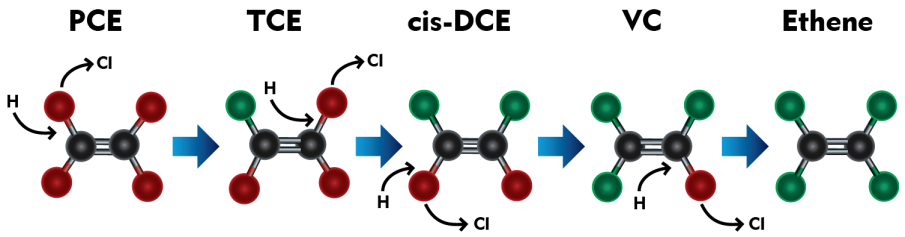
Total # Containers Received: 6

Relinquished by: (Signature)	Received by: (Signature / Affiliation)	Date:	Time:
(CALSCIENCE)	FedEx AB# 797869453536	12/19/11	1710
Relinquished by: (Signature)	Received by: (Signature / Affiliation)	12/20/11	0900
Relinquished by: (Signature)	Received by: (Signature / Affiliation)	Date:	Time:

DHC Interpretation

Dehalococcoides 16S rRNA gene (qDHC)

Under anaerobic conditions, tetrachloroethene (PCE) and trichloroethene (TCE) can undergo sequential reductive dechlorination through the daughter products *cis*-dichloroethene (*cis*-DCE) and vinyl chloride to nontoxic ethene (1,2).



While a number of bacterial cultures capable of utilizing PCE and TCE as growth supporting electron acceptors have been isolated (3-7), *Dehalococcoides* spp. may be the most important because they are the only bacterial group that has been isolated to date which is capable of complete reductive dechlorination of PCE to ethene (8). In fact, the presence of *Dehalococcoides* spp. has been associated with complete dechlorination to ethene at sites across North America and Europe (9).

Status	*Dehalococcoides spp.*	Observation
	$\geq 10^4$ (cells/mL)	Lu et al. proposed that a concentration of 1 x 10^4 DHC cells/mL could be used as a screening criterion to identify sites where reductive dechlorination will yield a generally useful biodegradation rate (10). Similarly, in an internal study conducted with nearly 1000 groundwater samples obtained from sites across the US, ethene production was observed in approximately 80% of samples in which CENSUS® qDHC results were greater than or equal to 10^4 DHC cells/mL.
	10^1 to < 10^4 (cells/mL)	When vinyl chloride reductase genes (See DHC functional genes discussion below) are also detected, complete reductive dechlorination of PCE and TCE to ethene may still occur even with moderate DHC concentrations. When the DHC population is below the 10^4 cells/mL criterion proposed by Lu et al. (10), project managers should carefully consider other site-specific data to determine whether subsurface conditions may be limiting reductive dechlorination. For example, the addition of an electron donor may be able to stimulate DHC growth and enhance anaerobic bioremediation.
	< 10^1 (cells/mL)	DHC concentrations are low suggesting that complete reductive dechlorination of PCE and TCE to ethene is unlikely to occur under existing conditions. Enhanced anaerobic bioremediation options (biostimulation or bioaugmentation) may need to be considered.

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Rockford, TN 37853-3044
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microbialinsights

DHC Interpretation

DHC Functional Genes (*tce*A, *bvc*A, *vcr*A)

A "stall" where daughter products *cis*-DCE and vinyl chloride accumulate can occur at PCE- and TCE-impacted sites especially under MNA conditions. The accumulation of vinyl chloride, generally considered more carcinogenic than the parent compounds, is particularly problematic. Although elevated *Dehalococcoides* concentrations correspond to ethene production in numerous studies, the range of chlorinated ethenes metabolized and cometabolized varies among species and strains within the *Dehalococcoides* genus. For example, *Dehalococcoides ethenogenes* str. 195 metabolizes PCE, TCE, and *cis*-DCE and cometabolizes vinyl chloride (8) to produce ethene. Conversely, *Dehalococcoides* sp. CBDB1 utilizes PCE and TCE but does not cometabolize additional chloroethenes (11). Other *Dehalococcoides* strains, such as BAV1, GT and VS, are known to fully dechlorinate cis-DCE and VC to ethene (14,16,19). Quantification of reductive dehalogenase genes is used to more definitively confirm the potential for reductive dechlorination of TCE, cis-DCE, and vinyl chloride (12-15).

Functional Gene	Observation
TCE Reductase	
***tce*A gene**	The *tce*A gene encodes the enzyme responsible for reductive dechlorination of TCE to *cis*-DCE in some strains of *Dehalococcoides*. Absence of *tce*A does not preclude the potential for reductive dechlorination of TCE in the field since the *tce*A gene is not universally distributed among all DHC and is not present in other microorganisms capable of reductive dechlorination of TCE (e.g. *Dehalobacter*). Detection of the *tce*A gene provides an additional line of evidence indicating the potential for dechlorination of TCE.
Vinyl Chloride Reductase	
***bvc*A gene**	The *bvc*A gene encodes the vinyl chloride reductase enzyme responsible for reductive dechlorination of vinyl chloride to ethene by *Dehalococcoides* sp. str. BAV1 (16). Presence of *bvc*A gene indicates the potential for reductive dechlorination of VC to ethene. Absence of both *bvc*A and *vcr*A genes suggests VC may accumulate. An internal study with ~1,000 samples showed ethene production was observed in 80% of the samples that the DHC population was greater than or equal to 10^4 cells/mL. The *bvc*A gene was detected in over 50% of these samples. Van Der Zaan et al (17) noted that the bvcA gene was the only VC reductase gene detected at three of their sites. Alfred Spormann's laboratory at Stanford University (18) reported that the *bvc*A gene was the most abundant and active at the outflow of a PCE fed column study. This section of the column was in the DCE to VC stages of reductive dechlorination thus confirming the importance of the *bvc*A gene for complete reductive dechlorination.
***vcr*A gene**	The *vcr*A gene encodes the vinyl chloride reductase enzyme responsible for reductive dechlorination of *cis*-DCE and vinyl chloride by *Dehalococcoides* sp. strain VS (14). Presence of *vcr*A gene indicates the potential for reductive dechlorination of DCE and/or VC to ethene. Absence of both *bvc*A and *vcr*A genes suggest VC may accumulate. As with the *bvc*A gene, detection of the *vcr*A gene is associated with ethene production in internal studies (67%) and vinyl chloride reduction in independent studies (14, 17).

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Rockford, TN 37853-3044
Phone: 865.573.8188
Fax: 865.573.8133
www.microbe.com

microbialinsights

DHC Interpretation

Reporting

Microbial Insights can provide a variety of data packages and reporting levels to suit the needs of any project. Data packages range from simple analytical reports with results only to more complex data packages that include a report narrative, analytical results, QC data, and supporting materials including all raw data and chain-of-custody documentation. The figure below shows our standard report and explains the way values are reported.

Microbial Insights, Inc.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: Company Name
Project: Your Project Name

MI Project Number: Unique Laboratory Identifier
Date Received: Date Samples Arrived

Sample Information

Client Sample ID:		Sample A	Sample B	Sample C
Sample Date:		00/00/0000	00/00/0000	00/00/0000
Units:		cells/mL	cells/mL	cells/mL
Analyst:		Intials	Intials	Intials
Dechlorinating Bacteria				
Dehalococcoides spp.	DHC	**1.84E+05**	**2.76E+02**	**2.28E+01 (J)**
Functional Genes				
tceA Reductase	TCE	**6.00E+01**	**3.23E+01**	<4.00E-01
bvcA Reductase	BVC	**1.17E+04**	**1.81E+01**	<4.00E-01
vcrA Reducatase	VCR	**8.42E+04**	**1.74E+02**	<4.00E-01

"J" value
Result is an estimated value. This data qualifier (flag) is used when the target gene is detected but at a concentration or abundance below the practical quantification limit (PQL).

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

< value
The target gene was not detected at the limit of quantitation (LOQ) reported for that sample.

"I" value
QA Procedure indicated that the sample may have exhibited PCR inhibition. Although relatiively rare, PCR inhibition can occur due to the presence of metals or humic acids at high concentrations in the sample.

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Quality Assurance

Microbial Insights' comprehensive Quality Assurance (QA) Program is the foundation of all laboratory analyses, ensuring that our clients receive high-quality analytical services that are timely, reliable, and meet their intended purpose in a cost effective manner. MI is committed to providing quality data that surpasses regulatory and industry standards, thus enabling the client to make well-informed decisions. MI maintains strict standard operating procedures and QA/QC measures throughout all of the analyses offered. The following Table details specific QA/QC procedures that are used for CENSUS.

QA/QC	Description
Date of Extraction	DNA and RNA extractions are performed the day the samples are received by MI to minimize the possibility of any changes to the microbial community prior to analysis.
Laboratory Method Blanks	An extraction blank (no sample added) is processed alongside each set of field samples from DNA extraction through CENSUS® analysis to ensure that cross contamination has not occurred. Although MI has never experienced this issue, the detection of the CENSUS® target (e.g. *Dehalococcoides*) in an extraction blank is direct evidence of cross contamination with a sample or contamination of a reagent and would invalidate the results. If this were to occur, MI would re-extract the sample. If not possible to re-extract, MI would contact the client immediately and notate it on the laboratory report.
Laboratory Control Samples (LCS)	A laboratory control sample (LCS) or positive control (target DNA) is included with each CENSUS® plate to confirm amplification and as a continuing calibration check.
Negative Controls	A negative control (no DNA) is included with each CENSUS plate to ensure that cross contamination has not occurred during amplification. As with the extraction blank, detection of CENSUS target (e.g. DHC) in a negative control is direct evidence of contamination and would invalidate the results. If this were to occur, MI would rerun the analysis.

References

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 11-12-1460

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: CKY, Incorporated

Client Project Name: Seal Beach NWS

Attention: Howard Wittenberg
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Approved for release on 01/5/2012 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1460
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 1 (MW-40-06, Aqueous) Sampled: 12/19/11 09:49										
EPA 300.0 Anions (Sample: 11-12-1460-1-I)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	420		mg/L	1.3	0.50	2.00	10	12/19/11 23:00	EPA 300.0	111219L01
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	1	12/19/11 23:00	EPA 300.0	111219L01
Nitrate (as N)	3.1		mg/L	0.021	0.05	0.10	1	12/19/11 23:00	EPA 300.0	111219L01
Sulfate	210		mg/L	1.3	0.50	2.00	10	12/19/11 23:00	EPA 300.0	111219L01
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1460-1-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	<21	U	mg/L	10	21.00	25.00	1	12/22/11 18:00	EPA 410.4	B1222ODL3
EPA 6010B ICP Metals (Sample: 11-12-1460-1-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	129		mg/L	0.0118	0.03	0.10	1	12/27/11 12:32	EPA 6010B	111222LA4
Iron	<0.03333	U	mg/L	0.0101	0.03	0.10	1	12/27/11 12:32	EPA 6010B	111222LA4
Magnesium	35.9		mg/L	0.00336	0.01	0.10	1	12/27/11 12:32	EPA 6010B	111222LA4
Potassium	3.92		mg/L	0.103	0.17	0.50	1	12/27/11 12:32	EPA 6010B	111222LA4
Sodium	252		mg/L	0.103	0.17	0.50	1	12/27/11 12:32	EPA 6010B	111222LA4
EPA 8260B Volatile Organics (Sample: 11-12-1460-1-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 23:03	EPA 8260B	111221L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/21/11 23:03	EPA 8260B	111221L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/21/11 23:03	EPA 8260B	111221L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/21/11 23:03	EPA 8260B	111221L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/21/11 23:03	EPA 8260B	111221L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 23:03	EPA 8260B	111221L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/21/11 23:03	EPA 8260B	111221L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/21/11 23:03	EPA 8260B	111221L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/21/11 23:03	EPA 8260B	111221L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/21/11 23:03	EPA 8260B	111221L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/21/11 23:03	EPA 8260B	111221L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/21/11 23:03	EPA 8260B	111221L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 23:03	EPA 8260B	111221L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 23:03	EPA 8260B	111221L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/21/11 23:03	EPA 8260B	111221L01
c-1,2-Dichloroethene	<0.5	U	ug/L	0.48	0.50	1.00	1	12/21/11 23:03	EPA 8260B	111221L01
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 23:03	EPA 8260B	111221L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 23:03	EPA 8260B	111221L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/21/11 23:03	EPA 8260B	111221L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/21/11 23:03	EPA 8260B	111221L01
Methylene Chloride	0.67	J	ug/L	0.64	1.00	10.00	1	12/21/11 23:03	EPA 8260B	111221L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/21/11 23:03	EPA 8260B	111221L01

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Client:	CKY, Incorporated	Work Order:	11-12-1460
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 1 (MW-40-06, Aqueous) Sampled: 12/19/11 09:49										
EPA 8260B Volatile Organics (Sample: 11-12-1460-1-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/21/11 23:03	EPA 8260B	111221L01
Tetrachloroethene	0.40	J	ug/L	0.39	0.50	5.00	1	12/21/11 23:03	EPA 8260B	111221L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 23:03	EPA 8260B	111221L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/21/11 23:03	EPA 8260B	111221L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/21/11 23:03	EPA 8260B	111221L01
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 23:03	EPA 8260B	111221L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/21/11 23:03	EPA 8260B	111221L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/21/11 23:03	EPA 8260B	111221L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 23:03	EPA 8260B	111221L01
Vinyl Chloride	<0.5	U	ug/L	0.30	0.50	1.00	1	12/21/11 23:03	EPA 8260B	111221L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/21/11 23:03	EPA 8260B	111221L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 23:03	EPA 8260B	111221L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/21/11 23:03	EPA 8260B	111221L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/21/11 23:03	EPA 8260B	111221L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*99%*							*12/21/11 23:03*	*EPA 8260B*	*111221L01*
Surr: Dibromofluoromethane (85-115%)	*97%*							*12/21/11 23:03*	*EPA 8260B*	*111221L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*104%*							*12/21/11 23:03*	*EPA 8260B*	*111221L01*
Surr: Toluene-d8 (85-120%)	*100%*							*12/21/11 23:03*	*EPA 8260B*	*111221L01*
RSK-175M Dissolved Gases (Sample: 11-12-1460-1-E)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	1	12/21/11 12:50	RSK-175M	111221L01
Ethylene	<0.1725	U	ug/L	0.0566	0.17	0.43	1	12/21/11 12:50	RSK-175M	111221L01
Methane	0.150	J	ug/L	0.0334	0.07	0.17	1	12/21/11 12:50	RSK-175M	111221L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1460-1-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	1240		mg/L	0.820	1.60	2.00	1	12/20/11 18:00	SM 2540 C	B1220TDSB2
SM 5310 B Total Organic Carbon (Sample: 11-12-1460-1-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	8.5		mg/L	0.24	2.00	5.00	1	12/27/11 21:38	SM 5310 B	B1227TOCL2

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ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1460
		Project Name:	Seal Beach NWS
		Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
EPA 300.0 Anions									
099-14-547-2									
Chloride	<0.5	U	mg/L	0.13	0.50	2.00	111219L01	099-14-547-2	12/19/11 19:55
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	111219L01	099-14-547-2	12/19/11 19:55
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	111219L01	099-14-547-2	12/19/11 19:55
Sulfate	<0.5	U	mg/L	0.13	0.50	2.00	111219L01	099-14-547-2	12/19/11 19:55
099-14-547-3									
Chloride	<0.5	U	mg/L	0.13	0.50	2.00	111220L01	099-14-547-3	12/20/11 14:11
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	111220L01	099-14-547-3	12/20/11 14:11
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	111220L01	099-14-547-3	12/20/11 14:11
Sulfate	<0.5	U	mg/L	0.13	0.50	2.00	111220L01	099-14-547-3	12/20/11 14:11
EPA 410.4 Chemical Oxygen Demand									
099-05-062-4,348									
Chemical Oxygen Demand	<21	U	mg/L	10	21.00	25.00	B1222ODL3	099-05-062-4,348	12/22/11 18:00
EPA 6010B ICP Metals									
099-14-483-4									
Calcium	<0.03333	U	mg/L	0.0118	0.03	0.10	111222LA4	099-14-483-4	12/27/11 11:39
Iron	<0.03333	U	mg/L	0.0101	0.03	0.10	111222LA4	099-14-483-4	12/27/11 11:39
Magnesium	<0.01	U	mg/L	0.0033	0.01	0.10	111222LA4	099-14-483-4	12/27/11 11:39
Potassium	<0.16667	U	mg/L	0.103	0.17	0.50	111222LA4	099-14-483-4	12/27/11 11:39
Sodium	<0.16667	U	mg/L	0.103	0.17	0.50	111222LA4	099-14-483-4	12/27/11 11:39
EPA 8260B Volatile Organics									
099-14-479-21									
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Bromoform	<1	U	ug/L	0.50	1.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1460
		Project Name:	Seal Beach NWS
		Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
EPA 8260B Volatile Organics 099-14-479-21									
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
c-1,2-Dichloroethene	<0.5	U	ug/L	0.48	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	111221L01	099-14-479-21	12/21/11 14:35
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Vinyl Chloride	<0.5	U	ug/L	0.30	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	111221L01	099-14-479-21	12/21/11 14:35
Surr: 1,4-Bromofluorobenzene (75-120%)	*103%*						*111221L01*	*099-14-479-21*	*12/21/11 14:35*
Surr: Dibromofluoromethane (85-115%)	*95%*						*111221L01*	*099-14-479-21*	*12/21/11 14:35*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*102%*						*111221L01*	*099-14-479-21*	*12/21/11 14:35*
Surr: Toluene-d8 (85-120%)	*100%*						*111221L01*	*099-14-479-21*	*12/21/11 14:35*
RSK-175M Dissolved Gases 099-14-531-3									
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	111221L01	099-14-531-3	12/21/11 11:39
Ethylene	<0.1725	U	ug/L	0.0566	0.17	0.43	111221L01	099-14-531-3	12/21/11 11:39

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1460
		Project Name:	Seal Beach NWS
		Received:	12/19/11 16:55
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
RSK-175M Dissolved Gases 099-14-531-3									
Methane	<0.0668	U	ug/L	0.0334	0.07	0.17	111221L01	099-14-531-3	12/21/11 11:39
SM 2540 C Total Dissolved Solids 099-14-577-2									
Solids, Total Dissolved	<1.6	U	mg/L	0.82	1.60	2.00	B1220TDSB2	099-14-577-2	12/20/11 18:00
SM 5310 B Total Organic Carbon 099-05-097-4,480									
Carbon, Total Organic	<2	U	mg/L	0.24	2.00	5.00	B1227TOCL2	099-05-097-4,480	12/27/11 21:38

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1460
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
Matrix Spike

Analyte	Orig. Val.	MS Val.	Q	Units	Spike Conc.	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
EPA 300.0 Anions										
11-12-1457-3										
Chloride	250	5700	BB	mg/L	5000	4X	80-120	111219S01	11-12-1457-3	12/19/11 23:46
Nitrite (as N)	ND	250		mg/L	250	100	80-120	111219S01	11-12-1457-3	12/19/11 23:46
Nitrate (as N)	ND	510		mg/L	500	102	80-120	111219S01	11-12-1457-3	12/19/11 23:46
Sulfate	120	5300		mg/L	5000	104	80-120	111219S01	11-12-1457-3	12/19/11 23:46
11-12-1560-1										
Chloride	98	5300		mg/L	5000	104	80-120	111220S01	11-12-1560-1	12/20/11 19:44
Sulfate	41	5100		mg/L	5000	102	80-120	111220S01	11-12-1560-1	12/20/11 19:44
EPA 6010B ICP Metals										
11-12-1457-3										
Calcium	129.0	133.5	BB	mg/L	0.5000	4X	80-120	111222SA4	11-12-1457-3	12/27/11 11:52
Iron	11.02	11.80	BB	mg/L	0.5000	4X	80-120	111222SA4	11-12-1457-3	12/27/11 11:52
Magnesium	39.40	40.70	BB	mg/L	0.5000	4X	80-120	111222SA4	11-12-1457-3	12/27/11 11:52
Potassium	2.288	7.741		mg/L	5.000	109	80-120	111222SA4	11-12-1457-3	12/27/11 11:52
Sodium	244.9	255.6	BB	mg/L	5.000	4X	80-120	111222SA4	11-12-1457-3	12/27/11 11:52
EPA 8260B Volatile Organics										
11-12-1457-3										
Acetone	ND	46.39		ug/L	50.00	93	40-140	111221S01	11-12-1457-3	12/21/11 16:30
Benzene	ND	48.89		ug/L	50.00	98	80-120	111221S01	11-12-1457-3	12/21/11 16:30
Bromobenzene	ND	49.34		ug/L	50.00	99	75-125	111221S01	11-12-1457-3	12/21/11 16:30
Bromochloromethane	ND	49.40		ug/L	50.00	99	65-135	111221S01	11-12-1457-3	12/21/11 16:30
Bromodichloromethane	ND	50.66		ug/L	50.00	101	75-120	111221S01	11-12-1457-3	12/21/11 16:30
Bromoform	ND	43.91		ug/L	50.00	88	70-130	111221S01	11-12-1457-3	12/21/11 16:30
Bromomethane	ND	54.46		ug/L	50.00	109	30-145	111221S01	11-12-1457-3	12/21/11 16:30
2-Butanone	ND	43.96		ug/L	50.00	88	30-150	111221S01	11-12-1457-3	12/21/11 16:30
n-Butylbenzene	ND	51.79		ug/L	50.00	104	70-135	111221S01	11-12-1457-3	12/21/11 16:30
sec-Butylbenzene	ND	51.14		ug/L	50.00	102	70-125	111221S01	11-12-1457-3	12/21/11 16:30
tert-Butylbenzene	ND	50.18		ug/L	50.00	100	70-130	111221S01	11-12-1457-3	12/21/11 16:30
Carbon Disulfide	ND	48.74		ug/L	50.00	97	35-160	111221S01	11-12-1457-3	12/21/11 16:30
Carbon Tetrachloride	ND	51.39		ug/L	50.00	103	65-140	111221S01	11-12-1457-3	12/21/11 16:30
Chlorobenzene	ND	49.54		ug/L	50.00	99	80-120	111221S01	11-12-1457-3	12/21/11 16:30
Chloroethane	ND	51.27		ug/L	50.00	103	60-135	111221S01	11-12-1457-3	12/21/11 16:30
Chloroform	ND	50.73		ug/L	50.00	101	65-135	111221S01	11-12-1457-3	12/21/11 16:30
Chloromethane	ND	49.35		ug/L	50.00	99	40-125	111221S01	11-12-1457-3	12/21/11 16:30
2-Chlorotoluene	ND	48.96		ug/L	50.00	98	75-125	111221S01	11-12-1457-3	12/21/11 16:30
4-Chlorotoluene	ND	50.96		ug/L	50.00	102	75-130	111221S01	11-12-1457-3	12/21/11 16:30
Dibromochloromethane	ND	49.01		ug/L	50.00	98	60-135	111221S01	11-12-1457-3	12/21/11 16:30
1,2-Dibromo-3-Chloropropane	ND	44.40		ug/L	50.00	89	50-130	111221S01	11-12-1457-3	12/21/11 16:30
1,2-Dibromoethane	ND	49.42		ug/L	50.00	99	80-120	111221S01	11-12-1457-3	12/21/11 16:30
Dibromomethane	ND	50.83		ug/L	50.00	102	75-125	111221S01	11-12-1457-3	12/21/11 16:30
1,2-Dichlorobenzene	ND	49.89		ug/L	50.00	100	70-120	111221S01	11-12-1457-3	12/21/11 16:30

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1460
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
Matrix Spike

Analyte	Orig. Val.	MS Val.	Q	Units	Spike Conc.	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
EPA 8260B Volatile Organics										
1,3-Dichlorobenzene	ND	49.49		ug/L	50.00	99	75-125	111221S01	11-12-1457-3	12/21/11 16:30
1,4-Dichlorobenzene	ND	49.29		ug/L	50.00	99	75-125	111221S01	11-12-1457-3	12/21/11 16:30
Dichlorodifluoromethane	ND	52.57		ug/L	50.00	105	30-155	111221S01	11-12-1457-3	12/21/11 16:30
1,1-Dichloroethane	ND	50.48		ug/L	50.00	101	70-135	111221S01	11-12-1457-3	12/21/11 16:30
1,2-Dichloroethane	ND	48.95		ug/L	50.00	98	70-130	111221S01	11-12-1457-3	12/21/11 16:30
1,1-Dichloroethene	ND	50.10		ug/L	50.00	100	70-130	111221S01	11-12-1457-3	12/21/11 16:30
c-1,2-Dichloroethene	56.49	103.9		ug/L	50.00	95	70-125	111221S01	11-12-1457-3	12/21/11 16:30
t-1,2-Dichloroethene	ND	49.16		ug/L	50.00	98	60-140	111221S01	11-12-1457-3	12/21/11 16:30
1,2-Dichloropropane	ND	49.92		ug/L	50.00	100	75-125	111221S01	11-12-1457-3	12/21/11 16:30
1,3-Dichloropropane	ND	49.25		ug/L	50.00	99	75-125	111221S01	11-12-1457-3	12/21/11 16:30
2,2-Dichloropropane	ND	48.96		ug/L	50.00	98	70-135	111221S01	11-12-1457-3	12/21/11 16:30
1,1-Dichloropropene	ND	50.76		ug/L	50.00	102	75-130	111221S01	11-12-1457-3	12/21/11 16:30
c-1,3-Dichloropropene	ND	48.87		ug/L	50.00	98	70-130	111221S01	11-12-1457-3	12/21/11 16:30
t-1,3-Dichloropropene	ND	46.95		ug/L	50.00	94	55-140	111221S01	11-12-1457-3	12/21/11 16:30
Ethylbenzene	ND	49.51		ug/L	50.00	99	75-125	111221S01	11-12-1457-3	12/21/11 16:30
2-Hexanone	ND	45.94		ug/L	50.00	92	55-130	111221S01	11-12-1457-3	12/21/11 16:30
Isopropylbenzene	ND	49.79		ug/L	50.00	100	75-125	111221S01	11-12-1457-3	12/21/11 16:30
p-Isopropyltoluene	ND	51.16		ug/L	50.00	102	75-130	111221S01	11-12-1457-3	12/21/11 16:30
Methylene Chloride	ND	50.16		ug/L	50.00	100	55-140	111221S01	11-12-1457-3	12/21/11 16:30
4-Methyl-2-Pentanone	ND	46.71		ug/L	50.00	93	60-135	111221S01	11-12-1457-3	12/21/11 16:30
Naphthalene	ND	46.16		ug/L	50.00	92	55-140	111221S01	11-12-1457-3	12/21/11 16:30
n-Propylbenzene	ND	49.71		ug/L	50.00	99	70-130	111221S01	11-12-1457-3	12/21/11 16:30
Styrene	ND	50.04		ug/L	50.00	100	65-135	111221S01	11-12-1457-3	12/21/11 16:30
1,1,1,2-Tetrachloroethane	ND	49.54		ug/L	50.00	99	80-130	111221S01	11-12-1457-3	12/21/11 16:30
1,1,2,2-Tetrachloroethane	ND	48.21		ug/L	50.00	96	65-130	111221S01	11-12-1457-3	12/21/11 16:30
Tetrachloroethene	ND	53.48		ug/L	50.00	107	45-150	111221S01	11-12-1457-3	12/21/11 16:30
Toluene	ND	49.44		ug/L	50.00	99	75-120	111221S01	11-12-1457-3	12/21/11 16:30
1,2,3-Trichlorobenzene	ND	46.31		ug/L	50.00	93	55-140	111221S01	11-12-1457-3	12/21/11 16:30
1,2,4-Trichlorobenzene	ND	48.18		ug/L	50.00	96	65-135	111221S01	11-12-1457-3	12/21/11 16:30
1,1,1-Trichloroethane	ND	50.21		ug/L	50.00	100	65-130	111221S01	11-12-1457-3	12/21/11 16:30
1,1,2-Trichloroethane	ND	49.90		ug/L	50.00	100	75-125	111221S01	11-12-1457-3	12/21/11 16:30
Trichloroethene	ND	50.94		ug/L	50.00	102	70-125	111221S01	11-12-1457-3	12/21/11 16:30
Trichlorofluoromethane	ND	53.68		ug/L	50.00	107	60-145	111221S01	11-12-1457-3	12/21/11 16:30
1,2,3-Trichloropropane	ND	46.75		ug/L	50.00	93	75-125	111221S01	11-12-1457-3	12/21/11 16:30
1,2,4-Trimethylbenzene	ND	50.90		ug/L	50.00	102	75-130	111221S01	11-12-1457-3	12/21/11 16:30
1,3,5-Trimethylbenzene	ND	49.87		ug/L	50.00	100	75-130	111221S01	11-12-1457-3	12/21/11 16:30
Vinyl Chloride	ND	52.84		ug/L	50.00	106	50-145	111221S01	11-12-1457-3	12/21/11 16:30
p/m-Xylene	ND	98.10		ug/L	100.0	98	75-130	111221S01	11-12-1457-3	12/21/11 16:30
o-Xylene	ND	49.55		ug/L	50.00	99	80-120	111221S01	11-12-1457-3	12/21/11 16:30
Methyl-t-Butyl Ether (MTBE)	ND	48.69		ug/L	50.00	97	65-125	111221S01	11-12-1457-3	12/21/11 16:30
Tert-Butyl Alcohol (TBA)	ND	254.2		ug/L	250.0	102	46-154	111221S01	11-12-1457-3	12/21/11 16:30

SM 5310 B Total Organic Carbon
11-12-1457-3

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1460 Seal Beach NWS 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
Matrix Spike

Analyte	Orig. Val.	MS Val.	Q	Units	Spike Conc.	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
SM 5310 B Total Organic Carbon										
Carbon, Total Organic	32	78		mg/L	50	92	70-130	B1227TOCS2	11-12-1457-3	12/27/11 21:38

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1460
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
Matrix Spike Dup

Analyte	Orig Val.	Duplicate	Q	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 300.0 Anions												
11-12-1457-3												
Chloride	250	5700	BB	mg/L	5000	4X	80-120	4X	0-20	111219S01	11-12-1457-3	12/20/11 00:02
Nitrite (as N)	ND	250		mg/L	250	100	80-120	0	0-20	111219S01	11-12-1457-3	12/20/11 00:02
Nitrate (as N)	ND	510		mg/L	500	101	80-120	0	0-20	111219S01	11-12-1457-3	12/20/11 00:02
Sulfate	120	5300		mg/L	5000	104	80-120	0	0-20	111219S01	11-12-1457-3	12/20/11 00:02
11-12-1560-1												
Chloride	98	5300		mg/L	5000	104	80-120	0	0-20	111220S01	11-12-1560-1	12/20/11 19:59
Sulfate	41	5100		mg/L	5000	102	80-120	0	0-20	111220S01	11-12-1560-1	12/20/11 19:59
EPA 6010B ICP Metals												
11-12-1457-3												
Calcium	129.0	127.2	BB	mg/L	0.5000	4X	80-120	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:53
Iron	11.02	11.33	BB	mg/L	0.5000	4X	80-120	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:53
Magnesium	39.40	39.20	BB	mg/L	0.5000	4X	80-120	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:53
Potassium	2.288	7.463		mg/L	5.000	104	80-120	4	0-20	111222SA4	11-12-1457-3	12/27/11 11:53
Sodium	244.9	245.4	BB	mg/L	5.000	4X	80-120	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:53
EPA 8260B Volatile Organics												
11-12-1457-3												
Acetone	ND	48.11		ug/L	50.00	96	40-140	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Benzene	ND	50.21		ug/L	50.00	100	80-120	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Bromobenzene	ND	52.03		ug/L	50.00	104	75-125	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Bromochloromethane	ND	51.65		ug/L	50.00	103	65-135	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Bromodichloromethane	ND	52.06		ug/L	50.00	104	75-120	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Bromoform	ND	46.43		ug/L	50.00	93	70-130	6	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Bromomethane	ND	53.96		ug/L	50.00	108	30-145	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
2-Butanone	ND	46.25		ug/L	50.00	92	30-150	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
n-Butylbenzene	ND	53.12		ug/L	50.00	106	70-135	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
sec-Butylbenzene	ND	51.98		ug/L	50.00	104	70-125	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
tert-Butylbenzene	ND	50.53		ug/L	50.00	101	70-130	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Carbon Disulfide	ND	50.88		ug/L	50.00	102	35-160	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Carbon Tetrachloride	ND	53.59		ug/L	50.00	107	65-140	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Chlorobenzene	ND	51.48		ug/L	50.00	103	80-120	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Chloroethane	ND	52.33		ug/L	50.00	105	60-135	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Chloroform	ND	52.30		ug/L	50.00	105	65-135	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Chloromethane	ND	50.75		ug/L	50.00	102	40-125	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
2-Chlorotoluene	ND	50.86		ug/L	50.00	102	75-125	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
4-Chlorotoluene	ND	51.25		ug/L	50.00	103	75-130	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Dibromochloromethane	ND	52.00		ug/L	50.00	104	60-135	6	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2-Dibromo-3-Chloropropane	ND	45.23		ug/L	50.00	90	50-130	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2-Dibromoethane	ND	51.13		ug/L	50.00	102	80-120	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1460
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
Matrix Spike Dup

Analyte	Orig Val.	Duplicate	Q	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 8260B Volatile Organics												
Dibromomethane	ND	50.67		ug/L	50.00	101	75-125	0	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2-Dichlorobenzene	ND	50.69		ug/L	50.00	101	70-120	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,3-Dichlorobenzene	ND	50.32		ug/L	50.00	101	75-125	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,4-Dichlorobenzene	ND	49.77		ug/L	50.00	100	75-125	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Dichlorodifluoromethane	ND	51.69		ug/L	50.00	103	30-155	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1-Dichloroethane	ND	51.72		ug/L	50.00	103	70-135	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2-Dichloroethane	ND	50.75		ug/L	50.00	101	70-130	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1-Dichloroethene	ND	52.41		ug/L	50.00	105	70-130	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
c-1,2-Dichloroethene	56.49	104.4		ug/L	50.00	96	70-125	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
t-1,2-Dichloroethene	ND	51.33		ug/L	50.00	103	60-140	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2-Dichloropropane	ND	51.20		ug/L	50.00	102	75-125	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,3-Dichloropropane	ND	51.36		ug/L	50.00	103	75-125	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
2,2-Dichloropropane	ND	51.33		ug/L	50.00	103	70-135	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1-Dichloropropene	ND	52.29		ug/L	50.00	105	75-130	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
c-1,3-Dichloropropene	ND	50.57		ug/L	50.00	101	70-130	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
t-1,3-Dichloropropene	ND	49.57		ug/L	50.00	99	55-140	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Ethylbenzene	ND	51.35		ug/L	50.00	103	75-125	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
2-Hexanone	ND	48.53		ug/L	50.00	97	55-130	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Isopropylbenzene	ND	52.06		ug/L	50.00	104	75-125	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
p-Isopropyltoluene	ND	52.12		ug/L	50.00	104	75-130	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Methylene Chloride	ND	51.41		ug/L	50.00	103	55-140	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
4-Methyl-2-Pentanone	ND	48.31		ug/L	50.00	97	60-135	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Naphthalene	ND	48.19		ug/L	50.00	96	55-140	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
n-Propylbenzene	ND	51.66		ug/L	50.00	103	70-130	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Styrene	ND	51.38		ug/L	50.00	103	65-135	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1,1,2-Tetrachloroethane	ND	51.68		ug/L	50.00	103	80-130	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1,2,2-Tetrachloroethane	ND	49.05		ug/L	50.00	98	65-130	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Tetrachloroethene	ND	56.01		ug/L	50.00	112	45-150	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Toluene	ND	50.37		ug/L	50.00	101	75-120	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2,3-Trichlorobenzene	ND	49.22		ug/L	50.00	98	55-140	6	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2,4-Trichlorobenzene	ND	50.39		ug/L	50.00	101	65-135	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1,1-Trichloroethane	ND	52.42		ug/L	50.00	105	65-130	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1,2-Trichloroethane	ND	51.23		ug/L	50.00	102	75-125	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Trichloroethene	ND	52.01		ug/L	50.00	104	70-125	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Trichlorofluoromethane	ND	52.95		ug/L	50.00	106	60-145	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2,3-Trichloropropane	ND	48.50		ug/L	50.00	97	75-125	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2,4-Trimethylbenzene	ND	51.20		ug/L	50.00	102	75-130	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,3,5-Trimethylbenzene	ND	52.07		ug/L	50.00	104	75-130	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Vinyl Chloride	ND	53.08		ug/L	50.00	106	50-145	0	0-20	111221S01	11-12-1457-3	12/21/11 16:58
p/m-Xylene	ND	101.3		ug/L	100.0	101	75-130	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
o-Xylene	ND	51.52		ug/L	50.00	103	80-120	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Methyl-t-Butyl Ether (MTBE)	ND	50.36		ug/L	50.00	101	65-125	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Tert-Butyl Alcohol (TBA)	ND	255.5		ug/L	250.0	102	46-154	1	0-35	111221S01	11-12-1457-3	12/21/11 16:58

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1460
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
Matrix Spike Dup

Analyte	Orig Val.	Duplicate	Q	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
SM 5310 B Total Organic Carbon												
11-12-1457-3												
Carbon, Total Organic	32	88		mg/L	50	110	70-130	11	0-25	B1227TOCS2	11-12-1457-3	12/27/11 21:38

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1460 Seal Beach NWS 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
Post Digestion Spike

Analyte	Orig. Val.	MS Val.	Q	Units	Spike Conc.	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
EPA 6010B ICP Metals										
11-12-1457-3										
Calcium	129.0	129.2	BB	mg/L	0.5000	4X	75-125	111222SA4	11-12-1457-3	12/27/11 11:54
Iron	11.02	11.46	BB	mg/L	0.5000	4X	75-125	111222SA4	11-12-1457-3	12/27/11 11:54
Magnesium	39.40	39.58	BB	mg/L	0.5000	4X	75-125	111222SA4	11-12-1457-3	12/27/11 11:54
Potassium	2.288	7.294		mg/L	5.000	100	75-125	111222SA4	11-12-1457-3	12/27/11 11:54
Sodium	244.9	246.8	BB	mg/L	5.000	4X	75-125	111222SA4	11-12-1457-3	12/27/11 11:54

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1460
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
Post Digestion Spike Dup

Analyte	Orig Val.	Duplicate	Q	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 6010B ICP Metals												
11-12-1457-3												
Calcium	129.0	128.2	BB	mg/L	0.5000	4X	75-125	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:56
Iron	11.02	11.48	BB	mg/L	0.5000	4X	75-125	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:56
Magnesium	39.40	39.78	BB	mg/L	0.5000	4X	75-125	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:56
Potassium	2.288	7.411		mg/L	5.000	102	75-125	2	0-20	111222SA4	11-12-1457-3	12/27/11 11:56
Sodium	244.9	244.8	BB	mg/L	5.000	4X	75-125	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:56

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1460 Seal Beach NWS 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
Sample Dup

Analyte	Orig Val.	Duplicate	Q	Units	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 410.4									
11-12-1457-3									
Chemical Oxygen Demand	ND	ND		mg/L	NA	0-25	B1222ODD3	11-12-1457-3	12/22/11 18:00
RSK-175M									
11-12-1457-3									
Ethane	ND	ND		ug/L	NA	0-20	111221D01	11-12-1457-3	12/21/11 17:14
Ethylene	ND	ND		ug/L	NA	0-20	111221D01	11-12-1457-3	12/21/11 17:14
Methane	5183	4837		ug/L	7	0-20	111221D01	11-12-1457-3	12/21/11 17:14
SM 2540 C									
11-12-1457-3									
Solids, Total Dissolved	1070	1060		mg/L	0	0-10	B1220TDSD2	11-12-1457-3	12/20/11 18:00

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1460 Seal Beach NWS 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA 300.0 Anions								
099-14-547-2								
Chloride	50	51		mg/L	101	90-110	111219L01	12/19/11 20:11
Nitrite (as N)	2.5	2.5		mg/L	99	90-110	111219L01	12/19/11 20:11
Nitrate (as N)	5.0	4.9		mg/L	99	90-110	111219L01	12/19/11 20:11
Sulfate	50	50		mg/L	99	90-110	111219L01	12/19/11 20:11
099-14-547-3								
Chloride	50	51		mg/L	102	90-110	111220L01	12/20/11 14:26
Nitrite (as N)	2.5	2.5		mg/L	100	90-110	111220L01	12/20/11 14:26
Nitrate (as N)	5.0	5.0		mg/L	99	90-110	111220L01	12/20/11 14:26
Sulfate	50	50		mg/L	100	90-110	111220L01	12/20/11 14:26
EPA 6010B ICP Metals								
099-14-483-4								
Calcium	0.5000	0.5143		mg/L	103	80-120	111222LA4	12/27/11 11:41
Iron	0.5000	0.5123		mg/L	102	80-120	111222LA4	12/27/11 11:41
Magnesium	0.5000	0.5117		mg/L	102	80-120	111222LA4	12/27/11 11:41
Potassium	5.000	4.974		mg/L	99	80-120	111222LA4	12/27/11 11:41
Sodium	5.000	5.171		mg/L	103	80-120	111222LA4	12/27/11 11:41
EPA 8260B Volatile Organics								

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1460
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA 8260B Volatile Organics								
099-14-479-21								
Acetone	50.00	53.13		ug/L	106	40-140	111221L01	12/21/11 13:11
Benzene	50.00	50.04		ug/L	100	80-120	111221L01	12/21/11 13:11
Bromobenzene	50.00	51.20		ug/L	102	75-125	111221L01	12/21/11 13:11
Bromochloromethane	50.00	50.27		ug/L	101	65-130	111221L01	12/21/11 13:11
Bromodichloromethane	50.00	53.02		ug/L	106	75-120	111221L01	12/21/11 13:11
Bromoform	50.00	47.27		ug/L	95	70-130	111221L01	12/21/11 13:11
Bromomethane	50.00	58.82		ug/L	118	30-145	111221L01	12/21/11 13:11
2-Butanone	50.00	50.91		ug/L	102	30-150	111221L01	12/21/11 13:11
n-Butylbenzene	50.00	54.04		ug/L	108	70-135	111221L01	12/21/11 13:11
sec-Butylbenzene	50.00	53.67		ug/L	107	70-125	111221L01	12/21/11 13:11
tert-Butylbenzene	50.00	50.49		ug/L	101	70-130	111221L01	12/21/11 13:11
Carbon Disulfide	50.00	50.58		ug/L	101	35-160	111221L01	12/21/11 13:11
Carbon Tetrachloride	50.00	53.70		ug/L	107	65-140	111221L01	12/21/11 13:11
Chlorobenzene	50.00	51.01		ug/L	102	80-120	111221L01	12/21/11 13:11
Chloroethane	50.00	52.76		ug/L	106	60-135	111221L01	12/21/11 13:11
Chloroform	50.00	51.39		ug/L	103	65-135	111221L01	12/21/11 13:11
Chloromethane	50.00	51.36		ug/L	103	40-125	111221L01	12/21/11 13:11
2-Chlorotoluene	50.00	50.23		ug/L	100	75-125	111221L01	12/21/11 13:11
4-Chlorotoluene	50.00	52.12		ug/L	104	75-130	111221L01	12/21/11 13:11
Dibromochloromethane	50.00	52.16		ug/L	104	60-135	111221L01	12/21/11 13:11
1,2-Dibromo-3-Chloropropane	50.00	45.83		ug/L	92	50-130	111221L01	12/21/11 13:11
1,2-Dibromoethane	50.00	51.12		ug/L	102	80-120	111221L01	12/21/11 13:11
Dibromomethane	50.00	50.74		ug/L	101	75-125	111221L01	12/21/11 13:11
1,2-Dichlorobenzene	50.00	51.19		ug/L	102	70-120	111221L01	12/21/11 13:11
1,3-Dichlorobenzene	50.00	51.12		ug/L	102	75-125	111221L01	12/21/11 13:11
1,4-Dichlorobenzene	50.00	50.07		ug/L	100	75-125	111221L01	12/21/11 13:11
Dichlorodifluoromethane	50.00	52.90		ug/L	106	30-155	111221L01	12/21/11 13:11
1,1-Dichloroethane	50.00	51.18		ug/L	102	70-135	111221L01	12/21/11 13:11
1,2-Dichloroethane	50.00	50.19		ug/L	100	70-130	111221L01	12/21/11 13:11
1,1-Dichloroethene	50.00	51.95		ug/L	104	70-130	111221L01	12/21/11 13:11
c-1,2-Dichloroethene	50.00	52.14		ug/L	104	70-125	111221L01	12/21/11 13:11
t-1,2-Dichloroethene	50.00	52.06		ug/L	104	60-140	111221L01	12/21/11 13:11
1,2-Dichloropropane	50.00	50.84		ug/L	102	75-125	111221L01	12/21/11 13:11
1,3-Dichloropropane	50.00	51.23		ug/L	102	75-125	111221L01	12/21/11 13:11
2,2-Dichloropropane	50.00	51.86		ug/L	104	70-135	111221L01	12/21/11 13:11
1,1-Dichloropropene	50.00	51.85		ug/L	104	75-130	111221L01	12/21/11 13:11
c-1,3-Dichloropropene	50.00	50.48		ug/L	101	70-130	111221L01	12/21/11 13:11
t-1,3-Dichloropropene	50.00	50.24		ug/L	100	55-140	111221L01	12/21/11 13:11
Ethylbenzene	50.00	51.28		ug/L	103	75-125	111221L01	12/21/11 13:11

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1460 Seal Beach NWS 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA 8260B Volatile Organics								
2-Hexanone	50.00	48.87		ug/L	98	55-130	111221L01	12/21/11 13:11
Isopropylbenzene	50.00	51.71		ug/L	103	75-125	111221L01	12/21/11 13:11
p-Isopropyltoluene	50.00	53.12		ug/L	106	75-130	111221L01	12/21/11 13:11
Methylene Chloride	50.00	50.37		ug/L	101	55-140	111221L01	12/21/11 13:11
4-Methyl-2-Pentanone	50.00	47.97		ug/L	96	60-135	111221L01	12/21/11 13:11
Naphthalene	50.00	46.55		ug/L	93	55-140	111221L01	12/21/11 13:11
n-Propylbenzene	50.00	51.92		ug/L	104	70-130	111221L01	12/21/11 13:11
Styrene	50.00	51.58		ug/L	103	65-135	111221L01	12/21/11 13:11
1,1,1,2-Tetrachloroethane	50.00	52.28		ug/L	105	80-130	111221L01	12/21/11 13:11
1,1,2,2-Tetrachloroethane	50.00	46.26		ug/L	93	65-130	111221L01	12/21/11 13:11
Tetrachloroethene	50.00	65.39		ug/L	131	45-150	111221L01	12/21/11 13:11
Toluene	50.00	50.51		ug/L	101	75-120	111221L01	12/21/11 13:11
1,2,3-Trichlorobenzene	50.00	47.71		ug/L	95	55-140	111221L01	12/21/11 13:11
1,2,4-Trichlorobenzene	50.00	49.90		ug/L	100	65-135	111221L01	12/21/11 13:11
1,1,1-Trichloroethane	50.00	52.76		ug/L	106	65-130	111221L01	12/21/11 13:11
1,1,2-Trichloroethane	50.00	51.78		ug/L	104	75-125	111221L01	12/21/11 13:11
Trichloroethene	50.00	53.32		ug/L	107	70-125	111221L01	12/21/11 13:11
Trichlorofluoromethane	50.00	53.47		ug/L	107	60-145	111221L01	12/21/11 13:11
1,2,3-Trichloropropane	50.00	47.88		ug/L	96	75-125	111221L01	12/21/11 13:11
1,2,4-Trimethylbenzene	50.00	52.72		ug/L	105	75-130	111221L01	12/21/11 13:11
1,3,5-Trimethylbenzene	50.00	51.63		ug/L	103	75-130	111221L01	12/21/11 13:11
Vinyl Chloride	50.00	54.45		ug/L	109	50-145	111221L01	12/21/11 13:11
p/m-Xylene	100.0	101.5		ug/L	102	75-130	111221L01	12/21/11 13:11
o-Xylene	50.00	50.78		ug/L	102	80-120	111221L01	12/21/11 13:11
Methyl-t-Butyl Ether (MTBE)	50.00	50.31		ug/L	101	65-125	111221L01	12/21/11 13:11
Tert-Butyl Alcohol (TBA)	250.0	254.8		ug/L	102	46-154	111221L01	12/21/11 13:11

Total number of LCS compounds:	65
Total number of ME compounds:	0
Total number of ME compound allowed:	3
LCS ME CL validation result:	Pass

RSK-175M Dissolved Gases								
099-14-531-3								
Ethane	101.0	90.50		ug/L	90	80-120	111221L01	12/21/11 09:37
Methane	100.0	91.98		ug/L	92	79-109	111221L01	12/21/11 09:37
SM 5310 B Total Organic Carbon								

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ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1460 Seal Beach NWS 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
SM 5310 B Total Organic Carbon								
099-05-097-4,480								
Carbon, Total Organic	10	10		mg/L	104	80-120	B1227TOCL2	12/27/11 21:38

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1460
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 300.0 Anions											
099-14-547-2											
Chloride	50	51		mg/L	101	90-110	0	0-15	111219L01	099-14-547-2	12/19/11 20:26
Nitrite (as N)	2.5	2.5		mg/L	99	90-110	0	0-15	111219L01	099-14-547-2	12/19/11 20:26
Nitrate (as N)	5.0	4.9		mg/L	99	90-110	0	0-15	111219L01	099-14-547-2	12/19/11 20:26
Sulfate	50	50		mg/L	99	90-110	0	0-15	111219L01	099-14-547-2	12/19/11 20:26
099-14-547-3											
Chloride	50	51		mg/L	102	90-110	0	0-15	111220L01	099-14-547-3	12/20/11 14:41
Nitrite (as N)	2.5	2.5		mg/L	101	90-110	0	0-15	111220L01	099-14-547-3	12/20/11 14:41
Nitrate (as N)	5.0	5.0		mg/L	99	90-110	0	0-15	111220L01	099-14-547-3	12/20/11 14:41
Sulfate	50	50		mg/L	100	90-110	0	0-15	111220L01	099-14-547-3	12/20/11 14:41
EPA 6010B ICP Metals											
099-14-483-4											
Calcium	0.5000	0.5014		mg/L	100	80-120	3	0-20	111222LA4	099-14-483-4	12/27/11 11:43
Iron	0.5000	0.5000		mg/L	100	80-120	2	0-20	111222LA4	099-14-483-4	12/27/11 11:43
Magnesium	0.5000	0.5064		mg/L	101	80-120	1	0-20	111222LA4	099-14-483-4	12/27/11 11:43
Potassium	5.000	4.797		mg/L	96	80-120	4	0-20	111222LA4	099-14-483-4	12/27/11 11:43
Sodium	5.000	5.007		mg/L	100	80-120	3	0-20	111222LA4	099-14-483-4	12/27/11 11:43
EPA 8260B Volatile Organics											
099-14-479-21											
Acetone	50.00	54.05		ug/L	108	40-140	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
Benzene	50.00	50.18		ug/L	100	80-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Bromobenzene	50.00	51.29		ug/L	103	75-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Bromochloromethane	50.00	51.63		ug/L	103	65-130	3	0-20	111221L01	099-14-479-21	12/21/11 13:39
Bromodichloromethane	50.00	52.83		ug/L	106	75-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Bromoform	50.00	48.68		ug/L	97	70-130	3	0-20	111221L01	099-14-479-21	12/21/11 13:39
Bromomethane	50.00	57.89		ug/L	116	30-145	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
2-Butanone	50.00	53.34		ug/L	107	30-150	5	0-20	111221L01	099-14-479-21	12/21/11 13:39
n-Butylbenzene	50.00	54.21		ug/L	108	70-135	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
sec-Butylbenzene	50.00	53.93		ug/L	108	70-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
tert-Butylbenzene	50.00	50.86		ug/L	102	70-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Carbon Disulfide	50.00	51.15		ug/L	102	35-160	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Carbon Tetrachloride	50.00	54.58		ug/L	109	65-140	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
Chlorobenzene	50.00	50.90		ug/L	102	80-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Chloroethane	50.00	52.12		ug/L	104	60-135	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Chloroform	50.00	52.18		ug/L	104	65-135	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
Chloromethane	50.00	51.69		ug/L	103	40-125	1	0-20	111221L01	099-14-479-21	12/21/11 13:39

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1460
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 8260B Volatile Organics											
2-Chlorotoluene	50.00	50.41		ug/L	101	75-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
4-Chlorotoluene	50.00	52.78		ug/L	106	75-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Dibromochloromethane	50.00	52.50		ug/L	105	60-135	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2-Dibromo-3-Chloropropane	50.00	48.91		ug/L	98	50-130	7	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2-Dibromoethane	50.00	51.98		ug/L	104	80-120	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
Dibromomethane	50.00	52.29		ug/L	105	75-125	3	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2-Dichlorobenzene	50.00	51.26		ug/L	103	70-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,3-Dichlorobenzene	50.00	51.63		ug/L	103	75-125	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,4-Dichlorobenzene	50.00	50.92		ug/L	102	75-125	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
Dichlorodifluoromethane	50.00	52.83		ug/L	106	30-155	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1-Dichloroethane	50.00	52.19		ug/L	104	70-135	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2-Dichloroethane	50.00	51.28		ug/L	103	70-130	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1-Dichloroethene	50.00	52.66		ug/L	105	70-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
c-1,2-Dichloroethene	50.00	52.04		ug/L	104	70-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
t-1,2-Dichloroethene	50.00	51.97		ug/L	104	60-140	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2-Dichloropropane	50.00	52.11		ug/L	104	75-125	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,3-Dichloropropane	50.00	51.83		ug/L	104	75-125	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
2,2-Dichloropropane	50.00	52.78		ug/L	106	70-135	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1-Dichloropropene	50.00	53.01		ug/L	106	75-130	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
c-1,3-Dichloropropene	50.00	51.62		ug/L	103	70-130	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
t-1,3-Dichloropropene	50.00	49.64		ug/L	99	55-140	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Ethylbenzene	50.00	51.09		ug/L	102	75-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
2-Hexanone	50.00	51.10		ug/L	102	55-130	4	0-20	111221L01	099-14-479-21	12/21/11 13:39
Isopropylbenzene	50.00	51.13		ug/L	102	75-125	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
p-Isopropyltoluene	50.00	53.34		ug/L	107	75-130	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Methylene Chloride	50.00	51.40		ug/L	103	55-140	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
4-Methyl-2-Pentanone	50.00	50.92		ug/L	102	60-135	6	0-20	111221L01	099-14-479-21	12/21/11 13:39
Naphthalene	50.00	48.02		ug/L	96	55-140	3	0-20	111221L01	099-14-479-21	12/21/11 13:39
n-Propylbenzene	50.00	51.33		ug/L	103	70-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Styrene	50.00	51.72		ug/L	103	65-135	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1,1,2-Tetrachloroethane	50.00	51.55		ug/L	103	80-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1,2,2-Tetrachloroethane	50.00	48.69		ug/L	97	65-130	5	0-20	111221L01	099-14-479-21	12/21/11 13:39
Tetrachloroethene	50.00	62.53		ug/L	125	45-150	4	0-20	111221L01	099-14-479-21	12/21/11 13:39
Toluene	50.00	50.70		ug/L	101	75-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2,3-Trichlorobenzene	50.00	47.71		ug/L	95	55-140	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2,4-Trichlorobenzene	50.00	49.98		ug/L	100	65-135	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1,1-Trichloroethane	50.00	53.08		ug/L	106	65-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1,2-Trichloroethane	50.00	51.87		ug/L	104	75-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1460
Project Name: Seal Beach NWS
Received: 12/19/11 16:55

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 8260B Volatile Organics											
Trichloroethene	50.00	53.10		ug/L	106	70-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Trichlorofluoromethane	50.00	52.94		ug/L	106	60-145	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2,3-Trichloropropane	50.00	50.23		ug/L	100	75-125	5	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2,4-Trimethylbenzene	50.00	53.30		ug/L	107	75-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,3,5-Trimethylbenzene	50.00	51.41		ug/L	103	75-130	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Vinyl Chloride	50.00	53.60		ug/L	107	50-145	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
p/m-Xylene	100.0	101.3		ug/L	101	75-130	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
o-Xylene	50.00	50.99		ug/L	102	80-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Methyl-t-Butyl Ether (MTBE)	50.00	52.26		ug/L	105	65-125	4	0-20	111221L01	099-14-479-21	12/21/11 13:39
Tert-Butyl Alcohol (TBA)	250.0	253.2		ug/L	101	46-154	1	0-25	111221L01	099-14-479-21	12/21/11 13:39

Total number of LCS compounds: 65
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RSK-175M Dissolved Gases											
099-14-531-3											
Ethane	101.0	90.72		ug/L	90	80-120	0	0-20	111221L01	099-14-531-3	12/21/11 09:57
Methane	100.0	92.17		ug/L	92	79-109	0	0-20	111221L01	099-14-531-3	12/21/11 09:57
SM 5310 B Total Organic Carbon											
099-05-097-4,480											
Carbon, Total Organic	10	11		mg/L	110	80-120	6	0-20	B1227TOCL2	099-05-097-4,480	12/27/11 21:38

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 11-12-1460

Qualifier	Definition
AZ	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BA	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
BB	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
BU	Sample analyzed after holding time expired.
DF	Reporting limits elevated due to matrix interferences.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
GE	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
HD	Chromat. profile inconsistent with pattern(s) of ref. fuel stnds.
HO	High concentration matrix spike recovery out of limits
HT	Analytical value calculated using results from associated tests.
HX	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
IL	Relative percent difference out of control.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
LD	Analyte presence was not confirmed by second column or GC/MS analysis.
LP	The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.
ND	Parameter not detected at the indicated reporting limit.
QO	Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.
RU	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
SG	A silica gel cleanup procedure was performed.
SN	See applicable analysis comment.
U	Undetected at detection limit.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 12.19.11
PAGE: 1 OF 1

LABORATORY CLIENT: CKY
ADDRESS: 302 W 5th St, San Pedro, CA 90731
TEL: (310) 519-4000 | FAX: (310) 519-4029 | E-MAIL: howard@ckyinc.com

CLIENT PROJECT NAME / NUMBER: Seal Beach NWS
PROJECT CONTACT: Howard Wittenberg
SAMPLER(S): (SIGNATURE)
COELT LOG CODE
P.O. NO.:
LAB USE ONLY: 11-12-1460
COOLER RECEIPT: Temp = °C

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ Standard

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ COELT EDF ☐

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	CEL SAMPLE #	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	VOCs	Anions	Cations	TDS	COD	TOC	Dissolved Gases	Dhc	Level IV
1	MW-40-06		12.19.11	0949	W	11	X	X	X	X	X	X	X	X	X

Relinquished by: (Signature)	Nicole (SC)	Date: 12/19/11	Time: 1530
Relinquished by: (Signature) Nicole (Sample Custodian)	Received by: (Signature) CEL	Date: 12/19/11	Time: 1550
Relinquished by: (Signature)	Received by: (Signature)	Date: 12/19/11	Time: 1655

Revision: 072611

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-12-1460

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: CKY

DATE: 12/19/11

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.3 °C - 0.3 °C (CF) = 2.0 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: AM

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: AM

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: DEE

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☐	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑5 VOAh ☐VOA**na₂** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na₂** ☐1AGB**s** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☑2 250CGB**s** ☑1PB ☐1PB**na** ☐500PB ☑250PB ☑250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na₂** ☐_____ ☐_____ ☐~~DEE~~ Initial

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** DEE/DEE

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** RCP

Preservative: **h:** HCL **n:** HNO_3 **na₂:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:**_____

Calscience Environmental Laboratories, Inc.

Subcontractor Analysis Report

Work Order # 11-12-1460

One or more samples in this Work Order have tests that were subcontracted. The subcontract report(s) follows.

For subcontracted tests, please reference the laboratory information noted below.

1 Microbial Insights - Rockford, TN

Microbiology

2340 Stock Creek Blvd.
Rockford TN 37853-3044
Phone: (865) 573-8188
Fax: (865) 573-8133
Email: info@microbe.com

Client: Richard Villafania
Calscience Environmental Laboratories
7440 Lincoln Way
Garden Grove, CA 92841-1427

Phone: 714-895-5494

Fax: 714-895-7501

Identifier: 058IL **Date Rec:** 12/20/2011 **Report Date:** 12/23/2011

Client Project #: 11-12-1460 **Client Project Name:**

Purchase Order #: 11-12-1460

Analysis Requested: CENSUS

Reviewed By:

Anita Biernacki

NOTICE: This report is intended only for the addressee shown above and may contain confidential or privileged information. If the recipient of this material is not the intended recipient or if you have received this in error, please notify Microbial Insights, Inc. immediately. The data and other information in this report represent only the sample(s) analyzed and are rendered upon condition that it is not to be reproduced without approval from Microbial Insights, Inc. Thank you for your cooperation.

MICROBIAL INSIGHTS, INC.

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CENSUS

Client: **Calscience Environmental Laboratories**
Project:

MI Project Number: **058IL**
Date Received: 12/20/2011

Sample Information

Client Sample ID:	**MW-40-06**
Sample Date:	12/19/2011
Units:	cells/mL
Analyst:	AB

Dechlorinating Bacteria

Dehalococcoides spp.	*DHC*	**1.66E+01**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Calscience Environmental Laboratories, Inc.

7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

TO: **Microbial Insights, Inc.**
2340 Stock Creek Blvd
Rockford, TN 37853-3044
P: (865) 573-8188
Attn: Sample Custodian

CHAIN OF CUSTODY RECORD

DATE: December 19, 2011
PAGE: 1 OF 1

LABORATORY CLIENT: CALSCIENCE ENVIRONMENTAL LABORATORIES, INC.
ADDRESS: 7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: 714 895 5494 x204 | FAX: 714 895 7501 | E-MAIL: rvillafania@calscience.com

CLIENT PROJECT NAME / NUMBER: 11-12-1460
P.O. NO: 11-12-1460
PROJECT CONTACT: Richard Villafania
LAB USE ONLY
SAMPLER(S): (PRINT NAME) BlaineTech
COELT LOG CODE
COOLER RECEIPT Temp = _____ °C

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ COELT EDF ☒ NEDD

SPECIAL INSTRUCTIONS

NEDD required.

Level III Data Package required.

REQUESTED ANALYSIS

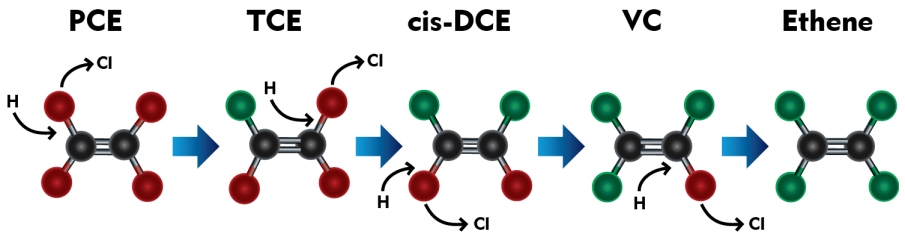
LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.		Dehalococcoides -DHC	by CENSUS qPCR			CONTAINER TYPE:
	058iL1 MW-40-06	12/19/11	0949	water	1		X				(1) 1L poly
		Total # Containers Received			1						

Relinquished by: (Signature)	Received by: (Signature / Affiliation)	Date:	Time:
(CALSCIENCE)	FedEx AB# 797869445353 6	12/19/11	1710
Relinquished by: (Signature)	Received by: (Signature / Affiliation) Jennifer Ericson	12/20/11	0900
Relinquished by: (Signature)	Received by: (Signature / Affiliation)	Date:	Time:

DHC Interpretation

Dehalococcoides 16S rRNA gene (qDHC)

Under anaerobic conditions, tetrachloroethene (PCE) and trichloroethene (TCE) can undergo sequential reductive dechlorination through the daughter products *cis*-dichloroethene (*cis*-DCE) and vinyl chloride to nontoxic ethene (1,2).



While a number of bacterial cultures capable of utilizing PCE and TCE as growth supporting electron acceptors have been isolated (3-7), *Dehalococcoides* spp. may be the most important because they are the only bacterial group that has been isolated to date which is capable of complete reductive dechlorination of PCE to ethene (8). In fact, the presence of *Dehalococcoides* spp. has been associated with complete dechlorination to ethene at sites across North America and Europe (9).

Status	*Dehalococcoides spp.*	Observation
	$\geq 10^4$ (cells/mL)	Lu et al. proposed that a concentration of 1 x 10^4 DHC cells/mL could be used as a screening criterion to identify sites where reductive dechlorination will yield a generally useful biodegradation rate (10). Similarly, in an internal study conducted with nearly 1000 groundwater samples obtained from sites across the US, ethene production was observed in approximately 80% of samples in which CENSUS® qDHC results were greater than or equal to 10^4 DHC cells/mL.
	10^1 to < 10^4 (cells/mL)	When vinyl chloride reductase genes (See DHC functional genes discussion below) are also detected, complete reductive dechlorination of PCE and TCE to ethene may still occur even with moderate DHC concentrations. When the DHC population is below the 10^4 cells/mL criterion proposed by Lu et al. (10), project managers should carefully consider other site-specific data to determine whether subsurface conditions may be limiting reductive dechlorination. For example, the addition of an electron donor may be able to stimulate DHC growth and enhance anaerobic bioremediation.
	< 10^1 (cells/mL)	DHC concentrations are low suggesting that complete reductive dechlorination of PCE and TCE to ethene is unlikely to occur under existing conditions. Enhanced anaerobic bioremediation options (biostimulation or bioaugmentation) may need to be considered.

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DHC Interpretation

DHC Functional Genes (*tce*A, *bvc*A, *vcr*A)

A "stall" where daughter products *cis*-DCE and vinyl chloride accumulate can occur at PCE- and TCE-impacted sites especially under MNA conditions. The accumulation of vinyl chloride, generally considered more carcinogenic than the parent compounds, is particularly problematic. Although elevated *Dehalococcoides* concentrations correspond to ethene production in numerous studies, the range of chlorinated ethenes metabolized and cometabolized varies among species and strains within the *Dehalococcoides* genus. For example, *Dehalococcoides ethenogenes* str. 195 metabolizes PCE, TCE, and *cis*-DCE and cometabolizes vinyl chloride (8) to produce ethene. Conversely, *Dehalococcoides* sp. CBDB1 utilizes PCE and TCE but does not cometabolize additional chloroethenes (11). Other *Dehalococcoides* strains, such as BAV1, GT and VS, are known to fully dechlorinate cis-DCE and VC to ethene (14,16,19). Quantification of reductive dehalogenase genes is used to more definitively confirm the potential for reductive dechlorination of TCE, cis-DCE, and vinyl chloride (12-15).

Functional Gene	Observation
TCE Reductase	
***tce*A gene**	The *tce*A gene encodes the enzyme responsible for reductive dechlorination of TCE to *cis*-DCE in some strains of *Dehalococcoides*. Absence of *tce*A does not preclude the potential for reductive dechlorination of TCE in the field since the *tce*A gene is not universally distributed among all DHC and is not present in other microorganisms capable of reductive dechlorination of TCE (e.g. *Dehalobacter*). Detection of the *tce*A gene provides an additional line of evidence indicating the potential for dechlorination of TCE.
Vinyl Chloride Reductase	
***bvc*A gene**	The *bvc*A gene encodes the vinyl chloride reductase enzyme responsible for reductive dechlorination of vinyl chloride to ethene by *Dehalococcoides* sp. str. BAV1 (16). Presence of *bvc*A gene indicates the potential for reductive dechlorination of VC to ethene. Absence of both *bvc*A and *vcr*A genes suggests VC may accumulate. An internal study with ~1,000 samples showed ethene production was observed in 80% of the samples that the DHC population was greater than or equal to 10^4 cells/mL. The *bvc*A gene was detected in over 50% of these samples. Van Der Zaan et al (17) noted that the bvcA gene was the only VC reductase gene detected at three of their sites. Alfred Spormann's laboratory at Stanford University (18) reported that the *bvc*A gene was the most abundant and active at the outflow of a PCE fed column study. This section of the column was in the DCE to VC stages of reductive dechlorination thus confirming the importance of the *bvc*A gene for complete reductive dechlorination.
***vcr*A gene**	The *vcr*A gene encodes the vinyl chloride reductase enzyme responsible for reductive dechlorination of *cis*-DCE and vinyl chloride by *Dehalococcoides* sp. strain VS (14). Presence of *vcr*A gene indicates the potential for reductive dechlorination of DCE and/or VC to ethene. Absence of both *bvc*A and *vcr*A genes suggest VC may accumulate. As with the *bvc*A gene, detection of the *vcr*A gene is associated with ethene production in internal studies (67%) and vinyl chloride reduction in independent studies (14, 17).

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DHC Interpretation

Reporting

Microbial Insights can provide a variety of data packages and reporting levels to suit the needs of any project. Data packages range from simple analytical reports with results only to more complex data packages that include a report narrative, analytical results, QC data, and supporting materials including all raw data and chain-of-custody documentation. The figure below shows our standard report and explains the way values are reported.

Microbial Insights, Inc.

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CENSUS

Client: Company Name
Project: Your Project Name

MI Project Number: Unique Laboratory Identifier
Date Received: Date Samples Arrived

Sample Information

Client Sample ID:		Sample A	Sample B	Sample C
Sample Date:		00/00/0000	00/00/0000	00/00/0000
Units:		cells/mL	cells/mL	cells/mL
Analyst:		Intials	Intials	Intials
Dechlorinating Bacteria				
Dehalococcoides spp.	DHC	**1.84E+05**	**2.76E+02**	**2.28E+01 (J)**
Functional Genes				
tceA Reductase	TCE	**6.00E+01**	**3.23E+01**	<4.00E-01
bvcA Reductase	BVC	**1.17E+04**	**1.81E+01**	<4.00E-01
vcrA Reducatase	VCR	**8.42E+04**	**1.74E+02**	<4.00E-01

"J" value
Result is an estimated value. This data qualifier (flag) is used when the target gene is detected but at a concentration or abundance below the practical quantification limit (PQL).

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

< value
The target gene was not detected at the limit of quantitation (LOQ) reported for that sample.

"I" value
QA Procedure indicated that the sample may have exhibited PCR inhibition. Although relatiively rare, PCR inhibition can occur due to the presence of metals or humic acids at high concentrations in the sample.

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Quality Assurance

Microbial Insights' comprehensive Quality Assurance (QA) Program is the foundation of all laboratory analyses, ensuring that our clients receive high-quality analytical services that are timely, reliable, and meet their intended purpose in a cost effective manner. MI is committed to providing quality data that surpasses regulatory and industry standards, thus enabling the client to make well-informed decisions. MI maintains strict standard operating procedures and QA/QC measures throughout all of the analyses offered. The following Table details specific QA/QC procedures that are used for CENSUS.

QA/QC	Description
Date of Extraction	DNA and RNA extractions are performed the day the samples are received by MI to minimize the possibility of any changes to the microbial community prior to analysis.
Laboratory Method Blanks	An extraction blank (no sample added) is processed alongside each set of field samples from DNA extraction through CENSUS® analysis to ensure that cross contamination has not occurred. Although MI has never experienced this issue, the detection of the CENSUS® target (e.g. *Dehalococcoides*) in an extraction blank is direct evidence of cross contamination with a sample or contamination of a reagent and would invalidate the results. If this were to occur, MI would re-extract the sample. If not possible to re-extract, MI would contact the client immediately and notate it on the laboratory report.
Laboratory Control Samples (LCS)	A laboratory control sample (LCS) or positive control (target DNA) is included with each CENSUS® plate to confirm amplification and as a continuing calibration check.
Negative Controls	A negative control (no DNA) is included with each CENSUS plate to ensure that cross contamination has not occurred during amplification. As with the extraction blank, detection of CENSUS target (e.g. DHC) in a negative control is direct evidence of contamination and would invalidate the results. If this were to occur, MI would rerun the analysis.

References

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5. Holliger, C., G. Schraa, A.J.M. Stams, and A.J.B. Zehnder. 1993. A highly purified enrichment culture couples the reductive dechlorination of tetrachloroethene to growth. Applied and Environmental Microbiology 59 (9): 2991-2997.

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11. Adrian, L, U. Szewzyk, J. Wecke, and H. Görisch. 2000. Bacterial dehalorespiration with chlorinated benzenes. Nature 408(6812): 580-583.

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 11-12-1557

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: CKY, Incorporated

Client Project Name: Seal Beach NWS

Attention: Howard Wittenberg
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Approved for release on 01/6/2012 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1557
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/20/11 15:40
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 1 (MW-40-31, Aqueous) Sampled: 12/20/11 10:11										
EPA 300.0 Anions (Sample: 11-12-1557-1-H)										
-The reporting limit is elevated resulting from matrix interference.										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	580		mg/L	1.3	1.00	4.00	10	12/20/11 22:02	EPA 300.0	111220L01
Nitrite (as N)	<0.1	U	mg/L	0.043	0.10	0.40	2	12/20/11 22:02	EPA 300.0	111220L01
Nitrate (as N)	<0.1	U	mg/L	0.042	0.10	0.20	2	12/20/11 22:02	EPA 300.0	111220L01
Sulfate	<1	U	mg/L	0.26	1.00	4.00	2	12/20/11 22:02	EPA 300.0	111220L01
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1557-1-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	44		mg/L	10	21.00	25.00	1	12/22/11 16:00	EPA 410.4	B1222ODB2
EPA 6010B ICP Metals (Sample: 11-12-1557-1-I)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	154		mg/L	0.0118	0.03	0.10	1	12/27/11 12:31	EPA 6010B	111222LA4
Iron	18.7		mg/L	0.0101	0.03	0.10	1	12/27/11 12:31	EPA 6010B	111222LA4
Magnesium	80.8		mg/L	0.00336	0.01	0.10	1	12/27/11 12:31	EPA 6010B	111222LA4
Potassium	5.93		mg/L	0.103	0.17	0.50	1	12/27/11 12:31	EPA 6010B	111222LA4
Sodium	1210		mg/L	1.03	1.67	5.00	10	12/27/11 12:31	EPA 6010B	111222LA4
EPA 8260B Volatile Organics (Sample: 11-12-1557-1-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 23:32	EPA 8260B	111221L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/21/11 23:32	EPA 8260B	111221L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/21/11 23:32	EPA 8260B	111221L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/21/11 23:32	EPA 8260B	111221L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/21/11 23:32	EPA 8260B	111221L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 23:32	EPA 8260B	111221L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/21/11 23:32	EPA 8260B	111221L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/21/11 23:32	EPA 8260B	111221L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/21/11 23:32	EPA 8260B	111221L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/21/11 23:32	EPA 8260B	111221L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/21/11 23:32	EPA 8260B	111221L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/21/11 23:32	EPA 8260B	111221L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 23:32	EPA 8260B	111221L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 23:32	EPA 8260B	111221L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/21/11 23:32	EPA 8260B	111221L01
c-1,2-Dichloroethene	<0.5	U	ug/L	0.48	0.50	1.00	1	12/21/11 23:32	EPA 8260B	111221L01
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 23:32	EPA 8260B	111221L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 23:32	EPA 8260B	111221L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/21/11 23:32	EPA 8260B	111221L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/21/11 23:32	EPA 8260B	111221L01
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	1	12/21/11 23:32	EPA 8260B	111221L01

Calscience Environmental Laboratories, Inc.

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Client:	CKY, Incorporated	Work Order:	11-12-1557
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/20/11 15:40
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 1 (MW-40-31, Aqueous) Sampled: 12/20/11 10:11										
EPA 8260B Volatile Organics (Sample: 11-12-1557-1-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/21/11 23:32	EPA 8260B	111221L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/21/11 23:32	EPA 8260B	111221L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/21/11 23:32	EPA 8260B	111221L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 23:32	EPA 8260B	111221L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/21/11 23:32	EPA 8260B	111221L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/21/11 23:32	EPA 8260B	111221L01
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 23:32	EPA 8260B	111221L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/21/11 23:32	EPA 8260B	111221L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/21/11 23:32	EPA 8260B	111221L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 23:32	EPA 8260B	111221L01
Vinyl Chloride	<0.5	U	ug/L	0.30	0.50	1.00	1	12/21/11 23:32	EPA 8260B	111221L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/21/11 23:32	EPA 8260B	111221L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 23:32	EPA 8260B	111221L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/21/11 23:32	EPA 8260B	111221L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/21/11 23:32	EPA 8260B	111221L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*99%*							*12/21/11 23:32*	*EPA 8260B*	*111221L01*
Surr: Dibromofluoromethane (85-115%)	*99%*							*12/21/11 23:32*	*EPA 8260B*	*111221L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*102%*							*12/21/11 23:32*	*EPA 8260B*	*111221L01*
Surr: Toluene-d8 (85-120%)	*99%*							*12/21/11 23:32*	*EPA 8260B*	*111221L01*
RSK-175M Dissolved Gases (Sample: 11-12-1557-1-C)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	0.400	J	ug/L	0.0672	0.13	0.37	1	12/24/11 00:13	RSK-175M	111223L01
Ethylene	0.120	J	ug/L	0.0566	0.17	0.43	1	12/24/11 00:13	RSK-175M	111223L01
Methane	5880		ug/L	2.67	5.34	13.36	80	12/24/11 00:13	RSK-175M	111223L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1557-1-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	3700		mg/L	0.820	1.60	2.00	1	12/21/11 12:40	SM 2540 C	B1221TDSB5
SM 5310 B Total Organic Carbon (Sample: 11-12-1557-1-G)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	140		mg/L	0.24	2.00	5.00	1	12/27/11 21:38	SM 5310 B	B1227TOCL2

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Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1557
		Project Name:	Seal Beach NWS
		Received:	12/20/11 15:40
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
EPA 300.0 Anions									
099-14-547-3									
Chloride	<0.5	U	mg/L	0.13	0.50	2.00	111220L01	099-14-547-3	12/20/11 14:11
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	111220L01	099-14-547-3	12/20/11 14:11
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	111220L01	099-14-547-3	12/20/11 14:11
Sulfate	<0.5	U	mg/L	0.13	0.50	2.00	111220L01	099-14-547-3	12/20/11 14:11
099-14-547-4									
Chloride	<0.5	U	mg/L	0.13	0.50	2.00	111221L01	099-14-547-4	12/21/11 11:11
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	111221L01	099-14-547-4	12/21/11 11:11
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	111221L01	099-14-547-4	12/21/11 11:11
Sulfate	<0.5	U	mg/L	0.13	0.50	2.00	111221L01	099-14-547-4	12/21/11 11:11
EPA 410.4 Chemical Oxygen Demand									
099-05-062-4,347									
Chemical Oxygen Demand	<21	U	mg/L	10	21.00	25.00	B1222ODB2	099-05-062-4,347	12/22/11 16:00
EPA 6010B ICP Metals									
099-14-483-4									
Calcium	<0.03333	U	mg/L	0.0118	0.03	0.10	111222LA4	099-14-483-4	12/27/11 11:39
Iron	<0.03333	U	mg/L	0.0101	0.03	0.10	111222LA4	099-14-483-4	12/27/11 11:39
Magnesium	<0.01	U	mg/L	0.0033	0.01	0.10	111222LA4	099-14-483-4	12/27/11 11:39
Potassium	<0.16667	U	mg/L	0.103	0.17	0.50	111222LA4	099-14-483-4	12/27/11 11:39
Sodium	<0.16667	U	mg/L	0.103	0.17	0.50	111222LA4	099-14-483-4	12/27/11 11:39
EPA 8260B Volatile Organics									
099-14-479-21									
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Bromoform	<1	U	ug/L	0.50	1.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35

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ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated	Work Order:	11-12-1557
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/20/11 15:40
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
EPA 8260B Volatile Organics 099-14-479-21									
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
c-1,2-Dichloroethene	<0.5	U	ug/L	0.48	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	111221L01	099-14-479-21	12/21/11 14:35
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Vinyl Chloride	<0.5	U	ug/L	0.30	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	111221L01	099-14-479-21	12/21/11 14:35
Surr: 1,4-Bromofluorobenzene (75-120%)	*103%*						*111221L01*	*099-14-479-21*	*12/21/11 14:35*
Surr: Dibromofluoromethane (85-115%)	*95%*						*111221L01*	*099-14-479-21*	*12/21/11 14:35*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*102%*						*111221L01*	*099-14-479-21*	*12/21/11 14:35*
Surr: Toluene-d8 (85-120%)	*100%*						*111221L01*	*099-14-479-21*	*12/21/11 14:35*
RSK-175M Dissolved Gases 099-14-531-2									
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	111223L01	099-14-531-2	12/23/11 12:02
Ethylene	<0.1725	U	ug/L	0.0566	0.17	0.43	111223L01	099-14-531-2	12/23/11 12:02

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Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1557
		Project Name:	Seal Beach NWS
		Received:	12/20/11 15:40
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
RSK-175M Dissolved Gases 099-14-531-2									
Methane	<0.0668	U	ug/L	0.0334	0.07	0.17	111223L01	099-14-531-2	12/23/11 12:02
SM 2540 C Total Dissolved Solids 099-14-577-3									
Solids, Total Dissolved	<1.6	U	mg/L	0.82	1.60	2.00	B1221TDSB5	099-14-577-3	12/21/11 12:40
SM 5310 B Total Organic Carbon 099-05-097-4,480									
Carbon, Total Organic	<2	U	mg/L	0.24	2.00	5.00	B1227TOCL2	099-05-097-4,480	12/27/11 21:38

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1557
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
Matrix Spike

Analyte	Orig. Val.	MS Val.	Q	Units	Spike Conc.	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
EPA 300.0 Anions										
11-12-1560-1										
Chloride	98	5300		mg/L	5000	104	80-120	111220S01	11-12-1560-1	12/20/11 19:44
Nitrite (as N)	ND	260		mg/L	250	103	80-120	111220S01	11-12-1560-1	12/20/11 19:44
Nitrate (as N)	ND	510		mg/L	500	101	80-120	111220S01	11-12-1560-1	12/20/11 19:44
Sulfate	41	5100		mg/L	5000	102	80-120	111220S01	11-12-1560-1	12/20/11 19:44
11-12-1639-7										
Chloride	420	5700	BB	mg/L	5000	4X	80-120	111221S01	11-12-1639-7	12/21/11 20:00
EPA 6010B ICP Metals										
11-12-1457-3										
Calcium	129.0	133.5	BB	mg/L	0.5000	4X	80-120	111222SA4	11-12-1457-3	12/27/11 11:52
Iron	11.02	11.80	BB	mg/L	0.5000	4X	80-120	111222SA4	11-12-1457-3	12/27/11 11:52
Magnesium	39.40	40.70	BB	mg/L	0.5000	4X	80-120	111222SA4	11-12-1457-3	12/27/11 11:52
Potassium	2.288	7.741		mg/L	5.000	109	80-120	111222SA4	11-12-1457-3	12/27/11 11:52
Sodium	244.9	255.6	BB	mg/L	5.000	4X	80-120	111222SA4	11-12-1457-3	12/27/11 11:52
EPA 8260B Volatile Organics										
11-12-1457-3										
Acetone	ND	46.39		ug/L	50.00	93	40-140	111221S01	11-12-1457-3	12/21/11 16:30
Benzene	ND	48.89		ug/L	50.00	98	80-120	111221S01	11-12-1457-3	12/21/11 16:30
Bromobenzene	ND	49.34		ug/L	50.00	99	75-125	111221S01	11-12-1457-3	12/21/11 16:30
Bromochloromethane	ND	49.40		ug/L	50.00	99	65-135	111221S01	11-12-1457-3	12/21/11 16:30
Bromodichloromethane	ND	50.66		ug/L	50.00	101	75-120	111221S01	11-12-1457-3	12/21/11 16:30
Bromoform	ND	43.91		ug/L	50.00	88	70-130	111221S01	11-12-1457-3	12/21/11 16:30
Bromomethane	ND	54.46		ug/L	50.00	109	30-145	111221S01	11-12-1457-3	12/21/11 16:30
2-Butanone	ND	43.96		ug/L	50.00	88	30-150	111221S01	11-12-1457-3	12/21/11 16:30
n-Butylbenzene	ND	51.79		ug/L	50.00	104	70-135	111221S01	11-12-1457-3	12/21/11 16:30
sec-Butylbenzene	ND	51.14		ug/L	50.00	102	70-125	111221S01	11-12-1457-3	12/21/11 16:30
tert-Butylbenzene	ND	50.18		ug/L	50.00	100	70-130	111221S01	11-12-1457-3	12/21/11 16:30
Carbon Disulfide	ND	48.74		ug/L	50.00	97	35-160	111221S01	11-12-1457-3	12/21/11 16:30
Carbon Tetrachloride	ND	51.39		ug/L	50.00	103	65-140	111221S01	11-12-1457-3	12/21/11 16:30
Chlorobenzene	ND	49.54		ug/L	50.00	99	80-120	111221S01	11-12-1457-3	12/21/11 16:30
Chloroethane	ND	51.27		ug/L	50.00	103	60-135	111221S01	11-12-1457-3	12/21/11 16:30
Chloroform	ND	50.73		ug/L	50.00	101	65-135	111221S01	11-12-1457-3	12/21/11 16:30
Chloromethane	ND	49.35		ug/L	50.00	99	40-125	111221S01	11-12-1457-3	12/21/11 16:30
2-Chlorotoluene	ND	48.96		ug/L	50.00	98	75-125	111221S01	11-12-1457-3	12/21/11 16:30
4-Chlorotoluene	ND	50.96		ug/L	50.00	102	75-130	111221S01	11-12-1457-3	12/21/11 16:30
Dibromochloromethane	ND	49.01		ug/L	50.00	98	60-135	111221S01	11-12-1457-3	12/21/11 16:30
1,2-Dibromo-3-Chloropropane	ND	44.40		ug/L	50.00	89	50-130	111221S01	11-12-1457-3	12/21/11 16:30
1,2-Dibromoethane	ND	49.42		ug/L	50.00	99	80-120	111221S01	11-12-1457-3	12/21/11 16:30
Dibromomethane	ND	50.83		ug/L	50.00	102	75-125	111221S01	11-12-1457-3	12/21/11 16:30
1,2-Dichlorobenzene	ND	49.89		ug/L	50.00	100	70-120	111221S01	11-12-1457-3	12/21/11 16:30
1,3-Dichlorobenzene	ND	49.49		ug/L	50.00	99	75-125	111221S01	11-12-1457-3	12/21/11 16:30

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1557
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
Matrix Spike

Analyte	Orig. Val.	MS Val.	Q	Units	Spike Conc.	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
EPA 8260B Volatile Organics										
1,4-Dichlorobenzene	ND	49.29		ug/L	50.00	99	75-125	111221S01	11-12-1457-3	12/21/11 16:30
Dichlorodifluoromethane	ND	52.57		ug/L	50.00	105	30-155	111221S01	11-12-1457-3	12/21/11 16:30
1,1-Dichloroethane	ND	50.48		ug/L	50.00	101	70-135	111221S01	11-12-1457-3	12/21/11 16:30
1,2-Dichloroethane	ND	48.95		ug/L	50.00	98	70-130	111221S01	11-12-1457-3	12/21/11 16:30
1,1-Dichloroethene	ND	50.10		ug/L	50.00	100	70-130	111221S01	11-12-1457-3	12/21/11 16:30
c-1,2-Dichloroethene	56.49	103.9		ug/L	50.00	95	70-125	111221S01	11-12-1457-3	12/21/11 16:30
t-1,2-Dichloroethene	ND	49.16		ug/L	50.00	98	60-140	111221S01	11-12-1457-3	12/21/11 16:30
1,2-Dichloropropane	ND	49.92		ug/L	50.00	100	75-125	111221S01	11-12-1457-3	12/21/11 16:30
1,3-Dichloropropane	ND	49.25		ug/L	50.00	99	75-125	111221S01	11-12-1457-3	12/21/11 16:30
2,2-Dichloropropane	ND	48.96		ug/L	50.00	98	70-135	111221S01	11-12-1457-3	12/21/11 16:30
1,1-Dichloropropene	ND	50.76		ug/L	50.00	102	75-130	111221S01	11-12-1457-3	12/21/11 16:30
c-1,3-Dichloropropene	ND	48.87		ug/L	50.00	98	70-130	111221S01	11-12-1457-3	12/21/11 16:30
t-1,3-Dichloropropene	ND	46.95		ug/L	50.00	94	55-140	111221S01	11-12-1457-3	12/21/11 16:30
Ethylbenzene	ND	49.51		ug/L	50.00	99	75-125	111221S01	11-12-1457-3	12/21/11 16:30
2-Hexanone	ND	45.94		ug/L	50.00	92	55-130	111221S01	11-12-1457-3	12/21/11 16:30
Isopropylbenzene	ND	49.79		ug/L	50.00	100	75-125	111221S01	11-12-1457-3	12/21/11 16:30
p-Isopropyltoluene	ND	51.16		ug/L	50.00	102	75-130	111221S01	11-12-1457-3	12/21/11 16:30
Methylene Chloride	ND	50.16		ug/L	50.00	100	55-140	111221S01	11-12-1457-3	12/21/11 16:30
4-Methyl-2-Pentanone	ND	46.71		ug/L	50.00	93	60-135	111221S01	11-12-1457-3	12/21/11 16:30
Naphthalene	ND	46.16		ug/L	50.00	92	55-140	111221S01	11-12-1457-3	12/21/11 16:30
n-Propylbenzene	ND	49.71		ug/L	50.00	99	70-130	111221S01	11-12-1457-3	12/21/11 16:30
Styrene	ND	50.04		ug/L	50.00	100	65-135	111221S01	11-12-1457-3	12/21/11 16:30
1,1,1,2-Tetrachloroethane	ND	49.54		ug/L	50.00	99	80-130	111221S01	11-12-1457-3	12/21/11 16:30
1,1,2,2-Tetrachloroethane	ND	48.21		ug/L	50.00	96	65-130	111221S01	11-12-1457-3	12/21/11 16:30
Tetrachloroethene	ND	53.48		ug/L	50.00	107	45-150	111221S01	11-12-1457-3	12/21/11 16:30
Toluene	ND	49.44		ug/L	50.00	99	75-120	111221S01	11-12-1457-3	12/21/11 16:30
1,2,3-Trichlorobenzene	ND	46.31		ug/L	50.00	93	55-140	111221S01	11-12-1457-3	12/21/11 16:30
1,2,4-Trichlorobenzene	ND	48.18		ug/L	50.00	96	65-135	111221S01	11-12-1457-3	12/21/11 16:30
1,1,1-Trichloroethane	ND	50.21		ug/L	50.00	100	65-130	111221S01	11-12-1457-3	12/21/11 16:30
1,1,2-Trichloroethane	ND	49.90		ug/L	50.00	100	75-125	111221S01	11-12-1457-3	12/21/11 16:30
Trichloroethene	ND	50.94		ug/L	50.00	102	70-125	111221S01	11-12-1457-3	12/21/11 16:30
Trichlorofluoromethane	ND	53.68		ug/L	50.00	107	60-145	111221S01	11-12-1457-3	12/21/11 16:30
1,2,3-Trichloropropane	ND	46.75		ug/L	50.00	93	75-125	111221S01	11-12-1457-3	12/21/11 16:30
1,2,4-Trimethylbenzene	ND	50.90		ug/L	50.00	102	75-130	111221S01	11-12-1457-3	12/21/11 16:30
1,3,5-Trimethylbenzene	ND	49.87		ug/L	50.00	100	75-130	111221S01	11-12-1457-3	12/21/11 16:30
Vinyl Chloride	ND	52.84		ug/L	50.00	106	50-145	111221S01	11-12-1457-3	12/21/11 16:30
p/m-Xylene	ND	98.10		ug/L	100.0	98	75-130	111221S01	11-12-1457-3	12/21/11 16:30
o-Xylene	ND	49.55		ug/L	50.00	99	80-120	111221S01	11-12-1457-3	12/21/11 16:30
Methyl-t-Butyl Ether (MTBE)	ND	48.69		ug/L	50.00	97	65-125	111221S01	11-12-1457-3	12/21/11 16:30
Tert-Butyl Alcohol (TBA)	ND	254.2		ug/L	250.0	102	46-154	111221S01	11-12-1457-3	12/21/11 16:30
SM 5310 B Total Organic Carbon										
11-12-1457-3										
Carbon, Total Organic	32	78		mg/L	50	92	70-130	B1227TOCS2	11-12-1457-3	12/27/11 21:38

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1557
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
Matrix Spike Dup

Analyte	Orig Val.	Duplicate	Q	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 300.0 Anions												
11-12-1560-1												
Chloride	98	5300		mg/L	5000	104	80-120	0	0-20	111220S01	11-12-1560-1	12/20/11 19:59
Nitrite (as N)	ND	260		mg/L	250	103	80-120	0	0-20	111220S01	11-12-1560-1	12/20/11 19:59
Nitrate (as N)	ND	510		mg/L	500	102	80-120	0	0-20	111220S01	11-12-1560-1	12/20/11 19:59
Sulfate	41	5100		mg/L	5000	102	80-120	0	0-20	111220S01	11-12-1560-1	12/20/11 19:59
11-12-1639-7												
Chloride	420	5700	BB	mg/L	5000	4X	80-120	4X	0-20	111221S01	11-12-1639-7	12/21/11 20:15
EPA 6010B ICP Metals												
11-12-1457-3												
Calcium	129.0	127.2	BB	mg/L	0.5000	4X	80-120	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:53
Iron	11.02	11.33	BB	mg/L	0.5000	4X	80-120	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:53
Magnesium	39.40	39.20	BB	mg/L	0.5000	4X	80-120	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:53
Potassium	2.288	7.463		mg/L	5.000	104	80-120	4	0-20	111222SA4	11-12-1457-3	12/27/11 11:53
Sodium	244.9	245.4	BB	mg/L	5.000	4X	80-120	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:53
EPA 8260B Volatile Organics												
11-12-1457-3												
Acetone	ND	48.11		ug/L	50.00	96	40-140	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Benzene	ND	50.21		ug/L	50.00	100	80-120	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Bromobenzene	ND	52.03		ug/L	50.00	104	75-125	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Bromochloromethane	ND	51.65		ug/L	50.00	103	65-135	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Bromodichloromethane	ND	52.06		ug/L	50.00	104	75-120	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Bromoform	ND	46.43		ug/L	50.00	93	70-130	6	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Bromomethane	ND	53.96		ug/L	50.00	108	30-145	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
2-Butanone	ND	46.25		ug/L	50.00	92	30-150	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
n-Butylbenzene	ND	53.12		ug/L	50.00	106	70-135	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
sec-Butylbenzene	ND	51.98		ug/L	50.00	104	70-125	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
tert-Butylbenzene	ND	50.53		ug/L	50.00	101	70-130	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Carbon Disulfide	ND	50.88		ug/L	50.00	102	35-160	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Carbon Tetrachloride	ND	53.59		ug/L	50.00	107	65-140	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Chlorobenzene	ND	51.48		ug/L	50.00	103	80-120	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Chloroethane	ND	52.33		ug/L	50.00	105	60-135	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Chloroform	ND	52.30		ug/L	50.00	105	65-135	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Chloromethane	ND	50.75		ug/L	50.00	102	40-125	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
2-Chlorotoluene	ND	50.86		ug/L	50.00	102	75-125	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
4-Chlorotoluene	ND	51.25		ug/L	50.00	103	75-130	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Dibromochloromethane	ND	52.00		ug/L	50.00	104	60-135	6	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2-Dibromo-3-Chloropropane	ND	45.23		ug/L	50.00	90	50-130	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2-Dibromoethane	ND	51.13		ug/L	50.00	102	80-120	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Dibromomethane	ND	50.67		ug/L	50.00	101	75-125	0	0-20	111221S01	11-12-1457-3	12/21/11 16:58

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1557
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
Matrix Spike Dup

Analyte	Orig Val.	Duplicate	Q	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 8260B Volatile Organics												
1,2-Dichlorobenzene	ND	50.69		ug/L	50.00	101	70-120	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,3-Dichlorobenzene	ND	50.32		ug/L	50.00	101	75-125	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,4-Dichlorobenzene	ND	49.77		ug/L	50.00	100	75-125	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Dichlorodifluoromethane	ND	51.69		ug/L	50.00	103	30-155	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1-Dichloroethane	ND	51.72		ug/L	50.00	103	70-135	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2-Dichloroethane	ND	50.75		ug/L	50.00	101	70-130	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1-Dichloroethene	ND	52.41		ug/L	50.00	105	70-130	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
c-1,2-Dichloroethene	56.49	104.4		ug/L	50.00	96	70-125	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
t-1,2-Dichloroethene	ND	51.33		ug/L	50.00	103	60-140	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2-Dichloropropane	ND	51.20		ug/L	50.00	102	75-125	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,3-Dichloropropane	ND	51.36		ug/L	50.00	103	75-125	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
2,2-Dichloropropane	ND	51.33		ug/L	50.00	103	70-135	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1-Dichloropropene	ND	52.29		ug/L	50.00	105	75-130	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
c-1,3-Dichloropropene	ND	50.57		ug/L	50.00	101	70-130	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
t-1,3-Dichloropropene	ND	49.57		ug/L	50.00	99	55-140	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Ethylbenzene	ND	51.35		ug/L	50.00	103	75-125	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
2-Hexanone	ND	48.53		ug/L	50.00	97	55-130	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Isopropylbenzene	ND	52.06		ug/L	50.00	104	75-125	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
p-Isopropyltoluene	ND	52.12		ug/L	50.00	104	75-130	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Methylene Chloride	ND	51.41		ug/L	50.00	103	55-140	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
4-Methyl-2-Pentanone	ND	48.31		ug/L	50.00	97	60-135	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Naphthalene	ND	48.19		ug/L	50.00	96	55-140	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
n-Propylbenzene	ND	51.66		ug/L	50.00	103	70-130	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Styrene	ND	51.38		ug/L	50.00	103	65-135	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1,1,2-Tetrachloroethane	ND	51.68		ug/L	50.00	103	80-130	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1,2,2-Tetrachloroethane	ND	49.05		ug/L	50.00	98	65-130	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Tetrachloroethene	ND	56.01		ug/L	50.00	112	45-150	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Toluene	ND	50.37		ug/L	50.00	101	75-120	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2,3-Trichlorobenzene	ND	49.22		ug/L	50.00	98	55-140	6	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2,4-Trichlorobenzene	ND	50.39		ug/L	50.00	101	65-135	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1,1-Trichloroethane	ND	52.42		ug/L	50.00	105	65-130	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1,2-Trichloroethane	ND	51.23		ug/L	50.00	102	75-125	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Trichloroethene	ND	52.01		ug/L	50.00	104	70-125	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Trichlorofluoromethane	ND	52.95		ug/L	50.00	106	60-145	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2,3-Trichloropropane	ND	48.50		ug/L	50.00	97	75-125	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2,4-Trimethylbenzene	ND	51.20		ug/L	50.00	102	75-130	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,3,5-Trimethylbenzene	ND	52.07		ug/L	50.00	104	75-130	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Vinyl Chloride	ND	53.08		ug/L	50.00	106	50-145	0	0-20	111221S01	11-12-1457-3	12/21/11 16:58
p/m-Xylene	ND	101.3		ug/L	100.0	101	75-130	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
o-Xylene	ND	51.52		ug/L	50.00	103	80-120	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Methyl-t-Butyl Ether (MTBE)	ND	50.36		ug/L	50.00	101	65-125	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Tert-Butyl Alcohol (TBA)	ND	255.5		ug/L	250.0	102	46-154	1	0-35	111221S01	11-12-1457-3	12/21/11 16:58

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1557
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
Matrix Spike Dup

Analyte	Orig Val.	Duplicate	Q	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
SM 5310 B Total Organic Carbon												
11-12-1457-3												
Carbon, Total Organic	32	88		mg/L	50	110	70-130	11	0-25	B1227TOCS2	11-12-1457-3	12/27/11 21:38

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1557
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
Post Digestion Spike

Analyte	Orig. Val.	MS Val.	Q	Units	Spike Conc.	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
EPA 6010B ICP Metals										
11-12-1457-3										
Calcium	129.0	129.2	BB	mg/L	0.5000	4X	75-125	111222SA4	11-12-1457-3	12/27/11 11:54
Iron	11.02	11.46	BB	mg/L	0.5000	4X	75-125	111222SA4	11-12-1457-3	12/27/11 11:54
Magnesium	39.40	39.58	BB	mg/L	0.5000	4X	75-125	111222SA4	11-12-1457-3	12/27/11 11:54
Potassium	2.288	7.294		mg/L	5.000	100	75-125	111222SA4	11-12-1457-3	12/27/11 11:54
Sodium	244.9	246.8	BB	mg/L	5.000	4X	75-125	111222SA4	11-12-1457-3	12/27/11 11:54

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1557 Seal Beach NWS 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
Post Digestion Spike Dup

Analyte	Orig Val.	Duplicate	Q	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 6010B ICP Metals												
11-12-1457-3												
Calcium	129.0	128.2	BB	mg/L	0.5000	4X	75-125	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:56
Iron	11.02	11.48	BB	mg/L	0.5000	4X	75-125	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:56
Magnesium	39.40	39.78	BB	mg/L	0.5000	4X	75-125	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:56
Potassium	2.288	7.411		mg/L	5.000	102	75-125	2	0-20	111222SA4	11-12-1457-3	12/27/11 11:56
Sodium	244.9	244.8	BB	mg/L	5.000	4X	75-125	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:56

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Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1557 Seal Beach NWS 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
Sample Dup

Analyte	Orig Val.	Duplicate	Q	Units	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 410.4									
11-12-1560-7									
Chemical Oxygen Demand	29	26		mg/L	11	0-25	B1222ODD2	11-12-1560-7	12/22/11 16:00
RSK-175M									
11-12-1557-1									
Ethane	ND	ND		ug/L	NA	0-20	111223D01	MW-40-31	12/24/11 00:46
Ethylene	ND	ND		ug/L	NA	0-20	111223D01	MW-40-31	12/24/11 00:46
Methane	5879	5404		ug/L	8	0-20	111223D01	MW-40-31	12/24/11 00:46
SM 2540 C									
11-12-1560-1									
Solids, Total Dissolved	1460	1440		mg/L	1	0-10	B1221TDSD5	11-12-1560-1	12/21/11 12:40

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Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1557 Seal Beach NWS 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA 300.0 Anions								
099-14-547-3								
Chloride	50	51		mg/L	102	90-110	111220L01	12/20/11 14:26
Nitrite (as N)	2.5	2.5		mg/L	100	90-110	111220L01	12/20/11 14:26
Nitrate (as N)	5.0	5.0		mg/L	99	90-110	111220L01	12/20/11 14:26
Sulfate	50	50		mg/L	100	90-110	111220L01	12/20/11 14:26
099-14-547-4								
Chloride	50	51		mg/L	103	90-110	111221L01	12/21/11 11:26
Nitrite (as N)	2.5	2.5		mg/L	99	90-110	111221L01	12/21/11 11:26
Nitrate (as N)	5.0	5.0		mg/L	101	90-110	111221L01	12/21/11 11:26
Sulfate	50	51		mg/L	101	90-110	111221L01	12/21/11 11:26
EPA 6010B ICP Metals								
099-14-483-4								
Calcium	0.5000	0.5143		mg/L	103	80-120	111222LA4	12/27/11 11:41
Iron	0.5000	0.5123		mg/L	102	80-120	111222LA4	12/27/11 11:41
Magnesium	0.5000	0.5117		mg/L	102	80-120	111222LA4	12/27/11 11:41
Potassium	5.000	4.974		mg/L	99	80-120	111222LA4	12/27/11 11:41
Sodium	5.000	5.171		mg/L	103	80-120	111222LA4	12/27/11 11:41
EPA 8260B Volatile Organics								

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1557
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA 8260B Volatile Organics								
099-14-479-21								
Acetone	50.00	53.13		ug/L	106	40-140	111221L01	12/21/11 13:11
Benzene	50.00	50.04		ug/L	100	80-120	111221L01	12/21/11 13:11
Bromobenzene	50.00	51.20		ug/L	102	75-125	111221L01	12/21/11 13:11
Bromochloromethane	50.00	50.27		ug/L	101	65-130	111221L01	12/21/11 13:11
Bromodichloromethane	50.00	53.02		ug/L	106	75-120	111221L01	12/21/11 13:11
Bromoform	50.00	47.27		ug/L	95	70-130	111221L01	12/21/11 13:11
Bromomethane	50.00	58.82		ug/L	118	30-145	111221L01	12/21/11 13:11
2-Butanone	50.00	50.91		ug/L	102	30-150	111221L01	12/21/11 13:11
n-Butylbenzene	50.00	54.04		ug/L	108	70-135	111221L01	12/21/11 13:11
sec-Butylbenzene	50.00	53.67		ug/L	107	70-125	111221L01	12/21/11 13:11
tert-Butylbenzene	50.00	50.49		ug/L	101	70-130	111221L01	12/21/11 13:11
Carbon Disulfide	50.00	50.58		ug/L	101	35-160	111221L01	12/21/11 13:11
Carbon Tetrachloride	50.00	53.70		ug/L	107	65-140	111221L01	12/21/11 13:11
Chlorobenzene	50.00	51.01		ug/L	102	80-120	111221L01	12/21/11 13:11
Chloroethane	50.00	52.76		ug/L	106	60-135	111221L01	12/21/11 13:11
Chloroform	50.00	51.39		ug/L	103	65-135	111221L01	12/21/11 13:11
Chloromethane	50.00	51.36		ug/L	103	40-125	111221L01	12/21/11 13:11
2-Chlorotoluene	50.00	50.23		ug/L	100	75-125	111221L01	12/21/11 13:11
4-Chlorotoluene	50.00	52.12		ug/L	104	75-130	111221L01	12/21/11 13:11
Dibromochloromethane	50.00	52.16		ug/L	104	60-135	111221L01	12/21/11 13:11
1,2-Dibromo-3-Chloropropane	50.00	45.83		ug/L	92	50-130	111221L01	12/21/11 13:11
1,2-Dibromoethane	50.00	51.12		ug/L	102	80-120	111221L01	12/21/11 13:11
Dibromomethane	50.00	50.74		ug/L	101	75-125	111221L01	12/21/11 13:11
1,2-Dichlorobenzene	50.00	51.19		ug/L	102	70-120	111221L01	12/21/11 13:11
1,3-Dichlorobenzene	50.00	51.12		ug/L	102	75-125	111221L01	12/21/11 13:11
1,4-Dichlorobenzene	50.00	50.07		ug/L	100	75-125	111221L01	12/21/11 13:11
Dichlorodifluoromethane	50.00	52.90		ug/L	106	30-155	111221L01	12/21/11 13:11
1,1-Dichloroethane	50.00	51.18		ug/L	102	70-135	111221L01	12/21/11 13:11
1,2-Dichloroethane	50.00	50.19		ug/L	100	70-130	111221L01	12/21/11 13:11
1,1-Dichloroethene	50.00	51.95		ug/L	104	70-130	111221L01	12/21/11 13:11
c-1,2-Dichloroethene	50.00	52.14		ug/L	104	70-125	111221L01	12/21/11 13:11
t-1,2-Dichloroethene	50.00	52.06		ug/L	104	60-140	111221L01	12/21/11 13:11
1,2-Dichloropropane	50.00	50.84		ug/L	102	75-125	111221L01	12/21/11 13:11
1,3-Dichloropropane	50.00	51.23		ug/L	102	75-125	111221L01	12/21/11 13:11
2,2-Dichloropropane	50.00	51.86		ug/L	104	70-135	111221L01	12/21/11 13:11
1,1-Dichloropropene	50.00	51.85		ug/L	104	75-130	111221L01	12/21/11 13:11
c-1,3-Dichloropropene	50.00	50.48		ug/L	101	70-130	111221L01	12/21/11 13:11
t-1,3-Dichloropropene	50.00	50.24		ug/L	100	55-140	111221L01	12/21/11 13:11
Ethylbenzene	50.00	51.28		ug/L	103	75-125	111221L01	12/21/11 13:11

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Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1557
		Project Name:	Seal Beach NWS
		Received:	12/20/11 15:40

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA 8260B Volatile Organics								
2-Hexanone	50.00	48.87		ug/L	98	55-130	111221L01	12/21/11 13:11
Isopropylbenzene	50.00	51.71		ug/L	103	75-125	111221L01	12/21/11 13:11
p-Isopropyltoluene	50.00	53.12		ug/L	106	75-130	111221L01	12/21/11 13:11
Methylene Chloride	50.00	50.37		ug/L	101	55-140	111221L01	12/21/11 13:11
4-Methyl-2-Pentanone	50.00	47.97		ug/L	96	60-135	111221L01	12/21/11 13:11
Naphthalene	50.00	46.55		ug/L	93	55-140	111221L01	12/21/11 13:11
n-Propylbenzene	50.00	51.92		ug/L	104	70-130	111221L01	12/21/11 13:11
Styrene	50.00	51.58		ug/L	103	65-135	111221L01	12/21/11 13:11
1,1,1,2-Tetrachloroethane	50.00	52.28		ug/L	105	80-130	111221L01	12/21/11 13:11
1,1,2,2-Tetrachloroethane	50.00	46.26		ug/L	93	65-130	111221L01	12/21/11 13:11
Tetrachloroethene	50.00	65.39		ug/L	131	45-150	111221L01	12/21/11 13:11
Toluene	50.00	50.51		ug/L	101	75-120	111221L01	12/21/11 13:11
1,2,3-Trichlorobenzene	50.00	47.71		ug/L	95	55-140	111221L01	12/21/11 13:11
1,2,4-Trichlorobenzene	50.00	49.90		ug/L	100	65-135	111221L01	12/21/11 13:11
1,1,1-Trichloroethane	50.00	52.76		ug/L	106	65-130	111221L01	12/21/11 13:11
1,1,2-Trichloroethane	50.00	51.78		ug/L	104	75-125	111221L01	12/21/11 13:11
Trichloroethene	50.00	53.32		ug/L	107	70-125	111221L01	12/21/11 13:11
Trichlorofluoromethane	50.00	53.47		ug/L	107	60-145	111221L01	12/21/11 13:11
1,2,3-Trichloropropane	50.00	47.88		ug/L	96	75-125	111221L01	12/21/11 13:11
1,2,4-Trimethylbenzene	50.00	52.72		ug/L	105	75-130	111221L01	12/21/11 13:11
1,3,5-Trimethylbenzene	50.00	51.63		ug/L	103	75-130	111221L01	12/21/11 13:11
Vinyl Chloride	50.00	54.45		ug/L	109	50-145	111221L01	12/21/11 13:11
p/m-Xylene	100.0	101.5		ug/L	102	75-130	111221L01	12/21/11 13:11
o-Xylene	50.00	50.78		ug/L	102	80-120	111221L01	12/21/11 13:11
Methyl-t-Butyl Ether (MTBE)	50.00	50.31		ug/L	101	65-125	111221L01	12/21/11 13:11
Tert-Butyl Alcohol (TBA)	250.0	254.8		ug/L	102	46-154	111221L01	12/21/11 13:11

Total number of LCS compounds:	65
Total number of ME compounds:	0
Total number of ME compound allowed:	3
LCS ME CL validation result:	Pass

RSK-175M Dissolved Gases
099-14-531-2

Ethane	101.0	91.87		ug/L	91	80-120	111223L01	12/23/11 09:39
Methane	100.0	93.47		ug/L	93	79-109	111223L01	12/23/11 09:39

SM 5310 B Total Organic Carbon

Calscience Environmental Laboratories, Inc.

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Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1557 Seal Beach NWS 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
SM 5310 B Total Organic Carbon								
099-05-097-4,480								
Carbon, Total Organic	10	10		mg/L	104	80-120	B1227TOCL2	12/27/11 21:38

Calscience Environmental Laboratories, Inc.

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ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1557
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 300.0 Anions											
099-14-547-3											
Chloride	50	51		mg/L	102	90-110	0	0-15	111220L01	099-14-547-3	12/20/11 14:41
Nitrite (as N)	2.5	2.5		mg/L	101	90-110	0	0-15	111220L01	099-14-547-3	12/20/11 14:41
Nitrate (as N)	5.0	5.0		mg/L	99	90-110	0	0-15	111220L01	099-14-547-3	12/20/11 14:41
Sulfate	50	50		mg/L	100	90-110	0	0-15	111220L01	099-14-547-3	12/20/11 14:41
099-14-547-4											
Chloride	50	51		mg/L	103	90-110	0	0-15	111221L01	099-14-547-4	12/21/11 12:09
Nitrite (as N)	2.5	2.5		mg/L	100	90-110	1	0-15	111221L01	099-14-547-4	12/21/11 12:09
Nitrate (as N)	5.0	5.1		mg/L	101	90-110	1	0-15	111221L01	099-14-547-4	12/21/11 12:09
Sulfate	50	51		mg/L	102	90-110	0	0-15	111221L01	099-14-547-4	12/21/11 12:09
EPA 6010B ICP Metals											
099-14-483-4											
Calcium	0.5000	0.5014		mg/L	100	80-120	3	0-20	111222LA4	099-14-483-4	12/27/11 11:43
Iron	0.5000	0.5000		mg/L	100	80-120	2	0-20	111222LA4	099-14-483-4	12/27/11 11:43
Magnesium	0.5000	0.5064		mg/L	101	80-120	1	0-20	111222LA4	099-14-483-4	12/27/11 11:43
Potassium	5.000	4.797		mg/L	96	80-120	4	0-20	111222LA4	099-14-483-4	12/27/11 11:43
Sodium	5.000	5.007		mg/L	100	80-120	3	0-20	111222LA4	099-14-483-4	12/27/11 11:43
EPA 8260B Volatile Organics											
099-14-479-21											
Acetone	50.00	54.05		ug/L	108	40-140	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
Benzene	50.00	50.18		ug/L	100	80-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Bromobenzene	50.00	51.29		ug/L	103	75-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Bromochloromethane	50.00	51.63		ug/L	103	65-130	3	0-20	111221L01	099-14-479-21	12/21/11 13:39
Bromodichloromethane	50.00	52.83		ug/L	106	75-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Bromoform	50.00	48.68		ug/L	97	70-130	3	0-20	111221L01	099-14-479-21	12/21/11 13:39
Bromomethane	50.00	57.89		ug/L	116	30-145	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
2-Butanone	50.00	53.34		ug/L	107	30-150	5	0-20	111221L01	099-14-479-21	12/21/11 13:39
n-Butylbenzene	50.00	54.21		ug/L	108	70-135	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
sec-Butylbenzene	50.00	53.93		ug/L	108	70-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
tert-Butylbenzene	50.00	50.86		ug/L	102	70-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Carbon Disulfide	50.00	51.15		ug/L	102	35-160	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Carbon Tetrachloride	50.00	54.58		ug/L	109	65-140	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
Chlorobenzene	50.00	50.90		ug/L	102	80-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Chloroethane	50.00	52.12		ug/L	104	60-135	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Chloroform	50.00	52.18		ug/L	104	65-135	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
Chloromethane	50.00	51.69		ug/L	103	40-125	1	0-20	111221L01	099-14-479-21	12/21/11 13:39

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1557
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 8260B Volatile Organics											
2-Chlorotoluene	50.00	50.41		ug/L	101	75-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
4-Chlorotoluene	50.00	52.78		ug/L	106	75-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Dibromochloromethane	50.00	52.50		ug/L	105	60-135	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2-Dibromo-3-Chloropropane	50.00	48.91		ug/L	98	50-130	7	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2-Dibromoethane	50.00	51.98		ug/L	104	80-120	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
Dibromomethane	50.00	52.29		ug/L	105	75-125	3	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2-Dichlorobenzene	50.00	51.26		ug/L	103	70-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,3-Dichlorobenzene	50.00	51.63		ug/L	103	75-125	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,4-Dichlorobenzene	50.00	50.92		ug/L	102	75-125	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
Dichlorodifluoromethane	50.00	52.83		ug/L	106	30-155	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1-Dichloroethane	50.00	52.19		ug/L	104	70-135	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2-Dichloroethane	50.00	51.28		ug/L	103	70-130	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1-Dichloroethene	50.00	52.66		ug/L	105	70-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
c-1,2-Dichloroethene	50.00	52.04		ug/L	104	70-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
t-1,2-Dichloroethene	50.00	51.97		ug/L	104	60-140	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2-Dichloropropane	50.00	52.11		ug/L	104	75-125	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,3-Dichloropropane	50.00	51.83		ug/L	104	75-125	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
2,2-Dichloropropane	50.00	52.78		ug/L	106	70-135	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1-Dichloropropene	50.00	53.01		ug/L	106	75-130	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
c-1,3-Dichloropropene	50.00	51.62		ug/L	103	70-130	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
t-1,3-Dichloropropene	50.00	49.64		ug/L	99	55-140	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Ethylbenzene	50.00	51.09		ug/L	102	75-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
2-Hexanone	50.00	51.10		ug/L	102	55-130	4	0-20	111221L01	099-14-479-21	12/21/11 13:39
Isopropylbenzene	50.00	51.13		ug/L	102	75-125	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
p-Isopropyltoluene	50.00	53.34		ug/L	107	75-130	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Methylene Chloride	50.00	51.40		ug/L	103	55-140	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
4-Methyl-2-Pentanone	50.00	50.92		ug/L	102	60-135	6	0-20	111221L01	099-14-479-21	12/21/11 13:39
Naphthalene	50.00	48.02		ug/L	96	55-140	3	0-20	111221L01	099-14-479-21	12/21/11 13:39
n-Propylbenzene	50.00	51.33		ug/L	103	70-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Styrene	50.00	51.72		ug/L	103	65-135	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1,1,2-Tetrachloroethane	50.00	51.55		ug/L	103	80-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1,2,2-Tetrachloroethane	50.00	48.69		ug/L	97	65-130	5	0-20	111221L01	099-14-479-21	12/21/11 13:39
Tetrachloroethene	50.00	62.53		ug/L	125	45-150	4	0-20	111221L01	099-14-479-21	12/21/11 13:39
Toluene	50.00	50.70		ug/L	101	75-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2,3-Trichlorobenzene	50.00	47.71		ug/L	95	55-140	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2,4-Trichlorobenzene	50.00	49.98		ug/L	100	65-135	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1,1-Trichloroethane	50.00	53.08		ug/L	106	65-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1,2-Trichloroethane	50.00	51.87		ug/L	104	75-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1557
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 8260B Volatile Organics											
Trichloroethene	50.00	53.10		ug/L	106	70-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Trichlorofluoromethane	50.00	52.94		ug/L	106	60-145	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2,3-Trichloropropane	50.00	50.23		ug/L	100	75-125	5	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2,4-Trimethylbenzene	50.00	53.30		ug/L	107	75-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,3,5-Trimethylbenzene	50.00	51.41		ug/L	103	75-130	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Vinyl Chloride	50.00	53.60		ug/L	107	50-145	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
p/m-Xylene	100.0	101.3		ug/L	101	75-130	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
o-Xylene	50.00	50.99		ug/L	102	80-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Methyl-t-Butyl Ether (MTBE)	50.00	52.26		ug/L	105	65-125	4	0-20	111221L01	099-14-479-21	12/21/11 13:39
Tert-Butyl Alcohol (TBA)	250.0	253.2		ug/L	101	46-154	1	0-25	111221L01	099-14-479-21	12/21/11 13:39

Total number of LCS compounds: 65
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RSK-175M Dissolved Gases											
099-14-531-2											
Ethane	101.0	91.98		ug/L	91	80-120	0	0-20	111223L01	099-14-531-2	12/23/11 10:05
Methane	100.0	93.37		ug/L	93	79-109	0	0-20	111223L01	099-14-531-2	12/23/11 10:05
SM 5310 B Total Organic Carbon											
099-05-097-4,480											
Carbon, Total Organic	10	11		mg/L	110	80-120	6	0-20	B1227TOCL2	099-05-097-4,480	12/27/11 21:38

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 11-12-1557

Qualifier	Definition
AZ	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BA	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
BB	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
BU	Sample analyzed after holding time expired.
DF	Reporting limits elevated due to matrix interferences.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
GE	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
HD	Chromat. profile inconsistent with pattern(s) of ref. fuel stnds.
HO	High concentration matrix spike recovery out of limits
HT	Analytical value calculated using results from associated tests.
HX	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
IL	Relative percent difference out of control.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
LD	Analyte presence was not confirmed by second column or GC/MS analysis.
LP	The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.
ND	Parameter not detected at the indicated reporting limit.
QO	Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.
RU	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
SG	A silica gel cleanup procedure was performed.
SN	See applicable analysis comment.
U	Undetected at detection limit.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 12-20-11
PAGE: 1 OF 1

LABORATORY CLIENT: CKY
ADDRESS: 302 W 5th St, San Pedro, CA 90731
TEL: (310) 519-4000 | FAX: (310) 519-4029 | E-MAIL: howard@ckyinc.com

CLIENT PROJECT NAME / NUMBER: Seal Beach NWS
PROJECT CONTACT: Howard Wittenberg
SAMPLER(S): (SIGNATURE)
COELT LOG CODE
P.O. NO.:
LABORATORY USE ONLY: 11-12-1557
COOLER RECEIPT: Temp = ____ °C

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ Standard

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ COELT EDF ☐

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	CEL SAMPLE #	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	VOCs	Anions	Cations	TDS	COD	TOC	Dissolved Gases	Dhc		Level IV
1	MW-403		12-20-11	1011	W	11	X	X	X	X	X	X	X	X		X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		12/20/11	1442
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		12/20/11	1540
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Revision: 072611

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-12-1557

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: cky

DATE: 12/20/11

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.5 °C - 0.3 °C (CF) = 2.2 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Initial: FY

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: FY

☐ Sample ☐_____ ☐ No (Not Intact) ☐ Not Present Initial: DEE

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☑250CGB**s** ☑1PB ☐1PB**na** ☐500PB

☑250PB ☑250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** DEE

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** YL

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** YL

Calscience Environmental Laboratories, Inc.

Subcontractor Analysis Report

Work Order # 11-12-1557

One or more samples in this Work Order have tests that were subcontracted. The subcontract report(s) follows.

For subcontracted tests, please reference the laboratory information noted below.

1 Microbial Insights - Rockford, TN

Microbiology

2340 Stock Creek Blvd.
Rockford TN 37853-3044
Phone: (865) 573-8188
Fax: (865) 573-8133
Email: info@microbe.com

Client: Richard Villafania
Calscience Environmental Laboratories
7440 Lincoln Way
Garden Grove, CA 92841-1427

Phone: 714-895-5494

Fax: 714-895-7501

Identifier: 058IL **Date Rec:** 12/20/2011 **Report Date:** 12/23/2011

Client Project #: 11-12-1460 **Client Project Name:**

Purchase Order #: 11-12-1460

Analysis Requested: CENSUS

Reviewed By:

Anita Biernacki

NOTICE: This report is intended only for the addressee shown above and may contain confidential or privileged information. If the recipient of this material is not the intended recipient or if you have received this in error, please notify Microbial Insights, Inc. immediately. The data and other information in this report represent only the sample(s) analyzed and are rendered upon condition that it is not to be reproduced without approval from Microbial Insights, Inc. Thank you for your cooperation.

MICROBIAL INSIGHTS, INC.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **Calscience Environmental Laboratories**
Project:

MI Project Number: **058IL**
Date Received: 12/20/2011

Sample Information

Client Sample ID:	**MW-40-06**
Sample Date:	12/19/2011
Units:	cells/mL
Analyst:	AB

Dechlorinating Bacteria

Dehalococcoides spp.	*DHC*	**1.66E+01**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Calscience Environmental Laboratories, Inc.

7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

TO: **Microbial Insights, Inc.**
2340 Stock Creek Blvd
Rockford, TN 37853-3044
P: (865) 573-8188
Attn: Sample Custodian

CHAIN OF CUSTODY RECORD

DATE: December 19, 2011
PAGE: 1 OF 1

LABORATORY CLIENT: CALSCIENCE ENVIRONMENTAL LABORATORIES, INC.
ADDRESS: 7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: 714 895 5494 x204 | FAX: 714 895 7501 | E-MAIL: rvillafania@calscience.com

CLIENT PROJECT NAME / NUMBER: 11-12-1460
P.O. NO: 11-12-1460
PROJECT CONTACT: Richard Villafania
LAB USE ONLY
SAMPLER(S): (PRINT NAME) BlaineTech
COELT LOG CODE
COOLER RECEIPT Temp = _____ °C

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ COELT EDF ☒ NEDD

SPECIAL INSTRUCTIONS

NEDD required.

Level III Data Package required.

REQUESTED ANALYSIS

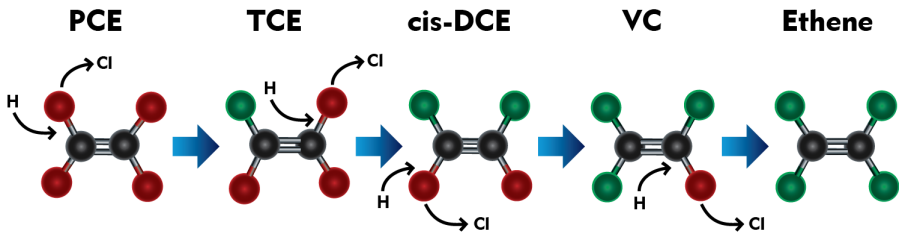
LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.		Dehalococcoides -DHC	by CENSUS qPCR			CONTAINER TYPE:
	058iL1 MW-40-06	12/19/11	0949	water	1		X				(1) 1L poly
		Total # Containers Received			1						

Relinquished by: (Signature)	Received by: (Signature / Affiliation)	Date:	Time:
(CALSCIENCE)	FedEx AB# 797869445353 6	12/19/11	1710
Relinquished by: (Signature)	Received by: (Signature / Affiliation) Jennifer Ericson	12/20/11	0900
Relinquished by: (Signature)	Received by: (Signature / Affiliation)	Date:	Time:

DHC Interpretation

Dehalococcoides 16S rRNA gene (qDHC)

Under anaerobic conditions, tetrachloroethene (PCE) and trichloroethene (TCE) can undergo sequential reductive dechlorination through the daughter products *cis*-dichloroethene (*cis*-DCE) and vinyl chloride to nontoxic ethene (1,2).



While a number of bacterial cultures capable of utilizing PCE and TCE as growth supporting electron acceptors have been isolated (3-7), *Dehalococcoides* spp. may be the most important because they are the only bacterial group that has been isolated to date which is capable of complete reductive dechlorination of PCE to ethene (8). In fact, the presence of *Dehalococcoides* spp. has been associated with complete dechlorination to ethene at sites across North America and Europe (9).

Status	*Dehalococcoides spp.*	Observation
	$\geq 10^4$ (cells/mL)	Lu et al. proposed that a concentration of 1 x 10^4 DHC cells/mL could be used as a screening criterion to identify sites where reductive dechlorination will yield a generally useful biodegradation rate (10). Similarly, in an internal study conducted with nearly 1000 groundwater samples obtained from sites across the US, ethene production was observed in approximately 80% of samples in which CENSUS® qDHC results were greater than or equal to 10^4 DHC cells/mL.
	10^1 to < 10^4 (cells/mL)	When vinyl chloride reductase genes (See DHC functional genes discussion below) are also detected, complete reductive dechlorination of PCE and TCE to ethene may still occur even with moderate DHC concentrations. When the DHC population is below the 10^4 cells/mL criterion proposed by Lu et al. (10), project managers should carefully consider other site-specific data to determine whether subsurface conditions may be limiting reductive dechlorination. For example, the addition of an electron donor may be able to stimulate DHC growth and enhance anaerobic bioremediation.
	< 10^1 (cells/mL)	DHC concentrations are low suggesting that complete reductive dechlorination of PCE and TCE to ethene is unlikely to occur under existing conditions. Enhanced anaerobic bioremediation options (biostimulation or bioaugmentation) may need to be considered.

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DHC Interpretation

DHC Functional Genes (*tce*A, *bvc*A, *vcr*A)

A "stall" where daughter products *cis*-DCE and vinyl chloride accumulate can occur at PCE- and TCE-impacted sites especially under MNA conditions. The accumulation of vinyl chloride, generally considered more carcinogenic than the parent compounds, is particularly problematic. Although elevated *Dehalococcoides* concentrations correspond to ethene production in numerous studies, the range of chlorinated ethenes metabolized and cometabolized varies among species and strains within the *Dehalococcoides* genus. For example, *Dehalococcoides ethenogenes* str. 195 metabolizes PCE, TCE, and *cis*-DCE and cometabolizes vinyl chloride (8) to produce ethene. Conversely, *Dehalococcoides* sp. CBDB1 utilizes PCE and TCE but does not cometabolize additional chloroethenes (11). Other *Dehalococcoides* strains, such as BAV1, GT and VS, are known to fully dechlorinate cis-DCE and VC to ethene (14,16,19). Quantification of reductive dehalogenase genes is used to more definitively confirm the potential for reductive dechlorination of TCE, cis-DCE, and vinyl chloride (12-15).

Functional Gene	Observation
TCE Reductase	
***tce*A gene**	The *tce*A gene encodes the enzyme responsible for reductive dechlorination of TCE to *cis*-DCE in some strains of *Dehalococcoides*. Absence of *tce*A does not preclude the potential for reductive dechlorination of TCE in the field since the *tce*A gene is not universally distributed among all DHC and is not present in other microorganisms capable of reductive dechlorination of TCE (e.g. *Dehalobacter*). Detection of the *tce*A gene provides an additional line of evidence indicating the potential for dechlorination of TCE.
Vinyl Chloride Reductase	
***bvc*A gene**	The *bvc*A gene encodes the vinyl chloride reductase enzyme responsible for reductive dechlorination of vinyl chloride to ethene by *Dehalococcoides* sp. str. BAV1 (16). Presence of *bvc*A gene indicates the potential for reductive dechlorination of VC to ethene. Absence of both *bvc*A and *vcr*A genes suggests VC may accumulate. An internal study with ~1,000 samples showed ethene production was observed in 80% of the samples that the DHC population was greater than or equal to 10^4 cells/mL. The *bvc*A gene was detected in over 50% of these samples. Van Der Zaan et al (17) noted that the bvcA gene was the only VC reductase gene detected at three of their sites. Alfred Spormann's laboratory at Stanford University (18) reported that the *bvc*A gene was the most abundant and active at the outflow of a PCE fed column study. This section of the column was in the DCE to VC stages of reductive dechlorination thus confirming the importance of the *bvc*A gene for complete reductive dechlorination.
***vcr*A gene**	The *vcr*A gene encodes the vinyl chloride reductase enzyme responsible for reductive dechlorination of *cis*-DCE and vinyl chloride by *Dehalococcoides* sp. strain VS (14). Presence of *vcr*A gene indicates the potential for reductive dechlorination of DCE and/or VC to ethene. Absence of both *bvc*A and *vcr*A genes suggest VC may accumulate. As with the *bvc*A gene, detection of the *vcr*A gene is associated with ethene production in internal studies (67%) and vinyl chloride reduction in independent studies (14, 17).

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Phone: 865.573.8188
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microbialinsights

DHC Interpretation

Reporting

Microbial Insights can provide a variety of data packages and reporting levels to suit the needs of any project. Data packages range from simple analytical reports with results only to more complex data packages that include a report narrative, analytical results, QC data, and supporting materials including all raw data and chain-of-custody documentation. The figure below shows our standard report and explains the way values are reported.

Microbial Insights, Inc.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: Company Name
Project: Your Project Name

MI Project Number: Unique Laboratory Identifier
Date Received: Date Samples Arrived

Sample Information

Client Sample ID:		Sample A	Sample B	Sample C
Sample Date:		00/00/0000	00/00/0000	00/00/0000
Units:		cells/mL	cells/mL	cells/mL
Analyst:		Intials	Intials	Intials
Dechlorinating Bacteria				
Dehalococcoides spp.	DHC	**1.84E+05**	**2.76E+02**	**2.28E+01 (J)**
Functional Genes				
tceA Reductase	TCE	**6.00E+01**	**3.23E+01**	<4.00E-01
bvcA Reductase	BVC	**1.17E+04**	**1.81E+01**	<4.00E-01
vcrA Reducatase	VCR	**8.42E+04**	**1.74E+02**	<4.00E-01

"J" value
Result is an estimated value. This data qualifier (flag) is used when the target gene is detected but at a concentration or abundance below the practical quantification limit (PQL).

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

< value
The target gene was not detected at the limit of quantitation (LOQ) reported for that sample.

"I" value
QA Procedure indicated that the sample may have exhibited PCR inhibition. Although relatiively rare, PCR inhibition can occur due to the presence of metals or humic acids at high concentrations in the sample.

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Quality Assurance

Microbial Insights' comprehensive Quality Assurance (QA) Program is the foundation of all laboratory analyses, ensuring that our clients receive high-quality analytical services that are timely, reliable, and meet their intended purpose in a cost effective manner. MI is committed to providing quality data that surpasses regulatory and industry standards, thus enabling the client to make well-informed decisions. MI maintains strict standard operating procedures and QA/QC measures throughout all of the analyses offered. The following Table details specific QA/QC procedures that are used for CENSUS.

QA/QC	Description
Date of Extraction	DNA and RNA extractions are performed the day the samples are received by MI to minimize the possibility of any changes to the microbial community prior to analysis.
Laboratory Method Blanks	An extraction blank (no sample added) is processed alongside each set of field samples from DNA extraction through CENSUS® analysis to ensure that cross contamination has not occurred. Although MI has never experienced this issue, the detection of the CENSUS® target (e.g. *Dehalococcoides*) in an extraction blank is direct evidence of cross contamination with a sample or contamination of a reagent and would invalidate the results. If this were to occur, MI would re-extract the sample. If not possible to re-extract, MI would contact the client immediately and notate it on the laboratory report.
Laboratory Control Samples (LCS)	A laboratory control sample (LCS) or positive control (target DNA) is included with each CENSUS® plate to confirm amplification and as a continuing calibration check.
Negative Controls	A negative control (no DNA) is included with each CENSUS plate to ensure that cross contamination has not occurred during amplification. As with the extraction blank, detection of CENSUS target (e.g. DHC) in a negative control is direct evidence of contamination and would invalidate the results. If this were to occur, MI would rerun the analysis.

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CALSCIENCE

WORK ORDER NUMBER: 11-12-1560

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: CKY, Incorporated

Client Project Name: Seal Beach NWS

Attention: Howard Wittenberg
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Approved for release on 01/6/2012 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

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The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1560
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/20/11 15:40
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 1 (MW-40-30, Aqueous) Sampled: 12/20/11 09:30										
EPA 300.0 Anions (Sample: 11-12-1560-1-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	98		mg/L	0.66	0.50	2.00	5	12/20/11 19:13	EPA 300.0	111220L01
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	1	12/20/11 19:13	EPA 300.0	111220L01
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	1	12/20/11 19:13	EPA 300.0	111220L01
Sulfate	41		mg/L	0.13	0.50	2.00	1	12/20/11 19:13	EPA 300.0	111220L01
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1560-1-G)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	34		mg/L	10	21.00	25.00	1	12/22/11 16:00	EPA 410.4	B1222ODB2
EPA 6010B ICP Metals (Sample: 11-12-1560-1-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	180		mg/L	0.0118	0.03	0.10	1	12/27/11 12:18	EPA 6010B	111222LA4
Iron	25.2		mg/L	0.0101	0.03	0.10	1	12/27/11 12:18	EPA 6010B	111222LA4
Magnesium	49.1		mg/L	0.00336	0.01	0.10	1	12/27/11 12:18	EPA 6010B	111222LA4
Potassium	4.65		mg/L	0.103	0.17	0.50	1	12/27/11 12:18	EPA 6010B	111222LA4
Sodium	317		mg/L	0.103	0.17	0.50	1	12/27/11 12:18	EPA 6010B	111222LA4
EPA 8260B Volatile Organics (Sample: 11-12-1560-1-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 19:48	EPA 8260B	111221L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/21/11 19:48	EPA 8260B	111221L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/21/11 19:48	EPA 8260B	111221L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/21/11 19:48	EPA 8260B	111221L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/21/11 19:48	EPA 8260B	111221L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 19:48	EPA 8260B	111221L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/21/11 19:48	EPA 8260B	111221L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/21/11 19:48	EPA 8260B	111221L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/21/11 19:48	EPA 8260B	111221L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/21/11 19:48	EPA 8260B	111221L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/21/11 19:48	EPA 8260B	111221L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/21/11 19:48	EPA 8260B	111221L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 19:48	EPA 8260B	111221L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 19:48	EPA 8260B	111221L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/21/11 19:48	EPA 8260B	111221L01
c-1,2-Dichloroethene	0.95	J	ug/L	0.48	0.50	1.00	1	12/21/11 19:48	EPA 8260B	111221L01
t-1,2-Dichloroethene	0.44	J	ug/L	0.37	0.50	1.00	1	12/21/11 19:48	EPA 8260B	111221L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 19:48	EPA 8260B	111221L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/21/11 19:48	EPA 8260B	111221L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/21/11 19:48	EPA 8260B	111221L01
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	1	12/21/11 19:48	EPA 8260B	111221L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/21/11 19:48	EPA 8260B	111221L01

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	San Pedro, CA 90731-2738	Received:	12/20/11 15:40
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 1 (MW-40-30, Aqueous) Sampled: 12/20/11 09:30										
EPA 8260B Volatile Organics (Sample: 11-12-1560-1-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/21/11 19:48	EPA 8260B	111221L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/21/11 19:48	EPA 8260B	111221L01
Toluene	0.33	J	ug/L	0.24	0.50	1.00	1	12/21/11 19:48	EPA 8260B	111221L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/21/11 19:48	EPA 8260B	111221L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/21/11 19:48	EPA 8260B	111221L01
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 19:48	EPA 8260B	111221L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/21/11 19:48	EPA 8260B	111221L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/21/11 19:48	EPA 8260B	111221L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 19:48	EPA 8260B	111221L01
Vinyl Chloride	1.2		ug/L	0.30	0.50	1.00	1	12/21/11 19:48	EPA 8260B	111221L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/21/11 19:48	EPA 8260B	111221L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 19:48	EPA 8260B	111221L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/21/11 19:48	EPA 8260B	111221L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/21/11 19:48	EPA 8260B	111221L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*99%*							*12/21/11 19:48*	*EPA 8260B*	*111221L01*
Surr: Dibromofluoromethane (85-115%)	*96%*							*12/21/11 19:48*	*EPA 8260B*	*111221L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*101%*							*12/21/11 19:48*	*EPA 8260B*	*111221L01*
Surr: Toluene-d8 (85-120%)	*99%*							*12/21/11 19:48*	*EPA 8260B*	*111221L01*
RSK-175M Dissolved Gases (Sample: 11-12-1560-1-E)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	1	12/23/11 20:14	RSK-175M	111223L01
Ethylene	0.650	J	ug/L	0.0566	0.17	0.43	1	12/23/11 20:14	RSK-175M	111223L01
Methane	7290		ug/L	2.67	0.07	0.17	80	12/23/11 20:14	RSK-175M	111223L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1560-1-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	1460		mg/L	0.820	1.60	2.00	1	12/21/11 12:40	SM 2540 C	B1221TDSB5
SM 5310 B Total Organic Carbon (Sample: 11-12-1560-1-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	100		mg/L	0.24	2.00	5.00	1	12/27/11 21:38	SM 5310 B	B1227TOCL2
Sample ID: 2 (TB-1, Aqueous) Sampled: 12/20/11 07:00										
EPA 8260B Volatile Organics (Sample: 11-12-1560-2-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 20:17	EPA 8260B	111221L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/21/11 20:17	EPA 8260B	111221L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/21/11 20:17	EPA 8260B	111221L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/21/11 20:17	EPA 8260B	111221L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/21/11 20:17	EPA 8260B	111221L01

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Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 2 (TB-1, Aqueous) Sampled: 12/20/11 07:00										
EPA 8260B Volatile Organics (Sample: 11-12-1560-2-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 20:17	EPA 8260B	111221L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/21/11 20:17	EPA 8260B	111221L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/21/11 20:17	EPA 8260B	111221L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/21/11 20:17	EPA 8260B	111221L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/21/11 20:17	EPA 8260B	111221L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/21/11 20:17	EPA 8260B	111221L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/21/11 20:17	EPA 8260B	111221L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 20:17	EPA 8260B	111221L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 20:17	EPA 8260B	111221L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/21/11 20:17	EPA 8260B	111221L01
c-1,2-Dichloroethene	<0.5	U	ug/L	0.48	0.50	1.00	1	12/21/11 20:17	EPA 8260B	111221L01
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 20:17	EPA 8260B	111221L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 20:17	EPA 8260B	111221L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/21/11 20:17	EPA 8260B	111221L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/21/11 20:17	EPA 8260B	111221L01
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	1	12/21/11 20:17	EPA 8260B	111221L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/21/11 20:17	EPA 8260B	111221L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/21/11 20:17	EPA 8260B	111221L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/21/11 20:17	EPA 8260B	111221L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 20:17	EPA 8260B	111221L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/21/11 20:17	EPA 8260B	111221L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/21/11 20:17	EPA 8260B	111221L01
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 20:17	EPA 8260B	111221L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/21/11 20:17	EPA 8260B	111221L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/21/11 20:17	EPA 8260B	111221L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 20:17	EPA 8260B	111221L01
Vinyl Chloride	<0.5	U	ug/L	0.30	0.50	1.00	1	12/21/11 20:17	EPA 8260B	111221L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/21/11 20:17	EPA 8260B	111221L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 20:17	EPA 8260B	111221L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/21/11 20:17	EPA 8260B	111221L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/21/11 20:17	EPA 8260B	111221L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*99%*							*12/21/11 20:17*	*EPA 8260B*	*111221L01*
Surr: Dibromofluoromethane (85-115%)	*95%*							*12/21/11 20:17*	*EPA 8260B*	*111221L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*102%*							*12/21/11 20:17*	*EPA 8260B*	*111221L01*
Surr: Toluene-d8 (85-120%)	*100%*							*12/21/11 20:17*	*EPA 8260B*	*111221L01*
Sample ID: 3 (MW-40-32, Aqueous) Sampled: 12/20/11 10:56										
EPA 300.0 Anions (Sample: 11-12-1560-3-I)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	97		mg/L	0.66	0.50	2.00	5	12/20/11 19:28	EPA 300.0	111220L01

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1560
		Project Name:	Seal Beach NWS
		Received:	12/20/11 15:40
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 3 (MW-40-32, Aqueous) Sampled: 12/20/11 10:56										
EPA 300.0 Anions (Sample: 11-12-1560-3-I)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	1	12/20/11 19:28	EPA 300.0	111220L01
Nitrate (as N)	0.054	J	mg/L	0.021	0.05	0.10	1	12/20/11 19:28	EPA 300.0	111220L01
Sulfate	15		mg/L	0.13	0.50	2.00	1	12/20/11 19:28	EPA 300.0	111220L01
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1560-3-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	31		mg/L	10	21.00	25.00	1	12/22/11 16:00	EPA 410.4	B1222ODB2
EPA 6010B ICP Metals (Sample: 11-12-1560-3-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	155		mg/L	0.0118	0.03	0.10	1	12/27/11 12:19	EPA 6010B	111222LA4
Iron	27.1		mg/L	0.0101	0.03	0.10	1	12/27/11 12:19	EPA 6010B	111222LA4
Magnesium	52.4		mg/L	0.00336	0.01	0.10	1	12/27/11 12:19	EPA 6010B	111222LA4
Potassium	4.38		mg/L	0.103	0.17	0.50	1	12/27/11 12:19	EPA 6010B	111222LA4
Sodium	208		mg/L	0.103	0.17	0.50	1	12/27/11 12:19	EPA 6010B	111222LA4
EPA 8260B Volatile Organics (Sample: 11-12-1560-3-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	0.22	J	ug/L	0.14	0.50	1.00	1	12/21/11 20:45	EPA 8260B	111221L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/21/11 20:45	EPA 8260B	111221L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/21/11 20:45	EPA 8260B	111221L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/21/11 20:45	EPA 8260B	111221L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/21/11 20:45	EPA 8260B	111221L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 20:45	EPA 8260B	111221L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/21/11 20:45	EPA 8260B	111221L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/21/11 20:45	EPA 8260B	111221L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/21/11 20:45	EPA 8260B	111221L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/21/11 20:45	EPA 8260B	111221L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/21/11 20:45	EPA 8260B	111221L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/21/11 20:45	EPA 8260B	111221L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 20:45	EPA 8260B	111221L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 20:45	EPA 8260B	111221L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/21/11 20:45	EPA 8260B	111221L01
c-1,2-Dichloroethene	0.72	J	ug/L	0.48	0.50	1.00	1	12/21/11 20:45	EPA 8260B	111221L01
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 20:45	EPA 8260B	111221L01
Ethylbenzene	1.2		ug/L	0.14	0.50	1.00	1	12/21/11 20:45	EPA 8260B	111221L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/21/11 20:45	EPA 8260B	111221L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/21/11 20:45	EPA 8260B	111221L01
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	1	12/21/11 20:45	EPA 8260B	111221L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/21/11 20:45	EPA 8260B	111221L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/21/11 20:45	EPA 8260B	111221L01

Calscience Environmental Laboratories, Inc.

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Client:	CKY, Incorporated	Work Order:	11-12-1560
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/20/11 15:40
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 3 (MW-40-32, Aqueous) Sampled: 12/20/11 10:56										
EPA 8260B Volatile Organics (Sample: 11-12-1560-3-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/21/11 20:45	EPA 8260B	111221L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 20:45	EPA 8260B	111221L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/21/11 20:45	EPA 8260B	111221L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/21/11 20:45	EPA 8260B	111221L01
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 20:45	EPA 8260B	111221L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/21/11 20:45	EPA 8260B	111221L01
1,2,4-Trimethylbenzene	0.62	J	ug/L	0.36	0.50	5.00	1	12/21/11 20:45	EPA 8260B	111221L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 20:45	EPA 8260B	111221L01
Vinyl Chloride	0.80		ug/L	0.30	0.50	1.00	1	12/21/11 20:45	EPA 8260B	111221L01
p/m-Xylene	1.7		ug/L	0.24	0.00	10.00	1	12/21/11 20:45	EPA 8260B	111221L01
o-Xylene	0.67	J	ug/L	0.23	0.50	1.00	1	12/21/11 20:45	EPA 8260B	111221L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/21/11 20:45	EPA 8260B	111221L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/21/11 20:45	EPA 8260B	111221L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*100%*							*12/21/11 20:45*	*EPA 8260B*	*111221L01*
Surr: Dibromofluoromethane (85-115%)	*96%*							*12/21/11 20:45*	*EPA 8260B*	*111221L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*100%*							*12/21/11 20:45*	*EPA 8260B*	*111221L01*
Surr: Toluene-d8 (85-120%)	*100%*							*12/21/11 20:45*	*EPA 8260B*	*111221L01*
RSK-175M Dissolved Gases (Sample: 11-12-1560-3-E)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	1	12/23/11 20:59	RSK-175M	111223L01
Ethylene	0.340	J	ug/L	0.0566	0.17	0.43	1	12/23/11 20:59	RSK-175M	111223L01
Methane	5820		ug/L	2.67	0.07	0.17	80	12/23/11 20:59	RSK-175M	111223L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1560-3-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	1200		mg/L	0.820	1.60	2.00	1	12/21/11 12:40	SM 2540 C	B1221TDSB5
SM 5310 B Total Organic Carbon (Sample: 11-12-1560-3-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	76		mg/L	0.24	2.00	5.00	1	12/27/11 21:38	SM 5310 B	B1227TOCL2
Sample ID: 4 (MW-40-34, Aqueous) Sampled: 12/20/11 11:37										
EPA 300.0 Anions (Sample: 11-12-1560-4-I)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	140		mg/L	0.66	0.50	2.00	5	12/20/11 21:01	EPA 300.0	111220L01
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	1	12/20/11 21:01	EPA 300.0	111220L01
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	1	12/20/11 21:01	EPA 300.0	111220L01
Sulfate	3.2		mg/L	0.13	0.50	2.00	1	12/20/11 21:01	EPA 300.0	111220L01
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1560-4-F)										

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1560
		Project Name:	Seal Beach NWS
		Received:	12/20/11 15:40
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 4 (MW-40-34, Aqueous) Sampled: 12/20/11 11:37										
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1560-4-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	70		mg/L	10	21.00	25.00	1	12/22/11 16:00	EPA 410.4	B1222ODB2
EPA 6010B ICP Metals (Sample: 11-12-1560-4-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	127		mg/L	0.0118	0.03	0.10	1	12/27/11 12:20	EPA 6010B	111222LA4
Iron	10.2		mg/L	0.0101	0.03	0.10	1	12/27/11 12:20	EPA 6010B	111222LA4
Magnesium	34.2		mg/L	0.00336	0.01	0.10	1	12/27/11 12:20	EPA 6010B	111222LA4
Potassium	5.32		mg/L	0.103	0.17	0.50	1	12/27/11 12:20	EPA 6010B	111222LA4
Sodium	178		mg/L	0.103	0.17	0.50	1	12/27/11 12:20	EPA 6010B	111222LA4
EPA 8260B Volatile Organics (Sample: 11-12-1560-4-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 21:12	EPA 8260B	111221L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/21/11 21:12	EPA 8260B	111221L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/21/11 21:12	EPA 8260B	111221L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/21/11 21:12	EPA 8260B	111221L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/21/11 21:12	EPA 8260B	111221L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 21:12	EPA 8260B	111221L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/21/11 21:12	EPA 8260B	111221L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/21/11 21:12	EPA 8260B	111221L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/21/11 21:12	EPA 8260B	111221L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/21/11 21:12	EPA 8260B	111221L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/21/11 21:12	EPA 8260B	111221L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/21/11 21:12	EPA 8260B	111221L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 21:12	EPA 8260B	111221L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 21:12	EPA 8260B	111221L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/21/11 21:12	EPA 8260B	111221L01
c-1,2-Dichloroethene	<0.5	U	ug/L	0.48	0.50	1.00	1	12/21/11 21:12	EPA 8260B	111221L01
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 21:12	EPA 8260B	111221L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 21:12	EPA 8260B	111221L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/21/11 21:12	EPA 8260B	111221L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/21/11 21:12	EPA 8260B	111221L01
Methylene Chloride	0.85	J	ug/L	0.64	1.00	10.00	1	12/21/11 21:12	EPA 8260B	111221L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/21/11 21:12	EPA 8260B	111221L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/21/11 21:12	EPA 8260B	111221L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/21/11 21:12	EPA 8260B	111221L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 21:12	EPA 8260B	111221L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/21/11 21:12	EPA 8260B	111221L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/21/11 21:12	EPA 8260B	111221L01
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 21:12	EPA 8260B	111221L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/21/11 21:12	EPA 8260B	111221L01

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1560
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/20/11 15:40
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 4 (MW-40-34, Aqueous) Sampled: 12/20/11 11:37										
EPA 8260B Volatile Organics (Sample: 11-12-1560-4-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/21/11 21:12	EPA 8260B	111221L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 21:12	EPA 8260B	111221L01
Vinyl Chloride	0.38	J	ug/L	0.30	0.50	1.00	1	12/21/11 21:12	EPA 8260B	111221L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/21/11 21:12	EPA 8260B	111221L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 21:12	EPA 8260B	111221L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/21/11 21:12	EPA 8260B	111221L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/21/11 21:12	EPA 8260B	111221L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*99%*							*12/21/11 21:12*	*EPA 8260B*	*111221L01*
Surr: Dibromofluoromethane (85-115%)	*97%*							*12/21/11 21:12*	*EPA 8260B*	*111221L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*99%*							*12/21/11 21:12*	*EPA 8260B*	*111221L01*
Surr: Toluene-d8 (85-120%)	*100%*							*12/21/11 21:12*	*EPA 8260B*	*111221L01*
RSK-175M Dissolved Gases (Sample: 11-12-1560-4-E)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	1	12/23/11 21:41	RSK-175M	111223L01
Ethylene	0.260	J	ug/L	0.0566	0.17	0.43	1	12/23/11 21:41	RSK-175M	111223L01
Methane	9180		ug/L	2.67	0.07	0.17	80	12/23/11 21:41	RSK-175M	111223L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1560-4-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	1010		mg/L	0.820	1.60	2.00	1	12/21/11 12:40	SM 2540 C	B1221TDSB5
SM 5310 B Total Organic Carbon (Sample: 11-12-1560-4-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	77		mg/L	0.24	2.00	5.00	1	12/27/11 21:38	SM 5310 B	B1227TOCL2
Sample ID: 5 (DUP-2, Aqueous) Sampled: 12/20/11 00:00										
EPA 300.0 Anions (Sample: 11-12-1560-5-I)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	140		mg/L	0.66	0.50	2.00	5	12/20/11 21:16	EPA 300.0	111220L01
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	1	12/20/11 21:16	EPA 300.0	111220L01
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	1	12/20/11 21:16	EPA 300.0	111220L01
Sulfate	3.0		mg/L	0.13	0.50	2.00	1	12/20/11 21:16	EPA 300.0	111220L01
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1560-5-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	73		mg/L	10	21.00	25.00	1	12/22/11 16:00	EPA 410.4	B1222ODB2
EPA 6010B ICP Metals (Sample: 11-12-1560-5-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	125		mg/L	0.0118	0.03	0.10	1	12/27/11 12:21	EPA 6010B	111222LA4

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Client:	CKY, Incorporated	Work Order:	11-12-1560
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/20/11 15:40
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 5 (DUP-2, Aqueous) Sampled: 12/20/11 00:00										
EPA 6010B ICP Metals (Sample: 11-12-1560-5-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Iron	9.74		mg/L	0.0101	0.03	0.10	1	12/27/11 12:21	EPA 6010B	111222LA4
Magnesium	32.7		mg/L	0.00336	0.01	0.10	1	12/27/11 12:21	EPA 6010B	111222LA4
Potassium	5.08		mg/L	0.103	0.17	0.50	1	12/27/11 12:21	EPA 6010B	111222LA4
Sodium	175		mg/L	0.103	0.17	0.50	1	12/27/11 12:21	EPA 6010B	111222LA4
EPA 8260B Volatile Organics (Sample: 11-12-1560-5-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 21:40	EPA 8260B	111221L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/21/11 21:40	EPA 8260B	111221L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/21/11 21:40	EPA 8260B	111221L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/21/11 21:40	EPA 8260B	111221L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/21/11 21:40	EPA 8260B	111221L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 21:40	EPA 8260B	111221L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/21/11 21:40	EPA 8260B	111221L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/21/11 21:40	EPA 8260B	111221L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/21/11 21:40	EPA 8260B	111221L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/21/11 21:40	EPA 8260B	111221L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/21/11 21:40	EPA 8260B	111221L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/21/11 21:40	EPA 8260B	111221L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 21:40	EPA 8260B	111221L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 21:40	EPA 8260B	111221L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/21/11 21:40	EPA 8260B	111221L01
c-1,2-Dichloroethene	<0.5	U	ug/L	0.48	0.50	1.00	1	12/21/11 21:40	EPA 8260B	111221L01
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 21:40	EPA 8260B	111221L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 21:40	EPA 8260B	111221L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/21/11 21:40	EPA 8260B	111221L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/21/11 21:40	EPA 8260B	111221L01
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	1	12/21/11 21:40	EPA 8260B	111221L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/21/11 21:40	EPA 8260B	111221L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/21/11 21:40	EPA 8260B	111221L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/21/11 21:40	EPA 8260B	111221L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 21:40	EPA 8260B	111221L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/21/11 21:40	EPA 8260B	111221L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/21/11 21:40	EPA 8260B	111221L01
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 21:40	EPA 8260B	111221L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/21/11 21:40	EPA 8260B	111221L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/21/11 21:40	EPA 8260B	111221L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 21:40	EPA 8260B	111221L01
Vinyl Chloride	0.36	J	ug/L	0.30	0.50	1.00	1	12/21/11 21:40	EPA 8260B	111221L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/21/11 21:40	EPA 8260B	111221L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 21:40	EPA 8260B	111221L01

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Client:	CKY, Incorporated	Work Order:	11-12-1560
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/20/11 15:40
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 5 (DUP-2, Aqueous) Sampled: 12/20/11 00:00										
EPA 8260B Volatile Organics (Sample: 11-12-1560-5-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/21/11 21:40	EPA 8260B	111221L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/21/11 21:40	EPA 8260B	111221L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*98%*							*12/21/11 21:40*	*EPA 8260B*	*111221L01*
Surr: Dibromofluoromethane (85-115%)	*98%*							*12/21/11 21:40*	*EPA 8260B*	*111221L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*101%*							*12/21/11 21:40*	*EPA 8260B*	*111221L01*
Surr: Toluene-d8 (85-120%)	*100%*							*12/21/11 21:40*	*EPA 8260B*	*111221L01*
RSK-175M Dissolved Gases (Sample: 11-12-1560-5-E)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	1	12/23/11 22:19	RSK-175M	111223L01
Ethylene	<0.1725	U	ug/L	0.0566	0.17	0.43	1	12/23/11 22:19	RSK-175M	111223L01
Methane	8240		ug/L	2.67	0.07	0.17	80	12/23/11 22:19	RSK-175M	111223L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1560-5-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	1030		mg/L	0.820	1.60	2.00	1	12/21/11 12:40	SM 2540 C	B1221TDSB5
SM 5310 B Total Organic Carbon (Sample: 11-12-1560-5-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	91		mg/L	0.24	2.00	5.00	1	12/27/11 21:38	SM 5310 B	B1227TOCL2
Sample ID: 6 (MW-40-35, Aqueous) Sampled: 12/20/11 12:52										
EPA 300.0 Anions (Sample: 11-12-1560-6-I)										
-The reporting limit is elevated resulting from matrix interference.										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	330		mg/L	1.3	1.00	4.00	10	12/20/11 21:32	EPA 300.0	111220L01
Nitrite (as N)	<0.1	U	mg/L	0.043	0.10	0.40	2	12/20/11 21:32	EPA 300.0	111220L01
Nitrate (as N)	<0.1	U	mg/L	0.042	0.10	0.20	2	12/20/11 21:32	EPA 300.0	111220L01
Sulfate	<1	U	mg/L	0.26	1.00	4.00	2	12/20/11 21:32	EPA 300.0	111220L01
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1560-6-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	60		mg/L	10	21.00	25.00	1	12/22/11 16:00	EPA 410.4	B1222ODB2
EPA 6010B ICP Metals (Sample: 11-12-1560-6-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	74.5		mg/L	0.0118	0.03	0.10	1	12/27/11 12:22	EPA 6010B	111222LA4
Iron	6.74		mg/L	0.0101	0.03	0.10	1	12/27/11 12:22	EPA 6010B	111222LA4
Magnesium	90.4		mg/L	0.00336	0.01	0.10	1	12/27/11 12:22	EPA 6010B	111222LA4
Potassium	9.55		mg/L	0.103	0.17	0.50	1	12/27/11 12:22	EPA 6010B	111222LA4
Sodium	1860		mg/L	1.03	1.67	5.00	10	12/27/11 12:22	EPA 6010B	111222LA4

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1560
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/20/11 15:40
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 6 (MW-40-35, Aqueous) Sampled: 12/20/11 12:52										
EPA 8260B Volatile Organics (Sample: 11-12-1560-6-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 22:07	EPA 8260B	111221L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/21/11 22:07	EPA 8260B	111221L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/21/11 22:07	EPA 8260B	111221L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/21/11 22:07	EPA 8260B	111221L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/21/11 22:07	EPA 8260B	111221L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 22:07	EPA 8260B	111221L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/21/11 22:07	EPA 8260B	111221L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/21/11 22:07	EPA 8260B	111221L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/21/11 22:07	EPA 8260B	111221L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/21/11 22:07	EPA 8260B	111221L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/21/11 22:07	EPA 8260B	111221L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/21/11 22:07	EPA 8260B	111221L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 22:07	EPA 8260B	111221L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 22:07	EPA 8260B	111221L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/21/11 22:07	EPA 8260B	111221L01
c-1,2-Dichloroethene	3.4		ug/L	0.48	0.50	1.00	1	12/21/11 22:07	EPA 8260B	111221L01
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 22:07	EPA 8260B	111221L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 22:07	EPA 8260B	111221L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/21/11 22:07	EPA 8260B	111221L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/21/11 22:07	EPA 8260B	111221L01
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	1	12/21/11 22:07	EPA 8260B	111221L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/21/11 22:07	EPA 8260B	111221L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/21/11 22:07	EPA 8260B	111221L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/21/11 22:07	EPA 8260B	111221L01
Toluene	0.41	J	ug/L	0.24	0.50	1.00	1	12/21/11 22:07	EPA 8260B	111221L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/21/11 22:07	EPA 8260B	111221L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/21/11 22:07	EPA 8260B	111221L01
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/21/11 22:07	EPA 8260B	111221L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/21/11 22:07	EPA 8260B	111221L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/21/11 22:07	EPA 8260B	111221L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 22:07	EPA 8260B	111221L01
Vinyl Chloride	0.55		ug/L	0.30	0.50	1.00	1	12/21/11 22:07	EPA 8260B	111221L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/21/11 22:07	EPA 8260B	111221L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 22:07	EPA 8260B	111221L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/21/11 22:07	EPA 8260B	111221L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/21/11 22:07	EPA 8260B	111221L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*100%*							*12/21/11 22:07*	*EPA 8260B*	*111221L01*
Surr: Dibromofluoromethane (85-115%)	*95%*							*12/21/11 22:07*	*EPA 8260B*	*111221L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*102%*							*12/21/11 22:07*	*EPA 8260B*	*111221L01*
Surr: Toluene-d8 (85-120%)	*100%*							*12/21/11 22:07*	*EPA 8260B*	*111221L01*

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The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1560
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/20/11 15:40
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 6 (MW-40-35, Aqueous) Sampled: 12/20/11 12:52										
RSK-175M Dissolved Gases (Sample: 11-12-1560-6-E)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	1	12/23/11 22:57	RSK-175M	111223L01
Ethylene	0.340	J	ug/L	0.0566	0.17	0.43	1	12/23/11 22:57	RSK-175M	111223L01
Methane	4720		ug/L	2.67	0.07	0.17	80	12/23/11 22:57	RSK-175M	111223L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1560-6-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	4830		mg/L	0.820	1.60	2.00	1	12/21/11 12:40	SM 2540 C	B1221TDSB5
SM 5310 B Total Organic Carbon (Sample: 11-12-1560-6-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	190		mg/L	1.2	10.00	25.00	5	12/27/11 21:38	SM 5310 B	B1227TOCL2
Sample ID: 7 (MW-40-36, Aqueous) Sampled: 12/20/11 13:56										
EPA 300.0 Anions (Sample: 11-12-1560-7-I)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	220		mg/L	0.66	0.50	2.00	5	12/20/11 21:47	EPA 300.0	111220L01
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	1	12/20/11 21:47	EPA 300.0	111220L01
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	1	12/20/11 21:47	EPA 300.0	111220L01
Sulfate	26		mg/L	0.13	0.50	2.00	1	12/20/11 21:47	EPA 300.0	111220L01
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1560-7-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	29		mg/L	10	21.00	25.00	1	12/22/11 16:00	EPA 410.4	B1222ODB2
EPA 6010B ICP Metals (Sample: 11-12-1560-7-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	141		mg/L	0.0118	0.03	0.10	1	12/27/11 12:30	EPA 6010B	111222LA4
Iron	28.0		mg/L	0.0101	0.03	0.10	1	12/27/11 12:30	EPA 6010B	111222LA4
Magnesium	55.6		mg/L	0.00336	0.01	0.10	1	12/27/11 12:30	EPA 6010B	111222LA4
Potassium	3.93		mg/L	0.103	0.17	0.50	1	12/27/11 12:30	EPA 6010B	111222LA4
Sodium	288		mg/L	0.103	0.17	0.50	1	12/27/11 12:30	EPA 6010B	111222LA4
EPA 8260B Volatile Organics (Sample: 11-12-1560-7-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 22:35	EPA 8260B	111221L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/21/11 22:35	EPA 8260B	111221L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/21/11 22:35	EPA 8260B	111221L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/21/11 22:35	EPA 8260B	111221L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/21/11 22:35	EPA 8260B	111221L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 22:35	EPA 8260B	111221L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/21/11 22:35	EPA 8260B	111221L01

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1560
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/20/11 15:40
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 7 (MW-40-36, Aqueous) Sampled: 12/20/11 13:56										
EPA 8260B Volatile Organics (Sample: 11-12-1560-7-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/21/11 22:35	EPA 8260B	111221L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/21/11 22:35	EPA 8260B	111221L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/21/11 22:35	EPA 8260B	111221L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/21/11 22:35	EPA 8260B	111221L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/21/11 22:35	EPA 8260B	111221L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 22:35	EPA 8260B	111221L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 22:35	EPA 8260B	111221L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/21/11 22:35	EPA 8260B	111221L01
c-1,2-Dichloroethene	1.4		ug/L	0.48	0.50	1.00	1	12/21/11 22:35	EPA 8260B	111221L01
t-1,2-Dichloroethene	0.42	J	ug/L	0.37	0.50	1.00	1	12/21/11 22:35	EPA 8260B	111221L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/21/11 22:35	EPA 8260B	111221L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/21/11 22:35	EPA 8260B	111221L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/21/11 22:35	EPA 8260B	111221L01
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	1	12/21/11 22:35	EPA 8260B	111221L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/21/11 22:35	EPA 8260B	111221L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/21/11 22:35	EPA 8260B	111221L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/21/11 22:35	EPA 8260B	111221L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/21/11 22:35	EPA 8260B	111221L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/21/11 22:35	EPA 8260B	111221L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/21/11 22:35	EPA 8260B	111221L01
Trichloroethene	0.41	J	ug/L	0.37	0.50	1.00	1	12/21/11 22:35	EPA 8260B	111221L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/21/11 22:35	EPA 8260B	111221L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/21/11 22:35	EPA 8260B	111221L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/21/11 22:35	EPA 8260B	111221L01
Vinyl Chloride	1.2		ug/L	0.30	0.50	1.00	1	12/21/11 22:35	EPA 8260B	111221L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/21/11 22:35	EPA 8260B	111221L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/21/11 22:35	EPA 8260B	111221L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/21/11 22:35	EPA 8260B	111221L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/21/11 22:35	EPA 8260B	111221L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*99%*							*12/21/11 22:35*	*EPA 8260B*	*111221L01*
Surr: Dibromofluoromethane (85-115%)	*98%*							*12/21/11 22:35*	*EPA 8260B*	*111221L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*102%*							*12/21/11 22:35*	*EPA 8260B*	*111221L01*
Surr: Toluene-d8 (85-120%)	*100%*							*12/21/11 22:35*	*EPA 8260B*	*111221L01*
RSK-175M Dissolved Gases (Sample: 11-12-1560-7-E)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	0.390	J	ug/L	0.0672	0.13	0.37	1	12/23/11 23:19	RSK-175M	111223L01
Ethylene	0.820	J	ug/L	0.0566	0.17	0.43	1	12/23/11 23:19	RSK-175M	111223L01
Methane	5210		ug/L	2.67	0.07	0.17	80	12/23/11 23:19	RSK-175M	111223L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1560-7-J)										

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1560
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/20/11 15:40
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 7 (MW-40-36, Aqueous) Sampled: 12/20/11 13:56										
SM 2540 C Total Dissolved Solids (Sample: 11-12-1560-7-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	1400		mg/L	0.820	1.60	2.00	1	12/21/11 12:40	SM 2540 C	B1221TDSB5
SM 5310 B Total Organic Carbon (Sample: 11-12-1560-7-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	77		mg/L	0.24	2.00	5.00	1	12/27/11 21:38	SM 5310 B	B1227TOCL2

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The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1560
		Project Name:	Seal Beach NWS
		Received:	12/20/11 15:40
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
EPA 300.0 Anions									
099-14-547-3									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Chloride	<0.5	U	mg/L	0.13	0.50	2.00	111220L01	099-14-547-3	12/20/11 14:11
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	111220L01	099-14-547-3	12/20/11 14:11
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	111220L01	099-14-547-3	12/20/11 14:11
Sulfate	<0.5	U	mg/L	0.13	0.50	2.00	111220L01	099-14-547-3	12/20/11 14:11
099-14-547-4									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Chloride	<0.5	U	mg/L	0.13	0.50	2.00	111221L01	099-14-547-4	12/21/11 11:11
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	111221L01	099-14-547-4	12/21/11 11:11
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	111221L01	099-14-547-4	12/21/11 11:11
Sulfate	<0.5	U	mg/L	0.13	0.50	2.00	111221L01	099-14-547-4	12/21/11 11:11
099-14-547-6									
-The reporting limit is elevated resulting from matrix interference.									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Chloride	<0.5	U	mg/L	0.13	0.50	2.00	111222L01	099-14-547-6	12/22/11 13:20
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	111222L01	099-14-547-6	12/22/11 13:20
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	111222L01	099-14-547-6	12/22/11 13:20
Sulfate	<0.5	U	mg/L	0.13	0.50	2.00	111222L01	099-14-547-6	12/22/11 13:20
EPA 410.4 Chemical Oxygen Demand									
099-05-062-4,347									
Chemical Oxygen Demand	<21	U	mg/L	10	21.00	25.00	B1222ODB2	099-05-062-4,347	12/22/11 16:00
EPA 6010B ICP Metals									
099-14-483-4									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Calcium	<0.03333	U	mg/L	0.0118	0.03	0.10	111222LA4	099-14-483-4	12/27/11 11:39
Iron	<0.03333	U	mg/L	0.0101	0.03	0.10	111222LA4	099-14-483-4	12/27/11 11:39
Magnesium	<0.01	U	mg/L	0.0033	0.01	0.10	111222LA4	099-14-483-4	12/27/11 11:39
Potassium	<0.16667	U	mg/L	0.103	0.17	0.50	111222LA4	099-14-483-4	12/27/11 11:39
Sodium	<0.16667	U	mg/L	0.103	0.17	0.50	111222LA4	099-14-483-4	12/27/11 11:39
EPA 8260B Volatile Organics									
099-14-479-21									

Calscience Environmental Laboratories, Inc.

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Client:	CKY, Incorporated	Work Order:	11-12-1560
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/20/11 15:40
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
EPA 8260B Volatile Organics 099-14-479-21									
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Bromoform	<1	U	ug/L	0.50	1.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
c-1,2-Dichloroethene	<0.5	U	ug/L	0.48	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	111221L01	099-14-479-21	12/21/11 14:35
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	111221L01	099-14-479-21	12/21/11 14:35
Vinyl Chloride	<0.5	U	ug/L	0.30	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	111221L01	099-14-479-21	12/21/11 14:35
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated	Work Order:	11-12-1560
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/20/11 15:40
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
EPA 8260B Volatile Organics									
099-14-479-21									
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	111221L01	099-14-479-21	12/21/11 14:35
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	111221L01	099-14-479-21	12/21/11 14:35
Surr: 1,4-Bromofluorobenzene (75-120%)	*103%*						*111221L01*	*099-14-479-21*	*12/21/11 14:35*
Surr: Dibromofluoromethane (85-115%)	*95%*						*111221L01*	*099-14-479-21*	*12/21/11 14:35*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*102%*						*111221L01*	*099-14-479-21*	*12/21/11 14:35*
Surr: Toluene-d8 (85-120%)	*100%*						*111221L01*	*099-14-479-21*	*12/21/11 14:35*
RSK-175M Dissolved Gases									
099-14-531-2									
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	111223L01	099-14-531-2	12/23/11 12:02
Ethylene	<0.1725	U	ug/L	0.0566	0.17	0.43	111223L01	099-14-531-2	12/23/11 12:02
Methane	<0.0668	U	ug/L	0.0334	0.07	0.17	111223L01	099-14-531-2	12/23/11 12:02
099-14-531-4									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	111227L01	099-14-531-4	12/27/11 16:08
Ethylene	<0.1725	U	ug/L	0.0566	0.17	0.43	111227L01	099-14-531-4	12/27/11 16:08
Methane	<0.0668	U	ug/L	0.0334	0.07	0.17	111227L01	099-14-531-4	12/27/11 16:08
SM 2540 C Total Dissolved Solids									
099-14-577-3									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Solids, Total Dissolved	<1.6	U	mg/L	0.82	1.60	2.00	B1221TDSB5	099-14-577-3	12/21/11 12:40
SM 5310 B Total Organic Carbon									
099-05-097-4,480									
Carbon, Total Organic	<2	U	mg/L	0.24	2.00	5.00	B1227TOCL2	099-05-097-4,480	12/27/11 21:38

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1560
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
Matrix Spike

Analyte	Orig. Val.	MS Val.	Q	Units	Spike Conc.	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
EPA 300.0 Anions										
11-12-1560-1										
Chloride	98	5300		mg/L	5000	104	80-120	111220S01	11-12-1560-1	12/20/11 19:44
Nitrite (as N)	ND	260		mg/L	250	103	80-120	111220S01	11-12-1560-1	12/20/11 19:44
Nitrate (as N)	ND	510		mg/L	500	101	80-120	111220S01	11-12-1560-1	12/20/11 19:44
Sulfate	41	5100		mg/L	5000	102	80-120	111220S01	11-12-1560-1	12/20/11 19:44
11-12-1639-7										
Chloride	420	5700	BB	mg/L	5000	4X	80-120	111221S01	11-12-1639-7	12/21/11 20:00
EPA 6010B ICP Metals										
11-12-1457-3										
Calcium	129.0	133.5	BB	mg/L	0.5000	4X	80-120	111222SA4	11-12-1457-3	12/27/11 11:52
Iron	11.02	11.80	BB	mg/L	0.5000	4X	80-120	111222SA4	11-12-1457-3	12/27/11 11:52
Magnesium	39.40	40.70	BB	mg/L	0.5000	4X	80-120	111222SA4	11-12-1457-3	12/27/11 11:52
Potassium	2.288	7.741		mg/L	5.000	109	80-120	111222SA4	11-12-1457-3	12/27/11 11:52
Sodium	244.9	255.6	BB	mg/L	5.000	4X	80-120	111222SA4	11-12-1457-3	12/27/11 11:52
EPA 8260B Volatile Organics										
11-12-1457-3										
Acetone	ND	46.39		ug/L	50.00	93	40-140	111221S01	11-12-1457-3	12/21/11 16:30
Benzene	ND	48.89		ug/L	50.00	98	80-120	111221S01	11-12-1457-3	12/21/11 16:30
Bromobenzene	ND	49.34		ug/L	50.00	99	75-125	111221S01	11-12-1457-3	12/21/11 16:30
Bromochloromethane	ND	49.40		ug/L	50.00	99	65-135	111221S01	11-12-1457-3	12/21/11 16:30
Bromodichloromethane	ND	50.66		ug/L	50.00	101	75-120	111221S01	11-12-1457-3	12/21/11 16:30
Bromoform	ND	43.91		ug/L	50.00	88	70-130	111221S01	11-12-1457-3	12/21/11 16:30
Bromomethane	ND	54.46		ug/L	50.00	109	30-145	111221S01	11-12-1457-3	12/21/11 16:30
2-Butanone	ND	43.96		ug/L	50.00	88	30-150	111221S01	11-12-1457-3	12/21/11 16:30
n-Butylbenzene	ND	51.79		ug/L	50.00	104	70-135	111221S01	11-12-1457-3	12/21/11 16:30
sec-Butylbenzene	ND	51.14		ug/L	50.00	102	70-125	111221S01	11-12-1457-3	12/21/11 16:30
tert-Butylbenzene	ND	50.18		ug/L	50.00	100	70-130	111221S01	11-12-1457-3	12/21/11 16:30
Carbon Disulfide	ND	48.74		ug/L	50.00	97	35-160	111221S01	11-12-1457-3	12/21/11 16:30
Carbon Tetrachloride	ND	51.39		ug/L	50.00	103	65-140	111221S01	11-12-1457-3	12/21/11 16:30
Chlorobenzene	ND	49.54		ug/L	50.00	99	80-120	111221S01	11-12-1457-3	12/21/11 16:30
Chloroethane	ND	51.27		ug/L	50.00	103	60-135	111221S01	11-12-1457-3	12/21/11 16:30
Chloroform	ND	50.73		ug/L	50.00	101	65-135	111221S01	11-12-1457-3	12/21/11 16:30
Chloromethane	ND	49.35		ug/L	50.00	99	40-125	111221S01	11-12-1457-3	12/21/11 16:30
2-Chlorotoluene	ND	48.96		ug/L	50.00	98	75-125	111221S01	11-12-1457-3	12/21/11 16:30
4-Chlorotoluene	ND	50.96		ug/L	50.00	102	75-130	111221S01	11-12-1457-3	12/21/11 16:30
Dibromochloromethane	ND	49.01		ug/L	50.00	98	60-135	111221S01	11-12-1457-3	12/21/11 16:30
1,2-Dibromo-3-Chloropropane	ND	44.40		ug/L	50.00	89	50-130	111221S01	11-12-1457-3	12/21/11 16:30
1,2-Dibromoethane	ND	49.42		ug/L	50.00	99	80-120	111221S01	11-12-1457-3	12/21/11 16:30
Dibromomethane	ND	50.83		ug/L	50.00	102	75-125	111221S01	11-12-1457-3	12/21/11 16:30
1,2-Dichlorobenzene	ND	49.89		ug/L	50.00	100	70-120	111221S01	11-12-1457-3	12/21/11 16:30
1,3-Dichlorobenzene	ND	49.49		ug/L	50.00	99	75-125	111221S01	11-12-1457-3	12/21/11 16:30

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1560
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
Matrix Spike

Analyte	Orig. Val.	MS Val.	Q	Units	Spike Conc.	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
EPA 8260B Volatile Organics										
1,4-Dichlorobenzene	ND	49.29		ug/L	50.00	99	75-125	111221S01	11-12-1457-3	12/21/11 16:30
Dichlorodifluoromethane	ND	52.57		ug/L	50.00	105	30-155	111221S01	11-12-1457-3	12/21/11 16:30
1,1-Dichloroethane	ND	50.48		ug/L	50.00	101	70-135	111221S01	11-12-1457-3	12/21/11 16:30
1,2-Dichloroethane	ND	48.95		ug/L	50.00	98	70-130	111221S01	11-12-1457-3	12/21/11 16:30
1,1-Dichloroethene	ND	50.10		ug/L	50.00	100	70-130	111221S01	11-12-1457-3	12/21/11 16:30
c-1,2-Dichloroethene	56.49	103.9		ug/L	50.00	95	70-125	111221S01	11-12-1457-3	12/21/11 16:30
t-1,2-Dichloroethene	ND	49.16		ug/L	50.00	98	60-140	111221S01	11-12-1457-3	12/21/11 16:30
1,2-Dichloropropane	ND	49.92		ug/L	50.00	100	75-125	111221S01	11-12-1457-3	12/21/11 16:30
1,3-Dichloropropane	ND	49.25		ug/L	50.00	99	75-125	111221S01	11-12-1457-3	12/21/11 16:30
2,2-Dichloropropane	ND	48.96		ug/L	50.00	98	70-135	111221S01	11-12-1457-3	12/21/11 16:30
1,1-Dichloropropene	ND	50.76		ug/L	50.00	102	75-130	111221S01	11-12-1457-3	12/21/11 16:30
c-1,3-Dichloropropene	ND	48.87		ug/L	50.00	98	70-130	111221S01	11-12-1457-3	12/21/11 16:30
t-1,3-Dichloropropene	ND	46.95		ug/L	50.00	94	55-140	111221S01	11-12-1457-3	12/21/11 16:30
Ethylbenzene	ND	49.51		ug/L	50.00	99	75-125	111221S01	11-12-1457-3	12/21/11 16:30
2-Hexanone	ND	45.94		ug/L	50.00	92	55-130	111221S01	11-12-1457-3	12/21/11 16:30
Isopropylbenzene	ND	49.79		ug/L	50.00	100	75-125	111221S01	11-12-1457-3	12/21/11 16:30
p-Isopropyltoluene	ND	51.16		ug/L	50.00	102	75-130	111221S01	11-12-1457-3	12/21/11 16:30
Methylene Chloride	ND	50.16		ug/L	50.00	100	55-140	111221S01	11-12-1457-3	12/21/11 16:30
4-Methyl-2-Pentanone	ND	46.71		ug/L	50.00	93	60-135	111221S01	11-12-1457-3	12/21/11 16:30
Naphthalene	ND	46.16		ug/L	50.00	92	55-140	111221S01	11-12-1457-3	12/21/11 16:30
n-Propylbenzene	ND	49.71		ug/L	50.00	99	70-130	111221S01	11-12-1457-3	12/21/11 16:30
Styrene	ND	50.04		ug/L	50.00	100	65-135	111221S01	11-12-1457-3	12/21/11 16:30
1,1,1,2-Tetrachloroethane	ND	49.54		ug/L	50.00	99	80-130	111221S01	11-12-1457-3	12/21/11 16:30
1,1,2,2-Tetrachloroethane	ND	48.21		ug/L	50.00	96	65-130	111221S01	11-12-1457-3	12/21/11 16:30
Tetrachloroethene	ND	53.48		ug/L	50.00	107	45-150	111221S01	11-12-1457-3	12/21/11 16:30
Toluene	ND	49.44		ug/L	50.00	99	75-120	111221S01	11-12-1457-3	12/21/11 16:30
1,2,3-Trichlorobenzene	ND	46.31		ug/L	50.00	93	55-140	111221S01	11-12-1457-3	12/21/11 16:30
1,2,4-Trichlorobenzene	ND	48.18		ug/L	50.00	96	65-135	111221S01	11-12-1457-3	12/21/11 16:30
1,1,1-Trichloroethane	ND	50.21		ug/L	50.00	100	65-130	111221S01	11-12-1457-3	12/21/11 16:30
1,1,2-Trichloroethane	ND	49.90		ug/L	50.00	100	75-125	111221S01	11-12-1457-3	12/21/11 16:30
Trichloroethene	ND	50.94		ug/L	50.00	102	70-125	111221S01	11-12-1457-3	12/21/11 16:30
Trichlorofluoromethane	ND	53.68		ug/L	50.00	107	60-145	111221S01	11-12-1457-3	12/21/11 16:30
1,2,3-Trichloropropane	ND	46.75		ug/L	50.00	93	75-125	111221S01	11-12-1457-3	12/21/11 16:30
1,2,4-Trimethylbenzene	ND	50.90		ug/L	50.00	102	75-130	111221S01	11-12-1457-3	12/21/11 16:30
1,3,5-Trimethylbenzene	ND	49.87		ug/L	50.00	100	75-130	111221S01	11-12-1457-3	12/21/11 16:30
Vinyl Chloride	ND	52.84		ug/L	50.00	106	50-145	111221S01	11-12-1457-3	12/21/11 16:30
p/m-Xylene	ND	98.10		ug/L	100.0	98	75-130	111221S01	11-12-1457-3	12/21/11 16:30
o-Xylene	ND	49.55		ug/L	50.00	99	80-120	111221S01	11-12-1457-3	12/21/11 16:30
Methyl-t-Butyl Ether (MTBE)	ND	48.69		ug/L	50.00	97	65-125	111221S01	11-12-1457-3	12/21/11 16:30
Tert-Butyl Alcohol (TBA)	ND	254.2		ug/L	250.0	102	46-154	111221S01	11-12-1457-3	12/21/11 16:30
SM 5310 B Total Organic Carbon										
11-12-1457-3										
Carbon, Total Organic	32	78		mg/L	50	92	70-130	B1227TOCS2	11-12-1457-3	12/27/11 21:38

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1560
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
Matrix Spike Dup

Analyte	Orig Val.	Duplicate	Q	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 300.0 Anions												
11-12-1560-1												
Chloride	98	5300		mg/L	5000	104	80-120	0	0-20	111220S01	11-12-1560-1	12/20/11 19:59
Nitrite (as N)	ND	260		mg/L	250	103	80-120	0	0-20	111220S01	11-12-1560-1	12/20/11 19:59
Nitrate (as N)	ND	510		mg/L	500	102	80-120	0	0-20	111220S01	11-12-1560-1	12/20/11 19:59
Sulfate	41	5100		mg/L	5000	102	80-120	0	0-20	111220S01	11-12-1560-1	12/20/11 19:59
11-12-1639-7												
Chloride	420	5700	BB	mg/L	5000	4X	80-120	4X	0-20	111221S01	11-12-1639-7	12/21/11 20:15
EPA 6010B ICP Metals												
11-12-1457-3												
Calcium	129.0	127.2	BB	mg/L	0.5000	4X	80-120	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:53
Iron	11.02	11.33	BB	mg/L	0.5000	4X	80-120	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:53
Magnesium	39.40	39.20	BB	mg/L	0.5000	4X	80-120	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:53
Potassium	2.288	7.463		mg/L	5.000	104	80-120	4	0-20	111222SA4	11-12-1457-3	12/27/11 11:53
Sodium	244.9	245.4	BB	mg/L	5.000	4X	80-120	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:53
EPA 8260B Volatile Organics												
11-12-1457-3												
Acetone	ND	48.11		ug/L	50.00	96	40-140	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Benzene	ND	50.21		ug/L	50.00	100	80-120	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Bromobenzene	ND	52.03		ug/L	50.00	104	75-125	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Bromochloromethane	ND	51.65		ug/L	50.00	103	65-135	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Bromodichloromethane	ND	52.06		ug/L	50.00	104	75-120	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Bromoform	ND	46.43		ug/L	50.00	93	70-130	6	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Bromomethane	ND	53.96		ug/L	50.00	108	30-145	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
2-Butanone	ND	46.25		ug/L	50.00	92	30-150	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
n-Butylbenzene	ND	53.12		ug/L	50.00	106	70-135	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
sec-Butylbenzene	ND	51.98		ug/L	50.00	104	70-125	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
tert-Butylbenzene	ND	50.53		ug/L	50.00	101	70-130	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Carbon Disulfide	ND	50.88		ug/L	50.00	102	35-160	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Carbon Tetrachloride	ND	53.59		ug/L	50.00	107	65-140	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Chlorobenzene	ND	51.48		ug/L	50.00	103	80-120	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Chloroethane	ND	52.33		ug/L	50.00	105	60-135	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Chloroform	ND	52.30		ug/L	50.00	105	65-135	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Chloromethane	ND	50.75		ug/L	50.00	102	40-125	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
2-Chlorotoluene	ND	50.86		ug/L	50.00	102	75-125	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
4-Chlorotoluene	ND	51.25		ug/L	50.00	103	75-130	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Dibromochloromethane	ND	52.00		ug/L	50.00	104	60-135	6	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2-Dibromo-3-Chloropropane	ND	45.23		ug/L	50.00	90	50-130	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2-Dibromoethane	ND	51.13		ug/L	50.00	102	80-120	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Dibromomethane	ND	50.67		ug/L	50.00	101	75-125	0	0-20	111221S01	11-12-1457-3	12/21/11 16:58

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1560
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
Matrix Spike Dup

Analyte	Orig Val.	Duplicate	Q	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 8260B Volatile Organics												
1,2-Dichlorobenzene	ND	50.69		ug/L	50.00	101	70-120	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,3-Dichlorobenzene	ND	50.32		ug/L	50.00	101	75-125	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,4-Dichlorobenzene	ND	49.77		ug/L	50.00	100	75-125	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Dichlorodifluoromethane	ND	51.69		ug/L	50.00	103	30-155	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1-Dichloroethane	ND	51.72		ug/L	50.00	103	70-135	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2-Dichloroethane	ND	50.75		ug/L	50.00	101	70-130	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1-Dichloroethene	ND	52.41		ug/L	50.00	105	70-130	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
c-1,2-Dichloroethene	56.49	104.4		ug/L	50.00	96	70-125	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
t-1,2-Dichloroethene	ND	51.33		ug/L	50.00	103	60-140	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2-Dichloropropane	ND	51.20		ug/L	50.00	102	75-125	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,3-Dichloropropane	ND	51.36		ug/L	50.00	103	75-125	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
2,2-Dichloropropane	ND	51.33		ug/L	50.00	103	70-135	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1-Dichloropropene	ND	52.29		ug/L	50.00	105	75-130	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
c-1,3-Dichloropropene	ND	50.57		ug/L	50.00	101	70-130	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
t-1,3-Dichloropropene	ND	49.57		ug/L	50.00	99	55-140	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Ethylbenzene	ND	51.35		ug/L	50.00	103	75-125	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
2-Hexanone	ND	48.53		ug/L	50.00	97	55-130	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Isopropylbenzene	ND	52.06		ug/L	50.00	104	75-125	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
p-Isopropyltoluene	ND	52.12		ug/L	50.00	104	75-130	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Methylene Chloride	ND	51.41		ug/L	50.00	103	55-140	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
4-Methyl-2-Pentanone	ND	48.31		ug/L	50.00	97	60-135	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Naphthalene	ND	48.19		ug/L	50.00	96	55-140	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
n-Propylbenzene	ND	51.66		ug/L	50.00	103	70-130	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Styrene	ND	51.38		ug/L	50.00	103	65-135	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1,1,2-Tetrachloroethane	ND	51.68		ug/L	50.00	103	80-130	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1,2,2-Tetrachloroethane	ND	49.05		ug/L	50.00	98	65-130	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Tetrachloroethene	ND	56.01		ug/L	50.00	112	45-150	5	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Toluene	ND	50.37		ug/L	50.00	101	75-120	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2,3-Trichlorobenzene	ND	49.22		ug/L	50.00	98	55-140	6	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2,4-Trichlorobenzene	ND	50.39		ug/L	50.00	101	65-135	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1,1-Trichloroethane	ND	52.42		ug/L	50.00	105	65-130	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,1,2-Trichloroethane	ND	51.23		ug/L	50.00	102	75-125	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Trichloroethene	ND	52.01		ug/L	50.00	104	70-125	2	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Trichlorofluoromethane	ND	52.95		ug/L	50.00	106	60-145	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2,3-Trichloropropane	ND	48.50		ug/L	50.00	97	75-125	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,2,4-Trimethylbenzene	ND	51.20		ug/L	50.00	102	75-130	1	0-20	111221S01	11-12-1457-3	12/21/11 16:58
1,3,5-Trimethylbenzene	ND	52.07		ug/L	50.00	104	75-130	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Vinyl Chloride	ND	53.08		ug/L	50.00	106	50-145	0	0-20	111221S01	11-12-1457-3	12/21/11 16:58
p/m-Xylene	ND	101.3		ug/L	100.0	101	75-130	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
o-Xylene	ND	51.52		ug/L	50.00	103	80-120	4	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Methyl-t-Butyl Ether (MTBE)	ND	50.36		ug/L	50.00	101	65-125	3	0-20	111221S01	11-12-1457-3	12/21/11 16:58
Tert-Butyl Alcohol (TBA)	ND	255.5		ug/L	250.0	102	46-154	1	0-35	111221S01	11-12-1457-3	12/21/11 16:58

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1560 Seal Beach NWS 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
Matrix Spike Dup

Analyte	Orig Val.	Duplicate	Q	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
SM 5310 B Total Organic Carbon												
11-12-1457-3												
Carbon, Total Organic	32	88		mg/L	50	110	70-130	11	0-25	B1227TOCS2	11-12-1457-3	12/27/11 21:38

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1560
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
Post Digestion Spike

Analyte	Orig. Val.	MS Val.	Q	Units	Spike Conc.	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
EPA 6010B ICP Metals										
11-12-1457-3										
Calcium	129.0	129.2	BB	mg/L	0.5000	4X	75-125	111222SA4	11-12-1457-3	12/27/11 11:54
Iron	11.02	11.46	BB	mg/L	0.5000	4X	75-125	111222SA4	11-12-1457-3	12/27/11 11:54
Magnesium	39.40	39.58	BB	mg/L	0.5000	4X	75-125	111222SA4	11-12-1457-3	12/27/11 11:54
Potassium	2.288	7.294		mg/L	5.000	100	75-125	111222SA4	11-12-1457-3	12/27/11 11:54
Sodium	244.9	246.8	BB	mg/L	5.000	4X	75-125	111222SA4	11-12-1457-3	12/27/11 11:54

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1560
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
Post Digestion Spike Dup

Analyte	Orig Val.	Duplicate	Q	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 6010B ICP Metals												
11-12-1457-3												
Calcium	129.0	128.2	BB	mg/L	0.5000	4X	75-125	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:56
Iron	11.02	11.48	BB	mg/L	0.5000	4X	75-125	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:56
Magnesium	39.40	39.78	BB	mg/L	0.5000	4X	75-125	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:56
Potassium	2.288	7.411		mg/L	5.000	102	75-125	2	0-20	111222SA4	11-12-1457-3	12/27/11 11:56
Sodium	244.9	244.8	BB	mg/L	5.000	4X	75-125	4X	0-20	111222SA4	11-12-1457-3	12/27/11 11:56

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1560
		Project Name:	Seal Beach NWS
		Received:	12/20/11 15:40

PROJECT QUALITY CONTROL DATA
Sample Dup

Analyte	Orig Val.	Duplicate	Q	Units	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 410.4									
11-12-1560-7									
Chemical Oxygen Demand	29	26		mg/L	11	0-25	B1222ODD2	MW-40-36	12/22/11 16:00
RSK-175M									
11-12-1557-1									
Ethane	ND	ND		ug/L	NA	0-20	111223D01	11-12-1557-1	12/24/11 00:46
Ethylene	ND	ND		ug/L	NA	0-20	111223D01	11-12-1557-1	12/24/11 00:46
Methane	5879	5404		ug/L	8	0-20	111223D01	11-12-1557-1	12/24/11 00:46
11-12-1560-6									
Ethane	ND	ND		ug/L	NA	0-20	111227D01	MW-40-35	12/27/11 18:42
Ethylene	ND	ND		ug/L	NA	0-20	111227D01	MW-40-35	12/27/11 18:42
Methane	4720	4427		ug/L	6	0-20	111227D01	MW-40-35	12/27/11 18:42
SM 2540 C									
11-12-1560-1									
Solids, Total Dissolved	1460	1440		mg/L	1	0-10	B1221TDSD5	MW-40-30	12/21/11 12:40

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1560
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA 300.0 Anions								
099-14-547-3								
Chloride	50	51		mg/L	102	90-110	111220L01	12/20/11 14:26
Nitrite (as N)	2.5	2.5		mg/L	100	90-110	111220L01	12/20/11 14:26
Nitrate (as N)	5.0	5.0		mg/L	99	90-110	111220L01	12/20/11 14:26
Sulfate	50	50		mg/L	100	90-110	111220L01	12/20/11 14:26
099-14-547-4								
Chloride	50	51		mg/L	103	90-110	111221L01	12/21/11 11:26
Nitrite (as N)	2.5	2.5		mg/L	99	90-110	111221L01	12/21/11 11:26
Nitrate (as N)	5.0	5.0		mg/L	101	90-110	111221L01	12/21/11 11:26
Sulfate	50	51		mg/L	101	90-110	111221L01	12/21/11 11:26
099-14-547-6								
Chloride	50	50		mg/L	100	90-110	111222L01	12/22/11 13:36
Nitrite (as N)	2.5	2.5		mg/L	101	90-110	111222L01	12/22/11 13:36
Nitrate (as N)	5.0	4.9		mg/L	98	90-110	111222L01	12/22/11 13:36
Sulfate	50	50		mg/L	99	90-110	111222L01	12/22/11 13:36
EPA 6010B ICP Metals								
099-14-483-4								
Calcium	0.5000	0.5143		mg/L	103	80-120	111222LA4	12/27/11 11:41
Iron	0.5000	0.5123		mg/L	102	80-120	111222LA4	12/27/11 11:41
Magnesium	0.5000	0.5117		mg/L	102	80-120	111222LA4	12/27/11 11:41
Potassium	5.000	4.974		mg/L	99	80-120	111222LA4	12/27/11 11:41
Sodium	5.000	5.171		mg/L	103	80-120	111222LA4	12/27/11 11:41
EPA 8260B Volatile Organics								

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1560
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA 8260B Volatile Organics								
099-14-479-21								
Acetone	50.00	53.13		ug/L	106	40-140	111221L01	12/21/11 13:11
Benzene	50.00	50.04		ug/L	100	80-120	111221L01	12/21/11 13:11
Bromobenzene	50.00	51.20		ug/L	102	75-125	111221L01	12/21/11 13:11
Bromochloromethane	50.00	50.27		ug/L	101	65-130	111221L01	12/21/11 13:11
Bromodichloromethane	50.00	53.02		ug/L	106	75-120	111221L01	12/21/11 13:11
Bromoform	50.00	47.27		ug/L	95	70-130	111221L01	12/21/11 13:11
Bromomethane	50.00	58.82		ug/L	118	30-145	111221L01	12/21/11 13:11
2-Butanone	50.00	50.91		ug/L	102	30-150	111221L01	12/21/11 13:11
n-Butylbenzene	50.00	54.04		ug/L	108	70-135	111221L01	12/21/11 13:11
sec-Butylbenzene	50.00	53.67		ug/L	107	70-125	111221L01	12/21/11 13:11
tert-Butylbenzene	50.00	50.49		ug/L	101	70-130	111221L01	12/21/11 13:11
Carbon Disulfide	50.00	50.58		ug/L	101	35-160	111221L01	12/21/11 13:11
Carbon Tetrachloride	50.00	53.70		ug/L	107	65-140	111221L01	12/21/11 13:11
Chlorobenzene	50.00	51.01		ug/L	102	80-120	111221L01	12/21/11 13:11
Chloroethane	50.00	52.76		ug/L	106	60-135	111221L01	12/21/11 13:11
Chloroform	50.00	51.39		ug/L	103	65-135	111221L01	12/21/11 13:11
Chloromethane	50.00	51.36		ug/L	103	40-125	111221L01	12/21/11 13:11
2-Chlorotoluene	50.00	50.23		ug/L	100	75-125	111221L01	12/21/11 13:11
4-Chlorotoluene	50.00	52.12		ug/L	104	75-130	111221L01	12/21/11 13:11
Dibromochloromethane	50.00	52.16		ug/L	104	60-135	111221L01	12/21/11 13:11
1,2-Dibromo-3-Chloropropane	50.00	45.83		ug/L	92	50-130	111221L01	12/21/11 13:11
1,2-Dibromoethane	50.00	51.12		ug/L	102	80-120	111221L01	12/21/11 13:11
Dibromomethane	50.00	50.74		ug/L	101	75-125	111221L01	12/21/11 13:11
1,2-Dichlorobenzene	50.00	51.19		ug/L	102	70-120	111221L01	12/21/11 13:11
1,3-Dichlorobenzene	50.00	51.12		ug/L	102	75-125	111221L01	12/21/11 13:11
1,4-Dichlorobenzene	50.00	50.07		ug/L	100	75-125	111221L01	12/21/11 13:11
Dichlorodifluoromethane	50.00	52.90		ug/L	106	30-155	111221L01	12/21/11 13:11
1,1-Dichloroethane	50.00	51.18		ug/L	102	70-135	111221L01	12/21/11 13:11
1,2-Dichloroethane	50.00	50.19		ug/L	100	70-130	111221L01	12/21/11 13:11
1,1-Dichloroethene	50.00	51.95		ug/L	104	70-130	111221L01	12/21/11 13:11
c-1,2-Dichloroethene	50.00	52.14		ug/L	104	70-125	111221L01	12/21/11 13:11
t-1,2-Dichloroethene	50.00	52.06		ug/L	104	60-140	111221L01	12/21/11 13:11
1,2-Dichloropropane	50.00	50.84		ug/L	102	75-125	111221L01	12/21/11 13:11
1,3-Dichloropropane	50.00	51.23		ug/L	102	75-125	111221L01	12/21/11 13:11
2,2-Dichloropropane	50.00	51.86		ug/L	104	70-135	111221L01	12/21/11 13:11
1,1-Dichloropropene	50.00	51.85		ug/L	104	75-130	111221L01	12/21/11 13:11
c-1,3-Dichloropropene	50.00	50.48		ug/L	101	70-130	111221L01	12/21/11 13:11
t-1,3-Dichloropropene	50.00	50.24		ug/L	100	55-140	111221L01	12/21/11 13:11
Ethylbenzene	50.00	51.28		ug/L	103	75-125	111221L01	12/21/11 13:11

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1560 Seal Beach NWS 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA 8260B Volatile Organics								
2-Hexanone	50.00	48.87		ug/L	98	55-130	111221L01	12/21/11 13:11
Isopropylbenzene	50.00	51.71		ug/L	103	75-125	111221L01	12/21/11 13:11
p-Isopropyltoluene	50.00	53.12		ug/L	106	75-130	111221L01	12/21/11 13:11
Methylene Chloride	50.00	50.37		ug/L	101	55-140	111221L01	12/21/11 13:11
4-Methyl-2-Pentanone	50.00	47.97		ug/L	96	60-135	111221L01	12/21/11 13:11
Naphthalene	50.00	46.55		ug/L	93	55-140	111221L01	12/21/11 13:11
n-Propylbenzene	50.00	51.92		ug/L	104	70-130	111221L01	12/21/11 13:11
Styrene	50.00	51.58		ug/L	103	65-135	111221L01	12/21/11 13:11
1,1,1,2-Tetrachloroethane	50.00	52.28		ug/L	105	80-130	111221L01	12/21/11 13:11
1,1,2,2-Tetrachloroethane	50.00	46.26		ug/L	93	65-130	111221L01	12/21/11 13:11
Tetrachloroethene	50.00	65.39		ug/L	131	45-150	111221L01	12/21/11 13:11
Toluene	50.00	50.51		ug/L	101	75-120	111221L01	12/21/11 13:11
1,2,3-Trichlorobenzene	50.00	47.71		ug/L	95	55-140	111221L01	12/21/11 13:11
1,2,4-Trichlorobenzene	50.00	49.90		ug/L	100	65-135	111221L01	12/21/11 13:11
1,1,1-Trichloroethane	50.00	52.76		ug/L	106	65-130	111221L01	12/21/11 13:11
1,1,2-Trichloroethane	50.00	51.78		ug/L	104	75-125	111221L01	12/21/11 13:11
Trichloroethene	50.00	53.32		ug/L	107	70-125	111221L01	12/21/11 13:11
Trichlorofluoromethane	50.00	53.47		ug/L	107	60-145	111221L01	12/21/11 13:11
1,2,3-Trichloropropane	50.00	47.88		ug/L	96	75-125	111221L01	12/21/11 13:11
1,2,4-Trimethylbenzene	50.00	52.72		ug/L	105	75-130	111221L01	12/21/11 13:11
1,3,5-Trimethylbenzene	50.00	51.63		ug/L	103	75-130	111221L01	12/21/11 13:11
Vinyl Chloride	50.00	54.45		ug/L	109	50-145	111221L01	12/21/11 13:11
p/m-Xylene	100.0	101.5		ug/L	102	75-130	111221L01	12/21/11 13:11
o-Xylene	50.00	50.78		ug/L	102	80-120	111221L01	12/21/11 13:11
Methyl-t-Butyl Ether (MTBE)	50.00	50.31		ug/L	101	65-125	111221L01	12/21/11 13:11
Tert-Butyl Alcohol (TBA)	250.0	254.8		ug/L	102	46-154	111221L01	12/21/11 13:11

Total number of LCS compounds:	65
Total number of ME compounds:	0
Total number of ME compound allowed:	3
LCS ME CL validation result:	Pass

RSK-175M Dissolved Gases								
099-14-531-2								
Ethane	101.0	91.87		ug/L	91	80-120	111223L01	12/23/11 09:39
Methane	100.0	93.47		ug/L	93	79-109	111223L01	12/23/11 09:39
099-14-531-4								
Ethane	101.0	90.09		ug/L	89	80-120	111227L01	12/27/11 13:32
Methane	100.0	91.32		ug/L	91	79-109	111227L01	12/27/11 13:32

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1560 Seal Beach NWS 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
SM 5310 B Total Organic Carbon								
099-05-097-4,480								
Carbon, Total Organic	10	10		mg/L	104	80-120	B1227TOCL2	12/27/11 21:38

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1560
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 300.0 Anions											
099-14-547-3											
Chloride	50	51		mg/L	102	90-110	0	0-15	111220L01	099-14-547-3	12/20/11 14:41
Nitrite (as N)	2.5	2.5		mg/L	101	90-110	0	0-15	111220L01	099-14-547-3	12/20/11 14:41
Nitrate (as N)	5.0	5.0		mg/L	99	90-110	0	0-15	111220L01	099-14-547-3	12/20/11 14:41
Sulfate	50	50		mg/L	100	90-110	0	0-15	111220L01	099-14-547-3	12/20/11 14:41
099-14-547-4											
Chloride	50	51		mg/L	103	90-110	0	0-15	111221L01	099-14-547-4	12/21/11 12:09
Nitrite (as N)	2.5	2.5		mg/L	100	90-110	1	0-15	111221L01	099-14-547-4	12/21/11 12:09
Nitrate (as N)	5.0	5.1		mg/L	101	90-110	1	0-15	111221L01	099-14-547-4	12/21/11 12:09
Sulfate	50	51		mg/L	102	90-110	0	0-15	111221L01	099-14-547-4	12/21/11 12:09
099-14-547-6											
Chloride	50	50		mg/L	100	90-110	0	0-15	111222L01	099-14-547-6	12/22/11 13:51
Nitrite (as N)	2.5	2.5		mg/L	101	90-110	0	0-15	111222L01	099-14-547-6	12/22/11 13:51
Nitrate (as N)	5.0	4.9		mg/L	98	90-110	0	0-15	111222L01	099-14-547-6	12/22/11 13:51
Sulfate	50	49		mg/L	99	90-110	1	0-15	111222L01	099-14-547-6	12/22/11 13:51
EPA 6010B ICP Metals											
099-14-483-4											
Calcium	0.5000	0.5014		mg/L	100	80-120	3	0-20	111222LA4	099-14-483-4	12/27/11 11:43
Iron	0.5000	0.5000		mg/L	100	80-120	2	0-20	111222LA4	099-14-483-4	12/27/11 11:43
Magnesium	0.5000	0.5064		mg/L	101	80-120	1	0-20	111222LA4	099-14-483-4	12/27/11 11:43
Potassium	5.000	4.797		mg/L	96	80-120	4	0-20	111222LA4	099-14-483-4	12/27/11 11:43
Sodium	5.000	5.007		mg/L	100	80-120	3	0-20	111222LA4	099-14-483-4	12/27/11 11:43
EPA 8260B Volatile Organics											
099-14-479-21											
Acetone	50.00	54.05		ug/L	108	40-140	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
Benzene	50.00	50.18		ug/L	100	80-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Bromobenzene	50.00	51.29		ug/L	103	75-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Bromochloromethane	50.00	51.63		ug/L	103	65-130	3	0-20	111221L01	099-14-479-21	12/21/11 13:39
Bromodichloromethane	50.00	52.83		ug/L	106	75-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Bromoform	50.00	48.68		ug/L	97	70-130	3	0-20	111221L01	099-14-479-21	12/21/11 13:39
Bromomethane	50.00	57.89		ug/L	116	30-145	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
2-Butanone	50.00	53.34		ug/L	107	30-150	5	0-20	111221L01	099-14-479-21	12/21/11 13:39
n-Butylbenzene	50.00	54.21		ug/L	108	70-135	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
sec-Butylbenzene	50.00	53.93		ug/L	108	70-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
tert-Butylbenzene	50.00	50.86		ug/L	102	70-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Carbon Disulfide	50.00	51.15		ug/L	102	35-160	1	0-20	111221L01	099-14-479-21	12/21/11 13:39

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1560
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 8260B Volatile Organics											
Carbon Tetrachloride	50.00	54.58		ug/L	109	65-140	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
Chlorobenzene	50.00	50.90		ug/L	102	80-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Chloroethane	50.00	52.12		ug/L	104	60-135	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Chloroform	50.00	52.18		ug/L	104	65-135	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
Chloromethane	50.00	51.69		ug/L	103	40-125	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
2-Chlorotoluene	50.00	50.41		ug/L	101	75-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
4-Chlorotoluene	50.00	52.78		ug/L	106	75-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Dibromochloromethane	50.00	52.50		ug/L	105	60-135	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2-Dibromo-3-Chloropropane	50.00	48.91		ug/L	98	50-130	7	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2-Dibromoethane	50.00	51.98		ug/L	104	80-120	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
Dibromomethane	50.00	52.29		ug/L	105	75-125	3	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2-Dichlorobenzene	50.00	51.26		ug/L	103	70-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,3-Dichlorobenzene	50.00	51.63		ug/L	103	75-125	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,4-Dichlorobenzene	50.00	50.92		ug/L	102	75-125	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
Dichlorodifluoromethane	50.00	52.83		ug/L	106	30-155	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1-Dichloroethane	50.00	52.19		ug/L	104	70-135	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2-Dichloroethane	50.00	51.28		ug/L	103	70-130	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1-Dichloroethene	50.00	52.66		ug/L	105	70-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
c-1,2-Dichloroethene	50.00	52.04		ug/L	104	70-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
t-1,2-Dichloroethene	50.00	51.97		ug/L	104	60-140	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2-Dichloropropane	50.00	52.11		ug/L	104	75-125	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,3-Dichloropropane	50.00	51.83		ug/L	104	75-125	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
2,2-Dichloropropane	50.00	52.78		ug/L	106	70-135	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1-Dichloropropene	50.00	53.01		ug/L	106	75-130	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
c-1,3-Dichloropropene	50.00	51.62		ug/L	103	70-130	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
t-1,3-Dichloropropene	50.00	49.64		ug/L	99	55-140	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Ethylbenzene	50.00	51.09		ug/L	102	75-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
2-Hexanone	50.00	51.10		ug/L	102	55-130	4	0-20	111221L01	099-14-479-21	12/21/11 13:39
Isopropylbenzene	50.00	51.13		ug/L	102	75-125	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
p-Isopropyltoluene	50.00	53.34		ug/L	107	75-130	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Methylene Chloride	50.00	51.40		ug/L	103	55-140	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
4-Methyl-2-Pentanone	50.00	50.92		ug/L	102	60-135	6	0-20	111221L01	099-14-479-21	12/21/11 13:39
Naphthalene	50.00	48.02		ug/L	96	55-140	3	0-20	111221L01	099-14-479-21	12/21/11 13:39
n-Propylbenzene	50.00	51.33		ug/L	103	70-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
Styrene	50.00	51.72		ug/L	103	65-135	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1,1,2-Tetrachloroethane	50.00	51.55		ug/L	103	80-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1,2,2-Tetrachloroethane	50.00	48.69		ug/L	97	65-130	5	0-20	111221L01	099-14-479-21	12/21/11 13:39
Tetrachloroethene	50.00	62.53		ug/L	125	45-150	4	0-20	111221L01	099-14-479-21	12/21/11 13:39

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1560
Project Name: Seal Beach NWS
Received: 12/20/11 15:40

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 8260B Volatile Organics											
Toluene	50.00	50.70		ug/L	101	75-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2,3-Trichlorobenzene	50.00	47.71		ug/L	95	55-140	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2,4-Trichlorobenzene	50.00	49.98		ug/L	100	65-135	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1,1-Trichloroethane	50.00	53.08		ug/L	106	65-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,1,2-Trichloroethane	50.00	51.87		ug/L	104	75-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Trichloroethene	50.00	53.10		ug/L	106	70-125	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Trichlorofluoromethane	50.00	52.94		ug/L	106	60-145	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2,3-Trichloropropane	50.00	50.23		ug/L	100	75-125	5	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,2,4-Trimethylbenzene	50.00	53.30		ug/L	107	75-130	1	0-20	111221L01	099-14-479-21	12/21/11 13:39
1,3,5-Trimethylbenzene	50.00	51.41		ug/L	103	75-130	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Vinyl Chloride	50.00	53.60		ug/L	107	50-145	2	0-20	111221L01	099-14-479-21	12/21/11 13:39
p/m-Xylene	100.0	101.3		ug/L	101	75-130	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
o-Xylene	50.00	50.99		ug/L	102	80-120	0	0-20	111221L01	099-14-479-21	12/21/11 13:39
Methyl-t-Butyl Ether (MTBE)	50.00	52.26		ug/L	105	65-125	4	0-20	111221L01	099-14-479-21	12/21/11 13:39
Tert-Butyl Alcohol (TBA)	250.0	253.2		ug/L	101	46-154	1	0-25	111221L01	099-14-479-21	12/21/11 13:39

Total number of LCS compounds: 65
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RSK-175M Dissolved Gases											
099-14-531-2											
Ethane	101.0	91.98		ug/L	91	80-120	0	0-20	111223L01	099-14-531-2	12/23/11 10:05
Methane	100.0	93.37		ug/L	93	79-109	0	0-20	111223L01	099-14-531-2	12/23/11 10:05
099-14-531-4											
Ethane	101.0	90.04		ug/L	89	80-120	0	0-20	111227L01	099-14-531-4	12/27/11 14:12
Methane	100.0	91.18		ug/L	91	79-109	0	0-20	111227L01	099-14-531-4	12/27/11 14:12
SM 5310 B Total Organic Carbon											
099-05-097-4,480											
Carbon, Total Organic	10	11		mg/L	110	80-120	6	0-20	B1227TOCL2	099-05-097-4,480	12/27/11 21:38

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 11-12-1560

Qualifier	Definition
AZ	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BA	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
BB	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
BU	Sample analyzed after holding time expired.
DF	Reporting limits elevated due to matrix interferences.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
GE	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
HD	Chromat. profile inconsistent with pattern(s) of ref. fuel stnds.
HO	High concentration matrix spike recovery out of limits
HT	Analytical value calculated using results from associated tests.
HX	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
IL	Relative percent difference out of control.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
LD	Analyte presence was not confirmed by second column or GC/MS analysis.
LP	The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.
ND	Parameter not detected at the indicated reporting limit.
QO	Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.
RU	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
SG	A silica gel cleanup procedure was performed.
SN	See applicable analysis comment.
U	Undetected at detection limit.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 12-20-11
PAGE: 1 OF 1

LABORATORY CLIENT: CKY
ADDRESS: 302 W 5th St, San Pedro, CA 90731
TEL: (310) 519-4000 FAX: (310) 519-4029 E-MAIL: howard@ckyinc.com

CLIENT PROJECT NAME / NUMBER: Seal Beach NWS
PROJECT CONTACT: Howard Wittenberg
SAMPLER(S): (SIGNATURE)
COELT LOG CODE
P.O. NO.:
LAB USE ONLY: 11-12-1560
COOLER RECEIPT: Temp = °C

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ Standard
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ COELT EDF ☐
SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	CEL SAMPLE #	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	VOCs	Anions	Cations	TDS	COD	TOC	Dissolved Gases	Dhc		Level III
1	MW-4030		12-20-11	0930	W	11	X	X	X	X	X	X	X	X		X
2	TB-1		12-20-11	0700	W	2	X									X
3	MW-4032		12-20-11	1056	W	11	X	X	X	X	X	X	X	X		X
4	MW-4034		12-20-11	1137	W	11	X	X	X	X	X	X	X	X		X
5	DUP-2		12-20-11	—	W	10	X	X	X	X	X	X	X			X
6	MW-4035		12-20-11	1252	W	11	X	X	X	X	X	X	X	X		X
7	MW-4036		12-20-11	1356	W	11	X	X	X	X	X	X	X	X		X
																X
																X
																X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	Jenson Yang	12/20/11	1442
Jenson Yang		12/20/11	1540

Revision: 072611

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-12-1 5 6 8 0 HP 12/20

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: CKY

DATE: 12/20/11

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.6 °C - 0.3 °C (CF) = 2.3 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: FY

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: FY

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: KR

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOAh (5) ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☑250CGB**s** (2) ☑1PB (2) ☐1PB**na** ☐500PB

☑250PB ☑250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 111208B **Labeled/Checked by:** KR

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** PS

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** PS

Calscience Environmental Laboratories, Inc.

Subcontractor Analysis Report

Work Order # 11-12-1560

One or more samples in this Work Order have tests that were subcontracted. The subcontract report(s) follows.

For subcontracted tests, please reference the laboratory information noted below.

1 Microbial Insights - Rockford, TN

Microbiology

2340 Stock Creek Blvd.
Rockford TN 37853-3044
Phone: (865) 573-8188
Fax: (865) 573-8133
Email: info@microbe.com

Client: Richard Villafania
Calscience Environmental Laboratories
7440 Lincoln Way
Garden Grove, CA 92841-1427

Phone: 714-895-5494

Fax: 714-895-7501

Identifier: 064IL **Date Rec:** 12/21/2011 **Report Date:** 12/23/2011

Client Project #: 11-12-1560 **Client Project Name:**

Purchase Order #: 11-12-1560

Analysis Requested: CENSUS

Reviewed By:

Anita Biernacki

NOTICE: This report is intended only for the addressee shown above and may contain confidential or privileged information. If the recipient of this material is not the intended recipient or if you have received this in error, please notify Microbial Insights, Inc. immediately. The data and other information in this report represent only the sample(s) analyzed and are rendered upon condition that it is not to be reproduced without approval from Microbial Insights, Inc. Thank you for your cooperation.

MICROBIAL INSIGHTS, INC.

2340 Stock Creek Blvd. Rockford, TN 37853-3044
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **Calscience Environmental Laboratories**
Project:

MI Project Number: **064IL**
Date Received: 12/21/2011

Sample Information

Client Sample ID:	**MW-40-30**	**MW-40-32**	**MW-40-34**	**MW-40-35**	**MW-40-36**
Sample Date:	12/20/2011	12/20/2011	12/20/2011	12/20/2011	12/20/2011
Units:	cells/mL	cells/mL	cells/mL	cells/mL	cells/mL
Analyst:	AB	AB	AB	AB	AB

Dechlorinating Bacteria

Dehalococcoides spp.	*DHC*	**1.84E+02**	**3.17E+03**	**2.80E+02**	**1.80E+02**	**6.40E+03**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Calscience Environmental Laboratories, Inc.

7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

TO: **Microbial Insights, Inc.**
2340 Stock Creek Blvd
Rockford, TN 37853-3044
P: (865) 573-8188
Attn: Sample Custodian

CHAIN OF CUSTODY RECORD

DATE: December 20, 2011
PAGE: 1 OF 1

LABORATORY CLIENT: CALSCIENCE ENVIRONMENTAL LABORATORIES, INC.
ADDRESS: 7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: 714 895 5494 x204 | FAX: 714 895 7501 | E-MAIL: rvillafania@calscience.com

CLIENT PROJECT NAME / NUMBER: 11-12-1560
P.O. NO: 11-12-1560
PROJECT CONTACT: Richard Villafania
LAB USE ONLY
SAMPLER(S): (PRINT NAME) BlaineTech
COELT LOG CODE
COOLER RECEIPT Temp = ____ °C

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ COELT EDF ☒ NEDD

SPECIAL INSTRUCTIONS
NEDD required.
Level III Data Package required.

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.		Dehalococcoides -DHC	by CENSUS qPCR			CONTAINER TYPE:
0641L 1	MW-40-30	12/20/11	0930	water	1		X				(1) 1L poly
2	MW-40-32	12/20/11	1056	water	1		X				(1) 1L poly
3	MW-40-34	12/20/11	1137	water	1		X				(1) 1L poly
4	MW-40-35	12/20/11	1252	water	1		X				(1) 1L poly
5	MW-40-36	12/20/11	1356	water	1		X				(1) 1L poly

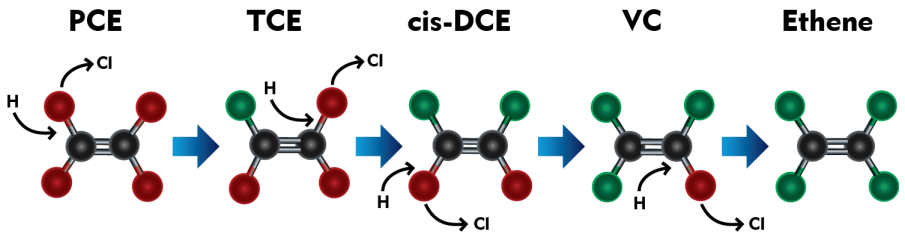
Total # Containers Received: 5

Relinquished by: (Signature)	Received by: (Signature / Affiliation)	Date:	Time:
(CALSCIENCE)	Fedex # 797870733685	12/20/11	1625
Relinquished by: (Signature)	Received by: (Signature / Affiliation)	12/21/2011	0900
Relinquished by: (Signature)	Received by: (Signature / Affiliation)	Date:	Time:

DHC Interpretation

Dehalococcoides 16S rRNA gene (qDHC)

Under anaerobic conditions, tetrachloroethene (PCE) and trichloroethene (TCE) can undergo sequential reductive dechlorination through the daughter products *cis*-dichloroethene (*cis*-DCE) and vinyl chloride to nontoxic ethene (1,2).



While a number of bacterial cultures capable of utilizing PCE and TCE as growth supporting electron acceptors have been isolated (3-7), *Dehalococcoides* spp. may be the most important because they are the only bacterial group that has been isolated to date which is capable of complete reductive dechlorination of PCE to ethene (8). In fact, the presence of *Dehalococcoides* spp. has been associated with complete dechlorination to ethene at sites across North America and Europe (9).

Status	*Dehalococcoides spp.*	Observation
	$\geq 10^4$ (cells/mL)	Lu et al. proposed that a concentration of 1 x 10^4 DHC cells/mL could be used as a screening criterion to identify sites where reductive dechlorination will yield a generally useful biodegradation rate (10). Similarly, in an internal study conducted with nearly 1000 groundwater samples obtained from sites across the US, ethene production was observed in approximately 80% of samples in which CENSUS® qDHC results were greater than or equal to 10^4 DHC cells/mL.
	10^1 to < 10^4 (cells/mL)	When vinyl chloride reductase genes (See DHC functional genes discussion below) are also detected, complete reductive dechlorination of PCE and TCE to ethene may still occur even with moderate DHC concentrations. When the DHC population is below the 10^4 cells/mL criterion proposed by Lu et al. (10), project managers should carefully consider other site-specific data to determine whether subsurface conditions may be limiting reductive dechlorination. For example, the addition of an electron donor may be able to stimulate DHC growth and enhance anaerobic bioremediation.
	< 10^1 (cells/mL)	DHC concentrations are low suggesting that complete reductive dechlorination of PCE and TCE to ethene is unlikely to occur under existing conditions. Enhanced anaerobic bioremediation options (biostimulation or bioaugmentation) may need to be considered.

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DHC Interpretation

DHC Functional Genes (*tce*A, *bvc*A, *vcr*A)

A "stall" where daughter products *cis*-DCE and vinyl chloride accumulate can occur at PCE- and TCE-impacted sites especially under MNA conditions. The accumulation of vinyl chloride, generally considered more carcinogenic than the parent compounds, is particularly problematic. Although elevated *Dehalococcoides* concentrations correspond to ethene production in numerous studies, the range of chlorinated ethenes metabolized and cometabolized varies among species and strains within the *Dehalococcoides* genus. For example, *Dehalococcoides ethenogenes* str. 195 metabolizes PCE, TCE, and *cis*-DCE and cometabolizes vinyl chloride (8) to produce ethene. Conversely, *Dehalococcoides* sp. CBDB1 utilizes PCE and TCE but does not cometabolize additional chloroethenes (11). Other *Dehalococcoides* strains, such as BAV1, GT and VS, are known to fully dechlorinate cis-DCE and VC to ethene (14,16,19). Quantification of reductive dehalogenase genes is used to more definitively confirm the potential for reductive dechlorination of TCE, cis-DCE, and vinyl chloride (12-15).

Functional Gene	Observation
TCE Reductase	
***tce*A gene**	The *tce*A gene encodes the enzyme responsible for reductive dechlorination of TCE to *cis*-DCE in some strains of *Dehalococcoides*. Absence of *tce*A does not preclude the potential for reductive dechlorination of TCE in the field since the *tce*A gene is not universally distributed among all DHC and is not present in other microorganisms capable of reductive dechlorination of TCE (e.g. *Dehalobacter*). Detection of the *tce*A gene provides an additional line of evidence indicating the potential for dechlorination of TCE.
Vinyl Chloride Reductase	
***bvc*A gene**	The *bvc*A gene encodes the vinyl chloride reductase enzyme responsible for reductive dechlorination of vinyl chloride to ethene by *Dehalococcoides* sp. str. BAV1 (16). Presence of *bvc*A gene indicates the potential for reductive dechlorination of VC to ethene. Absence of both *bvc*A and *vcr*A genes suggests VC may accumulate. An internal study with ~1,000 samples showed ethene production was observed in 80% of the samples that the DHC population was greater than or equal to 10^4 cells/mL. The *bvc*A gene was detected in over 50% of these samples. Van Der Zaan et al (17) noted that the bvcA gene was the only VC reductase gene detected at three of their sites. Alfred Spormann's laboratory at Stanford University (18) reported that the *bvc*A gene was the most abundant and active at the outflow of a PCE fed column study. This section of the column was in the DCE to VC stages of reductive dechlorination thus confirming the importance of the *bvc*A gene for complete reductive dechlorination.
***vcr*A gene**	The *vcr*A gene encodes the vinyl chloride reductase enzyme responsible for reductive dechlorination of *cis*-DCE and vinyl chloride by *Dehalococcoides* sp. strain VS (14). Presence of *vcr*A gene indicates the potential for reductive dechlorination of DCE and/or VC to ethene. Absence of both *bvc*A and *vcr*A genes suggest VC may accumulate. As with the *bvc*A gene, detection of the *vcr*A gene is associated with ethene production in internal studies (67%) and vinyl chloride reduction in independent studies (14, 17).

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DHC Interpretation

Reporting

Microbial Insights can provide a variety of data packages and reporting levels to suit the needs of any project. Data packages range from simple analytical reports with results only to more complex data packages that include a report narrative, analytical results, QC data, and supporting materials including all raw data and chain-of-custody documentation. The figure below shows our standard report and explains the way values are reported.

Microbial Insights, Inc.

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CENSUS

Client: Company Name
Project: Your Project Name

MI Project Number: Unique Laboratory Identifier
Date Received: Date Samples Arrived

Sample Information

Client Sample ID:		Sample A	Sample B	Sample C
Sample Date:		00/00/0000	00/00/0000	00/00/0000
Units:		cells/mL	cells/mL	cells/mL
Analyst:		Intials	Intials	Intials
Dechlorinating Bacteria				
Dehalococcoides spp.	DHC	**1.84E+05**	**2.76E+02**	**2.28E+01 (J)**
Functional Genes				
tceA Reductase	TCE	**6.00E+01**	**3.23E+01**	<4.00E-01
bvcA Reductase	BVC	**1.17E+04**	**1.81E+01**	<4.00E-01
vcrA Reducatase	VCR	**8.42E+04**	**1.74E+02**	<4.00E-01

"J" value
Result is an estimated value. This data qualifier (flag) is used when the target gene is detected but at a concentration or abundance below the practical quantification limit (PQL).

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

< value
The target gene was not detected at the limit of quantitation (LOQ) reported for that sample.

"I" value
QA Procedure indicated that the sample may have exhibited PCR inhibition. Although relatiively rare, PCR inhibition can occur due to the presence of metals or humic acids at high concentrations in the sample.

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Quality Assurance

Microbial Insights' comprehensive Quality Assurance (QA) Program is the foundation of all laboratory analyses, ensuring that our clients receive high-quality analytical services that are timely, reliable, and meet their intended purpose in a cost effective manner. MI is committed to providing quality data that surpasses regulatory and industry standards, thus enabling the client to make well-informed decisions. MI maintains strict standard operating procedures and QA/QC measures throughout all of the analyses offered. The following Table details specific QA/QC procedures that are used for CENSUS.

QA/QC	Description
Date of Extraction	DNA and RNA extractions are performed the day the samples are received by MI to minimize the possibility of any changes to the microbial community prior to analysis.
Laboratory Method Blanks	An extraction blank (no sample added) is processed alongside each set of field samples from DNA extraction through CENSUS® analysis to ensure that cross contamination has not occurred. Although MI has never experienced this issue, the detection of the CENSUS® target (e.g. *Dehalococcoides*) in an extraction blank is direct evidence of cross contamination with a sample or contamination of a reagent and would invalidate the results. If this were to occur, MI would re-extract the sample. If not possible to re-extract, MI would contact the client immediately and notate it on the laboratory report.
Laboratory Control Samples (LCS)	A laboratory control sample (LCS) or positive control (target DNA) is included with each CENSUS® plate to confirm amplification and as a continuing calibration check.
Negative Controls	A negative control (no DNA) is included with each CENSUS plate to ensure that cross contamination has not occurred during amplification. As with the extraction blank, detection of CENSUS target (e.g. DHC) in a negative control is direct evidence of contamination and would invalidate the results. If this were to occur, MI would rerun the analysis.

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CALSCIENCE

WORK ORDER NUMBER: 11-12-1639

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Analytical Report For

Client: CKY, Incorporated

Client Project Name: Seal Beach NWS

Attention: Howard Wittenberg
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Approved for release on 01/9/2012 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1639
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/21/11 15:50
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 1 (TB-1, Aqueous) Sampled: 12/21/11 07:00										
EPA 8260B Volatile Organics (Sample: 11-12-1639-1-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/22/11 14:31	EPA 8260B	111222L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/22/11 14:31	EPA 8260B	111222L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/22/11 14:31	EPA 8260B	111222L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/22/11 14:31	EPA 8260B	111222L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/22/11 14:31	EPA 8260B	111222L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/22/11 14:31	EPA 8260B	111222L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/22/11 14:31	EPA 8260B	111222L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/22/11 14:31	EPA 8260B	111222L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/22/11 14:31	EPA 8260B	111222L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/22/11 14:31	EPA 8260B	111222L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/22/11 14:31	EPA 8260B	111222L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/22/11 14:31	EPA 8260B	111222L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/22/11 14:31	EPA 8260B	111222L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/22/11 14:31	EPA 8260B	111222L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/22/11 14:31	EPA 8260B	111222L01
c-1,2-Dichloroethene	<0.5	U	ug/L	0.48	0.50	1.00	1	12/22/11 14:31	EPA 8260B	111222L01
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/22/11 14:31	EPA 8260B	111222L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/22/11 14:31	EPA 8260B	111222L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/22/11 14:31	EPA 8260B	111222L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/22/11 14:31	EPA 8260B	111222L01
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	1	12/22/11 14:31	EPA 8260B	111222L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/22/11 14:31	EPA 8260B	111222L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/22/11 14:31	EPA 8260B	111222L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/22/11 14:31	EPA 8260B	111222L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/22/11 14:31	EPA 8260B	111222L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/22/11 14:31	EPA 8260B	111222L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/22/11 14:31	EPA 8260B	111222L01
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/22/11 14:31	EPA 8260B	111222L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/22/11 14:31	EPA 8260B	111222L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/22/11 14:31	EPA 8260B	111222L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/22/11 14:31	EPA 8260B	111222L01
Vinyl Chloride	<0.5	U	ug/L	0.30	0.50	1.00	1	12/22/11 14:31	EPA 8260B	111222L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/22/11 14:31	EPA 8260B	111222L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/22/11 14:31	EPA 8260B	111222L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/22/11 14:31	EPA 8260B	111222L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/22/11 14:31	EPA 8260B	111222L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*101%*							*12/22/11 14:31*	*EPA 8260B*	*111222L01*
Surr: Dibromofluoromethane (85-115%)	*95%*							*12/22/11 14:31*	*EPA 8260B*	*111222L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*104%*							*12/22/11 14:31*	*EPA 8260B*	*111222L01*
Surr: Toluene-d8 (85-120%)	*99%*							*12/22/11 14:31*	*EPA 8260B*	*111222L01*

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Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1639
		Project Name:	Seal Beach NWS
		Received:	12/21/11 15:50
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 2 (MW-40-37, Aqueous) Sampled: 12/21/11 09:49										
EPA 300.0 Anions (Sample: 11-12-1639-2-I)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	500		mg/L	1.3	0.50	2.00	10	12/21/11 17:40	EPA 300.0	111221L01
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	1	12/21/11 17:40	EPA 300.0	111221L01
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	1	12/21/11 17:40	EPA 300.0	111221L01
Sulfate	160		mg/L	1.3	0.50	2.00	10	12/21/11 17:40	EPA 300.0	111221L01
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1639-2-G)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	19	J	mg/L	10	21.00	25.00	1	12/27/11 20:00	EPA 410.4	B1227ODB3
EPA 6010B ICP Metals (Sample: 11-12-1639-2-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	244	B	mg/L	0.0118	0.03	0.10	1	12/29/11 10:22	EPA 6010B	111228LA1
Iron	17.3	B	mg/L	0.0101	0.03	0.10	1	12/29/11 10:22	EPA 6010B	111228LA1
Magnesium	93.1	B	mg/L	0.00336	0.01	0.10	1	12/29/11 10:22	EPA 6010B	111228LA1
Potassium	4.44		mg/L	0.103	0.17	0.50	1	12/29/11 10:22	EPA 6010B	111228LA1
Sodium	355		mg/L	0.103	0.17	0.50	1	12/29/11 10:22	EPA 6010B	111228LA1
EPA 8260B Volatile Organics (Sample: 11-12-1639-2-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	0.20	J	ug/L	0.14	0.50	1.00	1	12/22/11 17:52	EPA 8260B	111222L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/22/11 17:52	EPA 8260B	111222L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/22/11 17:52	EPA 8260B	111222L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/22/11 17:52	EPA 8260B	111222L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/22/11 17:52	EPA 8260B	111222L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/22/11 17:52	EPA 8260B	111222L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/22/11 17:52	EPA 8260B	111222L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/22/11 17:52	EPA 8260B	111222L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/22/11 17:52	EPA 8260B	111222L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/22/11 17:52	EPA 8260B	111222L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/22/11 17:52	EPA 8260B	111222L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/22/11 17:52	EPA 8260B	111222L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/22/11 17:52	EPA 8260B	111222L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/22/11 17:52	EPA 8260B	111222L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/22/11 17:52	EPA 8260B	111222L01
c-1,2-Dichloroethene	61		ug/L	0.48	0.50	1.00	1	12/22/11 17:52	EPA 8260B	111222L01
t-1,2-Dichloroethene	1.7		ug/L	0.37	0.50	1.00	1	12/22/11 17:52	EPA 8260B	111222L01
Ethylbenzene	1.1		ug/L	0.14	0.50	1.00	1	12/22/11 17:52	EPA 8260B	111222L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/22/11 17:52	EPA 8260B	111222L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/22/11 17:52	EPA 8260B	111222L01
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	1	12/22/11 17:52	EPA 8260B	111222L01

Calscience Environmental Laboratories, Inc.

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Client:	CKY, Incorporated	Work Order:	11-12-1639
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/21/11 15:50
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 2 (MW-40-37, Aqueous) Sampled: 12/21/11 09:49										
EPA 8260B Volatile Organics (Sample: 11-12-1639-2-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/22/11 17:52	EPA 8260B	111222L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/22/11 17:52	EPA 8260B	111222L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/22/11 17:52	EPA 8260B	111222L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/22/11 17:52	EPA 8260B	111222L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/22/11 17:52	EPA 8260B	111222L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/22/11 17:52	EPA 8260B	111222L01
Trichloroethene	2.5		ug/L	0.37	0.50	1.00	1	12/22/11 17:52	EPA 8260B	111222L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/22/11 17:52	EPA 8260B	111222L01
1,2,4-Trimethylbenzene	0.56	J	ug/L	0.36	0.50	5.00	1	12/22/11 17:52	EPA 8260B	111222L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/22/11 17:52	EPA 8260B	111222L01
Vinyl Chloride	8.7		ug/L	0.30	0.50	1.00	1	12/22/11 17:52	EPA 8260B	111222L01
p/m-Xylene	1.5		ug/L	0.24	0.00	10.00	1	12/22/11 17:52	EPA 8260B	111222L01
o-Xylene	0.58	J	ug/L	0.23	0.50	1.00	1	12/22/11 17:52	EPA 8260B	111222L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/22/11 17:52	EPA 8260B	111222L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/22/11 17:52	EPA 8260B	111222L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*100%*							*12/22/11 17:52*	*EPA 8260B*	*111222L01*
Surr: Dibromofluoromethane (85-115%)	*95%*							*12/22/11 17:52*	*EPA 8260B*	*111222L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*103%*							*12/22/11 17:52*	*EPA 8260B*	*111222L01*
Surr: Toluene-d8 (85-120%)	*100%*							*12/22/11 17:52*	*EPA 8260B*	*111222L01*
RSK-175M Dissolved Gases (Sample: 11-12-1639-2-E)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	1.03		ug/L	0.0672	0.13	0.37	1	12/22/11 12:51	RSK-175M	111222L01
Ethylene	1.87		ug/L	0.0566	0.17	0.43	1	12/22/11 12:51	RSK-175M	111222L01
Methane	1460		ug/L	0.0334	0.07	0.17	1	12/22/11 12:51	RSK-175M	111222L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1639-2-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	2100		mg/L	0.820	1.60	2.00	1	12/22/11 16:40	SM 2540 C	B1222TDSB3
SM 5310 B Total Organic Carbon (Sample: 11-12-1639-2-G)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	100		mg/L	0.24	2.00	5.00	1	12/27/11 21:38	SM 5310 B	B1227TOCL2
Sample ID: 3 (IW-2, Aqueous) Sampled: 12/21/11 10:28										
EPA 300.0 Anions (Sample: 11-12-1639-3-I)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	270		mg/L	0.66	0.50	2.00	5	12/21/11 17:56	EPA 300.0	111221L01
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	1	12/21/11 17:56	EPA 300.0	111221L01
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	1	12/21/11 17:56	EPA 300.0	111221L01
Sulfate	93		mg/L	0.66	0.50	2.00	5	12/21/11 17:56	EPA 300.0	111221L01

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Client:	CKY, Incorporated	Work Order:	11-12-1639
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/21/11 15:50
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 3 (IW-2, Aqueous) Sampled: 12/21/11 10:28										
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1639-3-G)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	16	J	mg/L	10	21.00	25.00	1	12/27/11 20:00	EPA 410.4	B1227ODB3
EPA 6010B ICP Metals (Sample: 11-12-1639-3-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	84.9	B	mg/L	0.0118	0.03	0.10	1	12/29/11 10:23	EPA 6010B	111228LA1
Iron	21.4	B	mg/L	0.0101	0.03	0.10	1	12/29/11 10:23	EPA 6010B	111228LA1
Magnesium	22.9	B	mg/L	0.00336	0.01	0.10	1	12/29/11 10:23	EPA 6010B	111228LA1
Potassium	2.40		mg/L	0.103	0.17	0.50	1	12/29/11 10:23	EPA 6010B	111228LA1
Sodium	409		mg/L	0.103	0.17	0.50	1	12/29/11 10:23	EPA 6010B	111228LA1
EPA 8260B Volatile Organics (Sample: 11-12-1639-3-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/22/11 18:20	EPA 8260B	111222L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/22/11 18:20	EPA 8260B	111222L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/22/11 18:20	EPA 8260B	111222L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/22/11 18:20	EPA 8260B	111222L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/22/11 18:20	EPA 8260B	111222L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/22/11 18:20	EPA 8260B	111222L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/22/11 18:20	EPA 8260B	111222L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/22/11 18:20	EPA 8260B	111222L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/22/11 18:20	EPA 8260B	111222L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/22/11 18:20	EPA 8260B	111222L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/22/11 18:20	EPA 8260B	111222L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/22/11 18:20	EPA 8260B	111222L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/22/11 18:20	EPA 8260B	111222L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/22/11 18:20	EPA 8260B	111222L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/22/11 18:20	EPA 8260B	111222L01
c-1,2-Dichloroethene	<0.5	U	ug/L	0.48	0.50	1.00	1	12/22/11 18:20	EPA 8260B	111222L01
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/22/11 18:20	EPA 8260B	111222L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/22/11 18:20	EPA 8260B	111222L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/22/11 18:20	EPA 8260B	111222L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/22/11 18:20	EPA 8260B	111222L01
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	1	12/22/11 18:20	EPA 8260B	111222L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/22/11 18:20	EPA 8260B	111222L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/22/11 18:20	EPA 8260B	111222L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/22/11 18:20	EPA 8260B	111222L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/22/11 18:20	EPA 8260B	111222L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/22/11 18:20	EPA 8260B	111222L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/22/11 18:20	EPA 8260B	111222L01
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/22/11 18:20	EPA 8260B	111222L01

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Client:	CKY, Incorporated	Work Order:	11-12-1639
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/21/11 15:50
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 3 (IW-2, Aqueous) Sampled: 12/21/11 10:28										
EPA 8260B Volatile Organics (Sample: 11-12-1639-3-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/22/11 18:20	EPA 8260B	111222L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/22/11 18:20	EPA 8260B	111222L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/22/11 18:20	EPA 8260B	111222L01
Vinyl Chloride	<0.5	U	ug/L	0.30	0.50	1.00	1	12/22/11 18:20	EPA 8260B	111222L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/22/11 18:20	EPA 8260B	111222L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/22/11 18:20	EPA 8260B	111222L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/22/11 18:20	EPA 8260B	111222L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/22/11 18:20	EPA 8260B	111222L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*100%*							*12/22/11 18:20*	*EPA 8260B*	*111222L01*
Surr: Dibromofluoromethane (85-115%)	*99%*							*12/22/11 18:20*	*EPA 8260B*	*111222L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*103%*							*12/22/11 18:20*	*EPA 8260B*	*111222L01*
Surr: Toluene-d8 (85-120%)	*100%*							*12/22/11 18:20*	*EPA 8260B*	*111222L01*
RSK-175M Dissolved Gases (Sample: 11-12-1639-3-E)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	1	12/22/11 13:15	RSK-175M	111222L01
Ethylene	0.180	J	ug/L	0.0566	0.17	0.43	1	12/22/11 13:15	RSK-175M	111222L01
Methane	1360		ug/L	0.0334	0.07	0.17	1	12/22/11 13:15	RSK-175M	111222L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1639-3-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	1360		mg/L	0.820	1.60	2.00	1	12/22/11 16:40	SM 2540 C	B1222TDSB3
SM 5310 B Total Organic Carbon (Sample: 11-12-1639-3-G)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	41		mg/L	0.24	2.00	5.00	1	12/27/11 21:38	SM 5310 B	B1227TOCL2
Sample ID: 4 (EB-1, Aqueous) Sampled: 12/21/11 10:35										
EPA 300.0 Anions (Sample: 11-12-1639-4-I)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	<0.5	U	mg/L	0.13	0.50	2.00	1	12/21/11 18:27	EPA 300.0	111221L01
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	1	12/21/11 18:27	EPA 300.0	111221L01
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	1	12/21/11 18:27	EPA 300.0	111221L01
Sulfate	<0.5	U	mg/L	0.13	0.50	2.00	1	12/21/11 18:27	EPA 300.0	111221L01
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1639-4-G)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	<21	U	mg/L	10	21.00	25.00	1	12/27/11 20:00	EPA 410.4	B1227ODB3
EPA 6010B ICP Metals (Sample: 11-12-1639-4-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1639
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/21/11 15:50
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 4 (EB-1, Aqueous) Sampled: 12/21/11 10:35										
EPA 6010B ICP Metals (Sample: 11-12-1639-4-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	0.0294	B,J	mg/L	0.0118	0.03	0.10	1	12/29/11 10:24	EPA 6010B	111228LA1
Iron	<0.03333	U	mg/L	0.0101	0.03	0.10	1	12/29/11 10:24	EPA 6010B	111228LA1
Magnesium	0.0126	B,J	mg/L	0.00336	0.01	0.10	1	12/29/11 10:24	EPA 6010B	111228LA1
Potassium	<0.16667	U	mg/L	0.103	0.17	0.50	1	12/29/11 10:24	EPA 6010B	111228LA1
Sodium	0.217	J	mg/L	0.103	0.17	0.50	1	12/29/11 10:24	EPA 6010B	111228LA1
EPA 8260B Volatile Organics (Sample: 11-12-1639-4-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/22/11 18:49	EPA 8260B	111222L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/22/11 18:49	EPA 8260B	111222L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/22/11 18:49	EPA 8260B	111222L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/22/11 18:49	EPA 8260B	111222L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/22/11 18:49	EPA 8260B	111222L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/22/11 18:49	EPA 8260B	111222L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/22/11 18:49	EPA 8260B	111222L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/22/11 18:49	EPA 8260B	111222L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/22/11 18:49	EPA 8260B	111222L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/22/11 18:49	EPA 8260B	111222L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/22/11 18:49	EPA 8260B	111222L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/22/11 18:49	EPA 8260B	111222L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/22/11 18:49	EPA 8260B	111222L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/22/11 18:49	EPA 8260B	111222L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/22/11 18:49	EPA 8260B	111222L01
c-1,2-Dichloroethene	<0.5	U	ug/L	0.48	0.50	1.00	1	12/22/11 18:49	EPA 8260B	111222L01
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/22/11 18:49	EPA 8260B	111222L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/22/11 18:49	EPA 8260B	111222L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/22/11 18:49	EPA 8260B	111222L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/22/11 18:49	EPA 8260B	111222L01
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	1	12/22/11 18:49	EPA 8260B	111222L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/22/11 18:49	EPA 8260B	111222L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/22/11 18:49	EPA 8260B	111222L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/22/11 18:49	EPA 8260B	111222L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/22/11 18:49	EPA 8260B	111222L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/22/11 18:49	EPA 8260B	111222L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/22/11 18:49	EPA 8260B	111222L01
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/22/11 18:49	EPA 8260B	111222L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/22/11 18:49	EPA 8260B	111222L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/22/11 18:49	EPA 8260B	111222L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/22/11 18:49	EPA 8260B	111222L01
Vinyl Chloride	<0.5	U	ug/L	0.30	0.50	1.00	1	12/22/11 18:49	EPA 8260B	111222L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/22/11 18:49	EPA 8260B	111222L01

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1639
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/21/11 15:50
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 4 (EB-1, Aqueous) Sampled: 12/21/11 10:35										
EPA 8260B Volatile Organics (Sample: 11-12-1639-4-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/22/11 18:49	EPA 8260B	111222L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/22/11 18:49	EPA 8260B	111222L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/22/11 18:49	EPA 8260B	111222L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*101%*							*12/22/11 18:49*	*EPA 8260B*	*111222L01*
Surr: Dibromofluoromethane (85-115%)	*98%*							*12/22/11 18:49*	*EPA 8260B*	*111222L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*104%*							*12/22/11 18:49*	*EPA 8260B*	*111222L01*
Surr: Toluene-d8 (85-120%)	*99%*							*12/22/11 18:49*	*EPA 8260B*	*111222L01*
RSK-175M Dissolved Gases (Sample: 11-12-1639-4-E)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	1	12/22/11 12:29	RSK-175M	111222L01
Ethylene	<0.1725	U	ug/L	0.0566	0.17	0.43	1	12/22/11 12:29	RSK-175M	111222L01
Methane	0.180	J	ug/L	0.0334	0.07	0.17	1	12/22/11 12:29	RSK-175M	111222L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1639-4-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	30		mg/L	0.82	1.60	2.00	1	12/22/11 16:40	SM 2540 C	B1222TDSB3
SM 5310 B Total Organic Carbon (Sample: 11-12-1639-4-G)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	1.2		mg/L	0.24	2.00	5.00	1	12/27/11 21:38	SM 5310 B	B1227TOCL2
Sample ID: 5 (IW-4, Aqueous) Sampled: 12/21/11 11:29										
EPA 300.0 Anions (Sample: 11-12-1639-5-I)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	160		mg/L	0.66	0.50	2.00	5	12/21/11 18:43	EPA 300.0	111221L01
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	1	12/21/11 18:43	EPA 300.0	111221L01
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	1	12/21/11 18:43	EPA 300.0	111221L01
Sulfate	2.4		mg/L	0.13	0.50	2.00	1	12/21/11 18:43	EPA 300.0	111221L01
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1639-5-G)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	510		mg/L	10	21.00	25.00	1	12/27/11 18:00	EPA 410.4	B1227ODL2
EPA 6010B ICP Metals (Sample: 11-12-1639-5-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	92.1	B	mg/L	0.0118	0.03	0.10	1	12/29/11 10:25	EPA 6010B	111228LA1
Iron	11.5	B	mg/L	0.0101	0.03	0.10	1	12/29/11 10:25	EPA 6010B	111228LA1
Magnesium	32.3	B	mg/L	0.00336	0.01	0.10	1	12/29/11 10:25	EPA 6010B	111228LA1
Potassium	14.6		mg/L	0.103	0.17	0.50	1	12/29/11 10:25	EPA 6010B	111228LA1
Sodium	206		mg/L	0.103	0.17	0.50	1	12/29/11 10:25	EPA 6010B	111228LA1

Calscience Environmental Laboratories, Inc.

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Client:	CKY, Incorporated	Work Order:	11-12-1639
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/21/11 15:50
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 5 (IW-4, Aqueous) Sampled: 12/21/11 11:29										
EPA 8260B Volatile Organics (Sample: 11-12-1639-5-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/22/11 19:18	EPA 8260B	111222L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/22/11 19:18	EPA 8260B	111222L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/22/11 19:18	EPA 8260B	111222L01
2-Butanone	7.3	J	ug/L	2.2	5.00	10.00	1	12/22/11 19:18	EPA 8260B	111222L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/22/11 19:18	EPA 8260B	111222L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/22/11 19:18	EPA 8260B	111222L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/22/11 19:18	EPA 8260B	111222L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/22/11 19:18	EPA 8260B	111222L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/22/11 19:18	EPA 8260B	111222L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/22/11 19:18	EPA 8260B	111222L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/22/11 19:18	EPA 8260B	111222L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/22/11 19:18	EPA 8260B	111222L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/22/11 19:18	EPA 8260B	111222L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/22/11 19:18	EPA 8260B	111222L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/22/11 19:18	EPA 8260B	111222L01
c-1,2-Dichloroethene	<0.5	U	ug/L	0.48	0.50	1.00	1	12/22/11 19:18	EPA 8260B	111222L01
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/22/11 19:18	EPA 8260B	111222L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/22/11 19:18	EPA 8260B	111222L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/22/11 19:18	EPA 8260B	111222L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/22/11 19:18	EPA 8260B	111222L01
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	1	12/22/11 19:18	EPA 8260B	111222L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/22/11 19:18	EPA 8260B	111222L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/22/11 19:18	EPA 8260B	111222L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/22/11 19:18	EPA 8260B	111222L01
Toluene	1.0		ug/L	0.24	0.50	1.00	1	12/22/11 19:18	EPA 8260B	111222L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/22/11 19:18	EPA 8260B	111222L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/22/11 19:18	EPA 8260B	111222L01
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/22/11 19:18	EPA 8260B	111222L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/22/11 19:18	EPA 8260B	111222L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/22/11 19:18	EPA 8260B	111222L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/22/11 19:18	EPA 8260B	111222L01
Vinyl Chloride	1.2		ug/L	0.30	0.50	1.00	1	12/22/11 19:18	EPA 8260B	111222L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/22/11 19:18	EPA 8260B	111222L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/22/11 19:18	EPA 8260B	111222L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/22/11 19:18	EPA 8260B	111222L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/22/11 19:18	EPA 8260B	111222L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*99%*							*12/22/11 19:18*	*EPA 8260B*	*111222L01*
Surr: Dibromofluoromethane (85-115%)	*98%*							*12/22/11 19:18*	*EPA 8260B*	*111222L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*100%*							*12/22/11 19:18*	*EPA 8260B*	*111222L01*
Surr: Toluene-d8 (85-120%)	*99%*							*12/22/11 19:18*	*EPA 8260B*	*111222L01*

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1639
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/21/11 15:50
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 5 (IW-4, Aqueous) Sampled: 12/21/11 11:29										
RSK-175M Dissolved Gases (Sample: 11-12-1639-5-E)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	1	12/22/11 14:01	RSK-175M	111222L01
Ethylene	0.370	J	ug/L	0.0566	0.17	0.43	1	12/22/11 14:01	RSK-175M	111222L01
Methane	16000		ug/L		0.07	0.17	80	12/22/11 14:01	RSK-175M	111222L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1639-5-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	1160		mg/L	0.820	1.60	2.00	1	12/22/11 16:40	SM 2540 C	B1222TDSB3
SM 5310 B Total Organic Carbon (Sample: 11-12-1639-5-G)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	250		mg/L	1.2	10.00	25.00	5	12/27/11 21:38	SM 5310 B	B1227TOCL2
Sample ID: 6 (IW-10, Aqueous) Sampled: 12/21/11 12:19										
EPA 300.0 Anions (Sample: 11-12-1639-6-I)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	87		mg/L	0.66	0.50	2.00	5	12/21/11 18:58	EPA 300.0	111221L01
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	1	12/21/11 18:58	EPA 300.0	111221L01
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	1	12/21/11 18:58	EPA 300.0	111221L01
Sulfate	18		mg/L	0.13	0.50	2.00	1	12/21/11 18:58	EPA 300.0	111221L01
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1639-6-G)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	26		mg/L	10	21.00	25.00	1	12/27/11 18:00	EPA 410.4	B1227ODL2
EPA 6010B ICP Metals (Sample: 11-12-1639-6-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	101	B	mg/L	0.0118	0.03	0.10	1	12/29/11 10:26	EPA 6010B	111228LA1
Iron	25.6	B	mg/L	0.0101	0.03	0.10	1	12/29/11 10:26	EPA 6010B	111228LA1
Magnesium	44.4	B	mg/L	0.00336	0.01	0.10	1	12/29/11 10:26	EPA 6010B	111228LA1
Potassium	2.04		mg/L	0.103	0.17	0.50	1	12/29/11 10:26	EPA 6010B	111228LA1
Sodium	285		mg/L	0.103	0.17	0.50	1	12/29/11 10:26	EPA 6010B	111228LA1
EPA 8260B Volatile Organics (Sample: 11-12-1639-6-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/22/11 19:46	EPA 8260B	111222L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/22/11 19:46	EPA 8260B	111222L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/22/11 19:46	EPA 8260B	111222L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/22/11 19:46	EPA 8260B	111222L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/22/11 19:46	EPA 8260B	111222L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/22/11 19:46	EPA 8260B	111222L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/22/11 19:46	EPA 8260B	111222L01

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1639
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/21/11 15:50
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 6 (IW-10, Aqueous) Sampled: 12/21/11 12:19										
EPA 8260B Volatile Organics (Sample: 11-12-1639-6-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/22/11 19:46	EPA 8260B	111222L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/22/11 19:46	EPA 8260B	111222L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/22/11 19:46	EPA 8260B	111222L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/22/11 19:46	EPA 8260B	111222L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/22/11 19:46	EPA 8260B	111222L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/22/11 19:46	EPA 8260B	111222L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/22/11 19:46	EPA 8260B	111222L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/22/11 19:46	EPA 8260B	111222L01
c-1,2-Dichloroethene	0.72	J	ug/L	0.48	0.50	1.00	1	12/22/11 19:46	EPA 8260B	111222L01
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/22/11 19:46	EPA 8260B	111222L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/22/11 19:46	EPA 8260B	111222L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/22/11 19:46	EPA 8260B	111222L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/22/11 19:46	EPA 8260B	111222L01
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	1	12/22/11 19:46	EPA 8260B	111222L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/22/11 19:46	EPA 8260B	111222L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/22/11 19:46	EPA 8260B	111222L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/22/11 19:46	EPA 8260B	111222L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/22/11 19:46	EPA 8260B	111222L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/22/11 19:46	EPA 8260B	111222L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/22/11 19:46	EPA 8260B	111222L01
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/22/11 19:46	EPA 8260B	111222L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/22/11 19:46	EPA 8260B	111222L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/22/11 19:46	EPA 8260B	111222L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/22/11 19:46	EPA 8260B	111222L01
Vinyl Chloride	0.64		ug/L	0.30	0.50	1.00	1	12/22/11 19:46	EPA 8260B	111222L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/22/11 19:46	EPA 8260B	111222L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/22/11 19:46	EPA 8260B	111222L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/22/11 19:46	EPA 8260B	111222L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/22/11 19:46	EPA 8260B	111222L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*97%*							*12/22/11 19:46*	*EPA 8260B*	*111222L01*
Surr: Dibromofluoromethane (85-115%)	*97%*							*12/22/11 19:46*	*EPA 8260B*	*111222L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*104%*							*12/22/11 19:46*	*EPA 8260B*	*111222L01*
Surr: Toluene-d8 (85-120%)	*100%*							*12/22/11 19:46*	*EPA 8260B*	*111222L01*
RSK-175M Dissolved Gases (Sample: 11-12-1639-6-E)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	0.120	J	ug/L	0.0672	0.13	0.37	1	12/22/11 14:25	RSK-175M	111222L01
Ethylene	0.390	J	ug/L	0.0566	0.17	0.43	1	12/22/11 14:25	RSK-175M	111222L01
Methane	11300		ug/L		0.07	0.17	80	12/22/11 14:25	RSK-175M	111222L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1639-6-J)										

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The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1639
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/21/11 15:50
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 6 (IW-10, Aqueous) Sampled: 12/21/11 12:19										
SM 2540 C Total Dissolved Solids (Sample: 11-12-1639-6-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	1220		mg/L	0.820	1.60	2.00	1	12/22/11 16:40	SM 2540 C	B1222TDSB3
SM 5310 B Total Organic Carbon (Sample: 11-12-1639-6-G)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	92		mg/L	0.24	2.00	5.00	1	12/27/11 21:38	SM 5310 B	B1227TOCL2
Sample ID: 7 (IW-18 (MS/MSD), Aqueous) Sampled: 12/21/11 13:44										
EPA 300.0 Anions (Sample: 11-12-1639-7-I)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	380		mg/L	0.66	0.50	2.00	5	12/21/11 19:14	EPA 300.0	111221L01
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	1	12/21/11 19:14	EPA 300.0	111221L01
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	1	12/21/11 19:14	EPA 300.0	111221L01
Sulfate	190		mg/L	0.66	0.50	2.00	5	12/21/11 19:14	EPA 300.0	111221L01
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1639-7-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	88		mg/L	21	42.00	50.00	2	12/27/11 18:00	EPA 410.4	B1227ODL2
EPA 6010B ICP Metals (Sample: 11-12-1639-7-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	140	B	mg/L	0.0118	0.03	0.10	1	12/29/11 10:03	EPA 6010B	111228LA1
Iron	11.1	B	mg/L	0.0101	0.03	0.10	1	12/29/11 10:03	EPA 6010B	111228LA1
Magnesium	46.2	B	mg/L	0.00336	0.01	0.10	1	12/29/11 10:03	EPA 6010B	111228LA1
Potassium	2.81		mg/L	0.103	0.17	0.50	1	12/29/11 10:03	EPA 6010B	111228LA1
Sodium	463		mg/L	0.103	0.17	0.50	1	12/29/11 10:03	EPA 6010B	111228LA1
EPA 8260B Volatile Organics (Sample: 11-12-1639-7-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/22/11 15:57	EPA 8260B	111222L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/22/11 15:57	EPA 8260B	111222L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/22/11 15:57	EPA 8260B	111222L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/22/11 15:57	EPA 8260B	111222L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/22/11 15:57	EPA 8260B	111222L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/22/11 15:57	EPA 8260B	111222L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/22/11 15:57	EPA 8260B	111222L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/22/11 15:57	EPA 8260B	111222L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/22/11 15:57	EPA 8260B	111222L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/22/11 15:57	EPA 8260B	111222L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/22/11 15:57	EPA 8260B	111222L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/22/11 15:57	EPA 8260B	111222L01

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Client:	CKY, Incorporated	Work Order:	11-12-1639
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/21/11 15:50
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 7 (IW-18 (MS/MSD), Aqueous) Sampled: 12/21/11 13:44										
EPA 8260B Volatile Organics (Sample: 11-12-1639-7-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/22/11 15:57	EPA 8260B	111222L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/22/11 15:57	EPA 8260B	111222L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/22/11 15:57	EPA 8260B	111222L01
c-1,2-Dichloroethene	1.0		ug/L	0.48	0.50	1.00	1	12/22/11 15:57	EPA 8260B	111222L01
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/22/11 15:57	EPA 8260B	111222L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/22/11 15:57	EPA 8260B	111222L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/22/11 15:57	EPA 8260B	111222L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/22/11 15:57	EPA 8260B	111222L01
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	1	12/22/11 15:57	EPA 8260B	111222L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/22/11 15:57	EPA 8260B	111222L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/22/11 15:57	EPA 8260B	111222L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/22/11 15:57	EPA 8260B	111222L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/22/11 15:57	EPA 8260B	111222L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/22/11 15:57	EPA 8260B	111222L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/22/11 15:57	EPA 8260B	111222L01
Trichloroethene	1.8		ug/L	0.37	0.50	1.00	1	12/22/11 15:57	EPA 8260B	111222L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/22/11 15:57	EPA 8260B	111222L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/22/11 15:57	EPA 8260B	111222L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/22/11 15:57	EPA 8260B	111222L01
Vinyl Chloride	1.3		ug/L	0.30	0.50	1.00	1	12/22/11 15:57	EPA 8260B	111222L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/22/11 15:57	EPA 8260B	111222L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/22/11 15:57	EPA 8260B	111222L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/22/11 15:57	EPA 8260B	111222L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/22/11 15:57	EPA 8260B	111222L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*99%*							*12/22/11 15:57*	*EPA 8260B*	*111222L01*
Surr: Dibromofluoromethane (85-115%)	*98%*							*12/22/11 15:57*	*EPA 8260B*	*111222L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*104%*							*12/22/11 15:57*	*EPA 8260B*	*111222L01*
Surr: Toluene-d8 (85-120%)	*98%*							*12/22/11 15:57*	*EPA 8260B*	*111222L01*
RSK-175M Dissolved Gases (Sample: 11-12-1639-7-E,W)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	0.110	J	ug/L	0.0672	0.13	0.37	1	12/22/11 14:45	RSK-175M	111222L01
Ethylene	0.400	J	ug/L	0.0566	0.17	0.43	1	12/22/11 14:45	RSK-175M	111222L01
Methane	10100		ug/L	2.67	5.34	13.36	80	12/22/11 14:45	RSK-175M	111222L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1639-7-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	1720		mg/L	0.820	1.60	2.00	1	12/22/11 16:40	SM 2540 C	B1222TDSB3
SM 5310 B Total Organic Carbon (Sample: 11-12-1639-7-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	66		mg/L	1.2	10.00	25.00	5	12/28/11 01:24	SM 5310 B	B1227TOCL3

Calscience Environmental Laboratories, Inc.

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Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1639
		Project Name:	Seal Beach NWS
		Received:	12/21/11 15:50
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 7 (IW-18 (MS/MSD), Aqueous) Sampled: 12/21/11 13:44										
Sample ID: 8 (DUP-3, Aqueous) Sampled: 12/21/11 00:00										
EPA 300.0 Anions (Sample: 11-12-1639-8-I)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chloride	370		mg/L	0.66	0.50	2.00	5	12/21/11 19:29	EPA 300.0	111221L01
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	1	12/21/11 19:29	EPA 300.0	111221L01
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	1	12/21/11 19:29	EPA 300.0	111221L01
Sulfate	190		mg/L	0.66	0.50	2.00	5	12/21/11 19:29	EPA 300.0	111221L01
EPA 410.4 Chemical Oxygen Demand (Sample: 11-12-1639-8-G)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chemical Oxygen Demand	81		mg/L	10	21.00	25.00	1	12/27/11 18:00	EPA 410.4	B1227ODL2
EPA 6010B ICP Metals (Sample: 11-12-1639-8-H)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Calcium	136	B	mg/L	0.0118	0.03	0.10	1	12/29/11 10:27	EPA 6010B	111228LA1
Iron	11.6	B	mg/L	0.0101	0.03	0.10	1	12/29/11 10:27	EPA 6010B	111228LA1
Magnesium	45.1	B	mg/L	0.00336	0.01	0.10	1	12/29/11 10:27	EPA 6010B	111228LA1
Potassium	2.75		mg/L	0.103	0.17	0.50	1	12/29/11 10:27	EPA 6010B	111228LA1
Sodium	452		mg/L	0.103	0.17	0.50	1	12/29/11 10:27	EPA 6010B	111228LA1
EPA 8260B Volatile Organics (Sample: 11-12-1639-8-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/22/11 20:15	EPA 8260B	111222L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/22/11 20:15	EPA 8260B	111222L01
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/22/11 20:15	EPA 8260B	111222L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/22/11 20:15	EPA 8260B	111222L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/22/11 20:15	EPA 8260B	111222L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/22/11 20:15	EPA 8260B	111222L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/22/11 20:15	EPA 8260B	111222L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/22/11 20:15	EPA 8260B	111222L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/22/11 20:15	EPA 8260B	111222L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/22/11 20:15	EPA 8260B	111222L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/22/11 20:15	EPA 8260B	111222L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/22/11 20:15	EPA 8260B	111222L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/22/11 20:15	EPA 8260B	111222L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/22/11 20:15	EPA 8260B	111222L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/22/11 20:15	EPA 8260B	111222L01
c-1,2-Dichloroethene	0.84	J	ug/L	0.48	0.50	1.00	1	12/22/11 20:15	EPA 8260B	111222L01
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/22/11 20:15	EPA 8260B	111222L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/22/11 20:15	EPA 8260B	111222L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/22/11 20:15	EPA 8260B	111222L01

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The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1639
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/21/11 15:50
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 8 (DUP-3, Aqueous) Sampled: 12/21/11 00:00										
EPA 8260B Volatile Organics (Sample: 11-12-1639-8-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/22/11 20:15	EPA 8260B	111222L01
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	1	12/22/11 20:15	EPA 8260B	111222L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/22/11 20:15	EPA 8260B	111222L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	1	12/22/11 20:15	EPA 8260B	111222L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/22/11 20:15	EPA 8260B	111222L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/22/11 20:15	EPA 8260B	111222L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/22/11 20:15	EPA 8260B	111222L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/22/11 20:15	EPA 8260B	111222L01
Trichloroethene	1.8		ug/L	0.37	0.50	1.00	1	12/22/11 20:15	EPA 8260B	111222L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/22/11 20:15	EPA 8260B	111222L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/22/11 20:15	EPA 8260B	111222L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/22/11 20:15	EPA 8260B	111222L01
Vinyl Chloride	1.3		ug/L	0.30	0.50	1.00	1	12/22/11 20:15	EPA 8260B	111222L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/22/11 20:15	EPA 8260B	111222L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/22/11 20:15	EPA 8260B	111222L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/22/11 20:15	EPA 8260B	111222L01
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	1	12/22/11 20:15	EPA 8260B	111222L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*100%*							*12/22/11 20:15*	*EPA 8260B*	*111222L01*
Surr: Dibromofluoromethane (85-115%)	*96%*							*12/22/11 20:15*	*EPA 8260B*	*111222L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*105%*							*12/22/11 20:15*	*EPA 8260B*	*111222L01*
Surr: Toluene-d8 (85-120%)	*98%*							*12/22/11 20:15*	*EPA 8260B*	*111222L01*
RSK-175M Dissolved Gases (Sample: 11-12-1639-8-E)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Ethane	0.100	J	ug/L	0.0672	0.13	0.37	1	12/22/11 15:46	RSK-175M	111222L01
Ethylene	0.370	J	ug/L	0.0566	0.17	0.43	1	12/22/11 15:46	RSK-175M	111222L01
Methane	7490		ug/L		0.07	0.17	80	12/22/11 15:46	RSK-175M	111222L01
SM 2540 C Total Dissolved Solids (Sample: 11-12-1639-8-J)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Solids, Total Dissolved	1720		mg/L	0.820	1.60	2.00	1	12/22/11 16:40	SM 2540 C	B1222TDSB3
SM 5310 B Total Organic Carbon (Sample: 11-12-1639-8-F)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Carbon, Total Organic	87		mg/L	0.24	2.00	5.00	1	12/27/11 21:38	SM 5310 B	B1227TOCL2
Sample ID: 9 (Site 40 Drum, Aqueous) Sampled: 12/21/11 14:35										
EPA 8260B Volatile Organics (Sample: 11-12-1639-9-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	0.54		ug/L	0.14	0.50	1.00	1	12/22/11 20:43	EPA 8260B	111222L01
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	1	12/22/11 20:43	EPA 8260B	111222L01

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Client:	CKY, Incorporated	Work Order:	11-12-1639
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/21/11 15:50
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 9 (Site 40 Drum, Aqueous) Sampled: 12/21/11 14:35										
EPA 8260B Volatile Organics (Sample: 11-12-1639-9-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Bromoform	<1	U	ug/L	0.50	1.00	10.00	1	12/22/11 20:43	EPA 8260B	111222L01
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	1	12/22/11 20:43	EPA 8260B	111222L01
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	1	12/22/11 20:43	EPA 8260B	111222L01
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	1	12/22/11 20:43	EPA 8260B	111222L01
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	1	12/22/11 20:43	EPA 8260B	111222L01
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	1	12/22/11 20:43	EPA 8260B	111222L01
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	1	12/22/11 20:43	EPA 8260B	111222L01
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	1	12/22/11 20:43	EPA 8260B	111222L01
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	1	12/22/11 20:43	EPA 8260B	111222L01
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	1	12/22/11 20:43	EPA 8260B	111222L01
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	1	12/22/11 20:43	EPA 8260B	111222L01
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	1	12/22/11 20:43	EPA 8260B	111222L01
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	1	12/22/11 20:43	EPA 8260B	111222L01
c-1,2-Dichloroethene	1.4		ug/L	0.48	0.50	1.00	1	12/22/11 20:43	EPA 8260B	111222L01
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	1	12/22/11 20:43	EPA 8260B	111222L01
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	1	12/22/11 20:43	EPA 8260B	111222L01
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	1	12/22/11 20:43	EPA 8260B	111222L01
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	1	12/22/11 20:43	EPA 8260B	111222L01
Methylene Chloride	12		ug/L	0.64	1.00	10.00	1	12/22/11 20:43	EPA 8260B	111222L01
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	1	12/22/11 20:43	EPA 8260B	111222L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.56	J	ug/L	0.45	0.50	1.00	1	12/22/11 20:43	EPA 8260B	111222L01
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	1	12/22/11 20:43	EPA 8260B	111222L01
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	1	12/22/11 20:43	EPA 8260B	111222L01
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	1	12/22/11 20:43	EPA 8260B	111222L01
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	1	12/22/11 20:43	EPA 8260B	111222L01
Trichloroethene	1.7		ug/L	0.37	0.50	1.00	1	12/22/11 20:43	EPA 8260B	111222L01
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	1	12/22/11 20:43	EPA 8260B	111222L01
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	1	12/22/11 20:43	EPA 8260B	111222L01
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	1	12/22/11 20:43	EPA 8260B	111222L01
Vinyl Chloride	<0.5	U	ug/L	0.30	0.50	1.00	1	12/22/11 20:43	EPA 8260B	111222L01
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	1	12/22/11 20:43	EPA 8260B	111222L01
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	1	12/22/11 20:43	EPA 8260B	111222L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	1	12/22/11 20:43	EPA 8260B	111222L01
Tert-Butyl Alcohol (TBA)	8.2	J	ug/L	4.6	5.00	25.00	1	12/22/11 20:43	EPA 8260B	111222L01
Surr: 1,4-Bromofluorobenzene (75-120%)	*100%*							*12/22/11 20:43*	*EPA 8260B*	*111222L01*
Surr: Dibromofluoromethane (85-115%)	*95%*							*12/22/11 20:43*	*EPA 8260B*	*111222L01*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*101%*							*12/22/11 20:43*	*EPA 8260B*	*111222L01*
Surr: Toluene-d8 (85-120%)	*101%*							*12/22/11 20:43*	*EPA 8260B*	*111222L01*

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1639
		Project Name:	Seal Beach NWS
		Received:	12/21/11 15:50
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
EPA 300.0 Anions									
099-14-547-4									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Chloride	<0.5	U	mg/L	0.13	0.50	2.00	111221L01	099-14-547-4	12/21/11 11:11
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	111221L01	099-14-547-4	12/21/11 11:11
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	111221L01	099-14-547-4	12/21/11 11:11
Sulfate	<0.5	U	mg/L	0.13	0.50	2.00	111221L01	099-14-547-4	12/21/11 11:11
099-14-547-5									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Chloride	<0.5	U	mg/L	0.13	0.50	2.00	111221L02	099-14-547-5	12/21/11 21:32
Nitrite (as N)	<0.05	U	mg/L	0.021	0.05	0.20	111221L02	099-14-547-5	12/21/11 21:32
Nitrate (as N)	<0.05	U	mg/L	0.021	0.05	0.10	111221L02	099-14-547-5	12/21/11 21:32
Sulfate	<0.5	U	mg/L	0.13	0.50	2.00	111221L02	099-14-547-5	12/21/11 21:32
EPA 410.4 Chemical Oxygen Demand									
099-05-062-4,349									
Chemical Oxygen Demand	<21	U	mg/L	10	21.00	25.00	B1227ODB3	099-05-062-4,349	12/27/11 20:00
099-05-062-4,350									
Chemical Oxygen Demand	<21	U	mg/L	10	21.00	25.00	B1227ODL2	099-05-062-4,350	12/27/11 18:00
EPA 6010B ICP Metals									
099-14-483-5									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Calcium	0.0451	J	mg/L	0.0118	0.03	0.10	111228LA1	099-14-483-5	12/28/11 13:03
Iron	0.0174	J	mg/L	0.0101	0.03	0.10	111228LA1	099-14-483-5	12/28/11 13:03
Magnesium	0.00341	J	mg/L	0.0033	0.01	0.10	111228LA1	099-14-483-5	12/28/11 13:03
Potassium	<0.16667	U	mg/L	0.103	0.17	0.50	111228LA1	099-14-483-5	12/28/11 13:03
Sodium	<0.16667	U	mg/L	0.103	0.17	0.50	111228LA1	099-14-483-5	12/28/11 13:03
EPA 8260B Volatile Organics									
099-14-479-22									
Benzene	<0.5	U	ug/L	0.14	0.50	1.00	111222L01	099-14-479-22	12/22/11 14:02
Bromodichloromethane	<0.5	U	ug/L	0.21	0.50	5.00	111222L01	099-14-479-22	12/22/11 14:02
Bromoform	<1	U	ug/L	0.50	1.00	10.00	111222L01	099-14-479-22	12/22/11 14:02
2-Butanone	<5	U	ug/L	2.2	5.00	10.00	111222L01	099-14-479-22	12/22/11 14:02
Carbon Disulfide	<0.5	U	ug/L	0.41	0.50	5.00	111222L01	099-14-479-22	12/22/11 14:02

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1639
		Project Name:	Seal Beach NWS
		Received:	12/21/11 15:50
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
EPA 8260B Volatile Organics 099-14-479-22									
Carbon Tetrachloride	<0.5	U	ug/L	0.23	0.50	1.00	111222L01	099-14-479-22	12/22/11 14:02
Chlorobenzene	<0.5	U	ug/L	0.17	0.50	5.00	111222L01	099-14-479-22	12/22/11 14:02
Chloroethane	<5	U	ug/L	2.3	5.00	10.00	111222L01	099-14-479-22	12/22/11 14:02
Chloroform	<0.5	U	ug/L	0.46	0.50	5.00	111222L01	099-14-479-22	12/22/11 14:02
Chloromethane	<5	U	ug/L	1.8	5.00	10.00	111222L01	099-14-479-22	12/22/11 14:02
Dibromochloromethane	<0.5	U	ug/L	0.25	0.50	1.00	111222L01	099-14-479-22	12/22/11 14:02
Dichlorodifluoromethane	<0.5	U	ug/L	0.46	0.50	1.00	111222L01	099-14-479-22	12/22/11 14:02
1,1-Dichloroethane	<0.5	U	ug/L	0.28	0.50	5.00	111222L01	099-14-479-22	12/22/11 14:02
1,2-Dichloroethane	<0.5	U	ug/L	0.24	0.50	1.00	111222L01	099-14-479-22	12/22/11 14:02
1,1-Dichloroethene	<0.5	U	ug/L	0.43	0.50	1.00	111222L01	099-14-479-22	12/22/11 14:02
c-1,2-Dichloroethene	<0.5	U	ug/L	0.48	0.50	1.00	111222L01	099-14-479-22	12/22/11 14:02
t-1,2-Dichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	111222L01	099-14-479-22	12/22/11 14:02
Ethylbenzene	<0.5	U	ug/L	0.14	0.50	1.00	111222L01	099-14-479-22	12/22/11 14:02
2-Hexanone	<5	U	ug/L	2.1	5.00	10.00	111222L01	099-14-479-22	12/22/11 14:02
Isopropylbenzene	<1	U	ug/L	0.58	1.00	5.00	111222L01	099-14-479-22	12/22/11 14:02
Methylene Chloride	<1	U	ug/L	0.64	1.00	10.00	111222L01	099-14-479-22	12/22/11 14:02
4-Methyl-2-Pentanone	<5	U	ug/L	4.4	5.00	10.00	111222L01	099-14-479-22	12/22/11 14:02
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ug/L	0.45	0.50	1.00	111222L01	099-14-479-22	12/22/11 14:02
Tetrachloroethene	<0.5	U	ug/L	0.39	0.50	5.00	111222L01	099-14-479-22	12/22/11 14:02
Toluene	<0.5	U	ug/L	0.24	0.50	1.00	111222L01	099-14-479-22	12/22/11 14:02
1,1,1-Trichloroethane	<0.5	U	ug/L	0.30	0.50	5.00	111222L01	099-14-479-22	12/22/11 14:02
1,1,2-Trichloroethane	<0.5	U	ug/L	0.38	0.50	1.00	111222L01	099-14-479-22	12/22/11 14:02
Trichloroethene	<0.5	U	ug/L	0.37	0.50	1.00	111222L01	099-14-479-22	12/22/11 14:02
Trichlorofluoromethane	<5	U	ug/L	1.7	5.00	10.00	111222L01	099-14-479-22	12/22/11 14:02
1,2,4-Trimethylbenzene	<0.5	U	ug/L	0.36	0.50	5.00	111222L01	099-14-479-22	12/22/11 14:02
1,3,5-Trimethylbenzene	<0.5	U	ug/L	0.28	0.50	5.00	111222L01	099-14-479-22	12/22/11 14:02
Vinyl Chloride	<0.5	U	ug/L	0.30	0.50	1.00	111222L01	099-14-479-22	12/22/11 14:02
p/m-Xylene	<0	U	ug/L	0.24	0.00	10.00	111222L01	099-14-479-22	12/22/11 14:02
o-Xylene	<0.5	U	ug/L	0.23	0.50	1.00	111222L01	099-14-479-22	12/22/11 14:02
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ug/L	0.31	0.50	1.00	111222L01	099-14-479-22	12/22/11 14:02
Tert-Butyl Alcohol (TBA)	<5	U	ug/L	4.6	5.00	25.00	111222L01	099-14-479-22	12/22/11 14:02
Surr: 1,4-Bromofluorobenzene (75-120%)	*100%*						*111222L01*	*099-14-479-22*	*12/22/11 14:02*
Surr: Dibromofluoromethane (85-115%)	*97%*						*111222L01*	*099-14-479-22*	*12/22/11 14:02*
Surr: 1,2-Dichloroethane-d4 (70-120%)	*104%*						*111222L01*	*099-14-479-22*	*12/22/11 14:02*

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1639
		Project Name:	Seal Beach NWS
		Received:	12/21/11 15:50
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
EPA 8260B Volatile Organics									
099-14-479-22									
Surr: Toluene-d8 (85-120%)	*100%*						*111222L01*	*099-14-479-22*	*12/22/11 14:02*
RSK-175M Dissolved Gases									
099-14-531-5									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Ethane	<0.1345	U	ug/L	0.0672	0.13	0.37	111222L01	099-14-531-5	12/22/11 12:07
Ethylene	<0.1725	U	ug/L	0.0566	0.17	0.43	111222L01	099-14-531-5	12/22/11 12:07
Methane	<0.0668	U	ug/L	0.0334	0.07	0.17	111222L01	099-14-531-5	12/22/11 12:07
SM 2540 C Total Dissolved Solids									
099-14-577-4									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Solids, Total Dissolved	<1.6	U	mg/L	0.82	1.60	2.00	B1222TDSB3	099-14-577-4	12/22/11 16:40
SM 5310 B Total Organic Carbon									
099-05-097-4,480									
Carbon, Total Organic	<2	U	mg/L	0.24	2.00	5.00	B1227TOCL2	099-05-097-4,480	12/27/11 21:38
099-05-097-4,481									
Carbon, Total Organic	<2	U	mg/L	0.24	2.00	5.00	B1227TOCL3	099-05-097-4,481	12/28/11 01:24

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1639
Project Name: Seal Beach NWS
Received: 12/21/11 15:50

PROJECT QUALITY CONTROL DATA
Matrix Spike

Analyte	Orig. Val.	MS Val.	Q	Units	Spike Conc.	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
EPA 300.0 Anions										
11-12-1639-7										
Chloride	420	5700	BB	mg/L	5000	4X	80-120	111221S01	11-12-1639-7	12/21/11 20:00
Nitrite (as N)	ND	250		mg/L	250	100	80-120	111221S01	11-12-1639-7	12/21/11 20:00
Nitrate (as N)	ND	510		mg/L	500	103	80-120	111221S01	11-12-1639-7	12/21/11 20:00
Sulfate	240	5400	BB	mg/L	5000	4X	80-120	111221S01	11-12-1639-7	12/21/11 20:00
EPA 6010B ICP Metals										
11-12-1639-7										
Calcium	140.1	134.6	BB	mg/L	0.5000	4X	80-120	111228SA1	11-12-1639-7	12/29/11 10:05
Iron	11.14	11.72	BB	mg/L	0.5000	4X	80-120	111228SA1	11-12-1639-7	12/29/11 10:05
Magnesium	46.16	44.29	BB	mg/L	0.5000	4X	80-120	111228SA1	11-12-1639-7	12/29/11 10:05
Potassium	2.813	7.999		mg/L	5.000	104	80-120	111228SA1	11-12-1639-7	12/29/11 10:05
Sodium	463.0	439.6	BB	mg/L	5.000	4X	80-120	111228SA1	11-12-1639-7	12/29/11 10:05
EPA 8260B Volatile Organics										
11-12-1639-7										
Acetone	ND	45.33		ug/L	50.00	91	40-140	111222S01	11-12-1639-7	12/22/11 16:25
Benzene	ND	49.61		ug/L	50.00	99	80-120	111222S01	11-12-1639-7	12/22/11 16:25
Bromobenzene	ND	50.74		ug/L	50.00	101	75-125	111222S01	11-12-1639-7	12/22/11 16:25
Bromochloromethane	ND	49.99		ug/L	50.00	100	65-135	111222S01	11-12-1639-7	12/22/11 16:25
Bromodichloromethane	ND	51.39		ug/L	50.00	103	75-120	111222S01	11-12-1639-7	12/22/11 16:25
Bromoform	ND	46.47		ug/L	50.00	93	70-130	111222S01	11-12-1639-7	12/22/11 16:25
Bromomethane	ND	62.38		ug/L	50.00	125	30-145	111222S01	11-12-1639-7	12/22/11 16:25
2-Butanone	ND	48.97		ug/L	50.00	98	30-150	111222S01	11-12-1639-7	12/22/11 16:25
n-Butylbenzene	ND	54.61		ug/L	50.00	109	70-135	111222S01	11-12-1639-7	12/22/11 16:25
sec-Butylbenzene	ND	53.58		ug/L	50.00	107	70-125	111222S01	11-12-1639-7	12/22/11 16:25
tert-Butylbenzene	ND	52.14		ug/L	50.00	104	70-130	111222S01	11-12-1639-7	12/22/11 16:25
Carbon Disulfide	ND	49.83		ug/L	50.00	100	35-160	111222S01	11-12-1639-7	12/22/11 16:25
Carbon Tetrachloride	ND	55.26		ug/L	50.00	111	65-140	111222S01	11-12-1639-7	12/22/11 16:25
Chlorobenzene	ND	51.20		ug/L	50.00	102	80-120	111222S01	11-12-1639-7	12/22/11 16:25
Chloroethane	ND	51.53		ug/L	50.00	103	60-135	111222S01	11-12-1639-7	12/22/11 16:25
Chloroform	ND	51.21		ug/L	50.00	102	65-135	111222S01	11-12-1639-7	12/22/11 16:25
Chloromethane	ND	50.32		ug/L	50.00	101	40-125	111222S01	11-12-1639-7	12/22/11 16:25
2-Chlorotoluene	ND	50.58		ug/L	50.00	101	75-125	111222S01	11-12-1639-7	12/22/11 16:25
4-Chlorotoluene	ND	51.60		ug/L	50.00	103	75-130	111222S01	11-12-1639-7	12/22/11 16:25
Dibromochloromethane	ND	51.54		ug/L	50.00	103	60-135	111222S01	11-12-1639-7	12/22/11 16:25
1,2-Dibromo-3-Chloropropane	ND	48.55		ug/L	50.00	97	50-130	111222S01	11-12-1639-7	12/22/11 16:25
1,2-Dibromoethane	ND	51.17		ug/L	50.00	102	80-120	111222S01	11-12-1639-7	12/22/11 16:25
Dibromomethane	ND	52.71		ug/L	50.00	105	75-125	111222S01	11-12-1639-7	12/22/11 16:25
1,2-Dichlorobenzene	ND	50.84		ug/L	50.00	102	70-120	111222S01	11-12-1639-7	12/22/11 16:25
1,3-Dichlorobenzene	ND	49.74		ug/L	50.00	99	75-125	111222S01	11-12-1639-7	12/22/11 16:25
1,4-Dichlorobenzene	ND	50.40		ug/L	50.00	101	75-125	111222S01	11-12-1639-7	12/22/11 16:25
Dichlorodifluoromethane	ND	52.88		ug/L	50.00	106	30-155	111222S01	11-12-1639-7	12/22/11 16:25

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1639
Project Name: Seal Beach NWS
Received: 12/21/11 15:50

PROJECT QUALITY CONTROL DATA
Matrix Spike

Analyte	Orig. Val.	MS Val.	Q	Units	Spike Conc.	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
EPA 8260B Volatile Organics										
1,1-Dichloroethane	ND	49.51		ug/L	50.00	99	70-135	111222S01	11-12-1639-7	12/22/11 16:25
1,2-Dichloroethane	ND	51.34		ug/L	50.00	103	70-130	111222S01	11-12-1639-7	12/22/11 16:25
1,1-Dichloroethene	ND	51.65		ug/L	50.00	103	70-130	111222S01	11-12-1639-7	12/22/11 16:25
c-1,2-Dichloroethene	1.003	50.46		ug/L	50.00	99	70-125	111222S01	11-12-1639-7	12/22/11 16:25
t-1,2-Dichloroethene	ND	51.22		ug/L	50.00	102	60-140	111222S01	11-12-1639-7	12/22/11 16:25
1,2-Dichloropropane	ND	48.66		ug/L	50.00	97	75-125	111222S01	11-12-1639-7	12/22/11 16:25
1,3-Dichloropropane	ND	51.05		ug/L	50.00	102	75-125	111222S01	11-12-1639-7	12/22/11 16:25
2,2-Dichloropropane	ND	50.84		ug/L	50.00	102	70-135	111222S01	11-12-1639-7	12/22/11 16:25
1,1-Dichloropropene	ND	52.82		ug/L	50.00	106	75-130	111222S01	11-12-1639-7	12/22/11 16:25
c-1,3-Dichloropropene	ND	48.60		ug/L	50.00	97	70-130	111222S01	11-12-1639-7	12/22/11 16:25
t-1,3-Dichloropropene	ND	48.74		ug/L	50.00	97	55-140	111222S01	11-12-1639-7	12/22/11 16:25
Ethylbenzene	ND	51.89		ug/L	50.00	104	75-125	111222S01	11-12-1639-7	12/22/11 16:25
2-Hexanone	ND	48.37		ug/L	50.00	97	55-130	111222S01	11-12-1639-7	12/22/11 16:25
Isopropylbenzene	ND	52.89		ug/L	50.00	106	75-125	111222S01	11-12-1639-7	12/22/11 16:25
p-Isopropyltoluene	ND	53.69		ug/L	50.00	107	75-130	111222S01	11-12-1639-7	12/22/11 16:25
Methylene Chloride	ND	48.85		ug/L	50.00	98	55-140	111222S01	11-12-1639-7	12/22/11 16:25
4-Methyl-2-Pentanone	ND	49.80		ug/L	50.00	100	60-135	111222S01	11-12-1639-7	12/22/11 16:25
Naphthalene	ND	50.21		ug/L	50.00	100	55-140	111222S01	11-12-1639-7	12/22/11 16:25
n-Propylbenzene	ND	52.43		ug/L	50.00	105	70-130	111222S01	11-12-1639-7	12/22/11 16:25
Styrene	ND	50.95		ug/L	50.00	102	65-135	111222S01	11-12-1639-7	12/22/11 16:25
1,1,1,2-Tetrachloroethane	ND	50.92		ug/L	50.00	102	80-130	111222S01	11-12-1639-7	12/22/11 16:25
1,1,2,2-Tetrachloroethane	ND	50.30		ug/L	50.00	101	65-130	111222S01	11-12-1639-7	12/22/11 16:25
Tetrachloroethene	ND	56.26		ug/L	50.00	113	45-150	111222S01	11-12-1639-7	12/22/11 16:25
Toluene	ND	50.83		ug/L	50.00	102	75-120	111222S01	11-12-1639-7	12/22/11 16:25
1,2,3-Trichlorobenzene	ND	49.76		ug/L	50.00	100	55-140	111222S01	11-12-1639-7	12/22/11 16:25
1,2,4-Trichlorobenzene	ND	51.29		ug/L	50.00	103	65-135	111222S01	11-12-1639-7	12/22/11 16:25
1,1,1-Trichloroethane	ND	53.50		ug/L	50.00	107	65-130	111222S01	11-12-1639-7	12/22/11 16:25
1,1,2-Trichloroethane	ND	51.47		ug/L	50.00	103	75-125	111222S01	11-12-1639-7	12/22/11 16:25
Trichloroethene	1.788	54.37		ug/L	50.00	105	70-125	111222S01	11-12-1639-7	12/22/11 16:25
Trichlorofluoromethane	ND	57.66		ug/L	50.00	115	60-145	111222S01	11-12-1639-7	12/22/11 16:25
1,2,3-Trichloropropane	ND	51.40		ug/L	50.00	103	75-125	111222S01	11-12-1639-7	12/22/11 16:25
1,2,4-Trimethylbenzene	ND	51.56		ug/L	50.00	103	75-130	111222S01	11-12-1639-7	12/22/11 16:25
1,3,5-Trimethylbenzene	ND	52.58		ug/L	50.00	105	75-130	111222S01	11-12-1639-7	12/22/11 16:25
Vinyl Chloride	1.341	55.21		ug/L	50.00	108	50-145	111222S01	11-12-1639-7	12/22/11 16:25
p/m-Xylene	ND	103.2		ug/L	100.0	103	75-130	111222S01	11-12-1639-7	12/22/11 16:25
o-Xylene	ND	51.81		ug/L	50.00	104	80-120	111222S01	11-12-1639-7	12/22/11 16:25
Methyl-t-Butyl Ether (MTBE)	ND	47.80		ug/L	50.00	96	65-125	111222S01	11-12-1639-7	12/22/11 16:25
Tert-Butyl Alcohol (TBA)	ND	274.9		ug/L	250.0	110	46-154	111222S01	11-12-1639-7	12/22/11 16:25
SM 5310 B Total Organic Carbon										
11-12-1457-3										
Carbon, Total Organic	32	78		mg/L	50	92	70-130	B1227TOCS2	11-12-1457-3	12/27/11 21:38
11-12-1639-7										

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1639 Seal Beach NWS 12/21/11 15:50

PROJECT QUALITY CONTROL DATA
Matrix Spike

Analyte	Orig. Val.	MS Val.	Q	Units	Spike Conc.	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
SM 5310 B Total Organic Carbon										
Carbon, Total Organic	66	110		mg/L	50	80	70-130	B1227TOCS3	11-12-1639-7	12/28/11 01:24

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1639
Project Name: Seal Beach NWS
Received: 12/21/11 15:50

PROJECT QUALITY CONTROL DATA
Matrix Spike Dup

Analyte	Orig Val.	Duplicate	Q	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 300.0 Anions												
11-12-1639-7												
Chloride	420	5700	BB	mg/L	5000	4X	80-120	4X	0-20	111221S01	11-12-1639-7	12/21/11 20:15
Nitrite (as N)	ND	250		mg/L	250	100	80-120	0	0-20	111221S01	11-12-1639-7	12/21/11 20:15
Nitrate (as N)	ND	520		mg/L	500	103	80-120	0	0-20	111221S01	11-12-1639-7	12/21/11 20:15
Sulfate	240	5400	BB	mg/L	5000	4X	80-120	4X	0-20	111221S01	11-12-1639-7	12/21/11 20:15
EPA 6010B ICP Metals												
11-12-1639-7												
Calcium	140.1	137.8	BB	mg/L	0.5000	4X	80-120	4X	0-20	111228SA1	11-12-1639-7	12/29/11 10:07
Iron	11.14	11.08	BB	mg/L	0.5000	4X	80-120	4X	0-20	111228SA1	11-12-1639-7	12/29/11 10:07
Magnesium	46.16	45.33	BB	mg/L	0.5000	4X	80-120	4X	0-20	111228SA1	11-12-1639-7	12/29/11 10:07
Potassium	2.813	8.125		mg/L	5.000	106	80-120	2	0-20	111228SA1	11-12-1639-7	12/29/11 10:07
Sodium	463.0	449.1	BB	mg/L	5.000	4X	80-120	4X	0-20	111228SA1	11-12-1639-7	12/29/11 10:07
EPA 8260B Volatile Organics												
11-12-1639-7												
Acetone	ND	45.52		ug/L	50.00	91	40-140	0	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Benzene	ND	49.47		ug/L	50.00	99	80-120	0	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Bromobenzene	ND	51.77		ug/L	50.00	104	75-125	2	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Bromochloromethane	ND	48.95		ug/L	50.00	98	65-135	2	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Bromodichloromethane	ND	51.73		ug/L	50.00	103	75-120	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Bromoform	ND	45.83		ug/L	50.00	92	70-130	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Bromomethane	ND	57.98		ug/L	50.00	116	30-145	7	0-20	111222S01	11-12-1639-7	12/22/11 16:54
2-Butanone	ND	42.39		ug/L	50.00	85	30-150	14	0-20	111222S01	11-12-1639-7	12/22/11 16:54
n-Butylbenzene	ND	54.83		ug/L	50.00	110	70-135	0	0-20	111222S01	11-12-1639-7	12/22/11 16:54
sec-Butylbenzene	ND	53.85		ug/L	50.00	108	70-125	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
tert-Butylbenzene	ND	52.61		ug/L	50.00	105	70-130	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Carbon Disulfide	ND	49.81		ug/L	50.00	100	35-160	0	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Carbon Tetrachloride	ND	56.09		ug/L	50.00	112	65-140	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Chlorobenzene	ND	51.91		ug/L	50.00	104	80-120	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Chloroethane	ND	52.85		ug/L	50.00	106	60-135	3	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Chloroform	ND	51.15		ug/L	50.00	102	65-135	0	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Chloromethane	ND	50.65		ug/L	50.00	101	40-125	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
2-Chlorotoluene	ND	51.75		ug/L	50.00	104	75-125	2	0-20	111222S01	11-12-1639-7	12/22/11 16:54
4-Chlorotoluene	ND	51.07		ug/L	50.00	102	75-130	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Dibromochloromethane	ND	51.98		ug/L	50.00	104	60-135	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
1,2-Dibromo-3-Chloropropane	ND	47.70		ug/L	50.00	95	50-130	2	0-20	111222S01	11-12-1639-7	12/22/11 16:54
1,2-Dibromoethane	ND	50.70		ug/L	50.00	101	80-120	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Dibromomethane	ND	51.49		ug/L	50.00	103	75-125	2	0-20	111222S01	11-12-1639-7	12/22/11 16:54
1,2-Dichlorobenzene	ND	50.99		ug/L	50.00	102	70-120	0	0-20	111222S01	11-12-1639-7	12/22/11 16:54
1,3-Dichlorobenzene	ND	50.40		ug/L	50.00	101	75-125	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
1,4-Dichlorobenzene	ND	50.01		ug/L	50.00	100	75-125	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1639
Project Name: Seal Beach NWS
Received: 12/21/11 15:50

PROJECT QUALITY CONTROL DATA
Matrix Spike Dup

Analyte	Orig Val.	Duplicate	Q	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 8260B Volatile Organics												
Dichlorodifluoromethane	ND	54.36		ug/L	50.00	109	30-155	3	0-20	111222S01	11-12-1639-7	12/22/11 16:54
1,1-Dichloroethane	ND	49.93		ug/L	50.00	100	70-135	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
1,2-Dichloroethane	ND	51.75		ug/L	50.00	104	70-130	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
1,1-Dichloroethene	ND	52.36		ug/L	50.00	105	70-130	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
c-1,2-Dichloroethene	1.003	50.17		ug/L	50.00	98	70-125	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
t-1,2-Dichloroethene	ND	51.20		ug/L	50.00	102	60-140	0	0-20	111222S01	11-12-1639-7	12/22/11 16:54
1,2-Dichloropropane	ND	48.79		ug/L	50.00	98	75-125	0	0-20	111222S01	11-12-1639-7	12/22/11 16:54
1,3-Dichloropropane	ND	49.96		ug/L	50.00	100	75-125	2	0-20	111222S01	11-12-1639-7	12/22/11 16:54
2,2-Dichloropropane	ND	52.10		ug/L	50.00	104	70-135	2	0-20	111222S01	11-12-1639-7	12/22/11 16:54
1,1-Dichloropropene	ND	52.69		ug/L	50.00	105	75-130	0	0-20	111222S01	11-12-1639-7	12/22/11 16:54
c-1,3-Dichloropropene	ND	48.84		ug/L	50.00	98	70-130	0	0-20	111222S01	11-12-1639-7	12/22/11 16:54
t-1,3-Dichloropropene	ND	49.23		ug/L	50.00	98	55-140	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Ethylbenzene	ND	52.42		ug/L	50.00	105	75-125	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
2-Hexanone	ND	45.57		ug/L	50.00	91	55-130	6	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Isopropylbenzene	ND	53.44		ug/L	50.00	107	75-125	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
p-Isopropyltoluene	ND	54.03		ug/L	50.00	108	75-130	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Methylene Chloride	ND	48.97		ug/L	50.00	98	55-140	0	0-20	111222S01	11-12-1639-7	12/22/11 16:54
4-Methyl-2-Pentanone	ND	46.34		ug/L	50.00	93	60-135	7	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Naphthalene	ND	49.80		ug/L	50.00	100	55-140	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
n-Propylbenzene	ND	53.37		ug/L	50.00	107	70-130	2	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Styrene	ND	51.17		ug/L	50.00	102	65-135	0	0-20	111222S01	11-12-1639-7	12/22/11 16:54
1,1,1,2-Tetrachloroethane	ND	52.40		ug/L	50.00	105	80-130	3	0-20	111222S01	11-12-1639-7	12/22/11 16:54
1,1,2,2-Tetrachloroethane	ND	48.77		ug/L	50.00	98	65-130	3	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Tetrachloroethene	ND	55.01		ug/L	50.00	110	45-150	2	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Toluene	ND	50.66		ug/L	50.00	101	75-120	0	0-20	111222S01	11-12-1639-7	12/22/11 16:54
1,2,3-Trichlorobenzene	ND	50.41		ug/L	50.00	101	55-140	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
1,2,4-Trichlorobenzene	ND	51.96		ug/L	50.00	104	65-135	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
1,1,1-Trichloroethane	ND	54.03		ug/L	50.00	108	65-130	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
1,1,2-Trichloroethane	ND	50.63		ug/L	50.00	101	75-125	2	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Trichloroethene	1.788	54.34		ug/L	50.00	105	70-125	0	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Trichlorofluoromethane	ND	57.06		ug/L	50.00	114	60-145	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
1,2,3-Trichloropropane	ND	49.84		ug/L	50.00	100	75-125	3	0-20	111222S01	11-12-1639-7	12/22/11 16:54
1,2,4-Trimethylbenzene	ND	51.74		ug/L	50.00	103	75-130	0	0-20	111222S01	11-12-1639-7	12/22/11 16:54
1,3,5-Trimethylbenzene	ND	53.26		ug/L	50.00	107	75-130	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Vinyl Chloride	1.341	56.54		ug/L	50.00	110	50-145	2	0-20	111222S01	11-12-1639-7	12/22/11 16:54
p/m-Xylene	ND	103.3		ug/L	100.0	103	75-130	0	0-20	111222S01	11-12-1639-7	12/22/11 16:54
o-Xylene	ND	51.83		ug/L	50.00	104	80-120	0	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Methyl-t-Butyl Ether (MTBE)	ND	47.35		ug/L	50.00	95	65-125	1	0-20	111222S01	11-12-1639-7	12/22/11 16:54
Tert-Butyl Alcohol (TBA)	ND	267.4		ug/L	250.0	107	46-154	3	0-35	111222S01	11-12-1639-7	12/22/11 16:54
SM 5310 B Total Organic Carbon												
11-12-1457-3												
Carbon, Total Organic	32	88		mg/L	50	110	70-130	11	0-25	B1227TOCS2	11-12-1457-3	12/27/11 21:38

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1639 Seal Beach NWS 12/21/11 15:50

PROJECT QUALITY CONTROL DATA
Matrix Spike Dup

Analyte	Orig Val.	Duplicate	Q	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
SM 5310 B Total Organic Carbon												
11-12-1639-7												
Carbon, Total Organic	66	100	HX	mg/L	50	67	70-130	6	0-25	B1227TOCS3	11-12-1639-7	12/28/11 01:24

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1639
Project Name: Seal Beach NWS
Received: 12/21/11 15:50

PROJECT QUALITY CONTROL DATA
Post Digestion Spike

Analyte	Orig. Val.	MS Val.	Q	Units	Spike Conc.	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
EPA 6010B ICP Metals										
11-12-1639-7										
Calcium	140.1	137.8	BB	mg/L	0.5000	4X	75-125	111228SA1	11-12-1639-7	12/29/11 10:08
Iron	11.14	11.48	BB	mg/L	0.5000	4X	75-125	111228SA1	11-12-1639-7	12/29/11 10:08
Magnesium	46.16	45.98	BB	mg/L	0.5000	4X	75-125	111228SA1	11-12-1639-7	12/29/11 10:08
Potassium	2.813	8.396		mg/L	5.000	112	75-125	111228SA1	11-12-1639-7	12/29/11 10:08
Sodium	463.0	455.3	BB	mg/L	5.000	4X	75-125	111228SA1	11-12-1639-7	12/29/11 10:08

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1639
Project Name: Seal Beach NWS
Received: 12/21/11 15:50

PROJECT QUALITY CONTROL DATA
Post Digestion Spike Dup

Analyte	Orig Val.	Duplicate	Q	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 6010B ICP Metals												
11-12-1639-7												
Calcium	140.1	138.1	BB	mg/L	0.5000	4X	75-125	4X	0-20	111228SA1	11-12-1639-7	12/29/11 10:09
Iron	11.14	11.52	BB	mg/L	0.5000	4X	75-125	4X	0-20	111228SA1	11-12-1639-7	12/29/11 10:09
Magnesium	46.16	46.21	BB	mg/L	0.5000	4X	75-125	4X	0-20	111228SA1	11-12-1639-7	12/29/11 10:09
Potassium	2.813	8.685		mg/L	5.000	117	75-125	3	0-20	111228SA1	11-12-1639-7	12/29/11 10:09
Sodium	463.0	455.3	BB	mg/L	5.000	4X	75-125	4X	0-20	111228SA1	11-12-1639-7	12/29/11 10:09

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1639 Seal Beach NWS 12/21/11 15:50

PROJECT QUALITY CONTROL DATA
Sample Dup

Analyte	Orig Val.	Duplicate	Q	Units	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 410.4									
11-12-1639-7									
Chemical Oxygen Demand	88	84		mg/L	5	0-25	B1227ODS2	IW-18 (MS/MSD)	12/27/11 18:00
11-12-1639-3									
Chemical Oxygen Demand	ND	ND		mg/L	NA	0-25	B1227ODD3	IW-2	12/27/11 20:00
RSK-175M									
11-12-1639-7									
Ethane	ND	ND		ug/L	NA	0-20	111222D01	IW-18 (MS/MSD)	12/22/11 15:23
Ethylene	ND	ND		ug/L	NA	0-20	111222D01	IW-18 (MS/MSD)	12/22/11 15:23
Methane	10110	10110		ug/L	0	0-20	111222D01	IW-18 (MS/MSD)	12/22/11 15:23
SM 2540 C									
11-12-1639-7									
Solids, Total Dissolved	1720	1760		mg/L	2	0-10	B1222TDSD3	IW-18 (MS/MSD)	12/22/11 16:40

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1639 Seal Beach NWS 12/21/11 15:50

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA 300.0 Anions								
099-14-547-4								
Chloride	50	51		mg/L	103	90-110	111221L01	12/21/11 11:26
Nitrite (as N)	2.5	2.5		mg/L	99	90-110	111221L01	12/21/11 11:26
Nitrate (as N)	5.0	5.0		mg/L	101	90-110	111221L01	12/21/11 11:26
Sulfate	50	51		mg/L	101	90-110	111221L01	12/21/11 11:26
099-14-547-5								
Chloride	50	52		mg/L	104	90-110	111221L02	12/21/11 21:48
Nitrite (as N)	2.5	2.5		mg/L	101	90-110	111221L02	12/21/11 21:48
Nitrate (as N)	5.0	5.1		mg/L	102	90-110	111221L02	12/21/11 21:48
Sulfate	50	51		mg/L	102	90-110	111221L02	12/21/11 21:48
EPA 6010B ICP Metals								
099-14-483-5								
Calcium	0.5000	0.5420		mg/L	108	80-120	111228LA1	12/28/11 13:19
Iron	0.5000	0.5174		mg/L	103	80-120	111228LA1	12/28/11 13:19
Magnesium	0.5000	0.5158		mg/L	103	80-120	111228LA1	12/28/11 13:19
Potassium	5.000	5.045		mg/L	101	80-120	111228LA1	12/28/11 13:19
Sodium	5.000	5.255		mg/L	105	80-120	111228LA1	12/28/11 13:19
EPA 8260B Volatile Organics								

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1639
Project Name: Seal Beach NWS
Received: 12/21/11 15:50

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA 8260B Volatile Organics								
099-14-479-22								
Acetone	50.00	52.32		ug/L	105	40-140	111222L01	12/22/11 12:35
Benzene	50.00	47.11		ug/L	94	80-120	111222L01	12/22/11 12:35
Bromobenzene	50.00	49.85		ug/L	100	75-125	111222L01	12/22/11 12:35
Bromochloromethane	50.00	48.86		ug/L	98	65-130	111222L01	12/22/11 12:35
Bromodichloromethane	50.00	51.38		ug/L	103	75-120	111222L01	12/22/11 12:35
Bromoform	50.00	47.27		ug/L	95	70-130	111222L01	12/22/11 12:35
Bromomethane	50.00	57.04		ug/L	114	30-145	111222L01	12/22/11 12:35
2-Butanone	50.00	50.95		ug/L	102	30-150	111222L01	12/22/11 12:35
n-Butylbenzene	50.00	50.04		ug/L	100	70-135	111222L01	12/22/11 12:35
sec-Butylbenzene	50.00	48.56		ug/L	97	70-125	111222L01	12/22/11 12:35
tert-Butylbenzene	50.00	47.22		ug/L	94	70-130	111222L01	12/22/11 12:35
Carbon Disulfide	50.00	46.54		ug/L	93	35-160	111222L01	12/22/11 12:35
Carbon Tetrachloride	50.00	52.53		ug/L	105	65-140	111222L01	12/22/11 12:35
Chlorobenzene	50.00	48.41		ug/L	97	80-120	111222L01	12/22/11 12:35
Chloroethane	50.00	51.97		ug/L	104	60-135	111222L01	12/22/11 12:35
Chloroform	50.00	49.30		ug/L	99	65-135	111222L01	12/22/11 12:35
Chloromethane	50.00	50.90		ug/L	102	40-125	111222L01	12/22/11 12:35
2-Chlorotoluene	50.00	48.67		ug/L	97	75-125	111222L01	12/22/11 12:35
4-Chlorotoluene	50.00	48.61		ug/L	97	75-130	111222L01	12/22/11 12:35
Dibromochloromethane	50.00	51.27		ug/L	103	60-135	111222L01	12/22/11 12:35
1,2-Dibromo-3-Chloropropane	50.00	49.45		ug/L	99	50-130	111222L01	12/22/11 12:35
1,2-Dibromoethane	50.00	50.74		ug/L	101	80-120	111222L01	12/22/11 12:35
Dibromomethane	50.00	50.57		ug/L	101	75-125	111222L01	12/22/11 12:35
1,2-Dichlorobenzene	50.00	48.31		ug/L	97	70-120	111222L01	12/22/11 12:35
1,3-Dichlorobenzene	50.00	48.22		ug/L	96	75-125	111222L01	12/22/11 12:35
1,4-Dichlorobenzene	50.00	47.47		ug/L	95	75-125	111222L01	12/22/11 12:35
Dichlorodifluoromethane	50.00	51.32		ug/L	103	30-155	111222L01	12/22/11 12:35
1,1-Dichloroethane	50.00	47.53		ug/L	95	70-135	111222L01	12/22/11 12:35
1,2-Dichloroethane	50.00	50.81		ug/L	102	70-130	111222L01	12/22/11 12:35
1,1-Dichloroethene	50.00	48.78		ug/L	98	70-130	111222L01	12/22/11 12:35
c-1,2-Dichloroethene	50.00	48.03		ug/L	96	70-125	111222L01	12/22/11 12:35
t-1,2-Dichloroethene	50.00	48.47		ug/L	97	60-140	111222L01	12/22/11 12:35
1,2-Dichloropropane	50.00	48.38		ug/L	97	75-125	111222L01	12/22/11 12:35
1,3-Dichloropropane	50.00	48.78		ug/L	98	75-125	111222L01	12/22/11 12:35
2,2-Dichloropropane	50.00	50.12		ug/L	100	70-135	111222L01	12/22/11 12:35
1,1-Dichloropropene	50.00	47.99		ug/L	96	75-130	111222L01	12/22/11 12:35
c-1,3-Dichloropropene	50.00	48.86		ug/L	98	70-130	111222L01	12/22/11 12:35
t-1,3-Dichloropropene	50.00	48.85		ug/L	98	55-140	111222L01	12/22/11 12:35
Ethylbenzene	50.00	48.07		ug/L	96	75-125	111222L01	12/22/11 12:35

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1639
		Project Name:	Seal Beach NWS
		Received:	12/21/11 15:50

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA 8260B Volatile Organics								
2-Hexanone	50.00	47.69		ug/L	95	55-130	111222L01	12/22/11 12:35
Isopropylbenzene	50.00	49.14		ug/L	98	75-125	111222L01	12/22/11 12:35
p-Isopropyltoluene	50.00	49.22		ug/L	98	75-130	111222L01	12/22/11 12:35
Methylene Chloride	50.00	47.44		ug/L	95	55-140	111222L01	12/22/11 12:35
4-Methyl-2-Pentanone	50.00	49.62		ug/L	99	60-135	111222L01	12/22/11 12:35
Naphthalene	50.00	49.22		ug/L	98	55-140	111222L01	12/22/11 12:35
n-Propylbenzene	50.00	48.79		ug/L	98	70-130	111222L01	12/22/11 12:35
Styrene	50.00	49.71		ug/L	99	65-135	111222L01	12/22/11 12:35
1,1,1,2-Tetrachloroethane	50.00	50.78		ug/L	102	80-130	111222L01	12/22/11 12:35
1,1,2,2-Tetrachloroethane	50.00	47.94		ug/L	96	65-130	111222L01	12/22/11 12:35
Tetrachloroethene	50.00	55.25		ug/L	110	45-150	111222L01	12/22/11 12:35
Toluene	50.00	47.95		ug/L	96	75-120	111222L01	12/22/11 12:35
1,2,3-Trichlorobenzene	50.00	49.59		ug/L	99	55-140	111222L01	12/22/11 12:35
1,2,4-Trichlorobenzene	50.00	51.09		ug/L	102	65-135	111222L01	12/22/11 12:35
1,1,1-Trichloroethane	50.00	49.81		ug/L	100	65-130	111222L01	12/22/11 12:35
1,1,2-Trichloroethane	50.00	50.18		ug/L	100	75-125	111222L01	12/22/11 12:35
Trichloroethene	50.00	49.08		ug/L	98	70-125	111222L01	12/22/11 12:35
Trichlorofluoromethane	50.00	54.40		ug/L	109	60-145	111222L01	12/22/11 12:35
1,2,3-Trichloropropane	50.00	49.92		ug/L	100	75-125	111222L01	12/22/11 12:35
1,2,4-Trimethylbenzene	50.00	49.08		ug/L	98	75-130	111222L01	12/22/11 12:35
1,3,5-Trimethylbenzene	50.00	50.16		ug/L	100	75-130	111222L01	12/22/11 12:35
Vinyl Chloride	50.00	53.58		ug/L	107	50-145	111222L01	12/22/11 12:35
p/m-Xylene	100.0	95.67		ug/L	96	75-130	111222L01	12/22/11 12:35
o-Xylene	50.00	48.89		ug/L	98	80-120	111222L01	12/22/11 12:35
Methyl-t-Butyl Ether (MTBE)	50.00	48.56		ug/L	97	65-125	111222L01	12/22/11 12:35
Tert-Butyl Alcohol (TBA)	250.0	251.0		ug/L	100	46-154	111222L01	12/22/11 12:35

Total number of LCS compounds:	65
Total number of ME compounds:	0
Total number of ME compound allowed:	3
LCS ME CL validation result:	Pass

RSK-175M Dissolved Gases
099-14-531-5

Ethane	101.0	91.95		ug/L	91	80-120	111222L01	12/22/11 10:21
Methane	100.0	93.02		ug/L	93	79-109	111222L01	12/22/11 10:21

SM 5310 B Total Organic Carbon

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1639
Project Name: Seal Beach NWS
Received: 12/21/11 15:50

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
SM 5310 B Total Organic Carbon								
099-05-097-4,480								
Carbon, Total Organic	10	10		mg/L	104	80-120	B1227TOCL2	12/27/11 21:38
099-05-097-4,481								
Carbon, Total Organic	10	9.9		mg/L	99	80-120	B1227TOCL3	12/28/11 01:24

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1639
Project Name: Seal Beach NWS
Received: 12/21/11 15:50

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 300.0 Anions											
099-14-547-4											
Chloride	50	51		mg/L	103	90-110	0	0-15	111221L01	099-14-547-4	12/21/11 12:09
Nitrite (as N)	2.5	2.5		mg/L	100	90-110	1	0-15	111221L01	099-14-547-4	12/21/11 12:09
Nitrate (as N)	5.0	5.1		mg/L	101	90-110	1	0-15	111221L01	099-14-547-4	12/21/11 12:09
Sulfate	50	51		mg/L	102	90-110	0	0-15	111221L01	099-14-547-4	12/21/11 12:09
099-14-547-5											
Chloride	50	52		mg/L	104	90-110	0	0-15	111221L02	099-14-547-5	12/21/11 22:03
Nitrite (as N)	2.5	2.5		mg/L	101	90-110	0	0-15	111221L02	099-14-547-5	12/21/11 22:03
Nitrate (as N)	5.0	5.1		mg/L	101	90-110	0	0-15	111221L02	099-14-547-5	12/21/11 22:03
Sulfate	50	51		mg/L	101	90-110	0	0-15	111221L02	099-14-547-5	12/21/11 22:03
EPA 6010B ICP Metals											
099-14-483-5											
Calcium	0.5000	0.5424		mg/L	108	80-120	0	0-20	111228LA1	099-14-483-5	12/28/11 13:24
Iron	0.5000	0.5106		mg/L	102	80-120	1	0-20	111228LA1	099-14-483-5	12/28/11 13:24
Magnesium	0.5000	0.5101		mg/L	102	80-120	1	0-20	111228LA1	099-14-483-5	12/28/11 13:24
Potassium	5.000	4.935		mg/L	99	80-120	2	0-20	111228LA1	099-14-483-5	12/28/11 13:24
Sodium	5.000	5.128		mg/L	103	80-120	2	0-20	111228LA1	099-14-483-5	12/28/11 13:24
EPA 8260B Volatile Organics											
099-14-479-22											
Acetone	50.00	51.40		ug/L	103	40-140	2	0-20	111222L01	099-14-479-22	12/22/11 13:04
Benzene	50.00	46.74		ug/L	93	80-120	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
Bromobenzene	50.00	49.51		ug/L	99	75-125	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
Bromochloromethane	50.00	49.48		ug/L	99	65-130	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
Bromodichloromethane	50.00	51.24		ug/L	102	75-120	0	0-20	111222L01	099-14-479-22	12/22/11 13:04
Bromoform	50.00	47.73		ug/L	95	70-130	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
Bromomethane	50.00	64.17		ug/L	128	30-145	12	0-20	111222L01	099-14-479-22	12/22/11 13:04
2-Butanone	50.00	51.24		ug/L	102	30-150	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
n-Butylbenzene	50.00	52.19		ug/L	104	70-135	4	0-20	111222L01	099-14-479-22	12/22/11 13:04
sec-Butylbenzene	50.00	50.36		ug/L	101	70-125	4	0-20	111222L01	099-14-479-22	12/22/11 13:04
tert-Butylbenzene	50.00	48.85		ug/L	98	70-130	3	0-20	111222L01	099-14-479-22	12/22/11 13:04
Carbon Disulfide	50.00	46.82		ug/L	94	35-160	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
Carbon Tetrachloride	50.00	52.86		ug/L	106	65-140	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
Chlorobenzene	50.00	48.23		ug/L	96	80-120	0	0-20	111222L01	099-14-479-22	12/22/11 13:04
Chloroethane	50.00	53.29		ug/L	107	60-135	3	0-20	111222L01	099-14-479-22	12/22/11 13:04
Chloroform	50.00	49.56		ug/L	99	65-135	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
Chloromethane	50.00	51.27		ug/L	103	40-125	1	0-20	111222L01	099-14-479-22	12/22/11 13:04

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1639
Project Name: Seal Beach NWS
Received: 12/21/11 15:50

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 8260B Volatile Organics											
2-Chlorotoluene	50.00	48.43		ug/L	97	75-125	0	0-20	111222L01	099-14-479-22	12/22/11 13:04
4-Chlorotoluene	50.00	49.38		ug/L	99	75-130	2	0-20	111222L01	099-14-479-22	12/22/11 13:04
Dibromochloromethane	50.00	51.03		ug/L	102	60-135	0	0-20	111222L01	099-14-479-22	12/22/11 13:04
1,2-Dibromo-3-Chloropropane	50.00	49.72		ug/L	99	50-130	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
1,2-Dibromoethane	50.00	50.83		ug/L	102	80-120	0	0-20	111222L01	099-14-479-22	12/22/11 13:04
Dibromomethane	50.00	51.19		ug/L	102	75-125	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
1,2-Dichlorobenzene	50.00	49.98		ug/L	100	70-120	3	0-20	111222L01	099-14-479-22	12/22/11 13:04
1,3-Dichlorobenzene	50.00	48.72		ug/L	97	75-125	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
1,4-Dichlorobenzene	50.00	48.52		ug/L	97	75-125	2	0-20	111222L01	099-14-479-22	12/22/11 13:04
Dichlorodifluoromethane	50.00	53.41		ug/L	107	30-155	4	0-20	111222L01	099-14-479-22	12/22/11 13:04
1,1-Dichloroethane	50.00	47.89		ug/L	96	70-135	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
1,2-Dichloroethane	50.00	50.01		ug/L	100	70-130	2	0-20	111222L01	099-14-479-22	12/22/11 13:04
1,1-Dichloroethene	50.00	48.42		ug/L	97	70-130	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
c-1,2-Dichloroethene	50.00	48.01		ug/L	96	70-125	0	0-20	111222L01	099-14-479-22	12/22/11 13:04
t-1,2-Dichloroethene	50.00	47.69		ug/L	95	60-140	2	0-20	111222L01	099-14-479-22	12/22/11 13:04
1,2-Dichloropropane	50.00	47.68		ug/L	95	75-125	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
1,3-Dichloropropane	50.00	49.41		ug/L	99	75-125	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
2,2-Dichloropropane	50.00	50.50		ug/L	101	70-135	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
1,1-Dichloropropene	50.00	48.58		ug/L	97	75-130	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
c-1,3-Dichloropropene	50.00	49.55		ug/L	99	70-130	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
t-1,3-Dichloropropene	50.00	48.32		ug/L	97	55-140	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
Ethylbenzene	50.00	48.10		ug/L	96	75-125	0	0-20	111222L01	099-14-479-22	12/22/11 13:04
2-Hexanone	50.00	50.75		ug/L	101	55-130	6	0-20	111222L01	099-14-479-22	12/22/11 13:04
Isopropylbenzene	50.00	48.98		ug/L	98	75-125	0	0-20	111222L01	099-14-479-22	12/22/11 13:04
p-Isopropyltoluene	50.00	50.43		ug/L	101	75-130	2	0-20	111222L01	099-14-479-22	12/22/11 13:04
Methylene Chloride	50.00	47.63		ug/L	95	55-140	0	0-20	111222L01	099-14-479-22	12/22/11 13:04
4-Methyl-2-Pentanone	50.00	51.75		ug/L	104	60-135	4	0-20	111222L01	099-14-479-22	12/22/11 13:04
Naphthalene	50.00	50.90		ug/L	102	55-140	3	0-20	111222L01	099-14-479-22	12/22/11 13:04
n-Propylbenzene	50.00	49.51		ug/L	99	70-130	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
Styrene	50.00	49.68		ug/L	99	65-135	0	0-20	111222L01	099-14-479-22	12/22/11 13:04
1,1,1,2-Tetrachloroethane	50.00	49.73		ug/L	99	80-130	2	0-20	111222L01	099-14-479-22	12/22/11 13:04
1,1,2,2-Tetrachloroethane	50.00	49.27		ug/L	99	65-130	3	0-20	111222L01	099-14-479-22	12/22/11 13:04
Tetrachloroethene	50.00	53.20		ug/L	106	45-150	4	0-20	111222L01	099-14-479-22	12/22/11 13:04
Toluene	50.00	47.77		ug/L	96	75-120	0	0-20	111222L01	099-14-479-22	12/22/11 13:04
1,2,3-Trichlorobenzene	50.00	50.22		ug/L	100	55-140	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
1,2,4-Trichlorobenzene	50.00	51.67		ug/L	103	65-135	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
1,1,1-Trichloroethane	50.00	49.92		ug/L	100	65-130	0	0-20	111222L01	099-14-479-22	12/22/11 13:04
1,1,2-Trichloroethane	50.00	49.57		ug/L	99	75-125	1	0-20	111222L01	099-14-479-22	12/22/11 13:04

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1639
Project Name: Seal Beach NWS
Received: 12/21/11 15:50

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA 8260B Volatile Organics											
Trichloroethene	50.00	49.14		ug/L	98	70-125	0	0-20	111222L01	099-14-479-22	12/22/11 13:04
Trichlorofluoromethane	50.00	57.83		ug/L	116	60-145	6	0-20	111222L01	099-14-479-22	12/22/11 13:04
1,2,3-Trichloropropane	50.00	50.29		ug/L	101	75-125	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
1,2,4-Trimethylbenzene	50.00	49.42		ug/L	99	75-130	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
1,3,5-Trimethylbenzene	50.00	50.01		ug/L	100	75-130	0	0-20	111222L01	099-14-479-22	12/22/11 13:04
Vinyl Chloride	50.00	56.27		ug/L	113	50-145	5	0-20	111222L01	099-14-479-22	12/22/11 13:04
p/m-Xylene	100.0	95.72		ug/L	96	75-130	0	0-20	111222L01	099-14-479-22	12/22/11 13:04
o-Xylene	50.00	48.60		ug/L	97	80-120	1	0-20	111222L01	099-14-479-22	12/22/11 13:04
Methyl-t-Butyl Ether (MTBE)	50.00	49.37		ug/L	99	65-125	2	0-20	111222L01	099-14-479-22	12/22/11 13:04
Tert-Butyl Alcohol (TBA)	250.0	252.3		ug/L	101	46-154	0	0-25	111222L01	099-14-479-22	12/22/11 13:04

Total number of LCS compounds: 65
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RSK-175M Dissolved Gases											
099-14-531-5											
Ethane	101.0	91.41		ug/L	91	80-120	1	0-20	111222L01	099-14-531-5	12/22/11 10:44
Methane	100.0	92.47		ug/L	92	79-109	1	0-20	111222L01	099-14-531-5	12/22/11 10:44
SM 5310 B Total Organic Carbon											
099-05-097-4,480											
Carbon, Total Organic	10	11		mg/L	110	80-120	6	0-20	B1227TOCL2	099-05-097-4,480	12/27/11 21:38
099-05-097-4,481											
Carbon, Total Organic	10	10		mg/L	101	80-120	2	0-20	B1227TOCL3	099-05-097-4,481	12/28/11 01:24

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 11-12-1639

Qualifier	Definition
AZ	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BA	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
BB	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
BU	Sample analyzed after holding time expired.
DF	Reporting limits elevated due to matrix interferences.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
GE	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
HD	Chromat. profile inconsistent with pattern(s) of ref. fuel stnds.
HO	High concentration matrix spike recovery out of limits
HT	Analytical value calculated using results from associated tests.
HX	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
IL	Relative percent difference out of control.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
LD	Analyte presence was not confirmed by second column or GC/MS analysis.
LP	The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.
ND	Parameter not detected at the indicated reporting limit.
QO	Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.
RU	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
SG	A silica gel cleanup procedure was performed.
SN	See applicable analysis comment.
U	Undetected at detection limit.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 12.21.11
PAGE: 1 OF 1

LABORATORY CLIENT: CKY
ADDRESS: 302 W 5th St, San Pedro, CA 90731
TEL: (310) 519-4000 | FAX: (310) 519-4029 | E-MAIL: howard@ckyinc.com

CLIENT PROJECT NAME / NUMBER: Seal Beach NWS
PROJECT CONTACT: Howard Wittenberg
SAMPLER(S): (SIGNATURE)
COELT LOG CODE
P.O. NO.:
LAB USE: 11-12-1639
COOLER RECEIPT: Temp = °C

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ Standard

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ COELT EDF ☐

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	CEL SAMPLE #	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	VOCs	Anions	Cations	TDS	COD	TOC	Dissolved Gases	Dhc		Level III
1	TB-1		12.21.11	0700	W	2	X									X
2	MW-40-37		12.21.11	0949	W	11	X	X	X	X	X	X	X	X		X
3	IW-2		12.21.11	1028	W	11	X	X	X	X	X	X	X	X		X
4	EB-1		12.21.11	1035	W	10	X	X	X	X	X	X	X			X
5	IW-4		12.21.11	1129	W	11	X	X	X	X	X	X	X	X		X
6	IW-10		12.21.11	1219	W	11	X	X	X	X	X	X	X	X		X
7	IW-18 (MS/MSD)		12.21.11	1344	W	22	X	X	X	X	X	X	X	X		X
8	DUP-3		12.21.11	—	W	10	X	X	X	X	X	X	X	[redacted]		X
9	Site 40 Drum		12.21.11	1435	W		X									X
																X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	CEL	12/21/11	15.06
		12/21/11	1550

Revision: 072611

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-12-1639

SAMPLE RECEIPT FORM

Cooler 1 of 3

CLIENT: CKY

DATE: 12/21/11

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.4 °C - 0.3 °C (CF) = 2.1 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Initial: DEE

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: DEE

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: MR

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☑250CGB**s** ☑1PB ☐1PB**na** ☐500PB

☑250PB ☑250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 1112088 **Labeled/Checked by:** MR

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** RC

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** NC

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-12-1639

SAMPLE RECEIPT FORM

Cooler 2 of 3

CLIENT: CKY

DATE: 12/21/11

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.6 °C - 0.3 °C (CF) = 2.3 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: DEE

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: DEE

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: MR

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☑250CGB**s** ☑1PB ☐1PB**na** ☐500PB

☑250PB ☑250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** MR

Container: C: Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** hL

Preservative: h: HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** hL

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-12-1639

SAMPLE RECEIPT FORM

Cooler 3 of 3

CLIENT: CRY

DATE: 12/21/11

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 3.2 °C - 0.3 °C (CF) = 2.9 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Initial: DEE

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: DEE

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: MR

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOAh ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☑250CGB**s** ☑1PB ☐1PB**na** ☐500PB ☑250PB ☑250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** KR/MR

Container: C: Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** DL/NC

Preservative: h: HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** NC

Calscience Environmental Laboratories, Inc.

Subcontractor Analysis Report

Work Order # 11-12-1639

One or more samples in this Work Order have tests that were subcontracted. The subcontract report(s) follows.

For subcontracted tests, please reference the laboratory information noted below.

1 Microbial Insights - Rockford, TN

Microbiology

2340 Stock Creek Blvd.
Rockford TN 37853-3044
Phone: (865) 573-8188
Fax: (865) 573-8133
Email: info@microbe.com

Client: Richard Villafania
Calscience Environmental Laboratories
7440 Lincoln Way
Garden Grove, CA 92841-1427

Phone: 714-895-5494

Fax: 714-895-7501

Identifier: 072IL **Date Rec:** 12/22/2011 **Report Date:** 12/23/2011

Client Project #: 11-12-1639 **Client Project Name:**

Purchase Order #: 11-12-1639

Analysis Requested: CENSUS

Reviewed By:

Anita Biernacki

NOTICE: This report is intended only for the addressee shown above and may contain confidential or privileged information. If the recipient of this material is not the intended recipient or if you have received this in error, please notify Microbial Insights, Inc. immediately. The data and other information in this report represent only the sample(s) analyzed and are rendered upon condition that it is not to be reproduced without approval from Microbial Insights, Inc. Thank you for your cooperation.

MICROBIAL INSIGHTS, INC.

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Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **Calscience Environmental Laboratories**
Project:

MI Project Number: **072IL**
Date Received: 12/22/2011

Sample Information

Client Sample ID:		**MW-40-37**	**IW-2**	**IW-4**	**IW-10**	**IW-18**
Sample Date:		12/21/2011	12/21/2011	12/21/2011	12/21/2011	12/21/2011
Units:		cells/mL	cells/mL	cells/mL	cells/mL	cells/mL
Analyst:		AB	AB	AB	AB	AB
Dechlorinating Bacteria						
Dehalococcoides spp.	*DHC*	**1.33E+02**	**2.38E+03**	**4.78E+01**	**4.74E+03**	**1.15E+02**

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

TO: **Microbial Insights, Inc.**
2340 Stock Creek Blvd
Rockford, TN 37853-3044
P: (865) 573-8188
Attn: Sample Custodian

CHAIN OF CUSTODY RECORD

DATE: December 21, 2011
PAGE: 1 OF 1

LABORATORY CLIENT: CALSCIENCE ENVIRONMENTAL LABORATORIES, INC.
ADDRESS: 7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: 714 895 5494 x204 | FAX: 714 895 7501 | E-MAIL: rvillafania@calscience.com

CLIENT PROJECT NAME / NUMBER: 11-12-1639
P.O. NO: 11-12-1639
PROJECT CONTACT: Richard Villafania
LAB USE ONLY
SAMPLER(S): (PRINT NAME) BlaineTech
COELT LOG CODE
COOLER RECEIPT Temp = 0 °C

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ COELT EDF ☒ NEDD

SPECIAL INSTRUCTIONS
NEDD required.
Level III Data Package required.

REQUESTED ANALYSIS

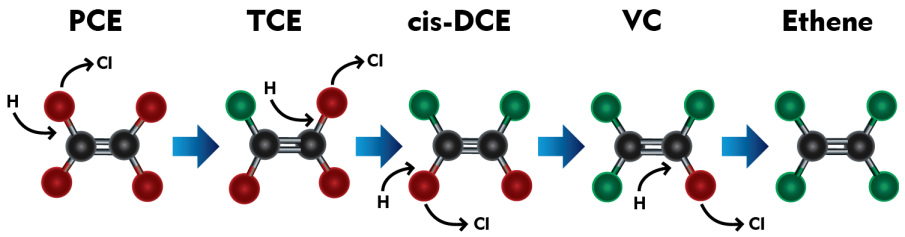
LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.		Dehalococcoides -DHC by CENSUS qPCR				CONTAINER TYPE:
	0721L 1 MW-40-37	12/21/11	0949	water	1		X				(1) 1L poly
	2 IW-2	12/21/11	1028	water	1		X				(1) 1L poly
	3 IW-4	12/21/11	1129	water	1		X				(1) 1L poly
	4 IW-10	12/21/11	1219	water	1		X				(1) 1L poly
	5 IW-18	12/21/11	1344	water	1		X				(1) 1L poly
		Total # Containers Received			5						

Relinquished by: (Signature)	Received by: (Signature / Affiliation)	Date:	Time:
(CALSCIENCE)	Fedex # 797876762750	12/21/11	1613
Relinquished by: (Signature)	Received by: (Signature / Affiliation) Jennifer Ericson	12/22/11	0945
Relinquished by: (Signature)	Received by: (Signature / Affiliation)	Date:	Time:

DHC Interpretation

Dehalococcoides 16S rRNA gene (qDHC)

Under anaerobic conditions, tetrachloroethene (PCE) and trichloroethene (TCE) can undergo sequential reductive dechlorination through the daughter products *cis*-dichloroethene (*cis*-DCE) and vinyl chloride to nontoxic ethene (1,2).



While a number of bacterial cultures capable of utilizing PCE and TCE as growth supporting electron acceptors have been isolated (3-7), *Dehalococcoides* spp. may be the most important because they are the only bacterial group that has been isolated to date which is capable of complete reductive dechlorination of PCE to ethene (8). In fact, the presence of *Dehalococcoides* spp. has been associated with complete dechlorination to ethene at sites across North America and Europe (9).

Status	*Dehalococcoides spp.*	Observation
	$\geq 10^4$ (cells/mL)	Lu et al. proposed that a concentration of 1 x 10^4 DHC cells/mL could be used as a screening criterion to identify sites where reductive dechlorination will yield a generally useful biodegradation rate (10). Similarly, in an internal study conducted with nearly 1000 groundwater samples obtained from sites across the US, ethene production was observed in approximately 80% of samples in which CENSUS® qDHC results were greater than or equal to 10^4 DHC cells/mL.
	10^1 to < 10^4 (cells/mL)	When vinyl chloride reductase genes (See DHC functional genes discussion below) are also detected, complete reductive dechlorination of PCE and TCE to ethene may still occur even with moderate DHC concentrations. When the DHC population is below the 10^4 cells/mL criterion proposed by Lu et al. (10), project managers should carefully consider other site-specific data to determine whether subsurface conditions may be limiting reductive dechlorination. For example, the addition of an electron donor may be able to stimulate DHC growth and enhance anaerobic bioremediation.
	< 10^1 (cells/mL)	DHC concentrations are low suggesting that complete reductive dechlorination of PCE and TCE to ethene is unlikely to occur under existing conditions. Enhanced anaerobic bioremediation options (biostimulation or bioaugmentation) may need to be considered.

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DHC Interpretation

DHC Functional Genes (*tce*A, *bvc*A, *vcr*A)

A "stall" where daughter products *cis*-DCE and vinyl chloride accumulate can occur at PCE- and TCE-impacted sites especially under MNA conditions. The accumulation of vinyl chloride, generally considered more carcinogenic than the parent compounds, is particularly problematic. Although elevated *Dehalococcoides* concentrations correspond to ethene production in numerous studies, the range of chlorinated ethenes metabolized and cometabolized varies among species and strains within the *Dehalococcoides* genus. For example, *Dehalococcoides ethenogenes* str. 195 metabolizes PCE, TCE, and *cis*-DCE and cometabolizes vinyl chloride (8) to produce ethene. Conversely, *Dehalococcoides* sp. CBDB1 utilizes PCE and TCE but does not cometabolize additional chloroethenes (11). Other *Dehalococcoides* strains, such as BAV1, GT and VS, are known to fully dechlorinate cis-DCE and VC to ethene (14,16,19). Quantification of reductive dehalogenase genes is used to more definitively confirm the potential for reductive dechlorination of TCE, cis-DCE, and vinyl chloride (12-15).

Functional Gene	Observation
TCE Reductase	
***tce*A gene**	The *tce*A gene encodes the enzyme responsible for reductive dechlorination of TCE to *cis*-DCE in some strains of *Dehalococcoides*. Absence of *tce*A does not preclude the potential for reductive dechlorination of TCE in the field since the *tce*A gene is not universally distributed among all DHC and is not present in other microorganisms capable of reductive dechlorination of TCE (e.g. *Dehalobacter*). Detection of the *tce*A gene provides an additional line of evidence indicating the potential for dechlorination of TCE.
Vinyl Chloride Reductase	
***bvc*A gene**	The *bvc*A gene encodes the vinyl chloride reductase enzyme responsible for reductive dechlorination of vinyl chloride to ethene by *Dehalococcoides* sp. str. BAV1 (16). Presence of *bvc*A gene indicates the potential for reductive dechlorination of VC to ethene. Absence of both *bvc*A and *vcr*A genes suggests VC may accumulate. An internal study with ~1,000 samples showed ethene production was observed in 80% of the samples that the DHC population was greater than or equal to 10^4 cells/mL. The *bvc*A gene was detected in over 50% of these samples. Van Der Zaan et al (17) noted that the bvcA gene was the only VC reductase gene detected at three of their sites. Alfred Spormann's laboratory at Stanford University (18) reported that the *bvc*A gene was the most abundant and active at the outflow of a PCE fed column study. This section of the column was in the DCE to VC stages of reductive dechlorination thus confirming the importance of the *bvc*A gene for complete reductive dechlorination.
***vcr*A gene**	The *vcr*A gene encodes the vinyl chloride reductase enzyme responsible for reductive dechlorination of *cis*-DCE and vinyl chloride by *Dehalococcoides* sp. strain VS (14). Presence of *vcr*A gene indicates the potential for reductive dechlorination of DCE and/or VC to ethene. Absence of both *bvc*A and *vcr*A genes suggest VC may accumulate. As with the *bvc*A gene, detection of the *vcr*A gene is associated with ethene production in internal studies (67%) and vinyl chloride reduction in independent studies (14, 17).

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DHC Interpretation

Reporting

Microbial Insights can provide a variety of data packages and reporting levels to suit the needs of any project. Data packages range from simple analytical reports with results only to more complex data packages that include a report narrative, analytical results, QC data, and supporting materials including all raw data and chain-of-custody documentation. The figure below shows our standard report and explains the way values are reported.

Microbial Insights, Inc.

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Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: Company Name
Project: Your Project Name

MI Project Number: Unique Laboratory Identifier
Date Received: Date Samples Arrived

Sample Information

Client Sample ID:		Sample A	Sample B	Sample C
Sample Date:		00/00/0000	00/00/0000	00/00/0000
Units:		cells/mL	cells/mL	cells/mL
Analyst:		Intials	Intials	Intials
Dechlorinating Bacteria				
Dehalococcoides spp.	DHC	**1.84E+05**	**2.76E+02**	**2.28E+01 (J)**
Functional Genes				
tceA Reductase	TCE	**6.00E+01**	**3.23E+01**	<4.00E-01
bvcA Reductase	BVC	**1.17E+04**	**1.81E+01**	<4.00E-01
vcrA Reducatase	VCR	**8.42E+04**	**1.74E+02**	<4.00E-01

"J" value
Result is an estimated value. This data qualifier (flag) is used when the target gene is detected but at a concentration or abundance below the practical quantification limit (PQL).

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

< value
The target gene was not detected at the limit of quantitation (LOQ) reported for that sample.

"I" value
QA Procedure indicated that the sample may have exhibited PCR inhibition. Although relatiively rare, PCR inhibition can occur due to the presence of metals or humic acids at high concentrations in the sample.

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Quality Assurance

Microbial Insights' comprehensive Quality Assurance (QA) Program is the foundation of all laboratory analyses, ensuring that our clients receive high-quality analytical services that are timely, reliable, and meet their intended purpose in a cost effective manner. MI is committed to providing quality data that surpasses regulatory and industry standards, thus enabling the client to make well-informed decisions. MI maintains strict standard operating procedures and QA/QC measures throughout all of the analyses offered. The following Table details specific QA/QC procedures that are used for CENSUS.

QA/QC	Description
Date of Extraction	DNA and RNA extractions are performed the day the samples are received by MI to minimize the possibility of any changes to the microbial community prior to analysis.
Laboratory Method Blanks	An extraction blank (no sample added) is processed alongside each set of field samples from DNA extraction through CENSUS® analysis to ensure that cross contamination has not occurred. Although MI has never experienced this issue, the detection of the CENSUS® target (e.g. *Dehalococcoides*) in an extraction blank is direct evidence of cross contamination with a sample or contamination of a reagent and would invalidate the results. If this were to occur, MI would re-extract the sample. If not possible to re-extract, MI would contact the client immediately and notate it on the laboratory report.
Laboratory Control Samples (LCS)	A laboratory control sample (LCS) or positive control (target DNA) is included with each CENSUS® plate to confirm amplification and as a continuing calibration check.
Negative Controls	A negative control (no DNA) is included with each CENSUS plate to ensure that cross contamination has not occurred during amplification. As with the extraction blank, detection of CENSUS target (e.g. DHC) in a negative control is direct evidence of contamination and would invalidate the results. If this were to occur, MI would rerun the analysis.

References

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 11-12-1766

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: CKY, Incorporated

Client Project Name: Seal Beach NWS

Attention: Howard Wittenberg
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Approved for release on 01/11/2012 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1766
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 1 (MW-40-37, Air) Sampled: 12/21/11 13:04										
ASTM D-1946 (M) Fixed Gases (H2 and/or He) (Sample: 11-12-1766-1-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Helium	<0.01	U	%v	0.00565	0.01	0.03	1	12/23/11 10:12	ASTM D-1946 (M)	111223L01
ASTM D-1946 Fixed Gases (Sample: 11-12-1766-1-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Methane	57.8		%v	0.155	0.25	0.50	1	12/28/11 12:13	ASTM D-1946	111228L01
EPA TO-15 Full List (Sample: 11-12-1766-1-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	3.2		ppb (v/v)	0.24	0.25	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
Benzyl Chloride	<1.25	U	ppb (v/v)	0.99	1.25	3.13	2.5	12/23/11 18:18	EPA TO-15	111223L01
Bromodichloromethane	<0.5	U	ppb (v/v)	0.25	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
Bromoform	<0.5	U	ppb (v/v)	0.38	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
Bromomethane	<0.25	U	ppb (v/v)	0.23	0.25	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
2-Butanone	2.1	J	ppb (v/v)	0.25	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
Carbon Disulfide	1.3	J	ppb (v/v)	0.25	0.25	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
Carbon Tetrachloride	<0.25	U	ppb (v/v)	0.25	0.25	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
Chlorobenzene	0.29	J	ppb (v/v)	0.27	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
Chloroethane	130		ppb (v/v)	0.39	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
Chloroform	<0.25	U	ppb (v/v)	0.22	0.25	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
Chloromethane	<0.25	U	ppb (v/v)	0.24	0.25	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
Dibromochloromethane	<0.5	U	ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
Dichlorodifluoromethane	<0.5	U	ppb (v/v)	0.36	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
1,1-Dichloroethane	<0.5	U	ppb (v/v)	0.26	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
1,1-Dichloroethene	0.38	J	ppb (v/v)	0.27	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
1,2-Dibromoethane	<0.5	U	ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
1,2-Dichlorobenzene	<0.5	U	ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
1,2-Dichloroethane	<0.25	U	ppb (v/v)	0.24	0.25	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
1,2-Dichloropropane	<0.5	U	ppb (v/v)	0.29	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
1,3-Dichlorobenzene	<0.5	U	ppb (v/v)	0.33	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
1,4-Dichlorobenzene	0.95	J	ppb (v/v)	0.34	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
c-1,3-Dichloropropene	<0.5	U	ppb (v/v)	0.35	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
c-1,2-Dichloroethene	34		ppb (v/v)	0.33	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
t-1,2-Dichloroethene	57		ppb (v/v)	0.47	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
t-1,3-Dichloropropene	<0.5	U	ppb (v/v)	0.26	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
Ethanol	8.0	J	ppb (v/v)	1.1	2.00	5.00	2.5	12/23/11 18:18	EPA TO-15	111223L01
Ethylbenzene	7.7		ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
4-Ethyltoluene	0.81	J	ppb (v/v)	0.46	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
Hexachloro-1,3-Butadiene	<0.5	U	ppb (v/v)	0.45	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
2-Hexanone	<3.125	U	ppb (v/v)	1.3	3.13	6.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ppb (v/v)	0.30	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
Methylene Chloride	<3.125	U	ppb (v/v)	2.5	3.13	6.25	2.5	12/23/11 18:18	EPA TO-15	111223L01

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1766
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 1 (MW-40-37, Air) Sampled: 12/21/11 13:04										
EPA TO-15 Full List (Sample: 11-12-1766-1-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
4-Methyl-2-Pentanone	<0.5	U	ppb (v/v)	0.38	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
o-Xylene	5.3		ppb (v/v)	0.30	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
p/m-Xylene	15		ppb (v/v)	1.9	2.50	2.50	2.5	12/23/11 18:18	EPA TO-15	111223L01
Styrene	0.62	J	ppb (v/v)	0.45	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
Tetrachloroethene	1.8		ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
Toluene	6.4		ppb (v/v)	0.29	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
Trichloroethene	13		ppb (v/v)	0.27	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
Trichlorofluoromethane	<0.25	U	ppb (v/v)	0.19	0.25	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ppb (v/v)	0.25	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
1,1,1-Trichloroethane	<0.25	U	ppb (v/v)	0.25	0.25	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
1,1,2-Trichloroethane	<0.5	U	ppb (v/v)	0.30	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
1,3,5-Trimethylbenzene	1.7		ppb (v/v)	0.42	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
1,1,2,2-Tetrachloroethane	<0.5	U	ppb (v/v)	0.26	0.50	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
1,2,4-Trimethylbenzene	4.3		ppb (v/v)	0.82	1.25	1.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
1,2,4-Trichlorobenzene	<3.125	U	ppb (v/v)	1.8	3.13	6.25	2.5	12/23/11 18:18	EPA TO-15	111223L01
Vinyl Acetate	<1.25	U	ppb (v/v)	1.1	1.25	3.13	2.5	12/23/11 18:18	EPA TO-15	111223L01
Vinyl Chloride	380		ppb (v/v)	1.0	0.50	1.25	10	12/23/11 18:18	EPA TO-15	111223L01
Surr: 1,4-Bromofluorobenzene (57-129%)	*94%*							*12/23/11 18:18*	*EPA TO-15*	*111223L01*
Surr: 1,2-Dichloroethane-d4 (47-137%)	*89%*							*12/23/11 18:18*	*EPA TO-15*	*111223L01*
Surr: Toluene-d8 (78-156%)	*95%*							*12/23/11 18:18*	*EPA TO-15*	*111223L01*

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1766
		Project Name:	Seal Beach NWS
		Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
ASTM D-1946 (M) Fixed Gases (H2 and/or He)									
099-12-872-204									
Helium	<0.01	U	%v	0.0056	0.01	0.03	111223L01	099-12-872-204	12/23/11 09:48
ASTM D-1946 Fixed Gases									
099-14-535-3									
Methane	<0.25	U	%v	0.155	0.25	0.50	111228L01	099-14-535-3	12/28/11 11:37
EPA TO-15 Full List									
099-14-523-3									
Benzene	<0.1	U	ppb (v/v)	0.094	0.10	0.50	111223L01	099-14-523-3	12/23/11 13:12
Benzyl Chloride	<0.5	U	ppb (v/v)	0.39	0.50	1.25	111223L01	099-14-523-3	12/23/11 13:12
Bromodichloromethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Bromoform	<0.2	U	ppb (v/v)	0.15	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Bromomethane	<0.1	U	ppb (v/v)	0.093	0.10	0.50	111223L01	099-14-523-3	12/23/11 13:12
2-Butanone	<0.2	U	ppb (v/v)	0.099	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Carbon Disulfide	<0.1	U	ppb (v/v)	0.099	0.10	0.50	111223L01	099-14-523-3	12/23/11 13:12
Carbon Tetrachloride	<0.1	U	ppb (v/v)	0.098	0.10	0.50	111223L01	099-14-523-3	12/23/11 13:12
Chlorobenzene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Chloroethane	<0.2	U	ppb (v/v)	0.15	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Chloroform	<0.1	U	ppb (v/v)	0.090	0.10	0.50	111223L01	099-14-523-3	12/23/11 13:12
Chloromethane	<0.1	U	ppb (v/v)	0.098	0.10	0.50	111223L01	099-14-523-3	12/23/11 13:12
Dibromochloromethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Dichlorodifluoromethane	<0.2	U	ppb (v/v)	0.14	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,1-Dichloroethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,1-Dichloroethene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,2-Dibromoethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,2-Dichlorobenzene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,2-Dichloroethane	<0.1	U	ppb (v/v)	0.095	0.10	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,2-Dichloropropane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,3-Dichlorobenzene	<0.2	U	ppb (v/v)	0.13	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,4-Dichlorobenzene	<0.2	U	ppb (v/v)	0.13	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
c-1,3-Dichloropropene	<0.2	U	ppb (v/v)	0.14	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
c-1,2-Dichloroethene	<0.2	U	ppb (v/v)	0.13	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
t-1,2-Dichloroethene	<0.2	U	ppb (v/v)	0.19	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
t-1,3-Dichloropropene	<0.2	U	ppb (v/v)	0.10	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated	Work Order:	11-12-1766
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
EPA TO-15 Full List									
099-14-523-3									
Ethanol	<0.8	U	ppb (v/v)	0.46	0.80	2.00	111223L01	099-14-523-3	12/23/11 13:12
Ethylbenzene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
4-Ethyltoluene	<0.2	U	ppb (v/v)	0.18	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Hexachloro-1,3-Butadiene	<0.2	U	ppb (v/v)	0.18	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
2-Hexanone	<1.25	U	ppb (v/v)	0.52	1.25	2.50	111223L01	099-14-523-3	12/23/11 13:12
Methyl-t-Butyl Ether (MTBE)	<0.2	U	ppb (v/v)	0.12	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Methylene Chloride	<1.25	U	ppb (v/v)	1.0	1.25	2.50	111223L01	099-14-523-3	12/23/11 13:12
4-Methyl-2-Pentanone	<0.2	U	ppb (v/v)	0.15	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
o-Xylene	<0.2	U	ppb (v/v)	0.12	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
p/m-Xylene	<1	U	ppb (v/v)	0.76	1.00	1.00	111223L01	099-14-523-3	12/23/11 13:12
Styrene	<0.2	U	ppb (v/v)	0.18	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Tetrachloroethene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Toluene	<0.2	U	ppb (v/v)	0.12	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Trichloroethene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Trichlorofluoromethane	<0.1	U	ppb (v/v)	0.077	0.10	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,1,1-Trichloroethane	<0.1	U	ppb (v/v)	0.10	0.10	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,1,2-Trichloroethane	<0.2	U	ppb (v/v)	0.12	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,3,5-Trimethylbenzene	<0.2	U	ppb (v/v)	0.17	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,1,2,2-Tetrachloroethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,2,4-Trimethylbenzene	<0.5	U	ppb (v/v)	0.33	0.50	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,2,4-Trichlorobenzene	<1.25	U	ppb (v/v)	0.72	1.25	2.50	111223L01	099-14-523-3	12/23/11 13:12
Vinyl Acetate	<0.5	U	ppb (v/v)	0.45	0.50	1.25	111223L01	099-14-523-3	12/23/11 13:12
Vinyl Chloride	<0.2	U	ppb (v/v)	0.10	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Surr: 1,4-Bromofluorobenzene (57-129%)	*96%*						*111223L01*	*099-14-523-3*	*12/23/11 13:12*
Surr: 1,2-Dichloroethane-d4 (47-137%)	*90%*						*111223L01*	*099-14-523-3*	*12/23/11 13:12*
Surr: Toluene-d8 (78-156%)	*97%*						*111223L01*	*099-14-523-3*	*12/23/11 13:12*
099-14-523-4									
Benzene	<0.1	U	ppb (v/v)	0.094	0.10	0.50	111227L01	099-14-523-4	12/27/11 14:29
Benzyl Chloride	<0.5	U	ppb (v/v)	0.39	0.50	1.25	111227L01	099-14-523-4	12/27/11 14:29
Bromodichloromethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Bromoform	<0.2	U	ppb (v/v)	0.15	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Bromomethane	<0.1	U	ppb (v/v)	0.093	0.10	0.50	111227L01	099-14-523-4	12/27/11 14:29
2-Butanone	<0.2	U	ppb (v/v)	0.099	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1766
		Project Name:	Seal Beach NWS
		Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
EPA TO-15 Full List 099-14-523-4									
Carbon Disulfide	<0.1	U	ppb (v/v)	0.099	0.10	0.50	111227L01	099-14-523-4	12/27/11 14:29
Carbon Tetrachloride	<0.1	U	ppb (v/v)	0.098	0.10	0.50	111227L01	099-14-523-4	12/27/11 14:29
Chlorobenzene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Chloroethane	<0.2	U	ppb (v/v)	0.15	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Chloroform	<0.1	U	ppb (v/v)	0.090	0.10	0.50	111227L01	099-14-523-4	12/27/11 14:29
Chloromethane	<0.1	U	ppb (v/v)	0.098	0.10	0.50	111227L01	099-14-523-4	12/27/11 14:29
Dibromochloromethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Dichlorodifluoromethane	<0.2	U	ppb (v/v)	0.14	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,1-Dichloroethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,1-Dichloroethene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,2-Dibromoethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,2-Dichlorobenzene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,2-Dichloroethane	<0.1	U	ppb (v/v)	0.095	0.10	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,2-Dichloropropane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,3-Dichlorobenzene	<0.2	U	ppb (v/v)	0.13	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,4-Dichlorobenzene	<0.2	U	ppb (v/v)	0.13	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
c-1,3-Dichloropropene	<0.2	U	ppb (v/v)	0.14	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
c-1,2-Dichloroethene	<0.2	U	ppb (v/v)	0.13	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
t-1,2-Dichloroethene	<0.2	U	ppb (v/v)	0.19	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
t-1,3-Dichloropropene	<0.2	U	ppb (v/v)	0.10	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Ethanol	<0.8	U	ppb (v/v)	0.46	0.80	2.00	111227L01	099-14-523-4	12/27/11 14:29
Ethylbenzene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
4-Ethyltoluene	<0.2	U	ppb (v/v)	0.18	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Hexachloro-1,3-Butadiene	<0.2	U	ppb (v/v)	0.18	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
2-Hexanone	<1.25	U	ppb (v/v)	0.52	1.25	2.50	111227L01	099-14-523-4	12/27/11 14:29
Methyl-t-Butyl Ether (MTBE)	<0.2	U	ppb (v/v)	0.12	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Methylene Chloride	<1.25	U	ppb (v/v)	1.0	1.25	2.50	111227L01	099-14-523-4	12/27/11 14:29
4-Methyl-2-Pentanone	<0.2	U	ppb (v/v)	0.15	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
o-Xylene	<0.2	U	ppb (v/v)	0.12	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
p/m-Xylene	<1	U	ppb (v/v)	0.76	1.00	1.00	111227L01	099-14-523-4	12/27/11 14:29
Styrene	<0.2	U	ppb (v/v)	0.18	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Tetrachloroethene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Toluene	<0.2	U	ppb (v/v)	0.12	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Trichloroethene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1766
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
EPA TO-15 Full List									
099-14-523-4									
Trichlorofluoromethane	<0.1	U	ppb (v/v)	0.077	0.10	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,1,1-Trichloroethane	<0.1	U	ppb (v/v)	0.10	0.10	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,1,2-Trichloroethane	<0.2	U	ppb (v/v)	0.12	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,3,5-Trimethylbenzene	<0.2	U	ppb (v/v)	0.17	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,1,2,2-Tetrachloroethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,2,4-Trimethylbenzene	<0.5	U	ppb (v/v)	0.33	0.50	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,2,4-Trichlorobenzene	<1.25	U	ppb (v/v)	0.72	1.25	2.50	111227L01	099-14-523-4	12/27/11 14:29
Vinyl Acetate	<0.5	U	ppb (v/v)	0.45	0.50	1.25	111227L01	099-14-523-4	12/27/11 14:29
Vinyl Chloride	<0.2	U	ppb (v/v)	0.10	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Surr: 1,4-Bromofluorobenzene (57-129%)	*97%*						*111227L01*	*099-14-523-4*	*12/27/11 14:29*
Surr: 1,2-Dichloroethane-d4 (47-137%)	*92%*						*111227L01*	*099-14-523-4*	*12/27/11 14:29*
Surr: Toluene-d8 (78-156%)	*97%*						*111227L01*	*099-14-523-4*	*12/27/11 14:29*

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1766 Seal Beach NWS 12/22/11 18:30

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
ASTM D-1946 (M) Fixed Gases (H2 and/or He)								
099-12-872-204								
Helium	1.000	0.8932		%v	89	80-120	111223L01	12/23/11 09:04
Hydrogen	1.000	0.8528		%v	85	80-120	111223L01	12/23/11 09:04
ASTM D-1946 Fixed Gases								
099-14-535-3								
Methane	10.12	9.579		%v	95	80-120	111228L01	12/28/11 09:49
Carbon Dioxide	10.07	9.825		%v	98	80-120	111228L01	12/28/11 09:49
Carbon Monoxide	9.930	10.25		%v	103	80-120	111228L01	12/28/11 09:49
Oxygen + Argon	3.500	3.463		%v	99	80-120	111228L01	12/28/11 09:49
Nitrogen	10.02	10.11		%v	101	80-120	111228L01	12/28/11 09:49
EPA TO-15 Full List								

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1766
Project Name: Seal Beach NWS
Received: 12/22/11 18:30

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA TO-15 Full List								
099-14-523-3								
Acetone	25.00	25.89		ppb (v/v)	104	50-150	111223L01	12/23/11 10:47
Benzene	25.00	30.03		ppb (v/v)	120	60-156	111223L01	12/23/11 10:47
Benzyl Chloride	25.00	26.46		ppb (v/v)	106	50-150	111223L01	12/23/11 10:47
Bromodichloromethane	25.00	27.56		ppb (v/v)	110	50-150	111223L01	12/23/11 10:47
Bromoform	25.00	26.97		ppb (v/v)	108	62-134	111223L01	12/23/11 10:47
Bromomethane	25.00	26.79		ppb (v/v)	107	50-150	111223L01	12/23/11 10:47
2-Butanone	25.00	28.26		ppb (v/v)	113	50-150	111223L01	12/23/11 10:47
Carbon Disulfide	25.00	33.84		ppb (v/v)	135	50-150	111223L01	12/23/11 10:47
Carbon Tetrachloride	25.00	28.03		ppb (v/v)	112	64-154	111223L01	12/23/11 10:47
Chlorobenzene	25.00	29.42		ppb (v/v)	118	50-150	111223L01	12/23/11 10:47
Chloroethane	25.00	27.17		ppb (v/v)	109	50-150	111223L01	12/23/11 10:47
Chloroform	25.00	27.13		ppb (v/v)	109	50-150	111223L01	12/23/11 10:47
Chloromethane	25.00	28.09		ppb (v/v)	112	50-150	111223L01	12/23/11 10:47
Dibromochloromethane	25.00	28.82		ppb (v/v)	115	50-150	111223L01	12/23/11 10:47
Dichlorodifluoromethane	25.00	24.93		ppb (v/v)	100	50-150	111223L01	12/23/11 10:47
Diisopropyl Ether (DIPE)	25.00	26.50		ppb (v/v)	106	50-150	111223L01	12/23/11 10:47
1,1-Dichloroethane	25.00	28.42		ppb (v/v)	114	50-150	111223L01	12/23/11 10:47
1,1-Dichloroethene	25.00	35.02		ppb (v/v)	140	50-150	111223L01	12/23/11 10:47
1,2-Dibromoethane	25.00	29.23		ppb (v/v)	117	54-144	111223L01	12/23/11 10:47
Dichlorotetrafluoroethane	25.00	25.60		ppb (v/v)	102	50-150	111223L01	12/23/11 10:47
1,2-Dichlorobenzene	25.00	22.65		ppb (v/v)	91	34-160	111223L01	12/23/11 10:47
1,2-Dichloroethane	25.00	25.84		ppb (v/v)	103	69-153	111223L01	12/23/11 10:47
1,2-Dichloropropane	25.00	29.76		ppb (v/v)	119	67-157	111223L01	12/23/11 10:47
1,3-Dichlorobenzene	25.00	24.17		ppb (v/v)	97	50-150	111223L01	12/23/11 10:47
1,4-Dichlorobenzene	25.00	24.35		ppb (v/v)	97	36-156	111223L01	12/23/11 10:47
c-1,3-Dichloropropene	25.00	31.16		ppb (v/v)	125	61-157	111223L01	12/23/11 10:47
c-1,2-Dichloroethene	25.00	30.46		ppb (v/v)	122	50-150	111223L01	12/23/11 10:47
t-1,2-Dichloroethene	25.00	28.41		ppb (v/v)	114	50-150	111223L01	12/23/11 10:47
t-1,3-Dichloropropene	25.00	33.26		ppb (v/v)	133	50-150	111223L01	12/23/11 10:47
Ethanol	100.0	91.19		ppb (v/v)	91	50-150	111223L01	12/23/11 10:47
Ethyl-t-Butyl Ether (ETBE)	25.00	27.21		ppb (v/v)	109	50-150	111223L01	12/23/11 10:47
Ethylbenzene	25.00	29.72		ppb (v/v)	119	52-154	111223L01	12/23/11 10:47
4-Ethyltoluene	25.00	28.27		ppb (v/v)	113	50-150	111223L01	12/23/11 10:47
Hexachloro-1,3-Butadiene	25.00	18.12		ppb (v/v)	72	50-150	111223L01	12/23/11 10:47
2-Hexanone	25.00	29.41		ppb (v/v)	118	50-150	111223L01	12/23/11 10:47
Methyl-t-Butyl Ether (MTBE)	25.00	27.75		ppb (v/v)	111	50-150	111223L01	12/23/11 10:47
Methylene Chloride	25.00	33.06		ppb (v/v)	132	50-150	111223L01	12/23/11 10:47
4-Methyl-2-Pentanone	25.00	29.86		ppb (v/v)	119	50-150	111223L01	12/23/11 10:47
Naphthalene	25.00	17.30		ppb (v/v)	69	40-190	111223L01	12/23/11 10:47

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1766
		Project Name:	Seal Beach NWS
		Received:	12/22/11 18:30

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA TO-15 Full List								
o-Xylene	25.00	28.40		ppb (v/v)	114	52-148	111223L01	12/23/11 10:47
p/m-Xylene	50.00	57.14		ppb (v/v)	114	42-156	111223L01	12/23/11 10:47
Styrene	25.00	27.79		ppb (v/v)	111	50-150	111223L01	12/23/11 10:47
Tert-Amyl-Methyl Ether (TAME)	25.00	26.63		ppb (v/v)	107	50-150	111223L01	12/23/11 10:47
Tert-Butyl Alcohol (TBA)	50.00	63.18		ppb (v/v)	126	50-150	111223L01	12/23/11 10:47
Tetrachloroethene	25.00	29.08		ppb (v/v)	116	56-152	111223L01	12/23/11 10:47
Toluene	25.00	30.08		ppb (v/v)	120	56-146	111223L01	12/23/11 10:47
Trichloroethene	25.00	28.74		ppb (v/v)	115	63-159	111223L01	12/23/11 10:47
Trichlorofluoromethane	25.00	24.85		ppb (v/v)	99	50-150	111223L01	12/23/11 10:47
1,1,2-Trichloro-1,2,2-Trifluoroethane	25.00	34.79		ppb (v/v)	139	50-150	111223L01	12/23/11 10:47
1,1,1-Trichloroethane	25.00	27.72		ppb (v/v)	111	50-150	111223L01	12/23/11 10:47
1,1,2-Trichloroethane	25.00	29.40		ppb (v/v)	118	65-149	111223L01	12/23/11 10:47
1,3,5-Trimethylbenzene	25.00	26.47		ppb (v/v)	106	50-150	111223L01	12/23/11 10:47
1,1,2,2-Tetrachloroethane	25.00	24.01		ppb (v/v)	96	50-150	111223L01	12/23/11 10:47
1,2,4-Trimethylbenzene	25.00	25.84		ppb (v/v)	103	50-150	111223L01	12/23/11 10:47
1,2,4-Trichlorobenzene	25.00	19.09		ppb (v/v)	76	50-150	111223L01	12/23/11 10:47
Vinyl Acetate	25.00	25.12		ppb (v/v)	100	50-150	111223L01	12/23/11 10:47
Vinyl Chloride	25.00	26.90		ppb (v/v)	108	45-177	111223L01	12/23/11 10:47

Total number of LCS compounds:	57
Total number of ME compounds:	0
Total number of ME compound allowed:	3
LCS ME CL validation result:	Pass

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1766
Project Name: Seal Beach NWS
Received: 12/22/11 18:30

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA TO-15 Full List								
099-14-523-4								
Acetone	25.00	24.05		ppb (v/v)	96	50-150	111227L01	12/27/11 10:54
Benzene	25.00	26.68		ppb (v/v)	107	60-156	111227L01	12/27/11 10:54
Benzyl Chloride	25.00	24.18		ppb (v/v)	97	50-150	111227L01	12/27/11 10:54
Bromodichloromethane	25.00	25.28		ppb (v/v)	101	50-150	111227L01	12/27/11 10:54
Bromoform	25.00	24.96		ppb (v/v)	100	62-134	111227L01	12/27/11 10:54
Bromomethane	25.00	24.81		ppb (v/v)	99	50-150	111227L01	12/27/11 10:54
2-Butanone	25.00	22.33		ppb (v/v)	89	50-150	111227L01	12/27/11 10:54
Carbon Disulfide	25.00	30.56		ppb (v/v)	122	50-150	111227L01	12/27/11 10:54
Carbon Tetrachloride	25.00	26.10		ppb (v/v)	104	64-154	111227L01	12/27/11 10:54
Chlorobenzene	25.00	26.56		ppb (v/v)	106	50-150	111227L01	12/27/11 10:54
Chloroethane	25.00	25.17		ppb (v/v)	101	50-150	111227L01	12/27/11 10:54
Chloroform	25.00	24.65		ppb (v/v)	99	50-150	111227L01	12/27/11 10:54
Chloromethane	25.00	26.00		ppb (v/v)	104	50-150	111227L01	12/27/11 10:54
Dibromochloromethane	25.00	26.53		ppb (v/v)	106	50-150	111227L01	12/27/11 10:54
Dichlorodifluoromethane	25.00	23.43		ppb (v/v)	94	50-150	111227L01	12/27/11 10:54
Diisopropyl Ether (DIPE)	25.00	23.77		ppb (v/v)	95	50-150	111227L01	12/27/11 10:54
1,1-Dichloroethane	25.00	25.52		ppb (v/v)	102	50-150	111227L01	12/27/11 10:54
1,1-Dichloroethene	25.00	31.86		ppb (v/v)	127	50-150	111227L01	12/27/11 10:54
1,2-Dibromoethane	25.00	26.32		ppb (v/v)	105	54-144	111227L01	12/27/11 10:54
Dichlorotetrafluoroethane	25.00	23.88		ppb (v/v)	96	50-150	111227L01	12/27/11 10:54
1,2-Dichlorobenzene	25.00	20.58		ppb (v/v)	82	34-160	111227L01	12/27/11 10:54
1,2-Dichloroethane	25.00	23.88		ppb (v/v)	96	69-153	111227L01	12/27/11 10:54
1,2-Dichloropropane	25.00	26.56		ppb (v/v)	106	67-157	111227L01	12/27/11 10:54
1,3-Dichlorobenzene	25.00	22.18		ppb (v/v)	89	50-150	111227L01	12/27/11 10:54
1,4-Dichlorobenzene	25.00	22.20		ppb (v/v)	89	36-156	111227L01	12/27/11 10:54
c-1,3-Dichloropropene	25.00	28.23		ppb (v/v)	113	61-157	111227L01	12/27/11 10:54
c-1,2-Dichloroethene	25.00	27.07		ppb (v/v)	108	50-150	111227L01	12/27/11 10:54
t-1,2-Dichloroethene	25.00	25.23		ppb (v/v)	101	50-150	111227L01	12/27/11 10:54
t-1,3-Dichloropropene	25.00	30.49		ppb (v/v)	122	50-150	111227L01	12/27/11 10:54
Ethanol	100.0	84.29		ppb (v/v)	84	50-150	111227L01	12/27/11 10:54
Ethyl-t-Butyl Ether (ETBE)	25.00	24.72		ppb (v/v)	99	50-150	111227L01	12/27/11 10:54
Ethylbenzene	25.00	26.88		ppb (v/v)	108	52-154	111227L01	12/27/11 10:54
4-Ethyltoluene	25.00	25.92		ppb (v/v)	104	50-150	111227L01	12/27/11 10:54
Hexachloro-1,3-Butadiene	25.00	17.30		ppb (v/v)	69	50-150	111227L01	12/27/11 10:54
2-Hexanone	25.00	26.22		ppb (v/v)	105	50-150	111227L01	12/27/11 10:54
Methyl-t-Butyl Ether (MTBE)	25.00	25.18		ppb (v/v)	101	50-150	111227L01	12/27/11 10:54
Methylene Chloride	25.00	29.66		ppb (v/v)	119	50-150	111227L01	12/27/11 10:54
4-Methyl-2-Pentanone	25.00	26.63		ppb (v/v)	107	50-150	111227L01	12/27/11 10:54
Naphthalene	25.00	16.09		ppb (v/v)	64	40-190	111227L01	12/27/11 10:54

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1766
		Project Name:	Seal Beach NWS
		Received:	12/22/11 18:30

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA TO-15 Full List								
o-Xylene	25.00	25.71		ppb (v/v)	103	52-148	111227L01	12/27/11 10:54
p/m-Xylene	50.00	51.87		ppb (v/v)	104	42-156	111227L01	12/27/11 10:54
Styrene	25.00	24.99		ppb (v/v)	100	50-150	111227L01	12/27/11 10:54
Tert-Amyl-Methyl Ether (TAME)	25.00	24.35		ppb (v/v)	97	50-150	111227L01	12/27/11 10:54
Tert-Butyl Alcohol (TBA)	50.00	58.25		ppb (v/v)	116	50-150	111227L01	12/27/11 10:54
Tetrachloroethene	25.00	26.60		ppb (v/v)	106	56-152	111227L01	12/27/11 10:54
Toluene	25.00	26.90		ppb (v/v)	108	56-146	111227L01	12/27/11 10:54
Trichloroethene	25.00	25.97		ppb (v/v)	104	63-159	111227L01	12/27/11 10:54
Trichlorofluoromethane	25.00	23.45		ppb (v/v)	94	50-150	111227L01	12/27/11 10:54
1,1,2-Trichloro-1,2,2-Trifluoroethane	25.00	31.62		ppb (v/v)	126	50-150	111227L01	12/27/11 10:54
1,1,1-Trichloroethane	25.00	25.57		ppb (v/v)	102	50-150	111227L01	12/27/11 10:54
1,1,2-Trichloroethane	25.00	26.32		ppb (v/v)	105	65-149	111227L01	12/27/11 10:54
1,3,5-Trimethylbenzene	25.00	24.19		ppb (v/v)	97	50-150	111227L01	12/27/11 10:54
1,1,2,2-Tetrachloroethane	25.00	21.57		ppb (v/v)	86	50-150	111227L01	12/27/11 10:54
1,2,4-Trimethylbenzene	25.00	23.66		ppb (v/v)	95	50-150	111227L01	12/27/11 10:54
1,2,4-Trichlorobenzene	25.00	18.03		ppb (v/v)	72	50-150	111227L01	12/27/11 10:54
Vinyl Acetate	25.00	22.22		ppb (v/v)	89	50-150	111227L01	12/27/11 10:54
Vinyl Chloride	25.00	24.77		ppb (v/v)	99	45-177	111227L01	12/27/11 10:54

Total number of LCS compounds:	57
Total number of ME compounds:	0
Total number of ME compound allowed:	3
LCS ME CL validation result:	Pass

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1766
Project Name: Seal Beach NWS
Received: 12/22/11 18:30

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
ASTM D-1946 (M) Fixed Gases (H2 and/or He)											
099-12-872-204											
Helium	1.000	0.9413		%v	94	80-120	5	0-30	111223L01	099-12-872-204	12/23/11 09:26
Hydrogen	1.000	0.8981		%v	90	80-120	5	0-30	111223L01	099-12-872-204	12/23/11 09:26
ASTM D-1946 Fixed Gases											
099-14-535-3											
Methane	10.12	9.646		%v	95	80-120	1	0-30	111228L01	099-14-535-3	12/28/11 10:54
Carbon Dioxide	10.07	9.914		%v	98	80-120	1	0-30	111228L01	099-14-535-3	12/28/11 10:54
Carbon Monoxide	9.930	10.34		%v	104	80-120	1	0-30	111228L01	099-14-535-3	12/28/11 10:54
Oxygen + Argon	3.500	3.477		%v	99	80-120	0	0-30	111228L01	099-14-535-3	12/28/11 10:54
Nitrogen	10.02	10.15		%v	101	80-120	0	0-30	111228L01	099-14-535-3	12/28/11 10:54
EPA TO-15 Full List											
099-14-523-3											
Acetone	25.00	25.90		ppb (v/v)	104	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Benzene	25.00	30.03		ppb (v/v)	120	60-156	0	0-40	111223L01	099-14-523-3	12/23/11 11:36
Benzyl Chloride	25.00	26.60		ppb (v/v)	106	50-150	1	0-35	111223L01	099-14-523-3	12/23/11 11:36
Bromodichloromethane	25.00	27.74		ppb (v/v)	111	50-150	1	0-35	111223L01	099-14-523-3	12/23/11 11:36
Bromoform	25.00	26.93		ppb (v/v)	108	62-134	0	0-38	111223L01	099-14-523-3	12/23/11 11:36
Bromomethane	25.00	26.73		ppb (v/v)	107	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
2-Butanone	25.00	25.72		ppb (v/v)	103	50-150	9	0-35	111223L01	099-14-523-3	12/23/11 11:36
Carbon Disulfide	25.00	33.81		ppb (v/v)	135	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Carbon Tetrachloride	25.00	27.83		ppb (v/v)	111	64-154	1	0-32	111223L01	099-14-523-3	12/23/11 11:36
Chlorobenzene	25.00	29.55		ppb (v/v)	118	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Chloroethane	25.00	27.30		ppb (v/v)	109	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Chloroform	25.00	27.20		ppb (v/v)	109	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Chloromethane	25.00	28.43		ppb (v/v)	114	50-150	1	0-35	111223L01	099-14-523-3	12/23/11 11:36
Dibromochloromethane	25.00	28.85		ppb (v/v)	115	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Dichlorodifluoromethane	25.00	28.67		ppb (v/v)	115	50-150	14	0-35	111223L01	099-14-523-3	12/23/11 11:36
Diisopropyl Ether (DIPE)	25.00	26.47		ppb (v/v)	106	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,1-Dichloroethane	25.00	28.70		ppb (v/v)	115	50-150	1	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,1-Dichloroethene	25.00	25.55		ppb (v/v)	102	50-150	31	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,2-Dibromoethane	25.00	29.32		ppb (v/v)	117	54-144	0	0-36	111223L01	099-14-523-3	12/23/11 11:36
Dichlorotetrafluoroethane	25.00	25.46		ppb (v/v)	102	50-150	1	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,2-Dichlorobenzene	25.00	22.71		ppb (v/v)	91	34-160	0	0-47	111223L01	099-14-523-3	12/23/11 11:36
1,2-Dichloroethane	25.00	25.83		ppb (v/v)	103	69-153	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,2-Dichloropropane	25.00	29.82		ppb (v/v)	119	67-157	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,3-Dichlorobenzene	25.00	24.40		ppb (v/v)	98	50-150	1	0-35	111223L01	099-14-523-3	12/23/11 11:36

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1766
Project Name: Seal Beach NWS
Received: 12/22/11 18:30

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA TO-15 Full List											
1,4-Dichlorobenzene	25.00	24.50		ppb (v/v)	98	36-156	1	0-47	111223L01	099-14-523-3	12/23/11 11:36
c-1,3-Dichloropropene	25.00	31.10		ppb (v/v)	124	61-157	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
c-1,2-Dichloroethene	25.00	30.65		ppb (v/v)	123	50-150	1	0-35	111223L01	099-14-523-3	12/23/11 11:36
t-1,2-Dichloroethene	25.00	28.66		ppb (v/v)	115	50-150	1	0-35	111223L01	099-14-523-3	12/23/11 11:36
t-1,3-Dichloropropene	25.00	33.23		ppb (v/v)	133	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Ethanol	100.0	91.56		ppb (v/v)	92	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Ethyl-t-Butyl Ether (ETBE)	25.00	27.31		ppb (v/v)	109	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Ethylbenzene	25.00	29.79		ppb (v/v)	119	52-154	0	0-38	111223L01	099-14-523-3	12/23/11 11:36
4-Ethyltoluene	25.00	28.41		ppb (v/v)	114	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Hexachloro-1,3-Butadiene	25.00	18.43		ppb (v/v)	74	50-150	2	0-35	111223L01	099-14-523-3	12/23/11 11:36
2-Hexanone	25.00	29.29		ppb (v/v)	117	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Methyl-t-Butyl Ether (MTBE)	25.00	28.02		ppb (v/v)	112	50-150	1	0-35	111223L01	099-14-523-3	12/23/11 11:36
Methylene Chloride	25.00	24.73		ppb (v/v)	99	50-150	29	0-35	111223L01	099-14-523-3	12/23/11 11:36
4-Methyl-2-Pentanone	25.00	29.77		ppb (v/v)	119	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Naphthalene	25.00	18.20		ppb (v/v)	73	40-190	5	0-35	111223L01	099-14-523-3	12/23/11 11:36
o-Xylene	25.00	28.42		ppb (v/v)	114	52-148	0	0-38	111223L01	099-14-523-3	12/23/11 11:36
p/m-Xylene	50.00	57.07		ppb (v/v)	114	42-156	0	0-41	111223L01	099-14-523-3	12/23/11 11:36
Styrene	25.00	27.74		ppb (v/v)	111	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Tert-Amyl-Methyl Ether (TAME)	25.00	26.56		ppb (v/v)	106	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Tert-Butyl Alcohol (TBA)	50.00	46.97		ppb (v/v)	94	50-150	29	0-35	111223L01	099-14-523-3	12/23/11 11:36
Tetrachloroethene	25.00	29.15		ppb (v/v)	117	56-152	0	0-40	111223L01	099-14-523-3	12/23/11 11:36
Toluene	25.00	30.19		ppb (v/v)	121	56-146	0	0-43	111223L01	099-14-523-3	12/23/11 11:36
Trichloroethene	25.00	28.72		ppb (v/v)	115	63-159	0	0-34	111223L01	099-14-523-3	12/23/11 11:36
Trichlorofluoromethane	25.00	24.97		ppb (v/v)	100	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,1,2-Trichloro-1,2,2-Trifluoroethane	25.00	34.82		ppb (v/v)	139	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,1,1-Trichloroethane	25.00	27.74		ppb (v/v)	111	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,1,2-Trichloroethane	25.00	29.43		ppb (v/v)	118	65-149	0	0-37	111223L01	099-14-523-3	12/23/11 11:36
1,3,5-Trimethylbenzene	25.00	26.49		ppb (v/v)	106	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,1,2,2-Tetrachloroethane	25.00	23.94		ppb (v/v)	96	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,2,4-Trimethylbenzene	25.00	25.93		ppb (v/v)	104	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,2,4-Trichlorobenzene	25.00	19.80		ppb (v/v)	79	50-150	4	0-35	111223L01	099-14-523-3	12/23/11 11:36
Vinyl Acetate	25.00	25.41		ppb (v/v)	102	50-150	1	0-35	111223L01	099-14-523-3	12/23/11 11:36
Vinyl Chloride	25.00	26.91		ppb (v/v)	108	45-177	0	0-36	111223L01	099-14-523-3	12/23/11 11:36

Total number of LCS compounds: 57
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1766
Project Name: Seal Beach NWS
Received: 12/22/11 18:30

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA TO-15 Full List											
099-14-523-4											
Acetone	25.00	24.18		ppb (v/v)	97	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
Benzene	25.00	26.82		ppb (v/v)	107	60-156	1	0-40	111227L01	099-14-523-4	12/27/11 11:43
Benzyl Chloride	25.00	24.57		ppb (v/v)	98	50-150	2	0-35	111227L01	099-14-523-4	12/27/11 11:43
Bromodichloromethane	25.00	25.13		ppb (v/v)	101	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
Bromoform	25.00	25.05		ppb (v/v)	100	62-134	0	0-38	111227L01	099-14-523-4	12/27/11 11:43
Bromomethane	25.00	24.81		ppb (v/v)	99	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
2-Butanone	25.00	20.88		ppb (v/v)	84	50-150	7	0-35	111227L01	099-14-523-4	12/27/11 11:43
Carbon Disulfide	25.00	30.79		ppb (v/v)	123	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
Carbon Tetrachloride	25.00	25.90		ppb (v/v)	104	64-154	1	0-32	111227L01	099-14-523-4	12/27/11 11:43
Chlorobenzene	25.00	26.71		ppb (v/v)	107	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
Chloroethane	25.00	25.05		ppb (v/v)	100	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Chloroform	25.00	24.66		ppb (v/v)	99	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Chloromethane	25.00	26.01		ppb (v/v)	104	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Dibromochloromethane	25.00	26.55		ppb (v/v)	106	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Dichlorodifluoromethane	25.00	23.27		ppb (v/v)	93	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
Diisopropyl Ether (DIPE)	25.00	23.95		ppb (v/v)	96	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,1-Dichloroethane	25.00	25.76		ppb (v/v)	103	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,1-Dichloroethene	25.00	29.73		ppb (v/v)	119	50-150	7	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,2-Dibromoethane	25.00	26.58		ppb (v/v)	106	54-144	1	0-36	111227L01	099-14-523-4	12/27/11 11:43
Dichlorotetrafluoroethane	25.00	23.79		ppb (v/v)	95	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,2-Dichlorobenzene	25.00	20.87		ppb (v/v)	83	34-160	1	0-47	111227L01	099-14-523-4	12/27/11 11:43
1,2-Dichloroethane	25.00	23.87		ppb (v/v)	95	69-153	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,2-Dichloropropane	25.00	26.73		ppb (v/v)	107	67-157	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,3-Dichlorobenzene	25.00	22.43		ppb (v/v)	90	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,4-Dichlorobenzene	25.00	22.49		ppb (v/v)	90	36-156	1	0-47	111227L01	099-14-523-4	12/27/11 11:43
c-1,3-Dichloropropene	25.00	28.18		ppb (v/v)	113	61-157	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
c-1,2-Dichloroethene	25.00	27.31		ppb (v/v)	109	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
t-1,2-Dichloroethene	25.00	25.42		ppb (v/v)	102	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
t-1,3-Dichloropropene	25.00	30.43		ppb (v/v)	122	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Ethanol	100.0	84.29		ppb (v/v)	84	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Ethyl-t-Butyl Ether (ETBE)	25.00	24.78		ppb (v/v)	99	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Ethylbenzene	25.00	26.98		ppb (v/v)	108	52-154	0	0-38	111227L01	099-14-523-4	12/27/11 11:43
4-Ethyltoluene	25.00	26.08		ppb (v/v)	104	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
Hexachloro-1,3-Butadiene	25.00	17.09		ppb (v/v)	68	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
2-Hexanone	25.00	26.27		ppb (v/v)	105	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Methyl-t-Butyl Ether (MTBE)	25.00	25.29		ppb (v/v)	101	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Methylene Chloride	25.00	29.67		ppb (v/v)	119	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1766
Project Name: Seal Beach NWS
Received: 12/22/11 18:30

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA TO-15 Full List											
4-Methyl-2-Pentanone	25.00	26.72		ppb (v/v)	107	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Naphthalene	25.00	16.19		ppb (v/v)	65	40-190	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
o-Xylene	25.00	25.93		ppb (v/v)	104	52-148	1	0-38	111227L01	099-14-523-4	12/27/11 11:43
p/m-Xylene	50.00	52.13		ppb (v/v)	104	42-156	1	0-41	111227L01	099-14-523-4	12/27/11 11:43
Styrene	25.00	25.05		ppb (v/v)	100	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Tert-Amyl-Methyl Ether (TAME)	25.00	24.33		ppb (v/v)	97	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Tert-Butyl Alcohol (TBA)	50.00	58.06		ppb (v/v)	116	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Tetrachloroethene	25.00	26.75		ppb (v/v)	107	56-152	1	0-40	111227L01	099-14-523-4	12/27/11 11:43
Toluene	25.00	27.22		ppb (v/v)	109	56-146	1	0-43	111227L01	099-14-523-4	12/27/11 11:43
Trichloroethene	25.00	26.00		ppb (v/v)	104	63-159	0	0-34	111227L01	099-14-523-4	12/27/11 11:43
Trichlorofluoromethane	25.00	23.35		ppb (v/v)	93	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,1,2-Trichloro-1,2,2-Trifluoroethane	25.00	31.60		ppb (v/v)	126	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,1,1-Trichloroethane	25.00	25.57		ppb (v/v)	102	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,1,2-Trichloroethane	25.00	26.39		ppb (v/v)	106	65-149	0	0-37	111227L01	099-14-523-4	12/27/11 11:43
1,3,5-Trimethylbenzene	25.00	24.32		ppb (v/v)	97	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,1,2,2-Tetrachloroethane	25.00	21.76		ppb (v/v)	87	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,2,4-Trimethylbenzene	25.00	23.79		ppb (v/v)	95	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,2,4-Trichlorobenzene	25.00	18.08		ppb (v/v)	72	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Vinyl Acetate	25.00	22.63		ppb (v/v)	91	50-150	2	0-35	111227L01	099-14-523-4	12/27/11 11:43
Vinyl Chloride	25.00	24.82		ppb (v/v)	99	45-177	0	0-36	111227L01	099-14-523-4	12/27/11 11:43

Total number of LCS compounds: 57
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

Calscience Environmental Laboratories, Inc.

Summa Canister Vacuum Summary

Work Order Number: **11-12-1766**

Sample Name	Vacuum In	Vacuum Out	Equipment	Description
MW-40-37	-5.00	-29.80	D750	Summa Canister 6L

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 11-12-1766

Qualifier	Definition
AZ	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BA	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
BB	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
BU	Sample analyzed after holding time expired.
DF	Reporting limits elevated due to matrix interferences.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
GE	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
HD	Chromat. profile inconsistent with pattern(s) of ref. fuel stnds.
HO	High concentration matrix spike recovery out of limits
HT	Analytical value calculated using results from associated tests.
HX	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
IL	Relative percent difference out of control.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
LD	Analyte presence was not confirmed by second column or GC/MS analysis.
LP	The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.
ND	Parameter not detected at the indicated reporting limit.
QO	Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.
RU	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
SG	A silica gel cleanup procedure was performed.
SN	See applicable analysis comment.
U	Undetected at detection limit.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 12/21/11
PAGE: 1 OF 1

LABORATORY CLIENT: CKY
ADDRESS: 302 W 5th St, San Pedro, CA 90731
TEL: (310) 519-4000 | FAX: (310) 519-4029 | E-MAIL: howard@ckyinc.com

CLIENT PROJECT NAME / NUMBER: Seal Beach NWS
PROJECT CONTACT: Howard Wittenberg
SAMPLER(S): (SIGNATURE)
COELT LOG CODE
P.O. NO.:
LAB USE ONLY: 11-12-1766
COOLER RECEIPT Temp = ____ °C

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ Standard

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ COELT EDF ☐

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	CEL SAMPLE #	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	VOCs EPA (TO-15)	Methane (ASTM 1946M)	Helium	Level IV
1	MW-40-37	D750	12/21/11	1304	Air	1	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
[signature]	[signature] (SC)	12/21/11	1800
Relinquished by: (Signature) Nicole (SC)	Received by: (Signature) [signature]	Date: 12/22/11	Time: 1700
Relinquished by: (Signature) [signature]	Received by: (Signature) [signature] CEL	Date: 12/22/11	Time: 1830

Revision: 072611

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-12-1766

SAMPLE RECEIPT FORM

Cooler 0 of 0

CLIENT: CKY

DATE: 12/22/11

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature ____.____ °C - 0.3 °C (CF) = ____.____ °C ☐ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☑ Air ☐ Filter **Initial:** Fy

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A **Initial:** Fy

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Initial:** KR

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☑Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** KR

Container: C: Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** [illegible]

Preservative: h: HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** [illegible]

Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 11-12-1767

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: CKY, Incorporated

Client Project Name: Seal Beach NWS

Attention: Howard Wittenberg
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Approved for release on 01/10/2012 by:
Richard Villafania
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1767
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 1 (IW-01, Air) Sampled: 12/20/11 11:34										
ASTM D-1946 (M) Fixed Gases (H2 and/or He) (Sample: 11-12-1767-1-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Helium	0.00922	J	%v	0.00565	0.01	0.03	1	12/23/11 10:40	ASTM D-1946 (M)	111223L01
ASTM D-1946 Fixed Gases (Sample: 11-12-1767-1-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Methane	22.6		%v	0.155	0.25	0.50	1	12/28/11 20:36	ASTM D-1946	111228L01
EPA TO-15 Full List (Sample: 11-12-1767-1-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	5.7		ppb (v/v)	0.094	0.10	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
Benzyl Chloride	<0.5	U	ppb (v/v)	0.39	0.50	1.25	1	12/23/11 19:08	EPA TO-15	111223L01
Bromodichloromethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
Bromoform	<0.2	U	ppb (v/v)	0.15	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
Bromomethane	<0.1	U	ppb (v/v)	0.093	0.10	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
2-Butanone	1.4	J	ppb (v/v)	0.099	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
Carbon Disulfide	0.40	J	ppb (v/v)	0.099	0.10	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
Carbon Tetrachloride	<0.1	U	ppb (v/v)	0.098	0.10	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
Chlorobenzene	0.31	J	ppb (v/v)	0.11	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
Chloroethane	<0.2	U	ppb (v/v)	0.15	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
Chloroform	<0.1	U	ppb (v/v)	0.090	0.10	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
Chloromethane	0.52		ppb (v/v)	0.098	0.10	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
Dibromochloromethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
Dichlorodifluoromethane	<0.2	U	ppb (v/v)	0.14	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
1,1-Dichloroethane	0.37	J	ppb (v/v)	0.10	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
1,1-Dichloroethene	4.1		ppb (v/v)	0.11	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
1,2-Dibromoethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
1,2-Dichlorobenzene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
1,2-Dichloroethane	<0.1	U	ppb (v/v)	0.095	0.10	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
1,2-Dichloropropane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
1,3-Dichlorobenzene	<0.2	U	ppb (v/v)	0.13	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
1,4-Dichlorobenzene	0.73		ppb (v/v)	0.13	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
c-1,3-Dichloropropene	<0.2	U	ppb (v/v)	0.14	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
c-1,2-Dichloroethene	520		ppb (v/v)	1.3	0.20	0.50	10	12/23/11 19:08	EPA TO-15	111223L01
t-1,2-Dichloroethene	730		ppb (v/v)	1.9	0.20	0.50	10	12/23/11 19:08	EPA TO-15	111223L01
t-1,3-Dichloropropene	<0.2	U	ppb (v/v)	0.10	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
Ethanol	14		ppb (v/v)	0.46	0.80	2.00	1	12/23/11 19:08	EPA TO-15	111223L01
Ethylbenzene	6.5		ppb (v/v)	0.11	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
4-Ethyltoluene	0.66		ppb (v/v)	0.18	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
Hexachloro-1,3-Butadiene	<0.2	U	ppb (v/v)	0.18	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
2-Hexanone	<1.25	U	ppb (v/v)	0.52	1.25	2.50	1	12/23/11 19:08	EPA TO-15	111223L01
Methyl-t-Butyl Ether (MTBE)	<0.2	U	ppb (v/v)	0.12	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
Methylene Chloride	<1.25	U	ppb (v/v)	1.0	1.25	2.50	1	12/23/11 19:08	EPA TO-15	111223L01

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1767
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 1 (IW-01, Air) Sampled: 12/20/11 11:34										
EPA TO-15 Full List (Sample: 11-12-1767-1-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
4-Methyl-2-Pentanone	<0.2	U	ppb (v/v)	0.15	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
o-Xylene	4.4		ppb (v/v)	0.12	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
p/m-Xylene	12		ppb (v/v)	0.76	1.00	1.00	1	12/23/11 19:08	EPA TO-15	111223L01
Styrene	0.54	J	ppb (v/v)	0.18	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
Tetrachloroethene	2.6		ppb (v/v)	0.11	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
Toluene	5.4		ppb (v/v)	0.12	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
Trichloroethene	35		ppb (v/v)	0.11	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
Trichlorofluoromethane	<0.1	U	ppb (v/v)	0.077	0.10	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
1,1,1-Trichloroethane	<0.1	U	ppb (v/v)	0.10	0.10	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
1,1,2-Trichloroethane	<0.2	U	ppb (v/v)	0.12	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
1,3,5-Trimethylbenzene	1.4		ppb (v/v)	0.17	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
1,1,2,2-Tetrachloroethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
1,2,4-Trimethylbenzene	3.6		ppb (v/v)	0.33	0.50	0.50	1	12/23/11 19:08	EPA TO-15	111223L01
1,2,4-Trichlorobenzene	<1.25	U	ppb (v/v)	0.72	1.25	2.50	1	12/23/11 19:08	EPA TO-15	111223L01
Vinyl Acetate	<0.5	U	ppb (v/v)	0.45	0.50	1.25	1	12/23/11 19:08	EPA TO-15	111223L01
Vinyl Chloride	1200		ppb (v/v)	2.5	0.20	0.50	25	12/23/11 19:08	EPA TO-15	111223L01
Surr: 1,4-Bromofluorobenzene (57-129%)	*94%*							*12/23/11 19:08*	*EPA TO-15*	*111223L01*
Surr: 1,2-Dichloroethane-d4 (47-137%)	*87%*							*12/23/11 19:08*	*EPA TO-15*	*111223L01*
Surr: Toluene-d8 (78-156%)	*94%*							*12/23/11 19:08*	*EPA TO-15*	*111223L01*
Sample ID: 2 (MW-40-32, Air) Sampled: 12/20/11 12:55										
ASTM D-1946 (M) Fixed Gases (H2 and/or He) (Sample: 11-12-1767-2-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Helium	<0.01	U	%v	0.00565	0.01	0.03	1	12/23/11 11:06	ASTM D-1946 (M)	111223L01
ASTM D-1946 Fixed Gases (Sample: 11-12-1767-2-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Methane	26.7		%v	0.155	0.25	0.50	1	12/28/11 21:18	ASTM D-1946	111228L01
EPA TO-15 Full List (Sample: 11-12-1767-2-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	1.2		ppb (v/v)	0.094	0.10	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
Benzyl Chloride	<0.5	U	ppb (v/v)	0.39	0.50	1.25	1	12/23/11 19:58	EPA TO-15	111223L01
Bromodichloromethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
Bromoform	<0.2	U	ppb (v/v)	0.15	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
Bromomethane	<0.1	U	ppb (v/v)	0.093	0.10	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
2-Butanone	0.64	J	ppb (v/v)	0.099	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
Carbon Disulfide	0.48	J	ppb (v/v)	0.099	0.10	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
Carbon Tetrachloride	<0.1	U	ppb (v/v)	0.098	0.10	0.50	1	12/23/11 19:58	EPA TO-15	111223L01

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1767
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 2 (MW-40-32, Air) Sampled: 12/20/11 12:55										
EPA TO-15 Full List (Sample: 11-12-1767-2-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chlorobenzene	0.31	J	ppb (v/v)	0.11	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
Chloroethane	<0.2	U	ppb (v/v)	0.15	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
Chloroform	<0.1	U	ppb (v/v)	0.090	0.10	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
Chloromethane	0.26	J	ppb (v/v)	0.098	0.10	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
Dibromochloromethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
Dichlorodifluoromethane	0.15	J	ppb (v/v)	0.14	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
1,1-Dichloroethane	0.47	J	ppb (v/v)	0.10	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
1,1-Dichloroethene	0.35	J	ppb (v/v)	0.11	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
1,2-Dibromoethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
1,2-Dichlorobenzene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
1,2-Dichloroethane	<0.1	U	ppb (v/v)	0.095	0.10	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
1,2-Dichloropropane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
1,3-Dichlorobenzene	<0.2	U	ppb (v/v)	0.13	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
1,4-Dichlorobenzene	0.79		ppb (v/v)	0.13	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
c-1,3-Dichloropropene	<0.2	U	ppb (v/v)	0.14	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
c-1,2-Dichloroethene	84		ppb (v/v)	0.13	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
t-1,2-Dichloroethene	15		ppb (v/v)	0.19	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
t-1,3-Dichloropropene	<0.2	U	ppb (v/v)	0.10	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
Ethanol	1.8	J	ppb (v/v)	0.46	0.80	2.00	1	12/23/11 19:58	EPA TO-15	111223L01
Ethylbenzene	9.3		ppb (v/v)	0.11	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
4-Ethyltoluene	0.81		ppb (v/v)	0.18	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
Hexachloro-1,3-Butadiene	<0.2	U	ppb (v/v)	0.18	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
2-Hexanone	<1.25	U	ppb (v/v)	0.52	1.25	2.50	1	12/23/11 19:58	EPA TO-15	111223L01
Methyl-t-Butyl Ether (MTBE)	<0.2	U	ppb (v/v)	0.12	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
Methylene Chloride	<1.25	U	ppb (v/v)	1.0	1.25	2.50	1	12/23/11 19:58	EPA TO-15	111223L01
4-Methyl-2-Pentanone	<0.2	U	ppb (v/v)	0.15	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
o-Xylene	6.3		ppb (v/v)	0.12	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
p/m-Xylene	17		ppb (v/v)	0.76	1.00	1.00	1	12/23/11 19:58	EPA TO-15	111223L01
Styrene	0.71	J	ppb (v/v)	0.18	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
Tetrachloroethene	5.1		ppb (v/v)	0.11	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
Toluene	7.9		ppb (v/v)	0.12	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
Trichloroethene	21		ppb (v/v)	0.11	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
Trichlorofluoromethane	<0.1	U	ppb (v/v)	0.077	0.10	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
1,1,1-Trichloroethane	<0.1	U	ppb (v/v)	0.10	0.10	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
1,1,2-Trichloroethane	<0.2	U	ppb (v/v)	0.12	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
1,3,5-Trimethylbenzene	1.8		ppb (v/v)	0.17	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
1,1,2,2-Tetrachloroethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
1,2,4-Trimethylbenzene	4.3		ppb (v/v)	0.33	0.50	0.50	1	12/23/11 19:58	EPA TO-15	111223L01
1,2,4-Trichlorobenzene	<1.25	U	ppb (v/v)	0.72	1.25	2.50	1	12/23/11 19:58	EPA TO-15	111223L01

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Client:	CKY, Incorporated	Work Order:	11-12-1767
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 2 (MW-40-32, Air) Sampled: 12/20/11 12:55										
EPA TO-15 Full List (Sample: 11-12-1767-2-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Vinyl Acetate	<0.5	U	ppb (v/v)	0.45	0.50	1.25	1	12/23/11 19:58	EPA TO-15	111223L01
Vinyl Chloride	140		ppb (v/v)	0.50	0.20	0.50	5	12/23/11 19:58	EPA TO-15	111223L01
Surr: 1,4-Bromofluorobenzene (57-129%)	*90%*							*12/23/11 19:58*	*EPA TO-15*	*111223L01*
Surr: 1,2-Dichloroethane-d4 (47-137%)	*86%*							*12/23/11 19:58*	*EPA TO-15*	*111223L01*
Surr: Toluene-d8 (78-156%)	*92%*							*12/23/11 19:58*	*EPA TO-15*	*111223L01*
Sample ID: 3 (VW-40-06, Air) Sampled: 12/20/11 13:41										
ASTM D-1946 (M) Fixed Gases (H2 and/or He) (Sample: 11-12-1767-3-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Helium	<0.01	U	%v	0.00565	0.01	0.03	1	12/23/11 11:30	ASTM D-1946 (M)	111223L01
ASTM D-1946 Fixed Gases (Sample: 11-12-1767-3-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Methane	53.4		%v	0.155	0.25	0.50	1	12/28/11 22:30	ASTM D-1946	111228L01
EPA TO-15 Full List (Sample: 11-12-1767-3-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	4.1		ppb (v/v)	0.24	0.25	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Benzyl Chloride	<1.25	U	ppb (v/v)	0.99	1.25	3.13	2.5	12/23/11 20:44	EPA TO-15	111223L01
Bromodichloromethane	<0.5	U	ppb (v/v)	0.25	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Bromoform	<0.5	U	ppb (v/v)	0.38	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Bromomethane	<0.25	U	ppb (v/v)	0.23	0.25	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
2-Butanone	0.47	J	ppb (v/v)	0.25	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Carbon Disulfide	0.90	J	ppb (v/v)	0.25	0.25	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Carbon Tetrachloride	<0.25	U	ppb (v/v)	0.25	0.25	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Chlorobenzene	<0.5	U	ppb (v/v)	0.27	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Chloroethane	90		ppb (v/v)	0.39	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Chloroform	<0.25	U	ppb (v/v)	0.22	0.25	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Chloromethane	<0.25	U	ppb (v/v)	0.24	0.25	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Dibromochloromethane	<0.5	U	ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Dichlorodifluoromethane	<0.5	U	ppb (v/v)	0.36	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
1,1-Dichloroethane	2.2		ppb (v/v)	0.26	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
1,1-Dichloroethene	0.47	J	ppb (v/v)	0.27	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
1,2-Dibromoethane	<0.5	U	ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
1,2-Dichlorobenzene	<0.5	U	ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
1,2-Dichloroethane	<0.25	U	ppb (v/v)	0.24	0.25	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
1,2-Dichloropropane	<0.5	U	ppb (v/v)	0.29	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
1,3-Dichlorobenzene	<0.5	U	ppb (v/v)	0.33	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
1,4-Dichlorobenzene	1.0	J	ppb (v/v)	0.34	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
c-1,3-Dichloropropene	<0.5	U	ppb (v/v)	0.35	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01

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Client:	CKY, Incorporated	Work Order:	11-12-1767
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 3 (VW-40-06, Air) Sampled: 12/20/11 13:41										
EPA TO-15 Full List (Sample: 11-12-1767-3-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
c-1,2-Dichloroethene	43		ppb (v/v)	0.33	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
t-1,2-Dichloroethene	23		ppb (v/v)	0.47	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
t-1,3-Dichloropropene	<0.5	U	ppb (v/v)	0.26	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Ethanol	1.6	J	ppb (v/v)	1.1	2.00	5.00	2.5	12/23/11 20:44	EPA TO-15	111223L01
Ethylbenzene	5.7		ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
4-Ethyltoluene	0.69	J	ppb (v/v)	0.46	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Hexachloro-1,3-Butadiene	<0.5	U	ppb (v/v)	0.45	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
2-Hexanone	<3.125	U	ppb (v/v)	1.3	3.13	6.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ppb (v/v)	0.30	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Methylene Chloride	<3.125	U	ppb (v/v)	2.5	3.13	6.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
4-Methyl-2-Pentanone	<0.5	U	ppb (v/v)	0.38	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
o-Xylene	4.2		ppb (v/v)	0.30	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
p/m-Xylene	11		ppb (v/v)	1.9	2.50	2.50	2.5	12/23/11 20:44	EPA TO-15	111223L01
Styrene	0.49	J	ppb (v/v)	0.45	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Tetrachloroethene	5.0		ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Toluene	5.6		ppb (v/v)	0.29	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Trichloroethene	56		ppb (v/v)	0.27	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Trichlorofluoromethane	<0.25	U	ppb (v/v)	0.19	0.25	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ppb (v/v)	0.25	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
1,1,1-Trichloroethane	<0.25	U	ppb (v/v)	0.25	0.25	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
1,1,2-Trichloroethane	<0.5	U	ppb (v/v)	0.30	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
1,3,5-Trimethylbenzene	1.5		ppb (v/v)	0.42	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
1,1,2,2-Tetrachloroethane	<0.5	U	ppb (v/v)	0.26	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
1,2,4-Trimethylbenzene	4.1		ppb (v/v)	0.82	1.25	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
1,2,4-Trichlorobenzene	<3.125	U	ppb (v/v)	1.8	3.13	6.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Vinyl Acetate	<1.25	U	ppb (v/v)	1.1	1.25	3.13	2.5	12/23/11 20:44	EPA TO-15	111223L01
Vinyl Chloride	180		ppb (v/v)	0.25	0.50	1.25	2.5	12/23/11 20:44	EPA TO-15	111223L01
Surr: 1,4-Bromofluorobenzene (57-129%)	*91%*							*12/23/11 20:44*	*EPA TO-15*	*111223L01*
Surr: 1,2-Dichloroethane-d4 (47-137%)	*86%*							*12/23/11 20:44*	*EPA TO-15*	*111223L01*
Surr: Toluene-d8 (78-156%)	*94%*							*12/23/11 20:44*	*EPA TO-15*	*111223L01*
Sample ID: 4 (IW-03, Air) Sampled: 12/20/11 14:38										
ASTM D-1946 (M) Fixed Gases (H2 and/or He) (Sample: 11-12-1767-4-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Helium	<0.01	U	%v	0.00565	0.01	0.03	1	12/23/11 11:51	ASTM D-1946 (M)	111223L01
ASTM D-1946 Fixed Gases (Sample: 11-12-1767-4-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Methane	51.9		%v	0.155	0.25	0.50	1	12/28/11 23:13	ASTM D-1946	111228L01

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Client:	CKY, Incorporated	Work Order:	11-12-1767
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Sample ID: 4 (IW-03, Air) Sampled: 12/20/11 14:38

EPA TO-15 Full List (Sample: 11-12-1767-4-A)

-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Benzene	3.7		ppb (v/v)	0.24	0.25	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
Benzyl Chloride	<1.25	U	ppb (v/v)	0.99	1.25	3.13	2.5	12/23/11 21:30	EPA TO-15	111223L01
Bromodichloromethane	<0.5	U	ppb (v/v)	0.25	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
Bromoform	<0.5	U	ppb (v/v)	0.38	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
Bromomethane	<0.25	U	ppb (v/v)	0.23	0.25	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
2-Butanone	<0.5	U	ppb (v/v)	0.25	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
Carbon Disulfide	0.61	J	ppb (v/v)	0.25	0.25	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
Carbon Tetrachloride	<0.25	U	ppb (v/v)	0.25	0.25	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
Chlorobenzene	<0.5	U	ppb (v/v)	0.27	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
Chloroethane	<0.5	U	ppb (v/v)	0.39	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
Chloroform	<0.25	U	ppb (v/v)	0.22	0.25	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
Chloromethane	<0.25	U	ppb (v/v)	0.24	0.25	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
Dibromochloromethane	<0.5	U	ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
Dichlorodifluoromethane	<0.5	U	ppb (v/v)	0.36	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
1,1-Dichloroethane	0.67	J	ppb (v/v)	0.26	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
1,1-Dichloroethene	<0.5	U	ppb (v/v)	0.27	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
1,2-Dibromoethane	<0.5	U	ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
1,2-Dichlorobenzene	<0.5	U	ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
1,2-Dichloroethane	<0.25	U	ppb (v/v)	0.24	0.25	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
1,2-Dichloropropane	<0.5	U	ppb (v/v)	0.29	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
1,3-Dichlorobenzene	<0.5	U	ppb (v/v)	0.33	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
1,4-Dichlorobenzene	0.65	J	ppb (v/v)	0.34	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
c-1,3-Dichloropropene	<0.5	U	ppb (v/v)	0.35	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
c-1,2-Dichloroethene	6.3		ppb (v/v)	0.33	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
t-1,2-Dichloroethene	160		ppb (v/v)	0.47	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
t-1,3-Dichloropropene	<0.5	U	ppb (v/v)	0.26	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
Ethanol	1.7	J	ppb (v/v)	1.1	2.00	5.00	2.5	12/23/11 21:30	EPA TO-15	111223L01
Ethylbenzene	4.2		ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
4-Ethyltoluene	<0.5	U	ppb (v/v)	0.46	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
Hexachloro-1,3-Butadiene	<0.5	U	ppb (v/v)	0.45	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
2-Hexanone	<3.125	U	ppb (v/v)	1.3	3.13	6.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ppb (v/v)	0.30	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
Methylene Chloride	<3.125	U	ppb (v/v)	2.5	3.13	6.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
4-Methyl-2-Pentanone	<0.5	U	ppb (v/v)	0.38	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
o-Xylene	2.9		ppb (v/v)	0.30	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
p/m-Xylene	7.9		ppb (v/v)	1.9	2.50	2.50	2.5	12/23/11 21:30	EPA TO-15	111223L01
Styrene	<0.5	U	ppb (v/v)	0.45	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
Tetrachloroethene	1.1	J	ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
Toluene	4.1		ppb (v/v)	0.29	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
Trichloroethene	2.9		ppb (v/v)	0.27	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1767
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 4 (IW-03, Air) Sampled: 12/20/11 14:38										
EPA TO-15 Full List (Sample: 11-12-1767-4-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Trichlorofluoromethane	<0.25	U	ppb (v/v)	0.19	0.25	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ppb (v/v)	0.25	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
1,1,1-Trichloroethane	<0.25	U	ppb (v/v)	0.25	0.25	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
1,1,2-Trichloroethane	<0.5	U	ppb (v/v)	0.30	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
1,3,5-Trimethylbenzene	1.0	J	ppb (v/v)	0.42	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
1,1,2,2-Tetrachloroethane	<0.5	U	ppb (v/v)	0.26	0.50	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
1,2,4-Trimethylbenzene	2.6	J	ppb (v/v)	0.82	1.25	1.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
1,2,4-Trichlorobenzene	<3.125	U	ppb (v/v)	1.8	3.13	6.25	2.5	12/23/11 21:30	EPA TO-15	111223L01
Vinyl Acetate	<1.25	U	ppb (v/v)	1.1	1.25	3.13	2.5	12/23/11 21:30	EPA TO-15	111223L01
Vinyl Chloride	390		ppb (v/v)	1.0	0.50	1.25	10	12/23/11 21:30	EPA TO-15	111223L01
Surr: 1,4-Bromofluorobenzene (57-129%)	*96%*							*12/23/11 21:30*	*EPA TO-15*	*111223L01*
Surr: 1,2-Dichloroethane-d4 (47-137%)	*86%*							*12/23/11 21:30*	*EPA TO-15*	*111223L01*
Surr: Toluene-d8 (78-156%)	*95%*							*12/23/11 21:30*	*EPA TO-15*	*111223L01*
Sample ID: 5 (VW-40-02, Air) Sampled: 12/20/11 15:31										
ASTM D-1946 (M) Fixed Gases (H2 and/or He) (Sample: 11-12-1767-5-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Helium	<0.01	U	%v	0.00565	0.01	0.03	1	12/23/11 12:13	ASTM D-1946 (M)	111223L01
ASTM D-1946 Fixed Gases (Sample: 11-12-1767-5-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Methane	54.3		%v	0.155	0.25	0.50	1	12/29/11 00:10	ASTM D-1946	111228L01
EPA TO-15 Full List (Sample: 11-12-1767-5-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	8.5		ppb (v/v)	0.24	0.25	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
Benzyl Chloride	<1.25	U	ppb (v/v)	0.99	1.25	3.13	2.5	12/23/11 22:16	EPA TO-15	111223L01
Bromodichloromethane	<0.5	U	ppb (v/v)	0.25	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
Bromoform	<0.5	U	ppb (v/v)	0.38	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
Bromomethane	<0.25	U	ppb (v/v)	0.23	0.25	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
2-Butanone	0.29	J	ppb (v/v)	0.25	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
Carbon Disulfide	0.41	J	ppb (v/v)	0.25	0.25	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
Carbon Tetrachloride	<0.25	U	ppb (v/v)	0.25	0.25	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
Chlorobenzene	<0.5	U	ppb (v/v)	0.27	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
Chloroethane	<0.5	U	ppb (v/v)	0.39	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
Chloroform	<0.25	U	ppb (v/v)	0.22	0.25	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
Chloromethane	<0.25	U	ppb (v/v)	0.24	0.25	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
Dibromochloromethane	<0.5	U	ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
Dichlorodifluoromethane	<0.5	U	ppb (v/v)	0.36	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
1,1-Dichloroethane	0.53	J	ppb (v/v)	0.26	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01

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Client:	CKY, Incorporated	Work Order:	11-12-1767
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 5 (VW-40-02, Air) Sampled: 12/20/11 15:31										
EPA TO-15 Full List (Sample: 11-12-1767-5-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
1,1-Dichloroethene	30		ppb (v/v)	0.27	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
1,2-Dibromoethane	<0.5	U	ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
1,2-Dichlorobenzene	<0.5	U	ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
1,2-Dichloroethane	<0.25	U	ppb (v/v)	0.24	0.25	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
1,2-Dichloropropane	<0.5	U	ppb (v/v)	0.29	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
1,3-Dichlorobenzene	<0.5	U	ppb (v/v)	0.33	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
1,4-Dichlorobenzene	0.52	J	ppb (v/v)	0.34	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
c-1,3-Dichloropropene	<0.5	U	ppb (v/v)	0.35	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
c-1,2-Dichloroethene	1800		ppb (v/v)	3.3	0.50	1.25	25	12/23/11 22:16	EPA TO-15	111223L01
t-1,2-Dichloroethene	1400		ppb (v/v)	4.7	0.50	1.25	25	12/23/11 22:16	EPA TO-15	111223L01
t-1,3-Dichloropropene	<0.5	U	ppb (v/v)	0.26	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
Ethanol	<2	U	ppb (v/v)	1.1	2.00	5.00	2.5	12/23/11 22:16	EPA TO-15	111223L01
Ethylbenzene	2.9		ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
4-Ethyltoluene	<0.5	U	ppb (v/v)	0.46	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
Hexachloro-1,3-Butadiene	<0.5	U	ppb (v/v)	0.45	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
2-Hexanone	<3.125	U	ppb (v/v)	1.3	3.13	6.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ppb (v/v)	0.30	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
Methylene Chloride	<3.125	U	ppb (v/v)	2.5	3.13	6.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
4-Methyl-2-Pentanone	<0.5	U	ppb (v/v)	0.38	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
o-Xylene	1.8		ppb (v/v)	0.30	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
p/m-Xylene	4.8	J	ppb (v/v)	1.9	2.50	2.50	2.5	12/23/11 22:16	EPA TO-15	111223L01
Styrene	<0.5	U	ppb (v/v)	0.45	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
Tetrachloroethene	15		ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
Toluene	2.1		ppb (v/v)	0.29	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
Trichloroethene	67		ppb (v/v)	0.27	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
Trichlorofluoromethane	<0.25	U	ppb (v/v)	0.19	0.25	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ppb (v/v)	0.25	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
1,1,1-Trichloroethane	<0.25	U	ppb (v/v)	0.25	0.25	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
1,1,2-Trichloroethane	<0.5	U	ppb (v/v)	0.30	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
1,3,5-Trimethylbenzene	0.71	J	ppb (v/v)	0.42	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
1,1,2,2-Tetrachloroethane	<0.5	U	ppb (v/v)	0.26	0.50	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
1,2,4-Trimethylbenzene	2.3	J	ppb (v/v)	0.82	1.25	1.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
1,2,4-Trichlorobenzene	<3.125	U	ppb (v/v)	1.8	3.13	6.25	2.5	12/23/11 22:16	EPA TO-15	111223L01
Vinyl Acetate	<1.25	U	ppb (v/v)	1.1	1.25	3.13	2.5	12/23/11 22:16	EPA TO-15	111223L01
Vinyl Chloride	1800		ppb (v/v)	2.5	0.50	1.25	25	12/23/11 22:16	EPA TO-15	111223L01
Surr: 1,4-Bromofluorobenzene (57-129%)	*94%*							*12/23/11 22:16*	*EPA TO-15*	*111223L01*
Surr: 1,2-Dichloroethane-d4 (47-137%)	*86%*							*12/23/11 22:16*	*EPA TO-15*	*111223L01*
Surr: Toluene-d8 (78-156%)	*95%*							*12/23/11 22:16*	*EPA TO-15*	*111223L01*

Sample ID: 6 (DUP-1, Air) Sampled: 12/20/11 00:00

Calscience Environmental Laboratories, Inc.

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Client:	CKY, Incorporated	Work Order:	11-12-1767
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 6 (DUP-1, Air) Sampled: 12/20/11 00:00										
ASTM D-1946 (M) Fixed Gases (H2 and/or He) (Sample: 11-12-1767-6-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Helium	<0.01	U	%v	0.00565	0.01	0.03	1	12/23/11 12:35	ASTM D-1946 (M)	111223L01
ASTM D-1946 Fixed Gases (Sample: 11-12-1767-6-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Methane	55.8		%v	0.155	0.25	0.50	1	12/29/11 01:04	ASTM D-1946	111228L01
EPA TO-15 Full List (Sample: 11-12-1767-6-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	4.6		ppb (v/v)	0.24	0.25	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
Benzyl Chloride	<1.25	U	ppb (v/v)	0.99	1.25	3.13	2.5	12/23/11 23:02	EPA TO-15	111223L01
Bromodichloromethane	<0.5	U	ppb (v/v)	0.25	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
Bromoform	<0.5	U	ppb (v/v)	0.38	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
Bromomethane	<0.25	U	ppb (v/v)	0.23	0.25	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
2-Butanone	0.30	J	ppb (v/v)	0.25	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
Carbon Disulfide	0.34	J	ppb (v/v)	0.25	0.25	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
Carbon Tetrachloride	<0.25	U	ppb (v/v)	0.25	0.25	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
Chlorobenzene	<0.5	U	ppb (v/v)	0.27	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
Chloroethane	<0.5	U	ppb (v/v)	0.39	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
Chloroform	<0.25	U	ppb (v/v)	0.22	0.25	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
Chloromethane	<0.25	U	ppb (v/v)	0.24	0.25	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
Dibromochloromethane	<0.5	U	ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
Dichlorodifluoromethane	<0.5	U	ppb (v/v)	0.36	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
1,1-Dichloroethane	0.54	J	ppb (v/v)	0.26	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
1,1-Dichloroethene	30		ppb (v/v)	0.27	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
1,2-Dibromoethane	<0.5	U	ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
1,2-Dichlorobenzene	<0.5	U	ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
1,2-Dichloroethane	<0.25	U	ppb (v/v)	0.24	0.25	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
1,2-Dichloropropane	<0.5	U	ppb (v/v)	0.29	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
1,3-Dichlorobenzene	<0.5	U	ppb (v/v)	0.33	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
1,4-Dichlorobenzene	0.51	J	ppb (v/v)	0.34	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
c-1,3-Dichloropropene	<0.5	U	ppb (v/v)	0.35	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
c-1,2-Dichloroethene	1900		ppb (v/v)	3.3	0.50	1.25	25	12/23/11 23:02	EPA TO-15	111223L01
t-1,2-Dichloroethene	1500		ppb (v/v)	4.7	0.50	1.25	25	12/23/11 23:02	EPA TO-15	111223L01
t-1,3-Dichloropropene	<0.5	U	ppb (v/v)	0.26	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
Ethanol	3.4	J	ppb (v/v)	1.1	2.00	5.00	2.5	12/23/11 23:02	EPA TO-15	111223L01
Ethylbenzene	2.3		ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
4-Ethyltoluene	<0.5	U	ppb (v/v)	0.46	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
Hexachloro-1,3-Butadiene	<0.5	U	ppb (v/v)	0.45	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
2-Hexanone	<3.125	U	ppb (v/v)	1.3	3.13	6.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ppb (v/v)	0.30	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
Methylene Chloride	<3.125	U	ppb (v/v)	2.5	3.13	6.25	2.5	12/23/11 23:02	EPA TO-15	111223L01

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1767
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 6 (DUP-1, Air) Sampled: 12/20/11 00:00										
EPA TO-15 Full List (Sample: 11-12-1767-6-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
4-Methyl-2-Pentanone	<0.5	U	ppb (v/v)	0.38	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
o-Xylene	1.8		ppb (v/v)	0.30	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
p/m-Xylene	4.3	J	ppb (v/v)	1.9	2.50	2.50	2.5	12/23/11 23:02	EPA TO-15	111223L01
Styrene	<0.5	U	ppb (v/v)	0.45	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
Tetrachloroethene	16		ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
Toluene	2.1		ppb (v/v)	0.29	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
Trichloroethene	72		ppb (v/v)	0.27	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
Trichlorofluoromethane	<0.25	U	ppb (v/v)	0.19	0.25	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ppb (v/v)	0.25	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
1,1,1-Trichloroethane	<0.25	U	ppb (v/v)	0.25	0.25	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
1,1,2-Trichloroethane	<0.5	U	ppb (v/v)	0.30	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
1,3,5-Trimethylbenzene	0.67	J	ppb (v/v)	0.42	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
1,1,2,2-Tetrachloroethane	<0.5	U	ppb (v/v)	0.26	0.50	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
1,2,4-Trimethylbenzene	1.8	J	ppb (v/v)	0.82	1.25	1.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
1,2,4-Trichlorobenzene	<3.125	U	ppb (v/v)	1.8	3.13	6.25	2.5	12/23/11 23:02	EPA TO-15	111223L01
Vinyl Acetate	<1.25	U	ppb (v/v)	1.1	1.25	3.13	2.5	12/23/11 23:02	EPA TO-15	111223L01
Vinyl Chloride	1900		ppb (v/v)	2.5	0.50	1.25	25	12/23/11 23:02	EPA TO-15	111223L01
Surr: 1,4-Bromofluorobenzene (57-129%)	*91%*							*12/23/11 23:02*	*EPA TO-15*	*111223L01*
Surr: 1,2-Dichloroethane-d4 (47-137%)	*87%*							*12/23/11 23:02*	*EPA TO-15*	*111223L01*
Surr: Toluene-d8 (78-156%)	*96%*							*12/23/11 23:02*	*EPA TO-15*	*111223L01*
Sample ID: 7 (VW-40-03, Air) Sampled: 12/21/11 14:14										
ASTM D-1946 (M) Fixed Gases (H2 and/or He) (Sample: 11-12-1767-7-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Helium	<0.01	U	%v	0.00565	0.01	0.03	1	12/23/11 13:54	ASTM D-1946 (M)	111223L01
ASTM D-1946 Fixed Gases (Sample: 11-12-1767-7-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Methane	59.7		%v	0.155	0.25	0.50	1	12/29/11 01:42	ASTM D-1946	111228L01
EPA TO-15 Full List (Sample: 11-12-1767-7-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	4.2		ppb (v/v)	0.24	0.25	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
Benzyl Chloride	<1.25	U	ppb (v/v)	0.99	1.25	3.13	2.5	12/23/11 23:49	EPA TO-15	111223L01
Bromodichloromethane	<0.5	U	ppb (v/v)	0.25	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
Bromoform	<0.5	U	ppb (v/v)	0.38	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
Bromomethane	<0.25	U	ppb (v/v)	0.23	0.25	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
2-Butanone	0.31	J	ppb (v/v)	0.25	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
Carbon Disulfide	<0.25	U	ppb (v/v)	0.25	0.25	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
Carbon Tetrachloride	<0.25	U	ppb (v/v)	0.25	0.25	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1767
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 7 (VW-40-03, Air) Sampled: 12/21/11 14:14										
EPA TO-15 Full List (Sample: 11-12-1767-7-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Chlorobenzene	<0.5	U	ppb (v/v)	0.27	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
Chloroethane	<0.5	U	ppb (v/v)	0.39	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
Chloroform	<0.25	U	ppb (v/v)	0.22	0.25	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
Chloromethane	<0.25	U	ppb (v/v)	0.24	0.25	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
Dibromochloromethane	<0.5	U	ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
Dichlorodifluoromethane	<0.5	U	ppb (v/v)	0.36	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
1,1-Dichloroethane	<0.5	U	ppb (v/v)	0.26	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
1,1-Dichloroethene	14		ppb (v/v)	0.27	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
1,2-Dibromoethane	<0.5	U	ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
1,2-Dichlorobenzene	<0.5	U	ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
1,2-Dichloroethane	<0.25	U	ppb (v/v)	0.24	0.25	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
1,2-Dichloropropane	<0.5	U	ppb (v/v)	0.29	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
1,3-Dichlorobenzene	<0.5	U	ppb (v/v)	0.33	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
1,4-Dichlorobenzene	0.78	J	ppb (v/v)	0.34	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
c-1,3-Dichloropropene	<0.5	U	ppb (v/v)	0.35	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
c-1,2-Dichloroethene	1300		ppb (v/v)	3.3	0.50	1.25	25	12/23/11 23:49	EPA TO-15	111223L01
t-1,2-Dichloroethene	610		ppb (v/v)	4.7	0.50	1.25	25	12/23/11 23:49	EPA TO-15	111223L01
t-1,3-Dichloropropene	<0.5	U	ppb (v/v)	0.26	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
Ethanol	<2	U	ppb (v/v)	1.1	2.00	5.00	2.5	12/23/11 23:49	EPA TO-15	111223L01
Ethylbenzene	5.5		ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
4-Ethyltoluene	0.62	J	ppb (v/v)	0.46	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
Hexachloro-1,3-Butadiene	<0.5	U	ppb (v/v)	0.45	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
2-Hexanone	<3.125	U	ppb (v/v)	1.3	3.13	6.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
Methyl-t-Butyl Ether (MTBE)	<0.5	U	ppb (v/v)	0.30	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
Methylene Chloride	<3.125	U	ppb (v/v)	2.5	3.13	6.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
4-Methyl-2-Pentanone	<0.5	U	ppb (v/v)	0.38	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
o-Xylene	4.0		ppb (v/v)	0.30	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
p/m-Xylene	10		ppb (v/v)	1.9	2.50	2.50	2.5	12/23/11 23:49	EPA TO-15	111223L01
Styrene	<0.5	U	ppb (v/v)	0.45	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
Tetrachloroethene	9.8		ppb (v/v)	0.28	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
Toluene	4.5		ppb (v/v)	0.29	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
Trichloroethene	660		ppb (v/v)	2.7	0.50	1.25	25	12/23/11 23:49	EPA TO-15	111223L01
Trichlorofluoromethane	<0.25	U	ppb (v/v)	0.19	0.25	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.5	U	ppb (v/v)	0.25	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
1,1,1-Trichloroethane	<0.25	U	ppb (v/v)	0.25	0.25	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
1,1,2-Trichloroethane	<0.5	U	ppb (v/v)	0.30	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
1,3,5-Trimethylbenzene	1.3		ppb (v/v)	0.42	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
1,1,2,2-Tetrachloroethane	<0.5	U	ppb (v/v)	0.26	0.50	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
1,2,4-Trimethylbenzene	3.5	J	ppb (v/v)	0.82	1.25	1.25	2.5	12/23/11 23:49	EPA TO-15	111223L01
1,2,4-Trichlorobenzene	<3.125	U	ppb (v/v)	1.8	3.13	6.25	2.5	12/23/11 23:49	EPA TO-15	111223L01

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1767
		Project Name:	Seal Beach NWS
		Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 7 (VW-40-03, Air) Sampled: 12/21/11 14:14										
EPA TO-15 Full List (Sample: 11-12-1767-7-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Vinyl Acetate	<1.25	U	ppb (v/v)	1.1	1.25	3.13	2.5	12/23/11 23:49	EPA TO-15	111223L01
Vinyl Chloride	740		ppb (v/v)	2.5	0.50	1.25	25	12/23/11 23:49	EPA TO-15	111223L01
Surr: 1,4-Bromofluorobenzene (57-129%)	*94%*							*12/23/11 23:49*	*EPA TO-15*	*111223L01*
Surr: 1,2-Dichloroethane-d4 (47-137%)	*87%*							*12/23/11 23:49*	*EPA TO-15*	*111223L01*
Surr: Toluene-d8 (78-156%)	*96%*							*12/23/11 23:49*	*EPA TO-15*	*111223L01*
Sample ID: 8 (VW-40-04, Air) Sampled: 12/21/11 16:27										
ASTM D-1946 (M) Fixed Gases (H2 and/or He) (Sample: 11-12-1767-8-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Helium	<0.01	U	%v	0.00565	0.01	0.03	1	12/23/11 14:28	ASTM D-1946 (M)	111223L01
ASTM D-1946 Fixed Gases (Sample: 11-12-1767-8-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Methane	<0.25	U	%v	0.155	0.25	0.50	1	12/29/11 02:16	ASTM D-1946	111228L01
EPA TO-15 Full List (Sample: 11-12-1767-8-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	0.12	J	ppb (v/v)	0.094	0.10	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
Benzyl Chloride	<0.5	U	ppb (v/v)	0.39	0.50	1.25	1	12/24/11 00:39	EPA TO-15	111223L01
Bromodichloromethane	0.20	J	ppb (v/v)	0.10	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
Bromoform	<0.2	U	ppb (v/v)	0.15	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
Bromomethane	<0.1	U	ppb (v/v)	0.093	0.10	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
2-Butanone	0.30	J	ppb (v/v)	0.099	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
Carbon Disulfide	0.16	J	ppb (v/v)	0.099	0.10	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
Carbon Tetrachloride	<0.1	U	ppb (v/v)	0.098	0.10	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
Chlorobenzene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
Chloroethane	<0.2	U	ppb (v/v)	0.15	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
Chloroform	3.8		ppb (v/v)	0.090	0.10	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
Chloromethane	<0.1	U	ppb (v/v)	0.098	0.10	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
Dibromochloromethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
Dichlorodifluoromethane	0.41	J	ppb (v/v)	0.14	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
1,1-Dichloroethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
1,1-Dichloroethene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
1,2-Dibromoethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
1,2-Dichlorobenzene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
1,2-Dichloroethane	<0.1	U	ppb (v/v)	0.095	0.10	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
1,2-Dichloropropane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
1,3-Dichlorobenzene	<0.2	U	ppb (v/v)	0.13	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
1,4-Dichlorobenzene	0.33	J	ppb (v/v)	0.13	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
c-1,3-Dichloropropene	<0.2	U	ppb (v/v)	0.14	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1767
		Project Name:	Seal Beach NWS
		Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 8 (VW-40-04, Air) Sampled: 12/21/11 16:27										
EPA TO-15 Full List (Sample: 11-12-1767-8-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
c-1,2-Dichloroethene	8.2		ppb (v/v)	0.13	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
t-1,2-Dichloroethene	4.2		ppb (v/v)	0.19	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
t-1,3-Dichloropropene	<0.2	U	ppb (v/v)	0.10	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
Ethanol	0.66	J	ppb (v/v)	0.46	0.80	2.00	1	12/24/11 00:39	EPA TO-15	111223L01
Ethylbenzene	2.0		ppb (v/v)	0.11	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
4-Ethyltoluene	0.21	J	ppb (v/v)	0.18	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
Hexachloro-1,3-Butadiene	<0.2	U	ppb (v/v)	0.18	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
2-Hexanone	<1.25	U	ppb (v/v)	0.52	1.25	2.50	1	12/24/11 00:39	EPA TO-15	111223L01
Methyl-t-Butyl Ether (MTBE)	<0.2	U	ppb (v/v)	0.12	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
Methylene Chloride	<1.25	U	ppb (v/v)	1.0	1.25	2.50	1	12/24/11 00:39	EPA TO-15	111223L01
4-Methyl-2-Pentanone	<0.2	U	ppb (v/v)	0.15	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
o-Xylene	1.3		ppb (v/v)	0.12	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
p/m-Xylene	3.7		ppb (v/v)	0.76	1.00	1.00	1	12/24/11 00:39	EPA TO-15	111223L01
Styrene	<0.2	U	ppb (v/v)	0.18	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
Tetrachloroethene	43		ppb (v/v)	0.11	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
Toluene	1.7		ppb (v/v)	0.12	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
Trichloroethene	4.8		ppb (v/v)	0.11	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
Trichlorofluoromethane	0.26	J	ppb (v/v)	0.077	0.10	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
1,1,1-Trichloroethane	<0.1	U	ppb (v/v)	0.10	0.10	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
1,1,2-Trichloroethane	<0.2	U	ppb (v/v)	0.12	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
1,3,5-Trimethylbenzene	0.42	J	ppb (v/v)	0.17	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
1,1,2,2-Tetrachloroethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
1,2,4-Trimethylbenzene	1.2	J	ppb (v/v)	0.33	0.50	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
1,2,4-Trichlorobenzene	<1.25	U	ppb (v/v)	0.72	1.25	2.50	1	12/24/11 00:39	EPA TO-15	111223L01
Vinyl Acetate	<0.5	U	ppb (v/v)	0.45	0.50	1.25	1	12/24/11 00:39	EPA TO-15	111223L01
Vinyl Chloride	1.1		ppb (v/v)	0.10	0.20	0.50	1	12/24/11 00:39	EPA TO-15	111223L01
Surr: 1,4-Bromofluorobenzene (57-129%)	*95%*							*12/24/11 00:39*	*EPA TO-15*	*111223L01*
Surr: 1,2-Dichloroethane-d4 (47-137%)	*86%*							*12/24/11 00:39*	*EPA TO-15*	*111223L01*
Surr: Toluene-d8 (78-156%)	*96%*							*12/24/11 00:39*	*EPA TO-15*	*111223L01*
Sample ID: 9 (FB-1, Air) Sampled: 12/21/11 16:30										
ASTM D-1946 (M) Fixed Gases (H2 and/or He) (Sample: 11-12-1767-9-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Helium	<0.01	U	%v	0.00565	0.01	0.03	1	12/23/11 15:17	ASTM D-1946 (M)	111223L01
ASTM D-1946 Fixed Gases (Sample: 11-12-1767-9-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Methane	<0.25	U	%v	0.155	0.25	0.50	1	12/29/11 13:51	ASTM D-1946	111229L01

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated	Work Order:	11-12-1767
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 9 (FB-1, Air) Sampled: 12/21/11 16:30										
EPA TO-15 Full List (Sample: 11-12-1767-9-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Benzene	0.35	J	ppb (v/v)	0.094	0.10	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
Benzyl Chloride	<0.5	U	ppb (v/v)	0.39	0.50	1.25	1	12/24/11 01:30	EPA TO-15	111223L01
Bromodichloromethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
Bromoform	<0.2	U	ppb (v/v)	0.15	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
Bromomethane	<0.1	U	ppb (v/v)	0.093	0.10	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
2-Butanone	0.26	J	ppb (v/v)	0.099	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
Carbon Disulfide	<0.1	U	ppb (v/v)	0.099	0.10	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
Carbon Tetrachloride	<0.1	U	ppb (v/v)	0.098	0.10	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
Chlorobenzene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
Chloroethane	<0.2	U	ppb (v/v)	0.15	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
Chloroform	<0.1	U	ppb (v/v)	0.090	0.10	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
Chloromethane	0.58		ppb (v/v)	0.098	0.10	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
Dibromochloromethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
Dichlorodifluoromethane	0.52		ppb (v/v)	0.14	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
1,1-Dichloroethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
1,1-Dichloroethene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
1,2-Dibromoethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
1,2-Dichlorobenzene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
1,2-Dichloroethane	<0.1	U	ppb (v/v)	0.095	0.10	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
1,2-Dichloropropane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
1,3-Dichlorobenzene	<0.2	U	ppb (v/v)	0.13	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
1,4-Dichlorobenzene	<0.2	U	ppb (v/v)	0.13	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
c-1,3-Dichloropropene	<0.2	U	ppb (v/v)	0.14	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
c-1,2-Dichloroethene	<0.2	U	ppb (v/v)	0.13	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
t-1,2-Dichloroethene	<0.2	U	ppb (v/v)	0.19	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
t-1,3-Dichloropropene	<0.2	U	ppb (v/v)	0.10	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
Ethanol	2.6	J	ppb (v/v)	0.46	0.80	2.00	1	12/24/11 01:30	EPA TO-15	111223L01
Ethylbenzene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
4-Ethyltoluene	<0.2	U	ppb (v/v)	0.18	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
Hexachloro-1,3-Butadiene	<0.2	U	ppb (v/v)	0.18	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
2-Hexanone	<1.25	U	ppb (v/v)	0.52	1.25	2.50	1	12/24/11 01:30	EPA TO-15	111223L01
Methyl-t-Butyl Ether (MTBE)	<0.2	U	ppb (v/v)	0.12	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
Methylene Chloride	<1.25	U	ppb (v/v)	1.0	1.25	2.50	1	12/24/11 01:30	EPA TO-15	111223L01
4-Methyl-2-Pentanone	<0.2	U	ppb (v/v)	0.15	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
o-Xylene	<0.2	U	ppb (v/v)	0.12	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
p/m-Xylene	<1	U	ppb (v/v)	0.76	1.00	1.00	1	12/24/11 01:30	EPA TO-15	111223L01
Styrene	<0.2	U	ppb (v/v)	0.18	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
Tetrachloroethene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
Toluene	0.73		ppb (v/v)	0.12	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
Trichloroethene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01

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Client:	CKY, Incorporated	Work Order:	11-12-1767
	302 West Fifth Street, Ste. 310	Project Name:	Seal Beach NWS
	San Pedro, CA 90731-2738	Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

ANALYTICAL REPORT

Analyte	Result	Flag	Units	DL	LOD	LOQ	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 9 (FB-1, Air) Sampled: 12/21/11 16:30										
EPA TO-15 Full List (Sample: 11-12-1767-9-A)										
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Trichlorofluoromethane	0.23	J	ppb (v/v)	0.077	0.10	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
1,1,1-Trichloroethane	<0.1	U	ppb (v/v)	0.10	0.10	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
1,1,2-Trichloroethane	<0.2	U	ppb (v/v)	0.12	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
1,3,5-Trimethylbenzene	<0.2	U	ppb (v/v)	0.17	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
1,1,2,2-Tetrachloroethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
1,2,4-Trimethylbenzene	<0.5	U	ppb (v/v)	0.33	0.50	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
1,2,4-Trichlorobenzene	<1.25	U	ppb (v/v)	0.72	1.25	2.50	1	12/24/11 01:30	EPA TO-15	111223L01
Vinyl Acetate	<0.5	U	ppb (v/v)	0.45	0.50	1.25	1	12/24/11 01:30	EPA TO-15	111223L01
Vinyl Chloride	<0.2	U	ppb (v/v)	0.10	0.20	0.50	1	12/24/11 01:30	EPA TO-15	111223L01
Surr: 1,4-Bromofluorobenzene (57-129%)	*94%*							*12/24/11 01:30*	*EPA TO-15*	*111223L01*
Surr: 1,2-Dichloroethane-d4 (47-137%)	*87%*							*12/24/11 01:30*	*EPA TO-15*	*111223L01*
Surr: Toluene-d8 (78-156%)	*96%*							*12/24/11 01:30*	*EPA TO-15*	*111223L01*

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1767
		Project Name:	Seal Beach NWS
		Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
ASTM D-1946 (M) Fixed Gases (H2 and/or He)									
099-12-872-204									
Helium	<0.01	U	%v	0.0056	0.01	0.03	111223L01	099-12-872-204	12/23/11 09:48
ASTM D-1946 Fixed Gases									
099-14-535-3									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Methane	<0.25	U	%v	0.155	0.25	0.50	111228L01	099-14-535-3	12/28/11 11:37
099-14-535-4									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Methane	<0.25	U	%v	0.155	0.25	0.50	111229L01	099-14-535-4	12/29/11 11:38
EPA TO-15 Full List									
099-14-523-3									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Benzene	<0.1	U	ppb (v/v)	0.094	0.10	0.50	111223L01	099-14-523-3	12/23/11 13:12
Benzyl Chloride	<0.5	U	ppb (v/v)	0.39	0.50	1.25	111223L01	099-14-523-3	12/23/11 13:12
Bromodichloromethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Bromoform	<0.2	U	ppb (v/v)	0.15	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Bromomethane	<0.1	U	ppb (v/v)	0.093	0.10	0.50	111223L01	099-14-523-3	12/23/11 13:12
2-Butanone	<0.2	U	ppb (v/v)	0.099	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Carbon Disulfide	<0.1	U	ppb (v/v)	0.099	0.10	0.50	111223L01	099-14-523-3	12/23/11 13:12
Carbon Tetrachloride	<0.1	U	ppb (v/v)	0.098	0.10	0.50	111223L01	099-14-523-3	12/23/11 13:12
Chlorobenzene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Chloroethane	<0.2	U	ppb (v/v)	0.15	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Chloroform	<0.1	U	ppb (v/v)	0.090	0.10	0.50	111223L01	099-14-523-3	12/23/11 13:12
Chloromethane	<0.1	U	ppb (v/v)	0.098	0.10	0.50	111223L01	099-14-523-3	12/23/11 13:12
Dibromochloromethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Dichlorodifluoromethane	<0.2	U	ppb (v/v)	0.14	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,1-Dichloroethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,1-Dichloroethene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,2-Dibromoethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,2-Dichlorobenzene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,2-Dichloroethane	<0.1	U	ppb (v/v)	0.095	0.10	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,2-Dichloropropane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,3-Dichlorobenzene	<0.2	U	ppb (v/v)	0.13	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1767
		Project Name:	Seal Beach NWS
		Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
EPA TO-15 Full List									
099-14-523-3									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
1,4-Dichlorobenzene	<0.2	U	ppb (v/v)	0.13	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
c-1,3-Dichloropropene	<0.2	U	ppb (v/v)	0.14	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
c-1,2-Dichloroethene	<0.2	U	ppb (v/v)	0.13	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
t-1,2-Dichloroethene	<0.2	U	ppb (v/v)	0.19	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
t-1,3-Dichloropropene	<0.2	U	ppb (v/v)	0.10	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Ethanol	<0.8	U	ppb (v/v)	0.46	0.80	2.00	111223L01	099-14-523-3	12/23/11 13:12
Ethylbenzene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
4-Ethyltoluene	<0.2	U	ppb (v/v)	0.18	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Hexachloro-1,3-Butadiene	<0.2	U	ppb (v/v)	0.18	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
2-Hexanone	<1.25	U	ppb (v/v)	0.52	1.25	2.50	111223L01	099-14-523-3	12/23/11 13:12
Methyl-t-Butyl Ether (MTBE)	<0.2	U	ppb (v/v)	0.12	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Methylene Chloride	<1.25	U	ppb (v/v)	1.0	1.25	2.50	111223L01	099-14-523-3	12/23/11 13:12
4-Methyl-2-Pentanone	<0.2	U	ppb (v/v)	0.15	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
o-Xylene	<0.2	U	ppb (v/v)	0.12	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
p/m-Xylene	<1	U	ppb (v/v)	0.76	1.00	1.00	111223L01	099-14-523-3	12/23/11 13:12
Styrene	<0.2	U	ppb (v/v)	0.18	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Tetrachloroethene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Toluene	<0.2	U	ppb (v/v)	0.12	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Trichloroethene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Trichlorofluoromethane	<0.1	U	ppb (v/v)	0.077	0.10	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,1,1-Trichloroethane	<0.1	U	ppb (v/v)	0.10	0.10	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,1,2-Trichloroethane	<0.2	U	ppb (v/v)	0.12	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,3,5-Trimethylbenzene	<0.2	U	ppb (v/v)	0.17	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,1,2,2-Tetrachloroethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,2,4-Trimethylbenzene	<0.5	U	ppb (v/v)	0.33	0.50	0.50	111223L01	099-14-523-3	12/23/11 13:12
1,2,4-Trichlorobenzene	<1.25	U	ppb (v/v)	0.72	1.25	2.50	111223L01	099-14-523-3	12/23/11 13:12
Vinyl Acetate	<0.5	U	ppb (v/v)	0.45	0.50	1.25	111223L01	099-14-523-3	12/23/11 13:12
Vinyl Chloride	<0.2	U	ppb (v/v)	0.10	0.20	0.50	111223L01	099-14-523-3	12/23/11 13:12
Surr: 1,4-Bromofluorobenzene (57-129%)	*96%*						*111223L01*	*099-14-523-3*	*12/23/11 13:12*
Surr: 1,2-Dichloroethane-d4 (47-137%)	*90%*						*111223L01*	*099-14-523-3*	*12/23/11 13:12*
Surr: Toluene-d8 (78-156%)	*97%*						*111223L01*	*099-14-523-3*	*12/23/11 13:12*
099-14-523-4									

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1767
		Project Name:	Seal Beach NWS
		Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
EPA TO-15 Full List									
099-14-523-4									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Benzene	<0.1	U	ppb (v/v)	0.094	0.10	0.50	111227L01	099-14-523-4	12/27/11 14:29
Benzyl Chloride	<0.5	U	ppb (v/v)	0.39	0.50	1.25	111227L01	099-14-523-4	12/27/11 14:29
Bromodichloromethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Bromoform	<0.2	U	ppb (v/v)	0.15	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Bromomethane	<0.1	U	ppb (v/v)	0.093	0.10	0.50	111227L01	099-14-523-4	12/27/11 14:29
2-Butanone	<0.2	U	ppb (v/v)	0.099	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Carbon Disulfide	<0.1	U	ppb (v/v)	0.099	0.10	0.50	111227L01	099-14-523-4	12/27/11 14:29
Carbon Tetrachloride	<0.1	U	ppb (v/v)	0.098	0.10	0.50	111227L01	099-14-523-4	12/27/11 14:29
Chlorobenzene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Chloroethane	<0.2	U	ppb (v/v)	0.15	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Chloroform	<0.1	U	ppb (v/v)	0.090	0.10	0.50	111227L01	099-14-523-4	12/27/11 14:29
Chloromethane	<0.1	U	ppb (v/v)	0.098	0.10	0.50	111227L01	099-14-523-4	12/27/11 14:29
Dibromochloromethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Dichlorodifluoromethane	<0.2	U	ppb (v/v)	0.14	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,1-Dichloroethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,1-Dichloroethene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,2-Dibromoethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,2-Dichlorobenzene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,2-Dichloroethane	<0.1	U	ppb (v/v)	0.095	0.10	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,2-Dichloropropane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,3-Dichlorobenzene	<0.2	U	ppb (v/v)	0.13	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,4-Dichlorobenzene	<0.2	U	ppb (v/v)	0.13	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
c-1,3-Dichloropropene	<0.2	U	ppb (v/v)	0.14	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
c-1,2-Dichloroethene	<0.2	U	ppb (v/v)	0.13	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
t-1,2-Dichloroethene	<0.2	U	ppb (v/v)	0.19	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
t-1,3-Dichloropropene	<0.2	U	ppb (v/v)	0.10	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Ethanol	<0.8	U	ppb (v/v)	0.46	0.80	2.00	111227L01	099-14-523-4	12/27/11 14:29
Ethylbenzene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
4-Ethyltoluene	<0.2	U	ppb (v/v)	0.18	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Hexachloro-1,3-Butadiene	<0.2	U	ppb (v/v)	0.18	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
2-Hexanone	<1.25	U	ppb (v/v)	0.52	1.25	2.50	111227L01	099-14-523-4	12/27/11 14:29
Methyl-t-Butyl Ether (MTBE)	<0.2	U	ppb (v/v)	0.12	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Methylene Chloride	<1.25	U	ppb (v/v)	1.0	1.25	2.50	111227L01	099-14-523-4	12/27/11 14:29

Calscience Environmental Laboratories, Inc.

The difference is service

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1767
		Project Name:	Seal Beach NWS
		Received:	12/22/11 18:30
Attn:	Howard Wittenberg		

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Flag	Units	DL	LOD	LOQ	QC Batch	Lab Number	Analyzed Date/Time
EPA TO-15 Full List									
099-14-523-4									
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
4-Methyl-2-Pentanone	<0.2	U	ppb (v/v)	0.15	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
o-Xylene	<0.2	U	ppb (v/v)	0.12	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
p/m-Xylene	<1	U	ppb (v/v)	0.76	1.00	1.00	111227L01	099-14-523-4	12/27/11 14:29
Styrene	<0.2	U	ppb (v/v)	0.18	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Tetrachloroethene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Toluene	<0.2	U	ppb (v/v)	0.12	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Trichloroethene	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Trichlorofluoromethane	<0.1	U	ppb (v/v)	0.077	0.10	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,1,2-Trichloro-1,2,2-Trifluoroethane	<0.2	U	ppb (v/v)	0.10	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,1,1-Trichloroethane	<0.1	U	ppb (v/v)	0.10	0.10	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,1,2-Trichloroethane	<0.2	U	ppb (v/v)	0.12	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,3,5-Trimethylbenzene	<0.2	U	ppb (v/v)	0.17	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,1,2,2-Tetrachloroethane	<0.2	U	ppb (v/v)	0.11	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,2,4-Trimethylbenzene	<0.5	U	ppb (v/v)	0.33	0.50	0.50	111227L01	099-14-523-4	12/27/11 14:29
1,2,4-Trichlorobenzene	<1.25	U	ppb (v/v)	0.72	1.25	2.50	111227L01	099-14-523-4	12/27/11 14:29
Vinyl Acetate	<0.5	U	ppb (v/v)	0.45	0.50	1.25	111227L01	099-14-523-4	12/27/11 14:29
Vinyl Chloride	<0.2	U	ppb (v/v)	0.10	0.20	0.50	111227L01	099-14-523-4	12/27/11 14:29
Surr: 1,4-Bromofluorobenzene (57-129%)	*97%*						*111227L01*	*099-14-523-4*	*12/27/11 14:29*
Surr: 1,2-Dichloroethane-d4 (47-137%)	*92%*						*111227L01*	*099-14-523-4*	*12/27/11 14:29*
Surr: Toluene-d8 (78-156%)	*97%*						*111227L01*	*099-14-523-4*	*12/27/11 14:29*

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order: Project Name: Received:	11-12-1767 Seal Beach NWS 12/22/11 18:30

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
ASTM D-1946 (M) Fixed Gases (H2 and/or He)								
099-12-872-204								
Helium	1.000	0.8932		%v	89	80-120	111223L01	12/23/11 09:04
Hydrogen	1.000	0.8528		%v	85	80-120	111223L01	12/23/11 09:04
ASTM D-1946 Fixed Gases								
099-14-535-3								
Methane	10.12	9.579		%v	95	80-120	111228L01	12/28/11 09:49
Carbon Dioxide	10.07	9.825		%v	98	80-120	111228L01	12/28/11 09:49
Carbon Monoxide	9.930	10.25		%v	103	80-120	111228L01	12/28/11 09:49
Oxygen + Argon	3.500	3.463		%v	99	80-120	111228L01	12/28/11 09:49
Nitrogen	10.02	10.11		%v	101	80-120	111228L01	12/28/11 09:49
099-14-535-4								
Methane	10.12	9.460		%v	93	80-120	111229L01	12/29/11 10:23
Carbon Dioxide	10.07	9.751		%v	97	80-120	111229L01	12/29/11 10:23
Carbon Monoxide	9.930	10.12		%v	102	80-120	111229L01	12/29/11 10:23
Oxygen + Argon	3.500	3.387		%v	97	80-120	111229L01	12/29/11 10:23
Nitrogen	10.02	9.884		%v	99	80-120	111229L01	12/29/11 10:23
EPA TO-15 Full List								

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1767
Project Name: Seal Beach NWS
Received: 12/22/11 18:30

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA TO-15 Full List								
099-14-523-3								
Acetone	25.00	25.89		ppb (v/v)	104	50-150	111223L01	12/23/11 10:47
Benzene	25.00	30.03		ppb (v/v)	120	60-156	111223L01	12/23/11 10:47
Benzyl Chloride	25.00	26.46		ppb (v/v)	106	50-150	111223L01	12/23/11 10:47
Bromodichloromethane	25.00	27.56		ppb (v/v)	110	50-150	111223L01	12/23/11 10:47
Bromoform	25.00	26.97		ppb (v/v)	108	62-134	111223L01	12/23/11 10:47
Bromomethane	25.00	26.79		ppb (v/v)	107	50-150	111223L01	12/23/11 10:47
2-Butanone	25.00	28.26		ppb (v/v)	113	50-150	111223L01	12/23/11 10:47
Carbon Disulfide	25.00	33.84		ppb (v/v)	135	50-150	111223L01	12/23/11 10:47
Carbon Tetrachloride	25.00	28.03		ppb (v/v)	112	64-154	111223L01	12/23/11 10:47
Chlorobenzene	25.00	29.42		ppb (v/v)	118	50-150	111223L01	12/23/11 10:47
Chloroethane	25.00	27.17		ppb (v/v)	109	50-150	111223L01	12/23/11 10:47
Chloroform	25.00	27.13		ppb (v/v)	109	50-150	111223L01	12/23/11 10:47
Chloromethane	25.00	28.09		ppb (v/v)	112	50-150	111223L01	12/23/11 10:47
Dibromochloromethane	25.00	28.82		ppb (v/v)	115	50-150	111223L01	12/23/11 10:47
Dichlorodifluoromethane	25.00	24.93		ppb (v/v)	100	50-150	111223L01	12/23/11 10:47
Diisopropyl Ether (DIPE)	25.00	26.50		ppb (v/v)	106	50-150	111223L01	12/23/11 10:47
1,1-Dichloroethane	25.00	28.42		ppb (v/v)	114	50-150	111223L01	12/23/11 10:47
1,1-Dichloroethene	25.00	35.02		ppb (v/v)	140	50-150	111223L01	12/23/11 10:47
1,2-Dibromoethane	25.00	29.23		ppb (v/v)	117	54-144	111223L01	12/23/11 10:47
Dichlorotetrafluoroethane	25.00	25.60		ppb (v/v)	102	50-150	111223L01	12/23/11 10:47
1,2-Dichlorobenzene	25.00	22.65		ppb (v/v)	91	34-160	111223L01	12/23/11 10:47
1,2-Dichloroethane	25.00	25.84		ppb (v/v)	103	69-153	111223L01	12/23/11 10:47
1,2-Dichloropropane	25.00	29.76		ppb (v/v)	119	67-157	111223L01	12/23/11 10:47
1,3-Dichlorobenzene	25.00	24.17		ppb (v/v)	97	50-150	111223L01	12/23/11 10:47
1,4-Dichlorobenzene	25.00	24.35		ppb (v/v)	97	36-156	111223L01	12/23/11 10:47
c-1,3-Dichloropropene	25.00	31.16		ppb (v/v)	125	61-157	111223L01	12/23/11 10:47
c-1,2-Dichloroethene	25.00	30.46		ppb (v/v)	122	50-150	111223L01	12/23/11 10:47
t-1,2-Dichloroethene	25.00	28.41		ppb (v/v)	114	50-150	111223L01	12/23/11 10:47
t-1,3-Dichloropropene	25.00	33.26		ppb (v/v)	133	50-150	111223L01	12/23/11 10:47
Ethanol	100.0	91.19		ppb (v/v)	91	50-150	111223L01	12/23/11 10:47
Ethyl-t-Butyl Ether (ETBE)	25.00	27.21		ppb (v/v)	109	50-150	111223L01	12/23/11 10:47
Ethylbenzene	25.00	29.72		ppb (v/v)	119	52-154	111223L01	12/23/11 10:47
4-Ethyltoluene	25.00	28.27		ppb (v/v)	113	50-150	111223L01	12/23/11 10:47
Hexachloro-1,3-Butadiene	25.00	18.12		ppb (v/v)	72	50-150	111223L01	12/23/11 10:47
2-Hexanone	25.00	29.41		ppb (v/v)	118	50-150	111223L01	12/23/11 10:47
Methyl-t-Butyl Ether (MTBE)	25.00	27.75		ppb (v/v)	111	50-150	111223L01	12/23/11 10:47
Methylene Chloride	25.00	33.06		ppb (v/v)	132	50-150	111223L01	12/23/11 10:47
4-Methyl-2-Pentanone	25.00	29.86		ppb (v/v)	119	50-150	111223L01	12/23/11 10:47
Naphthalene	25.00	17.30		ppb (v/v)	69	40-190	111223L01	12/23/11 10:47

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client:	CKY, Incorporated 302 West Fifth Street, Ste. 310 San Pedro, CA 90731-2738	Work Order:	11-12-1767
		Project Name:	Seal Beach NWS
		Received:	12/22/11 18:30

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA TO-15 Full List								
o-Xylene	25.00	28.40		ppb (v/v)	114	52-148	111223L01	12/23/11 10:47
p/m-Xylene	50.00	57.14		ppb (v/v)	114	42-156	111223L01	12/23/11 10:47
Styrene	25.00	27.79		ppb (v/v)	111	50-150	111223L01	12/23/11 10:47
Tert-Amyl-Methyl Ether (TAME)	25.00	26.63		ppb (v/v)	107	50-150	111223L01	12/23/11 10:47
Tert-Butyl Alcohol (TBA)	50.00	63.18		ppb (v/v)	126	50-150	111223L01	12/23/11 10:47
Tetrachloroethene	25.00	29.08		ppb (v/v)	116	56-152	111223L01	12/23/11 10:47
Toluene	25.00	30.08		ppb (v/v)	120	56-146	111223L01	12/23/11 10:47
Trichloroethene	25.00	28.74		ppb (v/v)	115	63-159	111223L01	12/23/11 10:47
Trichlorofluoromethane	25.00	24.85		ppb (v/v)	99	50-150	111223L01	12/23/11 10:47
1,1,2-Trichloro-1,2,2-Trifluoroethane	25.00	34.79		ppb (v/v)	139	50-150	111223L01	12/23/11 10:47
1,1,1-Trichloroethane	25.00	27.72		ppb (v/v)	111	50-150	111223L01	12/23/11 10:47
1,1,2-Trichloroethane	25.00	29.40		ppb (v/v)	118	65-149	111223L01	12/23/11 10:47
1,3,5-Trimethylbenzene	25.00	26.47		ppb (v/v)	106	50-150	111223L01	12/23/11 10:47
1,1,2,2-Tetrachloroethane	25.00	24.01		ppb (v/v)	96	50-150	111223L01	12/23/11 10:47
1,2,4-Trimethylbenzene	25.00	25.84		ppb (v/v)	103	50-150	111223L01	12/23/11 10:47
1,2,4-Trichlorobenzene	25.00	19.09		ppb (v/v)	76	50-150	111223L01	12/23/11 10:47
Vinyl Acetate	25.00	25.12		ppb (v/v)	100	50-150	111223L01	12/23/11 10:47
Vinyl Chloride	25.00	26.90		ppb (v/v)	108	45-177	111223L01	12/23/11 10:47

Total number of LCS compounds:	57
Total number of ME compounds:	0
Total number of ME compound allowed:	3
LCS ME CL validation result:	Pass

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1767
Project Name: Seal Beach NWS
Received: 12/22/11 18:30

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA TO-15 Full List								
099-14-523-4								
Acetone	25.00	24.05		ppb (v/v)	96	50-150	111227L01	12/27/11 10:54
Benzene	25.00	26.68		ppb (v/v)	107	60-156	111227L01	12/27/11 10:54
Benzyl Chloride	25.00	24.18		ppb (v/v)	97	50-150	111227L01	12/27/11 10:54
Bromodichloromethane	25.00	25.28		ppb (v/v)	101	50-150	111227L01	12/27/11 10:54
Bromoform	25.00	24.96		ppb (v/v)	100	62-134	111227L01	12/27/11 10:54
Bromomethane	25.00	24.81		ppb (v/v)	99	50-150	111227L01	12/27/11 10:54
2-Butanone	25.00	22.33		ppb (v/v)	89	50-150	111227L01	12/27/11 10:54
Carbon Disulfide	25.00	30.56		ppb (v/v)	122	50-150	111227L01	12/27/11 10:54
Carbon Tetrachloride	25.00	26.10		ppb (v/v)	104	64-154	111227L01	12/27/11 10:54
Chlorobenzene	25.00	26.56		ppb (v/v)	106	50-150	111227L01	12/27/11 10:54
Chloroethane	25.00	25.17		ppb (v/v)	101	50-150	111227L01	12/27/11 10:54
Chloroform	25.00	24.65		ppb (v/v)	99	50-150	111227L01	12/27/11 10:54
Chloromethane	25.00	26.00		ppb (v/v)	104	50-150	111227L01	12/27/11 10:54
Dibromochloromethane	25.00	26.53		ppb (v/v)	106	50-150	111227L01	12/27/11 10:54
Dichlorodifluoromethane	25.00	23.43		ppb (v/v)	94	50-150	111227L01	12/27/11 10:54
Diisopropyl Ether (DIPE)	25.00	23.77		ppb (v/v)	95	50-150	111227L01	12/27/11 10:54
1,1-Dichloroethane	25.00	25.52		ppb (v/v)	102	50-150	111227L01	12/27/11 10:54
1,1-Dichloroethene	25.00	31.86		ppb (v/v)	127	50-150	111227L01	12/27/11 10:54
1,2-Dibromoethane	25.00	26.32		ppb (v/v)	105	54-144	111227L01	12/27/11 10:54
Dichlorotetrafluoroethane	25.00	23.88		ppb (v/v)	96	50-150	111227L01	12/27/11 10:54
1,2-Dichlorobenzene	25.00	20.58		ppb (v/v)	82	34-160	111227L01	12/27/11 10:54
1,2-Dichloroethane	25.00	23.88		ppb (v/v)	96	69-153	111227L01	12/27/11 10:54
1,2-Dichloropropane	25.00	26.56		ppb (v/v)	106	67-157	111227L01	12/27/11 10:54
1,3-Dichlorobenzene	25.00	22.18		ppb (v/v)	89	50-150	111227L01	12/27/11 10:54
1,4-Dichlorobenzene	25.00	22.20		ppb (v/v)	89	36-156	111227L01	12/27/11 10:54
c-1,3-Dichloropropene	25.00	28.23		ppb (v/v)	113	61-157	111227L01	12/27/11 10:54
c-1,2-Dichloroethene	25.00	27.07		ppb (v/v)	108	50-150	111227L01	12/27/11 10:54
t-1,2-Dichloroethene	25.00	25.23		ppb (v/v)	101	50-150	111227L01	12/27/11 10:54
t-1,3-Dichloropropene	25.00	30.49		ppb (v/v)	122	50-150	111227L01	12/27/11 10:54
Ethanol	100.0	84.29		ppb (v/v)	84	50-150	111227L01	12/27/11 10:54
Ethyl-t-Butyl Ether (ETBE)	25.00	24.72		ppb (v/v)	99	50-150	111227L01	12/27/11 10:54
Ethylbenzene	25.00	26.88		ppb (v/v)	108	52-154	111227L01	12/27/11 10:54
4-Ethyltoluene	25.00	25.92		ppb (v/v)	104	50-150	111227L01	12/27/11 10:54
Hexachloro-1,3-Butadiene	25.00	17.30		ppb (v/v)	69	50-150	111227L01	12/27/11 10:54
2-Hexanone	25.00	26.22		ppb (v/v)	105	50-150	111227L01	12/27/11 10:54
Methyl-t-Butyl Ether (MTBE)	25.00	25.18		ppb (v/v)	101	50-150	111227L01	12/27/11 10:54
Methylene Chloride	25.00	29.66		ppb (v/v)	119	50-150	111227L01	12/27/11 10:54
4-Methyl-2-Pentanone	25.00	26.63		ppb (v/v)	107	50-150	111227L01	12/27/11 10:54
Naphthalene	25.00	16.09		ppb (v/v)	64	40-190	111227L01	12/27/11 10:54

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1767
Project Name: Seal Beach NWS
Received: 12/22/11 18:30

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
EPA TO-15 Full List								
o-Xylene	25.00	25.71		ppb (v/v)	103	52-148	111227L01	12/27/11 10:54
p/m-Xylene	50.00	51.87		ppb (v/v)	104	42-156	111227L01	12/27/11 10:54
Styrene	25.00	24.99		ppb (v/v)	100	50-150	111227L01	12/27/11 10:54
Tert-Amyl-Methyl Ether (TAME)	25.00	24.35		ppb (v/v)	97	50-150	111227L01	12/27/11 10:54
Tert-Butyl Alcohol (TBA)	50.00	58.25		ppb (v/v)	116	50-150	111227L01	12/27/11 10:54
Tetrachloroethene	25.00	26.60		ppb (v/v)	106	56-152	111227L01	12/27/11 10:54
Toluene	25.00	26.90		ppb (v/v)	108	56-146	111227L01	12/27/11 10:54
Trichloroethene	25.00	25.97		ppb (v/v)	104	63-159	111227L01	12/27/11 10:54
Trichlorofluoromethane	25.00	23.45		ppb (v/v)	94	50-150	111227L01	12/27/11 10:54
1,1,2-Trichloro-1,2,2-Trifluoroethane	25.00	31.62		ppb (v/v)	126	50-150	111227L01	12/27/11 10:54
1,1,1-Trichloroethane	25.00	25.57		ppb (v/v)	102	50-150	111227L01	12/27/11 10:54
1,1,2-Trichloroethane	25.00	26.32		ppb (v/v)	105	65-149	111227L01	12/27/11 10:54
1,3,5-Trimethylbenzene	25.00	24.19		ppb (v/v)	97	50-150	111227L01	12/27/11 10:54
1,1,2,2-Tetrachloroethane	25.00	21.57		ppb (v/v)	86	50-150	111227L01	12/27/11 10:54
1,2,4-Trimethylbenzene	25.00	23.66		ppb (v/v)	95	50-150	111227L01	12/27/11 10:54
1,2,4-Trichlorobenzene	25.00	18.03		ppb (v/v)	72	50-150	111227L01	12/27/11 10:54
Vinyl Acetate	25.00	22.22		ppb (v/v)	89	50-150	111227L01	12/27/11 10:54
Vinyl Chloride	25.00	24.77		ppb (v/v)	99	45-177	111227L01	12/27/11 10:54

Total number of LCS compounds: 57
Total number of ME compounds: 0
Total number of ME compound allowed: 3
LCS ME CL validation result: Pass

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1767
Project Name: Seal Beach NWS
Received: 12/22/11 18:30

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
ASTM D-1946 (M) Fixed Gases (H2 and/or He)											
099-12-872-204											
Helium	1.000	0.9413		%v	94	80-120	5	0-30	111223L01	099-12-872-204	12/23/11 09:26
Hydrogen	1.000	0.8981		%v	90	80-120	5	0-30	111223L01	099-12-872-204	12/23/11 09:26
ASTM D-1946 Fixed Gases											
099-14-535-3											
Methane	10.12	9.646		%v	95	80-120	1	0-30	111228L01	099-14-535-3	12/28/11 10:54
Carbon Dioxide	10.07	9.914		%v	98	80-120	1	0-30	111228L01	099-14-535-3	12/28/11 10:54
Carbon Monoxide	9.930	10.34		%v	104	80-120	1	0-30	111228L01	099-14-535-3	12/28/11 10:54
Oxygen + Argon	3.500	3.477		%v	99	80-120	0	0-30	111228L01	099-14-535-3	12/28/11 10:54
Nitrogen	10.02	10.15		%v	101	80-120	0	0-30	111228L01	099-14-535-3	12/28/11 10:54
099-14-535-4											
Methane	10.12	9.426		%v	93	80-120	0	0-30	111229L01	099-14-535-4	12/29/11 11:04
Carbon Dioxide	10.07	9.587		%v	95	80-120	2	0-30	111229L01	099-14-535-4	12/29/11 11:04
Carbon Monoxide	9.930	10.08		%v	102	80-120	0	0-30	111229L01	099-14-535-4	12/29/11 11:04
Oxygen + Argon	3.500	3.369		%v	96	80-120	1	0-30	111229L01	099-14-535-4	12/29/11 11:04
Nitrogen	10.02	9.815		%v	98	80-120	1	0-30	111229L01	099-14-535-4	12/29/11 11:04
EPA TO-15 Full List											
099-14-523-3											
Acetone	25.00	25.90		ppb (v/v)	104	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Benzene	25.00	30.03		ppb (v/v)	120	60-156	0	0-40	111223L01	099-14-523-3	12/23/11 11:36
Benzyl Chloride	25.00	26.60		ppb (v/v)	106	50-150	1	0-35	111223L01	099-14-523-3	12/23/11 11:36
Bromodichloromethane	25.00	27.74		ppb (v/v)	111	50-150	1	0-35	111223L01	099-14-523-3	12/23/11 11:36
Bromoform	25.00	26.93		ppb (v/v)	108	62-134	0	0-38	111223L01	099-14-523-3	12/23/11 11:36
Bromomethane	25.00	26.73		ppb (v/v)	107	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
2-Butanone	25.00	25.72		ppb (v/v)	103	50-150	9	0-35	111223L01	099-14-523-3	12/23/11 11:36
Carbon Disulfide	25.00	33.81		ppb (v/v)	135	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Carbon Tetrachloride	25.00	27.83		ppb (v/v)	111	64-154	1	0-32	111223L01	099-14-523-3	12/23/11 11:36
Chlorobenzene	25.00	29.55		ppb (v/v)	118	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Chloroethane	25.00	27.30		ppb (v/v)	109	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Chloroform	25.00	27.20		ppb (v/v)	109	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Chloromethane	25.00	28.43		ppb (v/v)	114	50-150	1	0-35	111223L01	099-14-523-3	12/23/11 11:36
Dibromochloromethane	25.00	28.85		ppb (v/v)	115	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Dichlorodifluoromethane	25.00	28.67		ppb (v/v)	115	50-150	14	0-35	111223L01	099-14-523-3	12/23/11 11:36
Diisopropyl Ether (DIPE)	25.00	26.47		ppb (v/v)	106	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,1-Dichloroethane	25.00	28.70		ppb (v/v)	115	50-150	1	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,1-Dichloroethene	25.00	25.55		ppb (v/v)	102	50-150	31	0-35	111223L01	099-14-523-3	12/23/11 11:36

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1767
Project Name: Seal Beach NWS
Received: 12/22/11 18:30

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA TO-15 Full List											
1,2-Dibromoethane	25.00	29.32		ppb (v/v)	117	54-144	0	0-36	111223L01	099-14-523-3	12/23/11 11:36
Dichlorotetrafluoroethane	25.00	25.46		ppb (v/v)	102	50-150	1	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,2-Dichlorobenzene	25.00	22.71		ppb (v/v)	91	34-160	0	0-47	111223L01	099-14-523-3	12/23/11 11:36
1,2-Dichloroethane	25.00	25.83		ppb (v/v)	103	69-153	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,2-Dichloropropane	25.00	29.82		ppb (v/v)	119	67-157	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,3-Dichlorobenzene	25.00	24.40		ppb (v/v)	98	50-150	1	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,4-Dichlorobenzene	25.00	24.50		ppb (v/v)	98	36-156	1	0-47	111223L01	099-14-523-3	12/23/11 11:36
c-1,3-Dichloropropene	25.00	31.10		ppb (v/v)	124	61-157	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
c-1,2-Dichloroethene	25.00	30.65		ppb (v/v)	123	50-150	1	0-35	111223L01	099-14-523-3	12/23/11 11:36
t-1,2-Dichloroethene	25.00	28.66		ppb (v/v)	115	50-150	1	0-35	111223L01	099-14-523-3	12/23/11 11:36
t-1,3-Dichloropropene	25.00	33.23		ppb (v/v)	133	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Ethanol	100.0	91.56		ppb (v/v)	92	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Ethyl-t-Butyl Ether (ETBE)	25.00	27.31		ppb (v/v)	109	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Ethylbenzene	25.00	29.79		ppb (v/v)	119	52-154	0	0-38	111223L01	099-14-523-3	12/23/11 11:36
4-Ethyltoluene	25.00	28.41		ppb (v/v)	114	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Hexachloro-1,3-Butadiene	25.00	18.43		ppb (v/v)	74	50-150	2	0-35	111223L01	099-14-523-3	12/23/11 11:36
2-Hexanone	25.00	29.29		ppb (v/v)	117	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Methyl-t-Butyl Ether (MTBE)	25.00	28.02		ppb (v/v)	112	50-150	1	0-35	111223L01	099-14-523-3	12/23/11 11:36
Methylene Chloride	25.00	24.73		ppb (v/v)	99	50-150	29	0-35	111223L01	099-14-523-3	12/23/11 11:36
4-Methyl-2-Pentanone	25.00	29.77		ppb (v/v)	119	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Naphthalene	25.00	18.20		ppb (v/v)	73	40-190	5	0-35	111223L01	099-14-523-3	12/23/11 11:36
o-Xylene	25.00	28.42		ppb (v/v)	114	52-148	0	0-38	111223L01	099-14-523-3	12/23/11 11:36
p/m-Xylene	50.00	57.07		ppb (v/v)	114	42-156	0	0-41	111223L01	099-14-523-3	12/23/11 11:36
Styrene	25.00	27.74		ppb (v/v)	111	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Tert-Amyl-Methyl Ether (TAME)	25.00	26.56		ppb (v/v)	106	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
Tert-Butyl Alcohol (TBA)	50.00	46.97		ppb (v/v)	94	50-150	29	0-35	111223L01	099-14-523-3	12/23/11 11:36
Tetrachloroethene	25.00	29.15		ppb (v/v)	117	56-152	0	0-40	111223L01	099-14-523-3	12/23/11 11:36
Toluene	25.00	30.19		ppb (v/v)	121	56-146	0	0-43	111223L01	099-14-523-3	12/23/11 11:36
Trichloroethene	25.00	28.72		ppb (v/v)	115	63-159	0	0-34	111223L01	099-14-523-3	12/23/11 11:36
Trichlorofluoromethane	25.00	24.97		ppb (v/v)	100	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,1,2-Trichloro-1,2,2-Trifluoroethane	25.00	34.82		ppb (v/v)	139	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,1,1-Trichloroethane	25.00	27.74		ppb (v/v)	111	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,1,2-Trichloroethane	25.00	29.43		ppb (v/v)	118	65-149	0	0-37	111223L01	099-14-523-3	12/23/11 11:36
1,3,5-Trimethylbenzene	25.00	26.49		ppb (v/v)	106	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,1,2,2-Tetrachloroethane	25.00	23.94		ppb (v/v)	96	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,2,4-Trimethylbenzene	25.00	25.93		ppb (v/v)	104	50-150	0	0-35	111223L01	099-14-523-3	12/23/11 11:36
1,2,4-Trichlorobenzene	25.00	19.80		ppb (v/v)	79	50-150	4	0-35	111223L01	099-14-523-3	12/23/11 11:36
Vinyl Acetate	25.00	25.41		ppb (v/v)	102	50-150	1	0-35	111223L01	099-14-523-3	12/23/11 11:36

Calscience Environmental Laboratories, Inc.

The difference is service

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1767
Project Name: Seal Beach NWS
Received: 12/22/11 18:30

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA TO-15 Full List											
Vinyl Chloride	25.00	26.91		ppb (v/v)	108	45-177	0	0-36	111223L01	099-14-523-3	12/23/11 11:36

Total number of LCS compounds: 57
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

099-14-523-4											
Acetone	25.00	24.18		ppb (v/v)	97	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
Benzene	25.00	26.82		ppb (v/v)	107	60-156	1	0-40	111227L01	099-14-523-4	12/27/11 11:43
Benzyl Chloride	25.00	24.57		ppb (v/v)	98	50-150	2	0-35	111227L01	099-14-523-4	12/27/11 11:43
Bromodichloromethane	25.00	25.13		ppb (v/v)	101	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
Bromoform	25.00	25.05		ppb (v/v)	100	62-134	0	0-38	111227L01	099-14-523-4	12/27/11 11:43
Bromomethane	25.00	24.81		ppb (v/v)	99	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
2-Butanone	25.00	20.88		ppb (v/v)	84	50-150	7	0-35	111227L01	099-14-523-4	12/27/11 11:43
Carbon Disulfide	25.00	30.79		ppb (v/v)	123	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
Carbon Tetrachloride	25.00	25.90		ppb (v/v)	104	64-154	1	0-32	111227L01	099-14-523-4	12/27/11 11:43
Chlorobenzene	25.00	26.71		ppb (v/v)	107	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
Chloroethane	25.00	25.05		ppb (v/v)	100	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Chloroform	25.00	24.66		ppb (v/v)	99	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Chloromethane	25.00	26.01		ppb (v/v)	104	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Dibromochloromethane	25.00	26.55		ppb (v/v)	106	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Dichlorodifluoromethane	25.00	23.27		ppb (v/v)	93	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
Diisopropyl Ether (DIPE)	25.00	23.95		ppb (v/v)	96	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,1-Dichloroethane	25.00	25.76		ppb (v/v)	103	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,1-Dichloroethene	25.00	29.73		ppb (v/v)	119	50-150	7	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,2-Dibromoethane	25.00	26.58		ppb (v/v)	106	54-144	1	0-36	111227L01	099-14-523-4	12/27/11 11:43
Dichlorotetrafluoroethane	25.00	23.79		ppb (v/v)	95	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,2-Dichlorobenzene	25.00	20.87		ppb (v/v)	83	34-160	1	0-47	111227L01	099-14-523-4	12/27/11 11:43
1,2-Dichloroethane	25.00	23.87		ppb (v/v)	95	69-153	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,2-Dichloropropane	25.00	26.73		ppb (v/v)	107	67-157	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,3-Dichlorobenzene	25.00	22.43		ppb (v/v)	90	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,4-Dichlorobenzene	25.00	22.49		ppb (v/v)	90	36-156	1	0-47	111227L01	099-14-523-4	12/27/11 11:43
c-1,3-Dichloropropene	25.00	28.18		ppb (v/v)	113	61-157	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
c-1,2-Dichloroethene	25.00	27.31		ppb (v/v)	109	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
t-1,2-Dichloroethene	25.00	25.42		ppb (v/v)	102	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
t-1,3-Dichloropropene	25.00	30.43		ppb (v/v)	122	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Ethanol	100.0	84.29		ppb (v/v)	84	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43

Calscience Environmental Laboratories, Inc.

The difference is service

ACCREDITED IN ACCORDANCE WITH nelac

Client: CKY, Incorporated
302 West Fifth Street, Ste. 310
San Pedro, CA 90731-2738

Work Order: 11-12-1767
Project Name: Seal Beach NWS
Received: 12/22/11 18:30

PROJECT QUALITY CONTROL DATA
LCS Dup

Analyte	LCS Val.	Duplicate	Q	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
EPA TO-15 Full List											
Ethyl-t-Butyl Ether (ETBE)	25.00	24.78		ppb (v/v)	99	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Ethylbenzene	25.00	26.98		ppb (v/v)	108	52-154	0	0-38	111227L01	099-14-523-4	12/27/11 11:43
4-Ethyltoluene	25.00	26.08		ppb (v/v)	104	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
Hexachloro-1,3-Butadiene	25.00	17.09		ppb (v/v)	68	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
2-Hexanone	25.00	26.27		ppb (v/v)	105	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Methyl-t-Butyl Ether (MTBE)	25.00	25.29		ppb (v/v)	101	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Methylene Chloride	25.00	29.67		ppb (v/v)	119	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
4-Methyl-2-Pentanone	25.00	26.72		ppb (v/v)	107	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Naphthalene	25.00	16.19		ppb (v/v)	65	40-190	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
o-Xylene	25.00	25.93		ppb (v/v)	104	52-148	1	0-38	111227L01	099-14-523-4	12/27/11 11:43
p/m-Xylene	50.00	52.13		ppb (v/v)	104	42-156	1	0-41	111227L01	099-14-523-4	12/27/11 11:43
Styrene	25.00	25.05		ppb (v/v)	100	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Tert-Amyl-Methyl Ether (TAME)	25.00	24.33		ppb (v/v)	97	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Tert-Butyl Alcohol (TBA)	50.00	58.06		ppb (v/v)	116	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Tetrachloroethene	25.00	26.75		ppb (v/v)	107	56-152	1	0-40	111227L01	099-14-523-4	12/27/11 11:43
Toluene	25.00	27.22		ppb (v/v)	109	56-146	1	0-43	111227L01	099-14-523-4	12/27/11 11:43
Trichloroethene	25.00	26.00		ppb (v/v)	104	63-159	0	0-34	111227L01	099-14-523-4	12/27/11 11:43
Trichlorofluoromethane	25.00	23.35		ppb (v/v)	93	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,1,2-Trichloro-1,2,2-Trifluoroethane	25.00	31.60		ppb (v/v)	126	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,1,1-Trichloroethane	25.00	25.57		ppb (v/v)	102	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,1,2-Trichloroethane	25.00	26.39		ppb (v/v)	106	65-149	0	0-37	111227L01	099-14-523-4	12/27/11 11:43
1,3,5-Trimethylbenzene	25.00	24.32		ppb (v/v)	97	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,1,2,2-Tetrachloroethane	25.00	21.76		ppb (v/v)	87	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,2,4-Trimethylbenzene	25.00	23.79		ppb (v/v)	95	50-150	1	0-35	111227L01	099-14-523-4	12/27/11 11:43
1,2,4-Trichlorobenzene	25.00	18.08		ppb (v/v)	72	50-150	0	0-35	111227L01	099-14-523-4	12/27/11 11:43
Vinyl Acetate	25.00	22.63		ppb (v/v)	91	50-150	2	0-35	111227L01	099-14-523-4	12/27/11 11:43
Vinyl Chloride	25.00	24.82		ppb (v/v)	99	45-177	0	0-36	111227L01	099-14-523-4	12/27/11 11:43

Total number of LCS compounds: 57
Total number of ME compounds: 0
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

Calscience Environmental Laboratories, Inc.

Summa Canister Vacuum Summary

Work Order Number: **11-12-1767**

Sample Name	Vacuum In	Vacuum Out	Equipment	Description
IW-01	-6.00	-29.80	D504	Summa Canister 6L
MW-40-32	-6.00	-29.80	D721	Summa Canister 6L
VW-40-06	-7.00	-29.80	D666	Summa Canister 6L
IW-03	-5.70	-29.80	D517	Summa Canister 6L
VW-40-02	-5.00	-29.80	D190	Summa Canister 6L
DUP-1	-6.00	-29.80	D509	Summa Canister 6L
VW-40-03	-5.00	-29.80	D676	Summa Canister 6L
VW-40-04	-5.00	-29.80	D542	Summa Canister 6L
FB-1	-5.00	-29.80	D417	Summa Canister 6L

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 11-12-1767

Qualifier	Definition
AZ	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BA	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
BB	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
BU	Sample analyzed after holding time expired.
DF	Reporting limits elevated due to matrix interferences.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
GE	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
HD	Chromat. profile inconsistent with pattern(s) of ref. fuel stnds.
HO	High concentration matrix spike recovery out of limits
HT	Analytical value calculated using results from associated tests.
HX	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
IL	Relative percent difference out of control.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
LD	Analyte presence was not confirmed by second column or GC/MS analysis.
LP	The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.
ND	Parameter not detected at the indicated reporting limit.
QO	Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.
RU	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
SG	A silica gel cleanup procedure was performed.
SN	See applicable analysis comment.
U	Undetected at detection limit.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 12/20/11
PAGE: 1 OF 1

LABORATORY CLIENT: CKY
ADDRESS: 302 W 5th St, San Pedro, CA 90731
TEL: (310) 519-4000 FAX: (310) 519-4029 E-MAIL: howard@ckyinc.com

CLIENT PROJECT NAME / NUMBER: Seal Beach NWS
PROJECT CONTACT: Howard Wittenberg
SAMPLER(S): (SIGNATURE)
COELT LOG CODE
P.O. NO.:
LOG CODE: 11-12-1767
COOLER RECEIPT Temp = °C

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ Standard

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ COELT EDF ☐

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	CEL SAMPLE #	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	VOCs EPA (TO-15)	Methane (ASTM 1946M)	Helium	Level III
1	FW-01	D504	12/20/11	1134	Air	1	X	X	X	X
2	MW-40-32	D721	12/20/11	1255	Air	1	X	X	X	X
3	VW-40-06	D666	12/20/11	1341	Air	1	X	X	X	X
4	FW-03	D517	12/20/11	1438	Air	1	X	X	X	X
5	VW-40-02	D190	12/20/11	1531	Air	1	X	X	X	X
6	DUP-1	D509	12/20/11		Air	1	X	X	X	X
7	VW-40-03	D676	12/21/11	1414	Air	1	X	X	X	X
8	VW-40-04	D542	12/21/11	1627	Air	1	X	X	X	X
9	FB-1	D417	12/21/11	1630	Air	1	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	(SC)	12/21/11	1800
Nicole (SC)	Jensen	12/22/11	1700
Jensen	CEL	12/22/11	1830

Revision: 072611

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-12-1767

SAMPLE RECEIPT FORM

Cooler 0 of 0

CLIENT: CKY

DATE: 12/22/11

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature ____.____ °C - 0.3 °C (CF) = ____.____ °C ☐ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☑ Air ☐ Filter **Initial:** Jy

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A **Initial:** Jy

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Initial:** KR

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB ☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☑Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** KR

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** [illegible]

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** [illegible]

APPENDIX B
Regulatory Comments

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Santa Ana Regional Water Quality Control Board

June 15, 2012

Ms. Pei-Fen Tamashiro
Installation Restoration Coordinator
pei-fen.tamashiro@navy.mil
Naval Weapons Station, Seal Beach
800 Seal Beach Blvd.
Seal Beach, CA 90740-5000

COMMENTS ON DRAFT 2011 ANNUAL GROUNDWATER MONITORING REPORT, INSTALLATION RESTORATION PROGRAM SITE 40, SEAL BEACH NAVAL STATION (GEOTRACKER ID: DOD100354200)

Dear Ms. Tamashiro:

We have completed our review of the above-referenced document, dated May 8, 2012, which we received on May 8, 2012. This report presents an overview of the site groundwater monitoring activities conducted in December 2011, associated with an enhanced *in situ* bioremediation of groundwater remedy for chlorinated volatile organic compounds.

We have no comments on this report and concur with the following recommendations:
1. The next groundwater monitoring event will be in December 2012;
2. Remove sampling wells MW-40-06 and MW-40-13 from the next monitoring event;
3. Add sampling wells MW-40-25 and MW-40-27 in the next monitoring event.

If you have any questions, please call me at (951) 782-4494, or send e-mail to jbroderick@waterboards.ca.gov .

Sincerely,

John Broderick
Land Disposal and DoD Section

cc: via electronic copy:
Brenda Reese, Navy - Brenda.reese@navy.mil
Stephen Niou, DTSC - sniou@dtsc.ca.gov
Kirk Gilligan, SB NWR - kirk.gilligan@navy.mil

Department of Toxic Substances Control

Deborah O. Raphael, Director
5796 Corporate Avenue
Cypress, California 90630

Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

June 29, 2012

Ms. Pei-Fen Tamashiro
Installation Restoration Coordinator
Naval Weapons Station Seal Beach
800 Seal Beach Blvd
Seal Beach, CA 90740-5000

2011 ANNUAL GROUNDWATER MONITORING REPORT (AGMR), IRP SITE 40, NAVAL WEAPONS STATION SEAL BEACH, (NWSSB)

Dear Ms. Tamashiro:

The Department of Toxic Substances Control (DTSC) reviewed the above referenced document dated May 8, 2012. The Navy conducts enhanced in situ bioremediation of groundwater at IRP Site 40. The AGMR describes activities performed at this site in December 2011 and presents sampling results. The Navy proposes to discontinue sampling at MW-40-06 and MW-40-13 but add MW-40-25 and MW-40-27 into the sampling program.

DTSC concurs with the proposal. On the other hand, for better understanding of the migration of contaminants in groundwater, DTSC recommends that for future AGMRs, the direction of groundwater migration be marked on plume maps (such as Figure 2). DTSC understands this is a secondary document and therefore, the Navy does not have to revise the current AGMR.

If you have any questions regarding this letter, please contact me at (714) 484-5458.

Sincerely,

Stephen Niou

Stephen Niou, P.E.
Brownfields and Environmental Restoration Program

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