**RECEIVED**
*By Alameda County Environmental Health at 3:45 pm, Apr 29, 2014*

MCG Investments, LLC
c/o Kay & Merkle
100 The Embarcadero – Penthouse
San Francisco, CA 94105
(415) 357-1200

April 22, 2014

Mr. Mark Detterman
Hazardous Materials Specialist
Alameda County Environmental Health Services
Environmental Protection, Local Oversight Program
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

**Subject:** **Letter of Transmittal for First Quarter 201 Groundwater Monitoring Report, Former McGrath Steel, 6655 Hollis Street, Emeryville, California 94608, ACEH Fuel Leak Case No. RO0000063, GeoTracker Global ID No. T0600102099**

Dear Mr. Detterman:

As required in your letters of November 8, 2013 and November 8, 2012 and proposed in the AllWest Environmental, Inc. *Additional Site Characterization Workplan Addendum* dated July 31, 2012, we submit this transmittal letter and accompanying *First Quarter 2014 Groundwater Monitoring Report*.

I declare under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Sincerely,

MCG Investments LLC,
A California Limited Liability Company

Walter F. Merkle
Authorized Agent

**AllWest Environmental, Inc.**

Specialists in Physical Due
Diligence and Remedial Services

2141 Mission Street, Suite 100
San Francisco, CA 94110

415.391.2510 AllWest1.com

# FIRST QUARTER 2014
# GROUNDWATER MONITORING REPORT

***Former McGrath Steel***
***6655 Hollis Street and 1471 67th Street***
***Emeryville, California***

***Alameda County Fuel Leak Case # RO0000063***
***GeoTracker Facility Global ID # T0600102099***

PREPARED FOR:

Mr. Walter F. Merkle
MCG Investments, LLC
c/o Kay & Merkle
100 The Embarcadero – Penthouse
San Francisco, California 94105

ALLWEST PROJECT 14011.28
April 22, 2014

PREPARED BY:

Christopher Houlihan
Project Manager

REVIEWED BY:

Leonard P. Niles, PG, CHG
Senior Project Manager

CERTIFIED HYDROGEOLOGIST
LEONARD P. NILES
NO. HG357
EXP. 3/31/16
STATE OF CALIFORNIA

AllWest

## TABLE OF CONTENTS

**AllWest Environmental, Inc.**

Specialists in Physical Due Diligence and Remedial Services

2141 Mission Street, Suite 100
San Francisco, CA 94110

415.391.2510 AllWest1.com

# FIRST QUARTER 2014 GROUNDWATER MONITORING REPORT

***Former McGrath Steel***
***6655 Hollis Street and 1471 67th Street***
***Emeryville, California***

***Alameda County Fuel Leak Case # RO0000063***
***GeoTracker Facility Global ID # T0600102099***

## I. INTRODUCTION

AllWest conducted quarterly groundwater monitoring on March 19, 2014 at the property referenced above ("the subject site", Figure 1). The monitoring was performed to evaluate potential free product and concentrations of petroleum hydrocarbons and volatile organic compounds (VOCs) in groundwater at the subject site.

## II. PROJECT BACKGROUND

The subject property is located at the southwest corner of the intersection of Hollis and 67th Streets in a commercial and industrial district of the City of Emeryville, Alameda County, California. A site vicinity map is included as Figure 1.

The subject property consists of two parcels (Assessor's Parcel Numbers 049-1511-01 and 049-1511-014). Parcel 01, on the southwest corner of Hollis and 67th Streets at the 6655 Hollis Street address, is developed with an approximately 4,100 square foot two-story commercial office building constructed in 1947, and a smaller metal tool shed building. Parcel 14, to the west of Parcel 1 at the 1471 67th Street address, is developed with an approximately 15,246 square foot light industrial warehouse building constructed circa 1946 (Stellar, 2011).

The subject property was last occupied by CMC Rebar. The property currently appears to be vacant, although a neighboring painting contracting business, Giampolini & Co., appears to be using the Parcel 14 structure. Two USTs formerly present under the

sidewalk in front of the warehouse at 1471 67th Street were removed in 1996. A site plan with former UST locations and historical and current boring and monitoring well locations is included as Figure 2.

Site location and description, background information, and a summary of previous investigations, remedial actions and monitoring activities have been summarized in our *Additional Site Characterization and Interim Remedial Action Workplan* (AllWest, 2011), *Additional Site Characterization Workplan Addendum* (AllWest, 2012a), *Subsurface Investigation* (AllWest, 2013b), *Additional Site Characterization and Monitoring Well Installation Report* (AllWest, 2013e), and *Fourth Quarter 2013 Groundwater Monitoring* (AllWest, 2014).

On December 31, 2013, a Geotech PRC 1-liter capacity product recovery canister-type passive skimming device was placed in well MW-3 (AllWest, 2014).

## III. PURPOSE AND SCOPE OF WORK

The purpose of this investigation was the monitoring and evaluation of the extent of LNAPL, adsorbed and dissolved-phase petroleum hydrocarbons in soil and groundwater in the vicinity of the former UST and dispenser source area at the subject property, and in the hydraulically down-gradient and cross-gradient directions. The scope of work, as proposed, consisted of the following tasks:

1. Monitored and emptied the passive skimming device in monitoring well MW-3 on a monthly basis;

2. Measured groundwater levels and potential free product (LNAPL) thickness, purged a minimum of three casing volumes and collected groundwater samples from groundwater monitoring wells AMW-1, AMW-2 and AMW-3, and MW-3;

3. Maintained groundwater samples under chain-of-custody and transported them to a Department of Health Services (DHS) certified analytical laboratory for chemical analyses. Analyzed one groundwater sample from each monitoring well for total petroleum hydrocarbons as gasoline (TPH-g) and total petroleum hydrocarbons as mineral spirits (TPH-ms) by analytical method SW8021B/8015Bm, for total petroleum hydrocarbons as diesel (TPH-d) by analytical method 8015 with silica gel cleanup, for VOCs by analytical method SW8260B (full scan) and for polynuclear aromatic hydrocarbons (PNAs/PAHs) by analytical method SW8270C-SIM;

4. Prepared a written report describing the sampling event, laboratory data, investigation findings, conclusions and recommendations.

## IV. FIELD ACTIVITIES

On February 26, 2014, AllWest monitored the passive skimming device in monitoring well MW-3. After removing the skimmer from the well, an electric oil/water interface sounding probe was lowered into the well casing to measure the depth to water and thickness of any potential floating free product to the nearest 0.01 feet below top of casing (TOC). The depth to water in the well was measured at 8.92 feet below top of casing TOC. A sheen and droplets were observed in the skimmer. No free product layer was measured in the well casing.

On March 19, 2014, prior to well purging, an electric oil/water interface sounding probe was lowered into the well casings to measure the depth to the water and thickness of any potential floating free product to the nearest 0.01 feet below TOC. Depth to groundwater ranged from 7.25 feet below TOC in AMW-3 to 8.81 feet below TOC in MW-3. No product or sheen were detected or observed in any of the monitoring wells AMW-1, AMW-2 or AMW-3. No floating free product (LNAPL) was detected in monitoring well MW-3 by the electric oil/water interface probe; however, sheen and droplets were observed in the passive skimming device. Depth to groundwater and free product thickness data are included in Table 2.

A new, disposable polyethylene bailer was lowered into each well casing and partially submerged. Upon bailer retrieval, the surface water was retained and examined for any floating product or product sheen. After all initial measurements were completed and recorded, a minimum of three well casing volumes of groundwater were purged with a new, disposable polyethylene bailer. Groundwater characteristics, temperature, pH and conductivity were monitored at each well volume interval. Purging was continued until groundwater parameters stabilized to within 10%.

Groundwater sampling was conducted after water levels recovered to at least 80% of initial level, recorded prior to purging. Groundwater samples were collected from each well with new, disposable polyethylene bailers. Upon bailer retrieval, the water was transferred to appropriate sample bottles furnished by the analytical laboratory. 40-milliliter (ml) volatile organic analysis (VOA) glass vials preserved with hydrochloric acid (HCl) were used for TPH-g, TPH-ms, and VOC analysis. Samples for TPH-d analysis were collected in one 1-liter amber glass bottle preserved with HCl solution. Samples for PNAs/PAHs analysis were collected in one 1-liter unpreserved amber glass bottle. All sample bottles for VOA had Teflon lined septum/caps and were filled so that no headspace was present. The sample bottles were then labeled and placed in an iced cooler for transport under chain-of-custody control to the analytical laboratory.

To help prevent cross-contamination, all groundwater sampling equipment that came into contact with groundwater was decontaminated prior to sampling. To minimize the possibility of cross-contamination, a new disposable bailer was used to collect each groundwater sample. Well purge water was temporarily stored at the property in a 55-gallon drum, awaiting test results to determine the proper disposal method.

Standard groundwater sampling procedures are included in Appendix A. Groundwater purging and sampling field logs are included in Appendix B.

## V. QUALITY ASSURANCE/QUALITY CONTROL PROGRAM

### A. Sample Preservation, Storage and Handling

To prevent the loss of constituents of interest, all groundwater samples were preserved by storing in an ice chest cooled to 4°C with crushed ice immediately after their collection and during transportation to the laboratory. Samples were stored within the cooler in separate zip-lock plastic bags to avoid cross-contamination.

### B. Chain-Of-Custody Program

All samples collected for this project were transported under chain-of-custody protocol. The chain-of-custody program allows for the tracing of possession and handling of individual samples from the time of field collection through laboratory analysis. The document includes the signature of the collector, date and time of collection, sample number, number and type of sample containers including preservatives, parameters requested for analysis, signatures of persons and inclusive dates involved in the chain of possession. Upon delivery to the laboratory the document also includes the name of the person receiving the samples, and date and time samples were received. Copies of chain-of-custody documentation are included in Appendix C.

## VI. ANALYTICAL METHODS

Groundwater samples from the monitoring wells AMW-1, AMW-2, AMW-3 and MW-3 were analyzed for TPH-g and TPH-ms by analytical method SW8021B/8015Bm, for TPH-d by analytical method SW8015B with silica gel cleanup, for VOCs by analytical method 8260B, and for PNAs/PAHs by analytical method SW8270C-SIM.

All samples were analyzed by a State of California certified independent analytical laboratory, McCampbell Analytical, Inc., of Pittsburg, California. All samples were analyzed on standard five-day turn-around time. Chain of custody documents and laboratory analytical reports are included in Appendix C.

## VII. ASSESSMENT FINDINGS

### A. Groundwater Observations

No floating free product (LNAPL) was measured or observed in monitoring well MW-3 on the February 26, 2014 monitoring event; however, sheen and droplets were observed in the passive skimming device. Depth to water in well MW-3 after the removal of the product skimmer was 8.92 feet below TOC.

On March 19, 2014, depths to groundwater ranged from 7.25 feet below TOC in AMW-3 to 8.81 feet below TOC in MW-3. No LNAPL was measured or observed in monitoring well MW-3; sheen and droplets were observed in the passive skimming device. The well with the highest groundwater elevation was AMW-3 at 17.91 feet above NAVD 1988 datum; the well with the lowest groundwater elevation was AMW-1 at 14.36 feet above NAVD 1988 datum.

The wellhead elevation data along with depth to water measurements were used to calculate local groundwater flow direction and gradient. The direction of groundwater flow was to the southwest at a gradient of 0.02 feet per foot. A groundwater elevation contour map is included as Figure 3.

### B. Groundwater Analytical Data

TPH-g was detected in groundwater samples from AMW-2, AMW-3 and MW-3 at a maximum concentration of 87,000 micrograms per liter (µg/L) in monitoring well MW-3. TPH-ms was detected in groundwater samples from AMW-2, AMW-3 and MW-3 at a maximum concentration of 40,000 µg/L in the groundwater sample from monitoring well MW-3; however, this concentration probably represents TPH-g within the TPH-ms (C9-C12) range, since gasoline-range compounds were characterized as significant, and mineral spirits were not historically stored in the McGrath USTs.

TPH-d with gasoline range compounds characterized as significant was detected in groundwater samples from AMW-2, AMW-3 and MW-3 at a maximum concentration of 11,000 µg/L in the groundwater sample from MW-3.

Benzene, ethylbenzene and total xylenes were detected in AMW-2 and MW-3 at maximum concentrations of 5,500 µg/L, 2,000 µg/L, and 11,000 µg/L, all in the groundwater sample collected from monitoring well MW-3. Ethylbenzene was also detected in AMW-3 at a concentration of 9.3 µg/L. Toluene was detected in MW-3 at a concentration of 7,200.

MTBE was detected in AMW-2 and MW-3 at a maximum concentration of 4,400 µg/L in the groundwater sample from MW-3.

Other VOCs detected in groundwater samples from all wells during this investigation included tertiary butyl alcohol (TBA), naphthalene, n-propyl benzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 1,1-dichloroethene, and trichloroethene (TCE) at maximum respective concentrations of 1,500 µg/L, 480 µg/L, 340 µg/L, 2,600 µg/L, 780 µg/L, 240 µg/L, and 19 µg/L. These COCs were all detected in MW-3 except for 1,1-dichloroethene and TCE in AMW-3. Groundwater analytical results for total petroleum hydrocarbons and VOCs are summarized in Table 3 and Figures 4, 5 and 6.

PNAs/PAHs were detected in groundwater samples collected from AMW-2, AMW-3 and MW-3 during this investigation were 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene at maximum respective concentrations of 80 µg/L, 150 µg/L, and 360 µg/L in MW-3. PNA/PAH groundwater analytical results are summarized in Table 4. No other COCs were detected at or above laboratory reporting limits in any groundwater samples analyzed during this investigation. Laboratory analytical reports and chain of custody documents are included in Appendix C.

### C. Laboratory QA/QC

A review of groundwater laboratory internal quality assurance/quality control (QA/QC) reports indicates the method blank and sample spike data for all analyses were within the laboratory recovery limits. The samples were also analyzed within the acceptable EPA holding times. The data from the McCampbell Laboratories are considered to be of good quality. Laboratory analytical reports and chain-of-custody records are included in this report as Appendix C.

## VIII. DISCUSSION

Groundwater elevations increased by an average of approximately 1.56 feet between the fourth quarter 2013 and first quarter 2014 monitoring events (Table 2). Groundwater flow direction and gradient were consistent between the fourth quarter 2013 and first quarter 2014 monitoring events (Figure 3).

No free floating light non-aqueous phase liquid (LNAPL) hydrocarbons (free product) was measured or observed in monitoring well MW-3 in the former UST vicinity during the February 26 monitoring event or March 19 groundwater sampling event; sheen and droplets were observed in the passive product skimmer on both dates. The lateral extent of free product appears to be limited to monitoring well MW-3.

To assess if the identified constituents of concern (COCs) in soil and groundwater pose a risk to human health and the environment, concentrations were compared with ESLs for commercial/industrial land use where groundwater is not a potential drinking water

resource compiled by the SFRWQCB in *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater*, Interim Final – December 2013. Although the SFRWQCB *Basin Plan* has designated groundwater in the site vicinity as a potential drinking water resource (SFRWQCB, June 2013), groundwater in the subject site vicinity is not currently used as a drinking water resource. According to the City of Emeryville Public Works Department, a City ordinance prohibits use of groundwater for drinking water purposes due to widespread regional contamination, and no plans exist for future beneficial use.

AllWest compared groundwater sample analytical results to the SFRWQCB ESLs from *Table F-1b, Groundwater Screening Levels, Groundwater is not a Current or Potential Source of Drinking Water;* and *Table E-1, Groundwater Screening Levels for Evaluation of Potential Vapor Intrusion, Commercial/Industrial Land Use* (RWQCB, Interim Final – December 2013).

TPH-g was detected in concentrations exceeding its non-drinking water ESL of 500 µg/L in two groundwater samples collected during this monitoring event at a maximum concentration of 87,000 µg/L in monitoring well MW-3. TPH-ms was detected in concentrations exceeding its non-drinking water ESL of 500 µg/L in one groundwater sample collected during this investigation at a maximum concentration of 40,000 µg/L in monitoring well MW-3; however, this probably represents TPH-g within the TPH-ms range. TPH-d was detected in concentrations exceeding its non-drinking water ESL of 640 µg/L in one groundwater sample collected during this investigation at a concentration of 11,000 µg/L in monitoring well MW-3. Groundwater vapor intrusion ESLs have not been established for TPH-g, TPH-ms or TPH-d.

Benzene was detected at concentrations exceeding its non-drinking water ESL of 27 µg/L in two groundwater samples, and exceeding its vapor intrusion ESL of 270 µg/L in one sample at a concentration of 5,500 µg/L in MW-3. Toluene was detected at a concentration exceeding its non-drinking ESL of 130 µg/L in one groundwater sample, at a concentration of 7,200 µg/L in MW-3. The commercial/industrial vapor intrusion ESL has not been established for toluene; however, it was not detected at a concentration exceeding its residential vapor intrusion ESL of 95,000 µg/L. Ethylbenzene was detected at a concentration exceeding its non-drinking water ESL of 43 µg/L in one groundwater sample at a maximum concentration of 2,000 µg/L in monitoring well MW-3, but not exceeding its vapor intrusion ESL of 3,100 µg/L. Total xylenes were detected at concentrations exceeding its non-drinking water ESL of 100 µg/L in one groundwater sample, at a maximum concentration of 11,000 µg/L in monitoring well MW-3. The commercial/industrial vapor intrusion ESL has not been established for xylenes; however, it was not detected at a concentration exceeding its residential vapor intrusion ESL of 37,000 µg/L. MTBE was detected at a concentration exceeding its non-drinking ESL of 1,800 µg/L in one groundwater sample at a concentration of 4,400 in MW-3. MTBE did not exceed its vapor intrusion ESL of 100,000 µg/L in any of the groundwater samples collected.

2-methylnaphthalene was detected at concentrations exceeding its non-drinking water ESL of 2.1 µg/L in three groundwater samples, at a maximum concentration of 150 µg/L in MW-3. Vapor intrusion ESLs have not been established for 2-methylnaphthalene. Naphthalene was detected at concentrations exceeding its non-drinking water ESL of 24 µg/L in one groundwater sample; naphthalene did not exceed its vapor intrusion ESL of 1,600 µg/L in any of the groundwater samples collected. No other COCs were detected in groundwater samples analyzed in this investigation at concentrations exceeding established applicable ESLs. Groundwater analytical data and drinking water, non-drinking water and vapor intrusion ESLs are summarized in Tables 3 and 4. TPH-g, TPH-d and benzene isoconcentration maps are shown as Figures 4, 5 and 6, respectively.

## IX. CONCLUSIONS AND RECOMMENDATIONS

AllWest conducted quarterly monitoring of four groundwater monitoring wells (AMW-1, AMW-2, AMW-3 and MW-3) at the subject site to further assess the extent of LNAPL, adsorbed and dissolved-phase petroleum hydrocarbons in groundwater in the vicinity of the former UST and dispenser source area at the subject property, and in the hydraulically down-gradient and cross-gradient directions.

TPH-g, TPH-ms, TPH-d, benzene, toluene, ethylbenzene and total xylenes (BTEX), MTBE, 2-methylnaphthalene and naphthalene were identified in groundwater samples at concentrations exceeding corresponding and applicable SFRWQCB commercial/industrial non-drinking water ESL values. Benzene was detected in groundwater sample MW-1 exceeding corresponding commercial/industrial vapor intrusion ESLs. Therefore, a potential soil vapor intrusion impact to indoor air quality may occur within the former McGrath Steel warehouse building at 1471 67$^{th}$ Street and the MetalCo building at 1475 67$^{th}$ Street, located adjacent to the areas of elevated COC concentrations.

The down-gradient extent of the adsorbed and dissolved phase petroleum hydrocarbon plume in soil and groundwater is largely defined and extends from the vicinity of the former McGrath Steel USTs to the west along 67$^{th}$ Street to the vicinity of monitoring well AMW-1 west of the former Clearprint Paper Company USTs. The highest COC concentrations occur in monitoring well MW-3 in the vicinity of the former McGrath Steel USTs. The cross-gradient extent of the adsorbed and dissolved phase hydrocarbon plume has not been fully defined, particularly south of 67$^{th}$ Street. Measurable free product thickness was not observed in well MW-3 during this quarter, although product droplets and sheen were observed in the passive skimming device.

AllWest recommends continuing quarterly groundwater monitoring at the subject site in the monitoring wells AMW-1, AMW-2, AMW-3, and MW-3. AllWest also recommends continuing interim remedial action of free product in monitoring well MW-3 following the installation of a passive product skimming device placed in the well on December 31, 2013. AllWest recommends inspecting the passive skimmer on a monthly basis, and

emptying it of product if necessary. Depending on product recovery rates, this may be reduced to a quarterly interval if warranted. Recovered product will be contained in a drum onsite pending profiling for transport to an off-site disposal facility.

## X. LIMITATIONS

The work described in this report is performed in accordance with the Environmental Consulting Agreement between MCG Investments, LLC (Client) and AllWest Environmental, Inc, dated February 2014. AllWest has prepared this report for the exclusive use of the Client for this particular project and in accordance with generally accepted practices at the time of the work. No other warranties, certifications or representations, either expressed or implied are made as to the professional advice offered. The services provided for the Client were limited to their specific requirements; the limited scope allows for AllWest to form no more than an opinion of the actual site conditions. No matter how much research and sampling may be performed, the only way to know about the actual composition and condition of the subsurface of a site is through excavation.

The conclusions and recommendations contained in this report are made based on observed conditions existing at the site, laboratory test results of the submitted samples, and interpretation of a limited data set. It must be recognized that changes can occur in subsurface conditions due to site use or other reasons. Furthermore, the distribution of chemical concentrations in the subsurface can vary spatially and over time. The results of chemical analysis are valid as of the date and at the sampling location only. AllWest is not responsible for the accuracy of the test data from an independent laboratory, or for any analyte quantities falling below the recognized standard detection limits or for the method utilized by the independent laboratories.

Background information that AllWest has used in preparing this report, including but not limited to previous field measurements, analytical results, site plans, and other data, has been furnished to AllWest by the Client, its previous consultants, and/or third parties. AllWest has relied on this information as furnished. AllWest is not responsible for nor has it confirmed the accuracy of this information.

## XI. REFERENCES

Alameda County Environmental Health Services, 2005. *Fuel Leak Site Case Closure, Clearprint Paper Co.* June 27.

AllWest Environmental, Inc. (AllWest), 2011. *Additional Site Characterization and Interim Remedial Action Workplan, Former McGrath Steel, 6655 Hollis Street, and 1471 67th Street, Emeryville, California, 94608.* September 27.

AllWest, 2012a. *Additional Site Characterization Workplan Addendum, Former McGrath Steel, 6655 Hollis Street, and 1471 67th Street, Emeryville, California, 94608.* July 31.

AllWest, 2012b. *Third Quarter 2012 Groundwater Monitoring, Former McGrath Steel, 6655 Hollis Street, Emeryville, California 94608.* August 23.

AllWest, 2013a *Fourth Quarter 2012 Groundwater Monitoring, Former McGrath Steel, 6655 Hollis Street, Emeryville, California 94608.* January 9.

AllWest, 2013b. *Subsurface Investigation, Former McGrath Steel, 6655 Hollis Street, Emeryville, California.* February 4.

AllWest, 2013c. *First Quarter 2013 Groundwater Monitoring, Former McGrath Steel, 6655 Hollis Street, Emeryville, California 94608.* April 18.

AllWest, 2013d. *Second Quarter 2013 Groundwater Monitoring, Former McGrath Steel, 6655 Hollis Street, Emeryville, California 94608.* July 11.

AllWest, 2013e. *Additional Site Characterization and Monitoring Well Installation Report, Former McGrath Steel, 6655 Hollis Street, Emeryville, California,* August 30.

AllWest, 2014. *Fourth Quarter 2013 Groundwater Monitoring, Former McGrath Steel, 6655 Hollis Street, Emeryville, California.* January 8.

California Regional Groundwater Quality Control Board, San Francisco Bay Region (SFRWQCB), 1999. *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report*. June.

SFRWQCB, 2013. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, Interim Final – May 2013

SFRWQCB, 2013. *Water Quality Control Plan (Basin Plan)*, June 29.

Environmental Strategies Consulting, Inc. (ESC), 2005. *Groundwater Well Destruction at Former Clearprint Paper Company, Inc. Located at 1482 67th Street in Emeryville, California*, June 23.

Stellar Environmental Solutions, Inc. (Stellar), 2011. *Phase I Environmental Site Assessment, 6655 Hollis Street, Emeryville, California.* June.

Subsurface Environmental Corp., 1996. *Tank Removal Closure Report*. September 16.

Weiss Associates (WA), 1998. *Subsurface Investigation Report*. August 5.

WA, 2006. *Site Characterization Report*. March 2.

# TABLES

**TABLE 1**

**Summary of Well Construction Details**

Former McGrath Steel

6655 Hollis Street

Emeryville, California

AllWest Project No. 13019.23

| Well Number | Casing Diameter (inches) | Borehole Diameter (inches) | Total Depth of Well (feet bgs) | Top-Bottom of Screen (feet bgs) | Screen Length (feet) | Top-Bottom of Filter Pack (feet bgs) |
|---|---|---|---|---|---|---|
| | | | | | | |
| **MW-3** | 2 | 8 | 29 | 9-29 | 20 | 7-29.5 |
| **AMW-1** | 2 | 8 | 24 | 9-24 | 15 | 7-24 |
| **AMW-2** | 2 | 8 | 24 | 9-24 | 15 | 7-24 |
| **AMW-3** | 2 | 8 | 23 | 8-23 | 15 | 6-23 |

**Notes:**

bgs below ground surface

**TABLE 2**

**Summary of Groundwater Elevation Data**

Former McGrath Steel

6655 Hollis Street

Emeryville, California

AllWest Project No. 14011.28

| Well Number | Date | TOC Elevation (feet msl) | Ground Surface Elevation (feet msl) | Depth to Groundwater (feet below TOC) | Product Thickness (feet) | Groundwater Surface Elevation (feet msl)[a] |
|---|---|---|---|---|---|---|
| | | | | | | |
| MW-3 | 10/17/1995 | 22.73 | 23.17 | 9.42 | 0.00 | 13.31 |
| MW-3 | 11/21/1995 | 22.73 | 23.17 | 9.85 | 0.00 | 12.88 |
| MW-3 | 12/23/1995 | 22.73 | 23.17 | 8.52 | 0.00 | 14.21 |
| MW-3 | 1/15/1996 | 22.73 | 23.17 | 8.72 | 0.00 | 14.01 |
| MW-3 | 2/16/1996 | 22.73 | 23.17 | 7.08 | 0.04 | 15.68 |
| MW-3 | 3/28/1996 | 22.73 | 23.17 | 6.78 | 0.03 | 15.97 |
| MW-3 | 8/22/2005 | 22.73 | 23.17 | 12.36 | 0.00 | 10.37 |
| MW-3 | 12/20/2005 | 22.73 | 23.17 | 10.82 | 0.00 | 11.91 |
| MW-3 | 9/14/2011* | 22.73 | 23.17 | 11.05 | 3 | 13.93 |
| MW-3 | 7/30/2012 | 22.73 | 23.17 | 11.52 | 2.65 | 13.20 |
| MW-3 | 8/2/2012 | 22.73 | 23.17 | 9.22 | 1.12 | 14.35 |
| MW-3 | 12/18/2012 | 22.73 | 23.17 | 8.91 | 0.00 | 13.82 |
| MW-3 | 3/27/2013 | 22.73 | 23.17 | 8.57 | 0.20 | 14.31 |
| MW-3 | 6/27/2013 | 22.73 | 23.17 | 9.90 | 0.00 | 12.83 |
| MW-3 | 8/7/2013 | 25.55 | 26.00 | 9.09 | 0.41 | 16.77 |
| MW-3 | 11/6/2013 | 25.55 | 26.00 | 9.30 | 0.15 | 16.36 |
| MW-3 | 12/31/2013* | 25.55 | 26.00 | 9.16 | 0.01 | 16.40 |
| **MW-3** | **2/26/2014*** | **25.55** | **26.00** | **8.92** | **0.00** | **16.63** |
| **MW-3** | **3/19/2014** | **25.55** | **26.00** | **8.81** | **0.00** | **16.74** |
| | | | | | | |
| AMW-1 | 8/7/2013 | 22.09 | 22.54 | 9.54 | 0.00 | 12.55 |
| AMW-1 | 11/6/2013 | 22.09 | 22.54 | 9.62 | 0.00 | 12.47 |
| **AMW-1** | **3/19/2014** | **22.09** | **22.54** | **7.73** | **0.00** | **14.36** |
| | | | | | | |
| AMW-2 | 8/7/2013 | 23.43 | 23.73 | 9.96 | 0.00 | 13.47 |
| AMW-2 | 11/6/2013 | 23.43 | 23.73 | 10.36 | 0.00 | 13.07 |
| **AMW-2** | **3/19/2014** | **23.43** | **23.73** | **8.50** | **0.00** | **14.93** |
| | | | | | | |
| AMW-3 | 8/7/2013 | 25.16 | 25.50 | 8.94 | 0.00 | 16.22 |
| AMW-3 | 11/6/2013 | 25.16 | 25.50 | 9.34 | 0.00 | 15.82 |
| **AMW-3** | **3/19/2014** | **25.16** | **25.50** | **7.25** | **0.00** | **17.91** |

**TABLE 2**

**Summary of Groundwater Elevation Data**

Former McGrath Steel

6655 Hollis Street

Emeryville, California

AllWest Project No. 14011.28

| Well Number | Date | TOC Elevation (feet msl) | Ground Surface Elevation (feet msl) | Depth to Groundwater (feet below TOC) | Product Thickness (feet) | Groundwater Surface Elevation (feet msl)[a] |
|---|---|---|---|---|---|---|

**Notes:**

| | |
|---|---|
| * | Groundwater level measurement only, no sampling |
| TOC | Top of Well Casing |
| feet msl | Well MW-3 ground surface and TOC elevations surveyed to feet above mean sea level (msl) per City of Emeryville Datum, BM#5 by Triad/Holmes Associates October 17, 1995. All ground surface and TOC elevations re-surveyed to NAD 1983 and NAVD 1988 datum by Morrow Surveying, Inc., August 13, 2013. |
| a | Groundwater elevation corrected for free product thickness, assuming density of 0.75 for gasoline. |
| NM | Not Measured |

**TABLE 3**
**Summary of Groundwater Analytical Data**
**Total Petroleum Hydrocarbons and VOCs**
Former McGrath Steel
6655 Hollis Street
Emeryville, California
AllWest Project No. 13166.28

| Sample / Field Point | Date Sampled | TPH-g (µg/L) | TPH-ms (µg/L) | TPH-d (µg/L) | TPH-mo (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethyl-benzene (µg/L) | Total Xylenes (µg/L) | MTBE (µg/L) | Other VOCs (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **MW-3** | 10/17/1995 | **8,600** | ND <100 | **220** | NA | **730** | **2,100** | **270** | **1,400** | NA | NA |
| **MW-3** | 8/22/2005 | **39,000** | NA | **2,500** | NA | **3,100** | **3,800** | **1,100** | **4,700** | **7,200** | Oxygenates - ND (varies) |
| qualifiers | | | | L,Y | | | | | | | |
| **MW-3** | 12/20/2005 | **54,000** | NA | **2,600** | NA | **6,000** | **10,000** | **1,700** | **9,600** | **12,000** | Oxygenates - ND (varies) |
| qualifiers | | | | L,Y | | | | | | | |
| **MW-3** | 8/2/2012 | **27,000** | **14,000** | **33,000** | **680** | **1,300** | **3,800** | **400** | **4,500** | **630** | **400 (TBA), 110 (trans-1,3-dichloropropene), 250 (naphthalene), 1,100 (1,2,4-trimethylbenzene), 280 (1,3,5-trimethylbenzene),** ND (others - varies) |
| qualifiers | | | d1 | e4, e2 | e4, e2 | | | | | | |
| **MW-3** | 12/18/2012 | **21,000** | **12,000** | **2,600** | ND <250 | **830** | **1,400** | **450** | **2,600** | **840** | **140 (naphthalene), 630 (1,2,4-trimethylbenzene), 78 (n-propyl benzene), 190 (1,3,5-trimethylbenzene),** ND (others - varies) |
| qualifiers | | | d1 | e4 | e4 | | | | | | |
| **MW-3** | 6/27/2013 | **18,000** | NA | **2,300** | NA | **1,900** | **2,000** | **540** | **2,700** | **1,900** | **520 (TBA), 170 (naphthalene), 650 (1,2,4-trimethylbenzene), 84 (n-propyl benzene), 200 (1,3,5-trimethylbenzene), ND, reporting limits vary (others)** |
| qualifiers | | | | e4 | | | | | | | |
| **MW-3** | 8/7/2013 | **130,000** | **54,000** | **24,000** | NA | **9,800** | **16,000** | **4,200** | **24,000** | **6,300** | **1,100 (naphthalene), 5,200 (1,2,4-trimethylbenzene), 620 (n-propyl benzene), 1,500 (1,3,5-trimethylbenzene),** others ND, reporting limits vary |
| qualifiers | | d1, b6 | d1, b6 | e4, b6 | | b6, c8 | b6, c8 | b6, c8 | b6, c8 | b6, c8 | b6, c8 |
| **MW-3** | 11/6/2013 | **49,000** | **19,000** | **6,400** | NA | **3,200** | **4,900** | **2,100** | **11,000** | **2,600** | **700 (TBA), 140 (n-butyl benzene), 130 (isopropylbenzene), 690 (naphthalene), 460 (n-propyl benzene), 3,200 (1,2,4-trimethylbenzene) 1,000 (1,3,5-trimethylbenzene),** others ND, reporting limits vary |
| qualifiers | | d1, b6 | d1, b6 | e4 | | c8 | c8 | c8 | c8 | c8 | c8 |
| **MW-3** | 3/19/2014 | **87,000** | **40,000** | **11,000** | NA | **5,500** | **7,200** | **2,000** | **11,000** | **4,400** | **1,500 (TBA), 480 (naphthalene), 340 (n-propyl benzene), 2,600 (1,2,4-trimethylbenzene) 780 (1,3,5-trimethylbenzene),** others ND, reporting limits vary |
| qualifiers | | d1 | d1 | e4 | | | | | | | |
| | | | | | | | | | | | |
| **AMW-1** | 8/7/2013 | ND <50 | ND <50 | **110** | NA | ND <1.2 | ND <1.2 | ND <1.2 | ND <1.2 | **2.5** | **2.0 (1,1-dichloroethane), 39 (1,1-dichloroethene), 7.3 (TCE),** ND (others, reporting limits vary) |
| qualifiers | | b1 | b1 | e7, e1, b1 | | b1 | b1 | b1 | b1 | b1 | b1 |

**TABLE 3**
**Summary of Groundwater Analytical Data**
**Total Petroleum Hydrocarbons and VOCs**
Former McGrath Steel
6655 Hollis Street
Emeryville, California
AllWest Project No. 13166.28

| Sample / Field Point | Date Sampled | TPH-g (µg/L) | TPH-ms (µg/L) | TPH-d (µg/L) | TPH-mo (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethyl-benzene (µg/L) | Total Xylenes (µg/L) | MTBE (µg/L) | Other VOCs (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **AMW-1** | 11/6/2013 | ND <50 | ND <50 | ND <50 | NA | ND <1.0 | ND <1.0 | ND <1.0 | ND <1.0 | **2.4** | **2.0 (1,1-dichloroethane), 50 (1,1-dichloroethene), 7.6 (TCE),** ND (others, reporting limits vary) |
| qualifiers | | c4 | c4 | | | | | | | | |
| **AMW-1** | 3/19/2014 | ND <50 | ND <50 | ND <50 | NA | ND <5.0 | ND <5.0 | ND <5.0 | ND <5.0 | ND <5.0 | **83 (1,1-dichloroethene), 7.2 (TCE),** ND (others, reporting limits vary) |
| qualifiers | | c2, b1 | c2, b1 | b1 | | b1 | b1 | b1 | b1 | b1 | b1 |
| | | | | | | | | | | | |
| **AMW-2** | 8/7/2013 | **1,300** | **550** | **210** | NA | **66** | **74** | **48** | **280** | **350** | **22 (naphthalene), 46 (1,2,4-trimethylbenzene), 6.4 (n-propyl benzene), 29 (1,3,5-trimethylbenzene,** ND (others, reporting limits vary) |
| qualifiers | | d1, b1 | d1, b1 | e4, e2, b1 | | b1 | b1 | b1 | b1 | b1 | b1 |
| **AMW-2** | 11/6/2013 | **2,200** | **1,400** | **330** | NA | **130** | **16** | **120** | **270** | **330** | **7.2 (n-butyl benzene), 7.2 (isopropylbenzene), 54 (naphthalene), 23 (n-propyl benzene), 150 (1,2,4-trimethylbenzene), 49 (1,3,5-trimethylbenzene,** ND (others, reporting limits vary) |
| qualifiers | | d1 | d1 | e4 | | | | | | | |
| **AMW-2** | 3/19/2014 | **550** | **430** | **190** | NA | **30** | ND <5.0 | **17** | **19** | **300** | **14 (naphthalene), 6.2 (n-propyl benzene), 38 (1,2,4-trimethylbenzene), 6.0 (1,3,5-trimethylbenzene,** ND (others, reporting limits vary) |
| qualifiers | | d1 | d1 | e4 | | | | | | | |
| | | | | | | | | | | | |
| **AMW-3** | 8/7/2013 | **2,000** | **1,000** | **340** | NA | **17** | **72** | **83** | **360** | ND <5.0 | **7.4 (n-butyl benzene), 18 (naphthalene), 76 (1,2,4-trimethylbenzene), 5.2 (1,1-dichloroethane), 140 (1,1-dichloroethene), 18 (n-propyl benzene), 5.3 (1,1,1-trichloroethane), 20 (TCE), 39 (1,3,5-trimethylbenzene),** ND (others, reporting limits vary) |
| qualifiers | | d1, b1 | d1, b1 | e4, e2, b1 | | | | | | | |
| **AMW-3** | 11/6/2013 | **110** | **99** | **130** | NA | ND <5.0 | ND <5.0 | ND <5.0 | ND <5.0 | ND <5.0 | **5.4 (1,1-dichloroethane), 180 (1,1-dichloroethene), 6.1 (1,1,1-trichloroethane), 22 (TCE),** ND (others, reporting limits vary) |
| qualifiers | | d1, c4 | d1, c4 | e4 | | c8 | c8 | c8 | c8 | c8 | c8 |
| **AMW-3** | 3/19/2014 | **140** | **110** | **130** | NA | ND <5.0 | ND <5.0 | **9.3** | ND <5.0 | ND <5.0 | **240 (1,1-dichloroethene), 9.0 (naphthalene), 19 (TCE),** ND (others, reporting limits vary) |
| qualifiers | | d1, c4 | d1, c4 | e4 | | | | | | | c8 |
| RWQCB Commercial/Industrial ESLs, drinking water* | | **100** | **100** | **100** | **100** | **1.0** | **40** | **30** | **20** | **5.0** | **0.5 (1,2-DCA), 12 (TBA), 5.0 (TCE), 0.5 (1,3-dichloropropene) 6.1 (naphthalene) NE or varies (others)** |
| RWQCB Commercial/Industrial ESLs, non-drinking water* | | **500** | **500** | **640** | **640** | **27** | **130** | **43** | **100** | **1,800** | **100 (1,2-DCA), 18,000 (TBA), 130 (TCE), 24 (1,3-dichloropropene) 24 (naphthalene) NE or vary (others)** |
| RWQCB Commercial/Industrial ESLs, vapor intrusion | | **NE** | **NE** | **NE** | **NE** | **270** | **NE (95,000**)** | **3,100** | **NE (37,000**)** | **100,000** | **1,000 (1,2-DCA), 1,300 (TCE), 260 (1,3-dichloropropene) 1,600 (naphthalene) NE or vary (others)** |

**TABLE 3**
**Summary of Groundwater Analytical Data**
**Total Petroleum Hydrocarbons and VOCs**
Former McGrath Steel
6655 Hollis Street
Emeryville, California
AllWest Project No. 13166.28

| Sample / Field Point Name | Date Sampled | TPH-g (µg/L) | TPH-ms (µg/L) | TPH-d (µg/L) | TPH-mo (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethyl-benzene (µg/L) | Total Xylenes (µg/L) | MTBE (µg/L) | Other VOCs (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|

**Notes:**

All results are reported in micrograms per liter (µg/L) except where noted.

| | |
|---|---|
| 1,2-DCA | 1,2-dichloroethane, Analytical Method SW8260B |
| TCE | trichloroethene, Analytical Method SW8260B |
| TPH-g | Total petroleum hydrocarbons as gasoline, Analytical Method SW8260B, except samples collected on 10/17/95, 8/22/05 and 12/20/05 Analytical Method SW8015Bm |
| TPH-ms | Total petroleum hydrocarbons Mineral Spirits Range (C9-C12), Analytical Method SW8015Bm |
| TPH-d | Total petroleum hydrocarbons as diesel, C10-C23, Analytical Method SW8015B with silica gel cleanup |
| TPH-mo | Total petroleum hydrocarbons as motor oil, C18-C36, Analytical Method SW8015B with silica gel cleanup |
| MTBE | Methyl tertiary butyl ether, Analytical Method SW8260B |
| TBA | Tertiary butyl alcohol, Analytical Method SW8260B |
| BTEX | Benzene, Toluene, Ethylbenzene, Xylenes, Analytical Method SW8021B on 10/17/95 only; Analytical Method SW8260B on all other dates |
| VOCs | Volatile organic compounds, Analytical Method SW8260B |
| ND <100 | Not detected at or above listed reporting limit |
| NE | Not established |
| NA | Not analyzed |

San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for groundwater where groundwater is a potential drinking water resource from Table F-1a, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*. RWQCB, Interim Final - December 2013.

San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for groundwater where groundwater is not a potential drinking water resource from Table F-1b, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* . RWQCB, Interim Final - December 2013.

San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Groundwater Screening Levels for Evaluation of Potential Vapor Intrusion (Volatile Chemicals Only), commercial/industrial land use, fine-coarse mix from Table E-1, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* . RWQCB, Interim Final - December 2013.

* The subject site lies within the City of Emeryville, where groundwater use as a drinking water resource is currently prohibited by City ordinance due to widespread regional contamination, and no plans exist for future benefical groundwater use.

** Residential vapor intrusion ESL - commercial ESL for vapor intrusion not established, soil gas sampling recommended.

Laboratory Qualifiers:

L - lighter hydrocarbons contributed to the quantitation
Y - sample exhibits chromatographic pattern which does not resemble standard
b1 - aqueous sample that contains greater than ~1 vol. % sediment
b6 - lighter than water immiscible sheen/product is present
c2 - low surrogate recovery caused by matrix interference.
c4 - surrogate recovery outside of the control limits due to coelution with another peak(s)/cluttered chromatogram.
c8 - sample pH is greater than 2
d1 - weakly modified or unmodified gasoline is significant
d2 - heavier gasoline range compounds are significant (aged gasoline?)
e2 - diesel range compounds are significant; no recognizable pattern
e4 - gasoline-range compounds are significant
e7 - oil range compounds are significant

**TABLE 4**
**Summary of Groundwater Analytical Data**
**PNAs/PAHs**
Former McGrath Steel
6655 Hollis Street
Emeryville, California
AllWest Project No. 13166.28

| Sample / Field Point Name | Date Sampled | Benzo (a) anthracene (µg/L) | Fluoranthene (µg/L) | 1-Methylnaphthalene (µg/L) | 2-Methylnaphthalene (µg/L) | Naphthalene (µg/L) | Phenanthrene (µg/L) | Pyrene (µg/L) | Other PNAs/PAHs (µg/L) |
|---|---|---|---|---|---|---|---|---|---|
| MW-3 | 8/7/2013 | ND <50 | ND <50 | **390** | **710** | **890** | ND <50 | ND <50 | ND <50 |
| qualifiers | b6 | | | | | | | | |
| MW-3 | 11/6/2013 | ND <25 | ND <25 | **330** | **620** | **1,100** | ND <25 | ND <25 | ND <25 |
| qualifiers | c1 | | | | | | | | |
| MW-3 | 3/19/2014 | ND <10 | ND <10 | **80** | **150** | **360** | ND <10 | ND <10 | ND <10 |
| | | | | | | | | | |
| AMW-1 | 8/7/2013 | ND <0.5 | ND <0.5 | ND <0.5 | ND <0.5 | ND <0.5 | ND <0.5 | ND <0.5 | ND <0.5 |
| qualifiers | b1 | | | | | | | | |
| AMW-1 | 11/6/2013 | ND <0.50 | ND <0.50 | ND <0.50 | ND <0.50 | ND <0.50 | ND <0.50 | ND <0.50 | ND <0.50 |
| AMW-1 | 3/19/2014 | ND <0.50 | ND <0.50 | ND <0.50 | ND <0.50 | ND <0.50 | ND <0.50 | ND <0.50 | ND <0.50 |
| | | | | | | | | | |
| AMW-2 | 8/7/2013 | ND <0.5 | ND <0.5 | **1.5** | **1.6** | **7.7** | ND <0.5 | ND <0.5 | ND <0.5 |
| qualifiers | b1 | | | | | | | | |
| AMW-2 | 11/6/2013 | ND <0.50 | ND <0.50 | **5.4** | **9.2** | **26** | ND <0.50 | ND <0.50 | ND <0.50 |
| AMW-2 | 3/19/2014 | ND <0.50 | ND <0.50 | **2.3** | **2.6** | **13** | ND <0.50 | ND <0.50 | ND <0.50 |
| | | | | | | | | | |
| AMW-3 | 8/7/2013 | ND <0.5 | ND <0.5 | **3.2** | ND <0.5 | ND <0.5 | ND <0.5 | ND <0.5 | ND <0.5 |
| qualifiers | b1 | | | | | | | | |
| AMW-3 | 11/6/2013 | ND <0.50 | ND <0.50 | **1.5** | **2.6** | **7.5** | ND <0.50 | ND <0.50 | ND <0.50 |
| AMW-3 | 3/19/2014 | ND <0.50 | ND <0.50 | **2.7** | **2.8** | **6.3** | ND <0.50 | ND <0.50 | ND <0.50 |
| RWQCB Commercial/Industrial ESLs, drinking water* | | **0.027** | **8.0** | **NE** | **2.1** | **6.1** | **4.6** | **2.0** | **Vary** |
| RWQCB Commercial/Industrial ESLs, non-drinking water* | | **0.027** | **8.0** | **NE** | **2.1** | **24** | **4.6** | **2.0** | **Vary** |
| RWQCB Commercial/Industrial ESLs, vapor intrusion | | **NE** | **NE** | **NE** | **NE** | **1,600** | **NE** | **NE** | **Vary** |

**Notes:** All results are reported in micrograms per liter (µg/L) except where noted.

All samples analyzed by McCampbell Analytical, Inc., Pittsburg, California

PNAs/PAHs = Polynuclear Aromatic Hydrocarbons/Polycyclic Aromatic Hydrocarbons by analytical method SW8270C-SIM

ND <0.50 - Not detected at or above listed reporting limit

NE - Not established

San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for groundwater where groundwater is a potential drinking water resource from Table F-1a, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater.* RWQCB, Interim Final - December 2013.

San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for groundwater where groundwater is not a potential drinking water resource from Table F-1b, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater.* RWQCB, Interim Final - December 2013.

San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESLs) for evaluation of potential vapor intrusion, commercial/industrial land use, fine-coarse mix from Table E-1, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater.* RWQCB, Interim Final - December 2013.

Laboratory Qualifiers:

b1 - Aqueous sample that contains greater than ~1 vol. % sediment

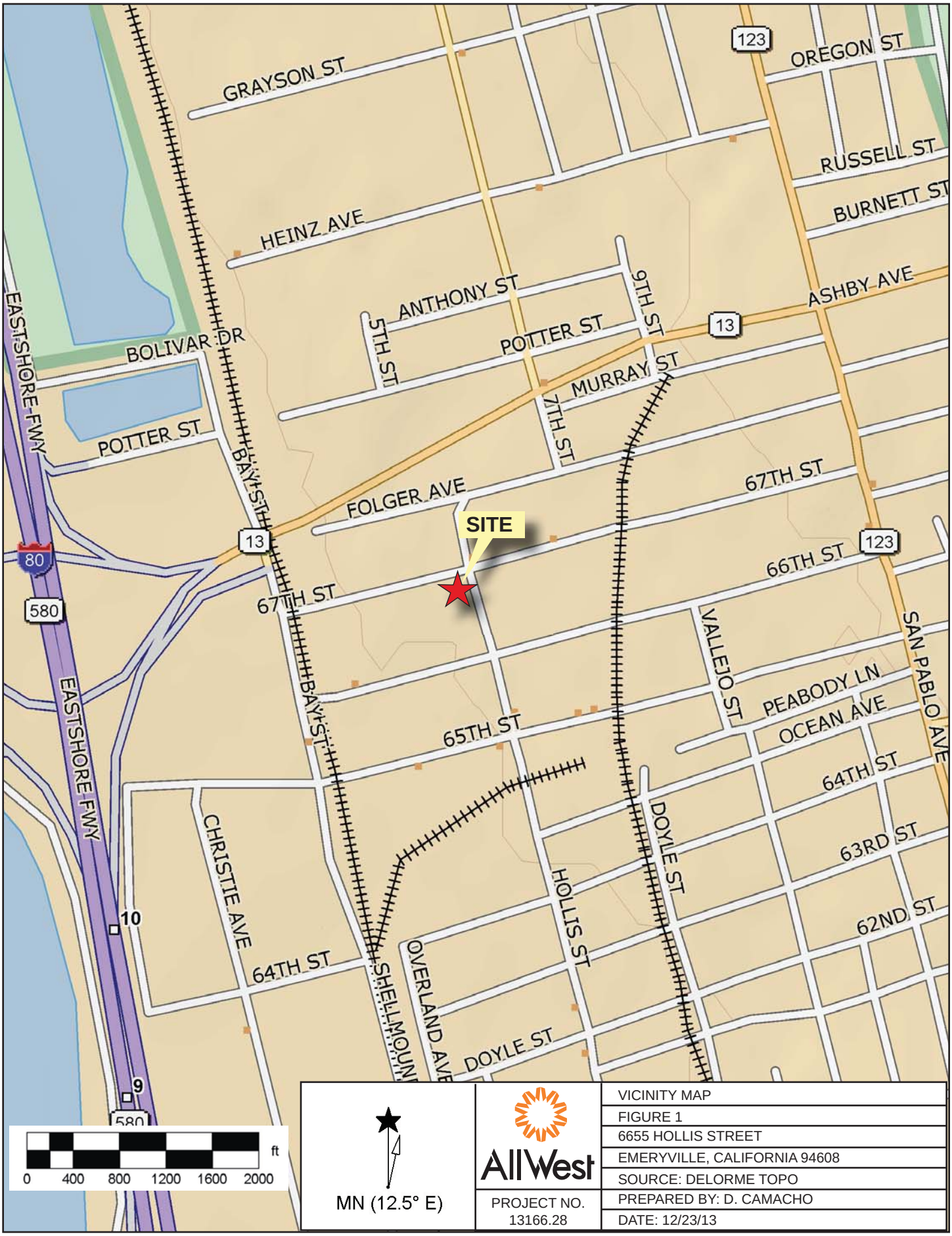
b6 - Lighter than water immiscible sheen/product is present.

c1 - surrogate recovery outside of the control limits due to the dilution of the sample.

# FIGURES

DELORME

Topo USA® 8

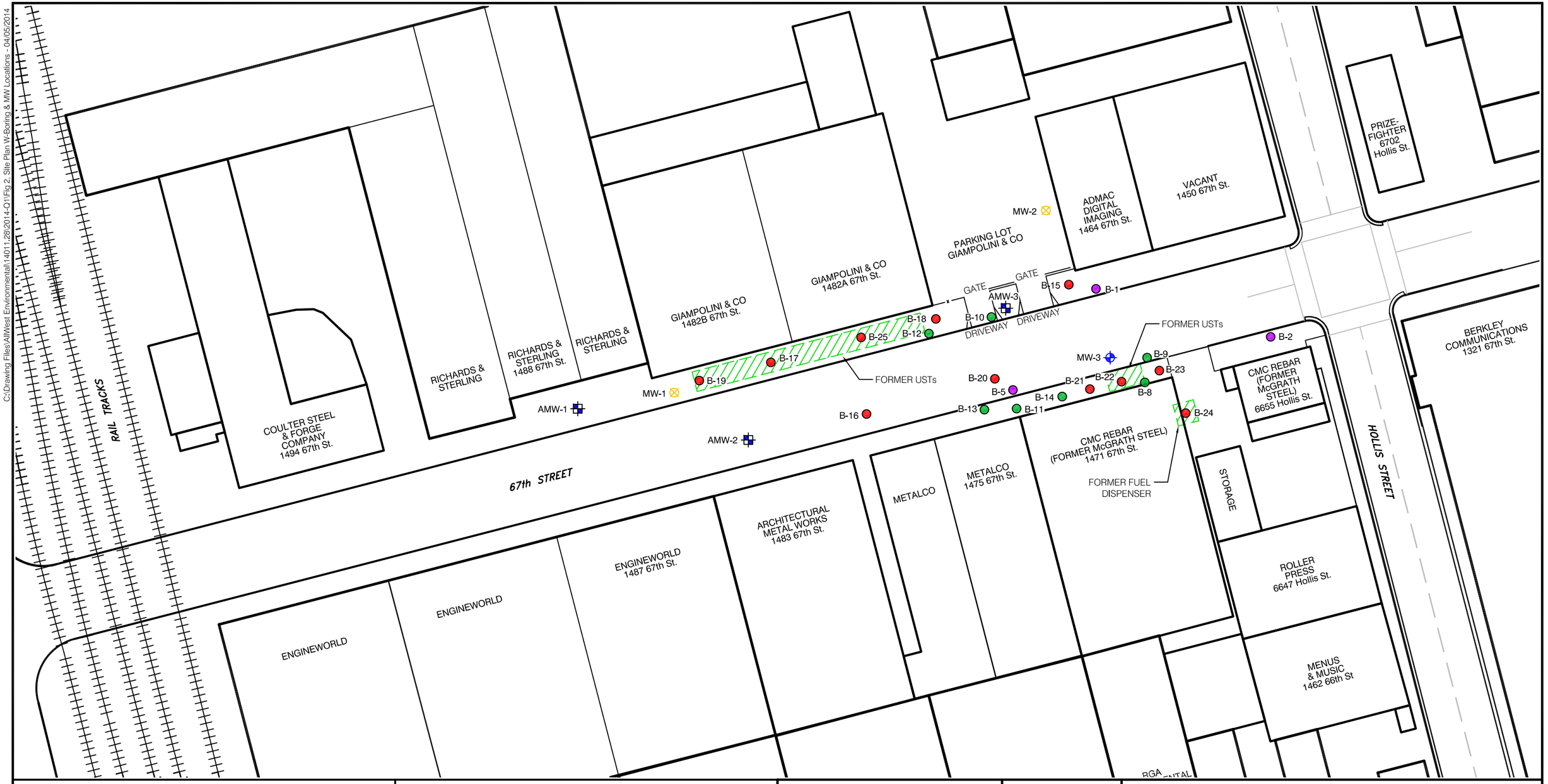



AllWest

PROJECT NO. 13166.28

| |
|---|
| VICINITY MAP |
| FIGURE 1 |
| 6655 HOLLIS STREET |
| EMERYVILLE, CALIFORNIA 94608 |
| SOURCE: DELORME TOPO |
| PREPARED BY: D. CAMACHO |
| DATE: 12/23/13 |

C:\Drawing Files\AllWest Environmental\14011.28\2014-Q1\Fig 2, Site Plan W-Boring & MW Locations - 04/05/2014




## LEGEND

- MW-2 — MONITORING WELL (CLEARPRINT/ESC - DESTROYED, 2005)
- MW-3 — MONITORING WELL (ESC, 1995)
- AMW-3 — MONITORING WELL (ALLWEST, 2013)
- B-5 — SOIL BORING (WEISS ASSOCIATES, 1998)
- B-14 — SOIL BORING (WEISS ASSOCIATES, 2005)
- B-25 — SOIL BORING (JANUARY 16, 17, & 18, 2013)

- FORMER USTs, FUEL DISPENSERS (REMOVED 1994 & 1996)
- x — FENCE

N

0 60 120

APPROXIMATE SCALE IN FEET

AllWest

PROJECT NO. 14011.28

# FIGURE 2
## SITE PLAN WITH BORING AND MONITORING WELL LOCATIONS

Former McGrath Steel

6655 Hollis Street, Emeryville, California

SOURCE: Morrow Surveying and Google Earth

DRAWN BY: CM (04/07/2014)

C:\Drawing Files\AllWest Environmental\14011.28\2014-Q1\Fig 3. GW Elevation Contours 03-19-2014 - 04/07/2014

RAIL TRACKS

67th STREET

HOLLIS STREET

COULTER STEEL & FORGE COMPANY 1494 67th St.

RICHARDS & STERLING

RICHARDS & STERLING 1488 67th St.

RICHARDS & STERLING

GIAMPOLINI & CO 1482B 67th St.

GIAMPOLINI & CO 1482A 67th St.

PARKING LOT GIAMPOLINI & CO

ADMAC DIGITAL IMAGING 1464 67th St.

VACANT 1450 67th St.

PRIZE-FIGHTER 6702 Hollis St.

BERKLEY COMMUNICATIONS 1321 67th St.

CMC REBAR (FORMER McGRATH STEEL) 6655 Hollis St.

CMC REBAR (FORMER McGRATH STEEL) 1471 67th St.

METALCO

METALCO 1475 67th St.

STORAGE

ROLLER PRESS 6647 Hollis St.

MENUS & MUSIC 1462 66th St

ENGINEWORLD

ENGINEWORLD

ENGINEWORLD 1487 67th St.

ARCHITECTURAL METAL WORKS 1483 67th St.

APPARENT GW FLOW AVG GRAD = 0.02

FORMER USTs

FORMER USTs

FORMER FUEL DISPENSER

GATE

GATE

DRIVEWAY

DRIVEWAY

MW-1

MW-2

MW-3 16.74

AMW-1 14.36

AMW-2 14.93

AMW-3 17.91

B-1 B-2 B-5 B-8 B-9 B-10 B-11 B-12 B-13 B-14 B-15 B-16 B-17 B-18 B-19 B-20 B-21 B-22 B-23 B-24 B-25

17.00

16.00

15.00

## LEGEND

- MW-2 — MONITORING WELL (CLEARPRINT/ESC - DESTROYED, 2005)
- MW-3 — MONITORING WELL (ESC, 1995)
- AMW-3 15.82 — MONITORING WELL (ALLWEST, 2013) AND GROUNDWATER ELEVATION (ft.) NAVD 88 DATUM
- B-5 — SOIL BORING (WEISS ASSOCIATES, 1998)
- B-14 — SOIL BORING (WEISS ASSOCIATES, 2005)
- B-25 — SOIL BORING (JANUARY 16, 17, & 18, 2013)

- GROUNDWATER FLOW DIRECTION IN FEET PER FOOT
- FORMER USTs, FUEL DISPENSERS (REMOVED 1994 & 1996)
- x — FENCE

N

0 60 120

APPROXIMATE SCALE IN FEET

AllWest

PROJECT NO. 14011.28

# FIGURE 3
# GROUNDWATER ELEVATION CONTOURS MARCH 19, 2014

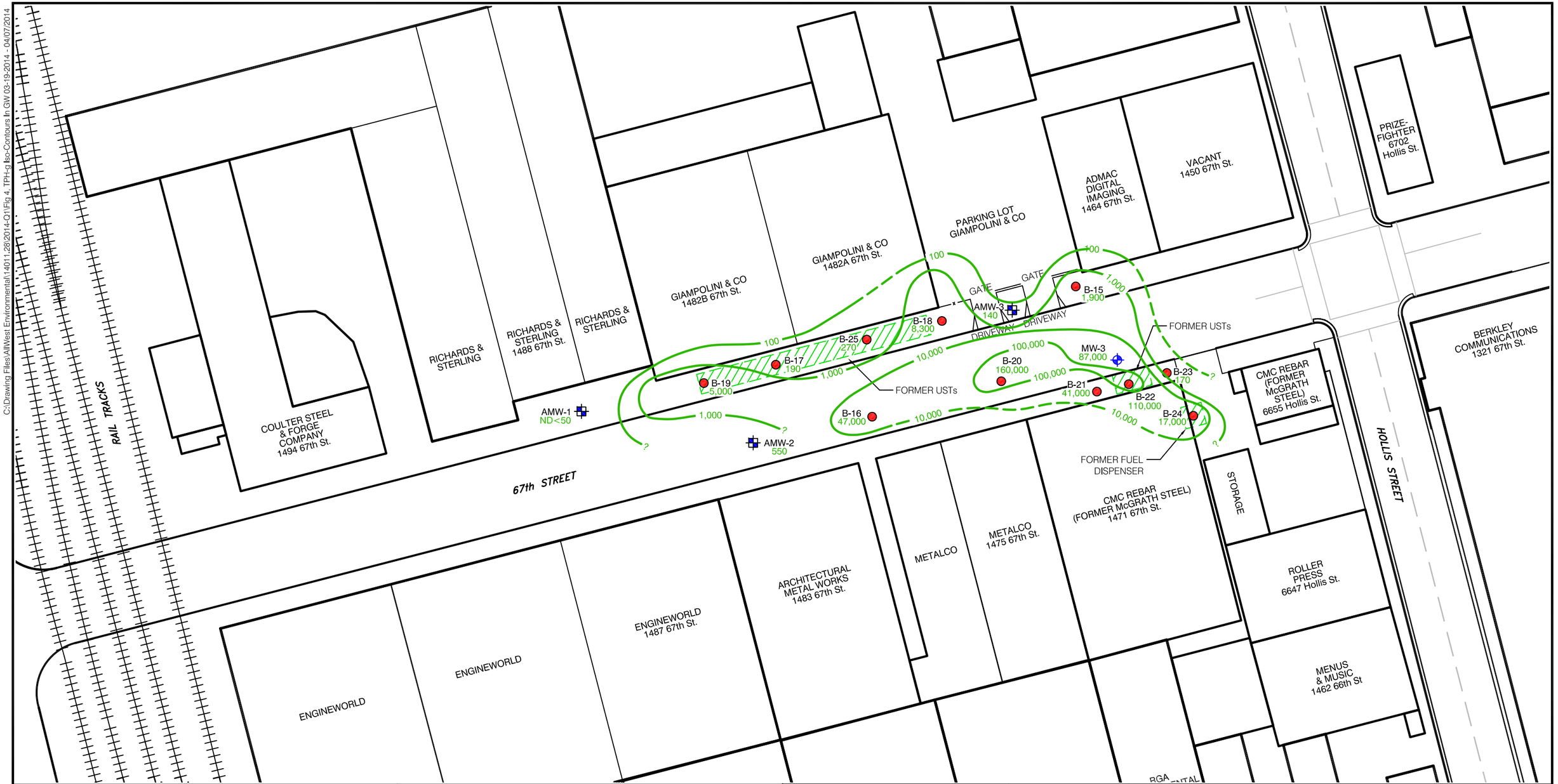
Former McGrath Steel

6655 Hollis Street, Emeryville, California

SOURCE: Morrow Surveying and Google Earth

DRAWN BY: CM (04/07/2014)

C:\Drawing Files\AllWest Environmental\1401\1.28\2014-Q1\Fig 4. TPH-g Iso-Contours In GW 03-19-2014 - 04/07/2014




## LEGEND

- MW-3 87,000 — MONITORING WELL (ESC, 1995) WITH TPH-g CONCENTRATION IN MICROGRAMS PER LITER (µg/L) - DASHED WHERE INFERRED
- AMW-3 140 — MONITORING WELL (ALLWEST, 2013) WITH TPH-g CONCENTRATION IN MICROGRAMS PER LITER (µg/L) - DASHED WHERE INFERRED
- B-25 270 — SOIL BORING (JANUARY 16, 17, & 18, 2013)WITH TPH-g CONCENTRATION IN MICROGRAMS PER LITER (µg/L) - DASHED WHERE INFERRED
- FORMER USTs, FUEL DISPENSERS (REMOVED 1994 & 1996)
- x — FENCE

NOTE:

TPH-g - Total Petroleum Hydrocarbons as Gasoline

N

0 60 120

APPROXIMATE SCALE IN FEET

AllWest

PROJECT NO. 14011.28

# FIGURE 4
# TPH-g ISOCONCENTRATION CONTOURS IN GROUNDWATER MARCH 19, 2014

Former McGrath Steel

6655 Hollis Street, Emeryville, California

SOURCE: Morrow Surveying and Google Earth

DRAWN BY: CM (04/07/2014)

C:\Drawing Files\AllWest Environmental\1401\1.28\2014-Q1\Fig 5, TPH-d Iso-Contours In GW 03-19-2014 - 04/05/2014


## LEGEND

- MW-3 11,000 — MONITORING WELL (ESC, 1995) WITH TPH-d CONCENTRATION IN MICROGRAMS PER LITER (µg/L) - DASHED WHERE INFERRED
- AMW-3 130 — MONITORING WELL (ALLWEST, 2013) WITH TPH-d CONCENTRATION IN MICROGRAMS PER LITER (µg/L) - DASHED WHERE INFERRED
- B-25 340 — SOIL BORING (JANUARY 16, 17, & 18, 2013)WITH TPH-d CONCENTRATION IN MICROGRAMS PER LITER (µg/L) - DASHED WHERE INFERRED
- FORMER USTs, FUEL DISPENSERS (REMOVED 1994 & 1996)
- x — FENCE

NOTE:

TPH-d - Total Petroleum Hydrocarbons as Diesel

N

0 60 120

APPROXIMATE SCALE IN FEET

AllWest

PROJECT NO. 14011.28

# FIGURE 5
# TPH-d ISOCONCENTRATION CONTOURS IN GROUNDWATER MARCH 19, 2014

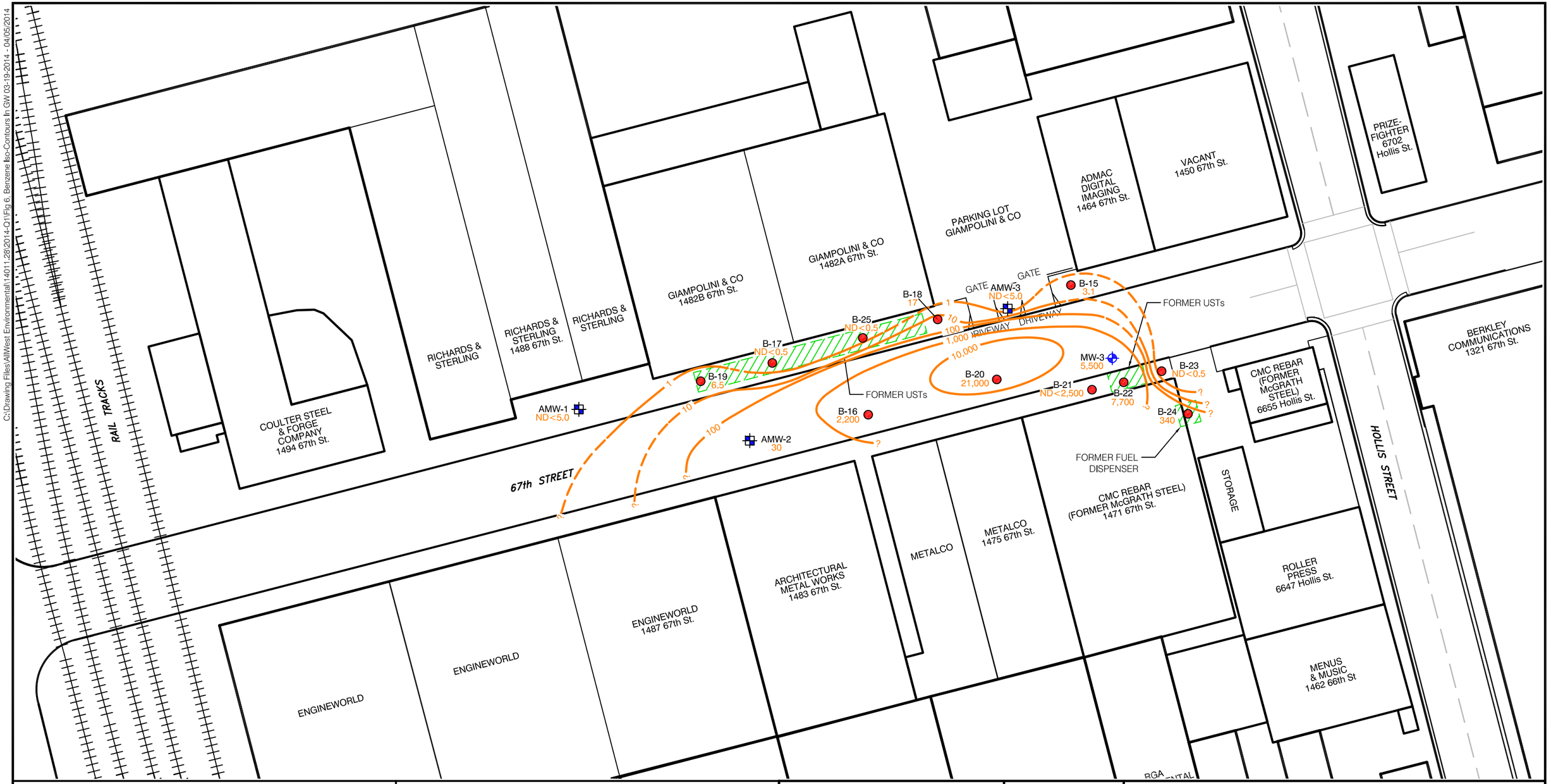
Former McGrath Steel

6655 Hollis Street, Emeryville, California

SOURCE: Morrow Surveying and Google Earth

DRAWN BY: CM (04/07/2014)

C:\Drawing Files\AllWest Environmental\1401\1.28\2014-Q1\Fig 6. Benzene Iso-Contours In GW 03-19-2014 - 04/05/2014




## LEGEND

MW-3 5,500 — MONITORING WELL (ESC, 1995) WITH BENZENE CONCENTRATION IN MICROGRAMS PER LITER (µg/L) - DASHED WHERE INFERRED

AMW-3 ND<5.0 — MONITORING WELL (ALLWEST, 2013) WITH BENZENE CONCENTRATION IN MICROGRAMS PER LITER (µg/L) - DASHED WHERE INFERRED

B-25 ND<0.5 — SOIL BORING (JANUARY 16, 17, & 18, 2013)WITH BENZENE CONCENTRATION IN MICROGRAMS PER LITER (µg/L) - DASHED WHERE INFERRED

FORMER USTs, FUEL DISPENSERS (REMOVED 1994 & 1996)

x — FENCE

N

0 60 120

APPROXIMATE SCALE IN FEET

AllWest

PROJECT NO. 14011.28

# FIGURE 6
# BENZENE ISOCONCENTRATION CONTOURS IN GROUNDWATER MARCH 19, 2014

Former McGrath Steel

6655 Hollis Street, Emeryville, California

SOURCE: Morrow Surveying and Google Earth

DRAWN BY: CM (04/07/2014)

# APPENDIX A

**Groundwater Monitoring Well Development and Sampling**

Groundwater monitoring wells will be developed with the combination of surging and pumping actions. The wells will be alternately surged with a surging block for five minutes and pumped with a submersible pump for two minutes. The physical characteristics of the groundwater, such as water color and clarity, pH, temperature, and conductivity, will be monitored during well development. Well development will be considered complete when the groundwater is relatively sediment-free and groundwater characteristic indicators are stabilized (consecutive readings within 10% of each other).

Groundwater will be sampled from the developed wells no sooner than 48 hours after well development to allow stabilization of groundwater conditions. Prior to groundwater sampling, a proper purging process will be performed at each well. The purpose of well purging is to remove fine grained materials from the well casing and to allow fresh and more representative water to recharge the well. Prior to well purging, an electric water depth sounder will be lowered into the well casing to measure the depth to the water to the nearest 0.01 feet. A clear poly bailer will then be lowered into the well casing and partially submerged. Upon retrieval of the clear bailer, the surface of the water column retained in the bailer will be carefully examined for any floating product or product sheen.

After all initial measurements are completed and recorded, the well will be purged by an electrical submersible pump or a bailer. A minimum of 3 well volumes of groundwater will be purged and groundwater characteristics (temperature, pH, and conductivity) monitored at each well volume interval. Purging is considered complete when indicators are stabilized (consecutive readings within 10% of each other) and the purged water is relatively free of sediments.

Groundwater sampling will be conducted after the water level has recovered to at least 80% of the initial level, recorded prior to purging. The groundwater sample will be collected by a disposable bailer. Upon retrieval of the bailer, the retained water will be carefully transferred to appropriate sample bottle furnished by the analytical laboratory. All sample bottles will have a Teflon lined septum/cap and be filled such that no headspace is present. Then the sample bottles will be labeled and immediately placed on ice to preserve the chemical characteristics of its content.

To prevent cross contamination, all groundwater sampling equipment that comes in contact with the groundwater will be thoroughly decontaminated prior to sampling. A disposable bailer will be used to collect the groundwater samples. Sample handling, storage, and transport procedures described in the following sections will be employed. All well development and purging water will be temporarily stored on-site in 55-gallon drums awaiting test results to determine the proper disposal method.

# APPENDIX B

AllWest

# PURGE TABLE

WELL ID: AMW-3
Page 1 of 1

| | |
|---|---|
| SITE NAME: Hollis-Emeryville | LOCATION: Emeryville, CA |
| PROJECT NO: 14011.28 | DATE PURGED: 3/19/14 |
| PURGED/SAMPLED BY: CMA | DATE SAMPLED: 3/19/14 |
| TIME SAMPLED: 0940 | DEPTH TO BOTTOM (feet): 22.23 |
| DEPTH TO WATER (feet): 7.25 | WATER COLUMN HEIGHT (feet): 14.98 |
| CALCULATED PURGE (gallons): 7.19 | CASING VOLUME (gallons): 2.40 |
| ACTUAL PURGE (gallons) 8 | |

DEVELOPMENT _____ QUARTERLY ✓ BIANNUAL _____ OTHER _____

SAMPLE TYPE: Groundwater ✓ Surface Water _____ Other _____

CASING DIAMETER: 2" ✓ 3" _____ 4" _____
Casing Volume (gallons per foot): (0.16) (0.38) (0.66)

## FIELD MEASUREMENTS

| VOLUME (gal) | TIME | TEMP (degrees C) | pH | CONDUCTIVITY (µS) | DISSOLVED OXYGEN (mg/L) | TURBIDITY (NTU) |
|---|---|---|---|---|---|---|
| 2 | 0911 | 19.3 | 6.08 | 1311 | | Cloudy |
| 4 | 0920 | 19.2 | 6.11 | 1214 | | Cloudy |
| 6 | 0930 | 19.2 | 6.20 | 1079 | | Cloudy |
| 8 | 0938 | 19.2 | 6.22 | 1082 | | Cloudy |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

## SAMPLE INFORMATION

SAMPLE DEPTH TO WATER (feet): 7.71 Analyses: TPH-g, MS 8015, TPH-d 8015, WLS.G., VOCs 8260, PAHs 8270
80% RECHARGE: Y/N SAMPLE TURBIDITY: Cloudy
ODOR: None SAMPLE BOTTLE/PRESERVATIVE: preserved VOAs, Ambers, 1 unpres. Amber

## PURGING EQUIPMENT

___Centrifugal Pump
___Submersible Pump
___Peristaltic Pump
___Purge Pump
Other: _____

___Bailer (Teflon)
✓ Bailer (PVC or disposable)
___Bailer (Stainless Steel)

## SAMPLING EQUIPMENT

___Centrifugal Pump
___Submersible Pump
___Peristaltic Pump
___Purge Pump
Other: _____

___Bailer (Teflon)
✓ Bailer (PVC or disposable)
___Bailer (Stainless Steel)

Comments: _____

AllWest

# PURGE TABLE

WELL ID: AMW-1
Page 1 of 1

| | |
|---|---|
| SITE NAME: Hollis - Emeryville | LOCATION: Emeryville CA |
| PROJECT NO: 14011.28 | DATE PURGED: 3/19/14 |
| PURGED/SAMPLED BY: CM | DATE SAMPLED: 3/19/14 |
| TIME SAMPLED: 1124 | DEPTH TO BOTTOM (feet): 23.43 |
| DEPTH TO WATER (feet): 7.73 | WATER COLUMN HEIGHT (feet): 15.70 |
| CALCULATED PURGE (gallons): 7.54 | CASING VOLUME (gallons): 2.512 |
| ACTUAL PURGE (gallons) 8 | |

DEVELOPMENT _____ QUARTERLY ✓ BIANNUAL _____ OTHER _____

SAMPLE TYPE: Groundwater ✓ Surface Water _____ Other _____

CASING DIAMETER: 2" ✓ 3" _____ 4" _____
Casing Volume (gallons per foot): (0.16) (0.38) (0.66)

0.16(15.70) = 2.512 x3 = 7.54

## FIELD MEASUREMENTS

| VOLUME (gal) | TIME | TEMP (degrees C) | pH | CONDUCTIVITY (µS) | DISSOLVED OXYGEN (mg/L) | TURBIDITY (NTU) |
|---|---|---|---|---|---|---|
| 2 | 1015 | 21.1 | 6.26 | 1543 | | Clear/cloudy |
| 4 | 1030 | 20.5 | 6.27 | 1262 | | cloudy |
| 6 | 1100 | 20.3 | 6.27 | 1238 | | cloudy/ |
| 8 | 1112 | 20.2 | 6.25 | 1245 | | silty |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

## SAMPLE INFORMATION

SAMPLE DEPTH TO WATER (feet): 7.77 Analyses: TPH-g, ms 8015, TPH-d 8015 w/s.g., VOCs 8260, PAHs 8270
80% RECHARGE: (Y)/N SAMPLE TURBIDITY: silty
ODOR: none SAMPLE BOTTLE/PRESERVATIVE: 4 VOAs, 1 Amber/HCl, 1 Amber/none

## PURGING EQUIPMENT

___Centrifugal Pump
___Submersible Pump
___Peristaltic Pump
___Purge Pump
Other: _____

___Bailer (Teflon)
✓ Bailer (PVC or disposable)
___Bailer (Stainless Steel)

## SAMPLING EQUIPMENT

___Centrifugal Pump
___Submersible Pump
___Peristaltic Pump
___Purge Pump
Other: _____

___Bailer (Teflon)
✓ Bailer (PVC or disposable)
___Bailer (Stainless Steel)

Comments: Sampling hampered by trucks unloading at Richards & Sterling

AllWest

# PURGE TABLE

WELL ID: MW-3
Page 1 of 1

| | |
|---|---|
| SITE NAME: Hollis - Emeryville | LOCATION: Emeryville |
| PROJECT NO: 14011.28 | DATE PURGED: 3/19/14 |
| PURGED/SAMPLED BY: CM | DATE SAMPLED: 3/19/14 |
| TIME SAMPLED: 1432 | DEPTH TO BOTTOM (feet): 29.50 |
| DEPTH TO WATER (feet): 8.81 | WATER COLUMN HEIGHT (feet): 20.69 |
| CALCULATED PURGE (gallons): 9.93 | CASING VOLUME (gallons): 3.31 |
| ACTUAL PURGE (gallons) 10 | |

DEVELOPMENT _____ QUARTERLY ✓ BIANNUAL _____ OTHER _____

SAMPLE TYPE: Groundwater ✓ Surface Water _____ Other _____

CASING DIAMETER: 2" ✓ 3" _____ 4" _____
Casing Volume (gallons per foot): (0.16) (0.38) (0.66)

$0.16(20.69) = 3.3104 \quad \times 3 = 9.93$

## FIELD MEASUREMENTS

| VOLUME (gal) | TIME | TEMP (degrees C) | pH | CONDUCTIVITY (µS) | DISSOLVED OXYGEN (mg/L) | TURBIDITY (NTU) |
|---|---|---|---|---|---|---|
| 2 | 1325 | 17.4 | 6.03 | 1643 | | Clear |
| 4 | 1340 | 17.6 | 6.00 | 1624 | | clear/cloudy |
| 6 | 1352 | 17.8 | 6.01 | 1628 | | Cloudy |
| 8 | 1408 | 18.1 | 6.02 | 1635 | | Clear |
| 10 | 1421 | 18.3 | 6.03 | 1625 | | Cloudy |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

## SAMPLE INFORMATION TPH-g, MS 8015

SAMPLE DEPTH TO WATER (feet): 10.62 Analyses: TPH-d 8015 w/s.g, VOCs 8260, PAHs 8270
80% RECHARGE: Y/N SAMPLE TURBIDITY: Silty
ODOR: Diesel SAMPLE BOTTLE/PRESERVATIVE: 4 VOAs, 2 Amber/HCl 1 Amber/none

## PURGING EQUIPMENT

___Centrifugal Pump
___Submersible Pump
___Peristaltic Pump
___Purge Pump
Other: _____

___Bailer (Teflon)
✓ Bailer (PVC or disposable)
___Bailer (Stainless Steel)

## SAMPLING EQUIPMENT

___Centrifugal Pump
___Submersible Pump
___Peristaltic Pump
___Purge Pump
Other: _____

___Bailer (Teflon)
✓ Bailer (PVC or disposable)
___Bailer (Stainless Steel)

Comments: No free product detected by oil/water interface probe
Sheen and droplets in product skimmer

AllWest

# PURGE TABLE

WELL ID: AMW-2
Page 1 of 1

| | |
|---|---|
| SITE NAME: Hollis-Emeryville | LOCATION: Emeryville, CA |
| PROJECT NO: 14011.28 | DATE PURGED: 3/19/14 |
| PURGED/SAMPLED BY: CM | DATE SAMPLED: 3/19/14 |
| TIME SAMPLED: 1632 | DEPTH TO BOTTOM (feet): 23.93 |
| DEPTH TO WATER (feet): 8.50 | WATER COLUMN HEIGHT (feet): 15.43 |
| CALCULATED PURGE (gallons): 7.41 | CASING VOLUME (gallons): 2.47 |
| ACTUAL PURGE (gallons) 8 | |

DEVELOPMENT _____ QUARTERLY ✓ BIANNUAL _____ OTHER _____

SAMPLE TYPE: Groundwater ✓ Surface Water _____ Other _____

CASING DIAMETER: 2" ✓ 3" _____ 4" _____
Casing Volume (gallons per foot): (0.16) (0.38) (0.66)

0.16(15.43) x 3 = 2.47 x3 = 7.41

## FIELD MEASUREMENTS

| VOLUME (gal) | TIME | TEMP (degrees C) | pH | CONDUCTIVITY (µS) | DISSOLVED OXYGEN (mg/L) | TURBIDITY (NTU) |
|---|---|---|---|---|---|---|
| 2 | 1501 | 18.4 | 6.17 | 1135 | | Clear |
| 4 | 1515 | 18.6 | 6.16 | 1663 | | Cloudy |
| 6 | 1549 | 18.4 | 6.19 | 1667 | | cloudy |
| 8 | 1608 | 18.3 | 6.19 | 1642 | | cloudy |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

## SAMPLE INFORMATION

SAMPLE DEPTH TO WATER (feet): 8.59 Analyses: TPH-g, ms 8015, TPH-d 8015 w/s.g., VOCs 8260, PAHs 8270
80% RECHARGE: (Y)/N SAMPLE TURBIDITY: Cloudy
ODOR: Slight HC SAMPLE BOTTLE/PRESERVATIVE: 4 VOAs, 1 Amber/HCl, 1 Amber none

| PURGING EQUIPMENT | | SAMPLING EQUIPMENT | |
|---|---|---|---|
| ___Centrifugal Pump | ___Bailer (Teflon) | ___Centrifugal Pump | ___Bailer (Teflon) |
| ___Submersible Pump | ✓Bailer (PVC or disposable) | ___Submersible Pump | ✓Bailer (PVC or disposable) |
| ___Peristalitic Pump | ___Bailer (Stainless Steel) | ___Peristaltic Pump | ___Bailer (Stainless Steel) |
| ___Purge Pump | | ___Purge Pump | |
| Other: _____ | | Other: _____ | |

Comments: _____

# APPENDIX C

# McCampbell Analytical, Inc.

*"When Quality Counts"*

# Analytical Report

**WorkOrder:** 1403700 **Amended:** 03/28/2014

**Report Created for:** All West Environmental, Inc
2141 Mission Street, Ste 100
San Francisco, CA 94110

**Project Contact:** Christopher Houlihan
**Project P.O.:**
**Project Name:** #14011.28; Hollis-Emeryville

**Project Received:** 03/20/2014

Analytical Report reviewed & approved for release on 03/27/2014 by:

*Question about your data?*

*Click here to email McCampbell*

Angela Rydelius,
Laboratory Manager



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com
NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Glossary of Terms & Qualifier Definitions

**Client:** All West Environmental, Inc
**Project:** #14011.28; Hollis-Emeryville
**WorkOrder:** 1403700

## Glossary Abbreviation

| | |
|---|---|
| 95% Interval | 95% Confident Interval |
| DF | Dilution Factor |
| DUP | Duplicate |
| EDL | Estimated Detection Limit |
| I | For PCB congeners 107, 108, 109, 199, 200, 201. There are conflicting naming conventions. MAI used the names cited in EPA Method 1668C (Table 2) |
| ITEF | International Toxicity Equivalence Factor |
| LCS | Laboratory Control Sample |
| MB | Method Blank |
| MB % Rec | % Recovery of Surrogate in Method Blank, if applicable |
| MDL | Method Detection Limit |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| ND | Not detected at or above the indicated MDL or RL |
| NR | Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content. |
| RD | Relative Difference |
| RL | Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.) |
| RPD | Relative Percent Deviation |
| RRT | Relative Retention Time |
| SPK Val | Spike Value |
| SPKRef Val | Spike Reference Value |
| TEQ | Toxicity Equivalence |

## Analytical Qualifier

| | |
|---|---|
| S | spike recovery outside accepted recovery limits |
| b1 | aqueous sample that contains greater than ~1 vol. % sediment |
| c2 | low surrogate recovery caused by matrix interference. |
| c4 | surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram. |
| d1 | weakly modified or unmodified gasoline is significant |
| e4 | gasoline range compounds are significant. |

## Quality Control Qualifiers

| | |
|---|---|
| F1 | MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch. |
| F2 | LCS recovery for this compound is outside of acceptance limits. |

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Project:** | #14011.28; Hollis-Emeryville | **Extraction Method** | SW5030B |
| **Date Received:** | 3/20/14 20:00 | **Analytical Method:** | SW8260B |
| **Date Prepared:** | 3/26/14-3/27/14 | **Unit:** | µg/L |

## Volatile Organics by P&T and GC/MS (Basic Target List)

| Client ID | Lab ID | Matrix/ExtType | Date Collected | Instrument | Batch ID |
|---|---|---|---|---|---|
| **AMW-1** | **1403700-001A** | **Water** | **03/19/2014 11:24** | **GC28** | **88609** |

| Analytes | Result | RL | DF | Date Analyzed |
|---|---|---|---|---|
| Acetone | ND | 100 | 10 | 03/26/2014 13:47 |
| tert-Amyl methyl ether (TAME) | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Benzene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Bromobenzene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Bromochloromethane | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Bromodichloromethane | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Bromoform | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Bromomethane | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 2-Butanone (MEK) | ND | 20 | 10 | 03/26/2014 13:47 |
| t-Butyl alcohol (TBA) | ND | 20 | 10 | 03/26/2014 13:47 |
| n-Butyl benzene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| sec-Butyl benzene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| tert-Butyl benzene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Carbon Disulfide | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Carbon Tetrachloride | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Chlorobenzene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Chloroethane | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Chloroform | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Chloromethane | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 2-Chlorotoluene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 4-Chlorotoluene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Dibromochloromethane | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 1,2-Dibromo-3-chloropropane | ND | 2.0 | 10 | 03/26/2014 13:47 |
| 1,2-Dibromoethane (EDB) | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Dibromomethane | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 1,2-Dichlorobenzene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 1,3-Dichlorobenzene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 1,4-Dichlorobenzene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Dichlorodifluoromethane | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 1,1-Dichloroethane | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 1,2-Dichloroethane (1,2-DCA) | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 1,1-Dichloroethene | **83** | 5.0 | 10 | 03/26/2014 13:47 |
| cis-1,2-Dichloroethene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| trans-1,2-Dichloroethene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 1,2-Dichloropropane | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 1,3-Dichloropropane | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 2,2-Dichloropropane | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 1,1-Dichloropropene | ND | 5.0 | 10 | 03/26/2014 13:47 |

*(Cont.)*

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Project:** | #14011.28; Hollis-Emeryville | **Extraction Method** | SW5030B |
| **Date Received:** | 3/20/14 20:00 | **Analytical Method:** | SW8260B |
| **Date Prepared:** | 3/26/14-3/27/14 | **Unit:** | µg/L |

## Volatile Organics by P&T and GC/MS (Basic Target List)

| Client ID | Lab ID | Matrix/ExtType | Date Collected | Instrument | Batch ID |
|---|---|---|---|---|---|
| **AMW-1** | **1403700-001A** | **Water** | **03/19/2014 11:24** | **GC28** | **88609** |

| Analytes | Result | RL | DF | Date Analyzed |
|---|---|---|---|---|
| cis-1,3-Dichloropropene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| trans-1,3-Dichloropropene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Diisopropyl ether (DIPE) | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Ethylbenzene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Ethyl tert-butyl ether (ETBE) | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Freon 113 | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Hexachlorobutadiene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Hexachloroethane | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 2-Hexanone | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Isopropylbenzene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 4-Isopropyl toluene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Methyl-t-butyl ether (MTBE) | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Methylene chloride | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Naphthalene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| n-Propyl benzene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Styrene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Tetrachloroethene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Toluene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 1,2,3-Trichlorobenzene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 1,2,4-Trichlorobenzene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 1,1,1-Trichloroethane | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 1,1,2-Trichloroethane | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Trichloroethene | **7.2** | 5.0 | 10 | 03/26/2014 13:47 |
| Trichlorofluoromethane | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 1,2,3-Trichloropropane | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 1,2,4-Trimethylbenzene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| 1,3,5-Trimethylbenzene | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Vinyl Chloride | ND | 5.0 | 10 | 03/26/2014 13:47 |
| Xylenes, Total | ND | 5.0 | 10 | 03/26/2014 13:47 |

| Surrogates | REC (%) | Limits | Analytical Comments: b1 | |
|---|---|---|---|---|
| Dibromofluoromethane | 85 | 70-130 | | 03/26/2014 13:47 |
| Toluene-d8 | 89 | 70-130 | | 03/26/2014 13:47 |
| 4-BFB | 92 | 70-130 | | 03/26/2014 13:47 |

*(Cont.)*

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Project:** | #14011.28; Hollis-Emeryville | **Extraction Method** | SW5030B |
| **Date Received:** | 3/20/14 20:00 | **Analytical Method:** | SW8260B |
| **Date Prepared:** | 3/26/14-3/27/14 | **Unit:** | µg/L |

## Volatile Organics by P&T and GC/MS (Basic Target List)

| Client ID | Lab ID | Matrix/ExtType | Date Collected | Instrument | Batch ID |
|---|---|---|---|---|---|
| **AMW-2** | **1403700-002A** | **Water** | **03/19/2014 16:32** | **GC18** | **88571** |

| Analytes | Result | RL | DF | Date Analyzed |
|---|---|---|---|---|
| Acetone | ND | 100 | 10 | 03/26/2014 01:41 |
| tert-Amyl methyl ether (TAME) | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Benzene | **30** | 5.0 | 10 | 03/26/2014 01:41 |
| Bromobenzene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Bromochloromethane | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Bromodichloromethane | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Bromoform | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Bromomethane | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 2-Butanone (MEK) | ND | 20 | 10 | 03/26/2014 01:41 |
| t-Butyl alcohol (TBA) | ND | 20 | 10 | 03/26/2014 01:41 |
| n-Butyl benzene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| sec-Butyl benzene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| tert-Butyl benzene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Carbon Disulfide | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Carbon Tetrachloride | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Chlorobenzene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Chloroethane | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Chloroform | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Chloromethane | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 2-Chlorotoluene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 4-Chlorotoluene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Dibromochloromethane | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 1,2-Dibromo-3-chloropropane | ND | 2.0 | 10 | 03/26/2014 01:41 |
| 1,2-Dibromoethane (EDB) | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Dibromomethane | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 1,2-Dichlorobenzene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 1,3-Dichlorobenzene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 1,4-Dichlorobenzene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Dichlorodifluoromethane | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 1,1-Dichloroethane | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 1,2-Dichloroethane (1,2-DCA) | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 1,1-Dichloroethene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| cis-1,2-Dichloroethene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| trans-1,2-Dichloroethene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 1,2-Dichloropropane | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 1,3-Dichloropropane | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 2,2-Dichloropropane | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 1,1-Dichloropropene | ND | 5.0 | 10 | 03/26/2014 01:41 |

*(Cont.)*

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Project:** | #14011.28; Hollis-Emeryville | **Extraction Method** | SW5030B |
| **Date Received:** | 3/20/14 20:00 | **Analytical Method:** | SW8260B |
| **Date Prepared:** | 3/26/14-3/27/14 | **Unit:** | µg/L |

## Volatile Organics by P&T and GC/MS (Basic Target List)

| Client ID | Lab ID | Matrix/ExtType | Date Collected | Instrument | Batch ID |
|---|---|---|---|---|---|
| **AMW-2** | **1403700-002A** | **Water** | **03/19/2014 16:32** | **GC18** | **88571** |

| Analytes | Result | RL | DF | Date Analyzed |
|---|---|---|---|---|
| cis-1,3-Dichloropropene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| trans-1,3-Dichloropropene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Diisopropyl ether (DIPE) | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Ethylbenzene | **17** | 5.0 | 10 | 03/26/2014 01:41 |
| Ethyl tert-butyl ether (ETBE) | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Freon 113 | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Hexachlorobutadiene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Hexachloroethane | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 2-Hexanone | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Isopropylbenzene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 4-Isopropyl toluene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Methyl-t-butyl ether (MTBE) | **300** | 5.0 | 10 | 03/26/2014 01:41 |
| Methylene chloride | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Naphthalene | **14** | 5.0 | 10 | 03/26/2014 01:41 |
| n-Propyl benzene | **6.2** | 5.0 | 10 | 03/26/2014 01:41 |
| Styrene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Tetrachloroethene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Toluene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 1,2,3-Trichlorobenzene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 1,2,4-Trichlorobenzene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 1,1,1-Trichloroethane | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 1,1,2-Trichloroethane | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Trichloroethene | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Trichlorofluoromethane | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 1,2,3-Trichloropropane | ND | 5.0 | 10 | 03/26/2014 01:41 |
| 1,2,4-Trimethylbenzene | **38** | 5.0 | 10 | 03/26/2014 01:41 |
| 1,3,5-Trimethylbenzene | **6.0** | 5.0 | 10 | 03/26/2014 01:41 |
| Vinyl Chloride | ND | 5.0 | 10 | 03/26/2014 01:41 |
| Xylenes, Total | **19** | 5.0 | 10 | 03/26/2014 01:41 |

| Surrogates | REC (%) | Limits | |
|---|---|---|---|
| Dibromofluoromethane | 99 | 70-130 | 03/26/2014 01:41 |
| Toluene-d8 | 94 | 70-130 | 03/26/2014 01:41 |
| 4-BFB | 89 | 70-130 | 03/26/2014 01:41 |

*(Cont.)*

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Project:** | #14011.28; Hollis-Emeryville | **Extraction Method** | SW5030B |
| **Date Received:** | 3/20/14 20:00 | **Analytical Method:** | SW8260B |
| **Date Prepared:** | 3/26/14-3/27/14 | **Unit:** | µg/L |

## Volatile Organics by P&T and GC/MS (Basic Target List)

| Client ID | Lab ID | Matrix/ExtType | Date Collected | Instrument | Batch ID |
|---|---|---|---|---|---|
| **AMW-3** | **1403700-003A** | **Water** | **03/19/2014 09:40** | **GC18** | **88674** |

| Analytes | Result | RL | DF | Date Analyzed |
|---|---|---|---|---|
| Acetone | ND | 100 | 10 | 03/26/2014 22:43 |
| tert-Amyl methyl ether (TAME) | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Benzene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Bromobenzene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Bromochloromethane | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Bromodichloromethane | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Bromoform | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Bromomethane | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 2-Butanone (MEK) | ND | 20 | 10 | 03/26/2014 22:43 |
| t-Butyl alcohol (TBA) | ND | 20 | 10 | 03/26/2014 22:43 |
| n-Butyl benzene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| sec-Butyl benzene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| tert-Butyl benzene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Carbon Disulfide | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Carbon Tetrachloride | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Chlorobenzene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Chloroethane | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Chloroform | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Chloromethane | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 2-Chlorotoluene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 4-Chlorotoluene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Dibromochloromethane | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 1,2-Dibromo-3-chloropropane | ND | 2.0 | 10 | 03/26/2014 22:43 |
| 1,2-Dibromoethane (EDB) | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Dibromomethane | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 1,2-Dichlorobenzene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 1,3-Dichlorobenzene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 1,4-Dichlorobenzene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Dichlorodifluoromethane | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 1,1-Dichloroethane | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 1,2-Dichloroethane (1,2-DCA) | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 1,1-Dichloroethene | **240** | 5.0 | 10 | 03/26/2014 22:43 |
| cis-1,2-Dichloroethene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| trans-1,2-Dichloroethene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 1,2-Dichloropropane | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 1,3-Dichloropropane | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 2,2-Dichloropropane | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 1,1-Dichloropropene | ND | 5.0 | 10 | 03/26/2014 22:43 |

*(Cont.)*

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Project:** | #14011.28; Hollis-Emeryville | **Extraction Method** | SW5030B |
| **Date Received:** | 3/20/14 20:00 | **Analytical Method:** | SW8260B |
| **Date Prepared:** | 3/26/14-3/27/14 | **Unit:** | µg/L |

## Volatile Organics by P&T and GC/MS (Basic Target List)

| Client ID | Lab ID | Matrix/ExtType | Date Collected | Instrument | Batch ID |
|---|---|---|---|---|---|
| **AMW-3** | **1403700-003A** | **Water** | **03/19/2014 09:40** | **GC18** | **88674** |

| Analytes | Result | RL | DF | Date Analyzed |
|---|---|---|---|---|
| cis-1,3-Dichloropropene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| trans-1,3-Dichloropropene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Diisopropyl ether (DIPE) | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Ethylbenzene | **9.3** | 5.0 | 10 | 03/26/2014 22:43 |
| Ethyl tert-butyl ether (ETBE) | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Freon 113 | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Hexachlorobutadiene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Hexachloroethane | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 2-Hexanone | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Isopropylbenzene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 4-Isopropyl toluene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Methyl-t-butyl ether (MTBE) | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Methylene chloride | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Naphthalene | **9.0** | 5.0 | 10 | 03/26/2014 22:43 |
| n-Propyl benzene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Styrene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 1,1,1,2-Tetrachloroethane | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Tetrachloroethene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Toluene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 1,2,3-Trichlorobenzene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 1,2,4-Trichlorobenzene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 1,1,1-Trichloroethane | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 1,1,2-Trichloroethane | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Trichloroethene | **19** | 5.0 | 10 | 03/26/2014 22:43 |
| Trichlorofluoromethane | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 1,2,3-Trichloropropane | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 1,2,4-Trimethylbenzene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| 1,3,5-Trimethylbenzene | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Vinyl Chloride | ND | 5.0 | 10 | 03/26/2014 22:43 |
| Xylenes, Total | ND | 5.0 | 10 | 03/26/2014 22:43 |

| Surrogates | REC (%) | Limits | |
|---|---|---|---|
| Dibromofluoromethane | 99 | 70-130 | 03/26/2014 22:43 |
| Toluene-d8 | 95 | 70-130 | 03/26/2014 22:43 |
| 4-BFB | 88 | 70-130 | 03/26/2014 22:43 |

*(Cont.)*

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Project:** | #14011.28; Hollis-Emeryville | **Extraction Method** | SW5030B |
| **Date Received:** | 3/20/14 20:00 | **Analytical Method:** | SW8260B |
| **Date Prepared:** | 3/26/14-3/27/14 | **Unit:** | µg/L |

## Volatile Organics by P&T and GC/MS (Basic Target List)

| Client ID | Lab ID | Matrix/ExtType | Date Collected | Instrument | Batch ID |
|---|---|---|---|---|---|
| **MW-3** | **1403700-004A** | **Water** | **03/19/2014 14:32** | **GC28** | **88571** |

| Analytes | Result | RL | DF | Date Analyzed |
|---|---|---|---|---|
| Acetone | ND | 2500 | 250 | 03/27/2014 03:15 |
| tert-Amyl methyl ether (TAME) | ND | 120 | 250 | 03/27/2014 03:15 |
| Benzene | **5500** | 120 | 250 | 03/27/2014 03:15 |
| Bromobenzene | ND | 120 | 250 | 03/27/2014 03:15 |
| Bromochloromethane | ND | 120 | 250 | 03/27/2014 03:15 |
| Bromodichloromethane | ND | 120 | 250 | 03/27/2014 03:15 |
| Bromoform | ND | 120 | 250 | 03/27/2014 03:15 |
| Bromomethane | ND | 120 | 250 | 03/27/2014 03:15 |
| 2-Butanone (MEK) | ND | 500 | 250 | 03/27/2014 03:15 |
| t-Butyl alcohol (TBA) | **1500** | 500 | 250 | 03/27/2014 03:15 |
| n-Butyl benzene | ND | 120 | 250 | 03/27/2014 03:15 |
| sec-Butyl benzene | ND | 120 | 250 | 03/27/2014 03:15 |
| tert-Butyl benzene | ND | 120 | 250 | 03/27/2014 03:15 |
| Carbon Disulfide | ND | 120 | 250 | 03/27/2014 03:15 |
| Carbon Tetrachloride | ND | 120 | 250 | 03/27/2014 03:15 |
| Chlorobenzene | ND | 120 | 250 | 03/27/2014 03:15 |
| Chloroethane | ND | 120 | 250 | 03/27/2014 03:15 |
| Chloroform | ND | 120 | 250 | 03/27/2014 03:15 |
| Chloromethane | ND | 120 | 250 | 03/27/2014 03:15 |
| 2-Chlorotoluene | ND | 120 | 250 | 03/27/2014 03:15 |
| 4-Chlorotoluene | ND | 120 | 250 | 03/27/2014 03:15 |
| Dibromochloromethane | ND | 120 | 250 | 03/27/2014 03:15 |
| 1,2-Dibromo-3-chloropropane | ND | 50 | 250 | 03/27/2014 03:15 |
| 1,2-Dibromoethane (EDB) | ND | 120 | 250 | 03/27/2014 03:15 |
| Dibromomethane | ND | 120 | 250 | 03/27/2014 03:15 |
| 1,2-Dichlorobenzene | ND | 120 | 250 | 03/27/2014 03:15 |
| 1,3-Dichlorobenzene | ND | 120 | 250 | 03/27/2014 03:15 |
| 1,4-Dichlorobenzene | ND | 120 | 250 | 03/27/2014 03:15 |
| Dichlorodifluoromethane | ND | 120 | 250 | 03/27/2014 03:15 |
| 1,1-Dichloroethane | ND | 120 | 250 | 03/27/2014 03:15 |
| 1,2-Dichloroethane (1,2-DCA) | ND | 120 | 250 | 03/27/2014 03:15 |
| 1,1-Dichloroethene | ND | 120 | 250 | 03/27/2014 03:15 |
| cis-1,2-Dichloroethene | ND | 120 | 250 | 03/27/2014 03:15 |
| trans-1,2-Dichloroethene | ND | 120 | 250 | 03/27/2014 03:15 |
| 1,2-Dichloropropane | ND | 120 | 250 | 03/27/2014 03:15 |
| 1,3-Dichloropropane | ND | 120 | 250 | 03/27/2014 03:15 |
| 2,2-Dichloropropane | ND | 120 | 250 | 03/27/2014 03:15 |
| 1,1-Dichloropropene | ND | 120 | 250 | 03/27/2014 03:15 |

*(Cont.)*

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Project:** | #14011.28; Hollis-Emeryville | **Extraction Method** | SW5030B |
| **Date Received:** | 3/20/14 20:00 | **Analytical Method:** | SW8260B |
| **Date Prepared:** | 3/26/14-3/27/14 | **Unit:** | µg/L |

## Volatile Organics by P&T and GC/MS (Basic Target List)

| Client ID | Lab ID | Matrix/ExtType | Date Collected | Instrument | Batch ID |
|---|---|---|---|---|---|
| **MW-3** | **1403700-004A** | **Water** | **03/19/2014 14:32** | **GC28** | **88571** |

| Analytes | Result | RL | DF | Date Analyzed |
|---|---|---|---|---|
| cis-1,3-Dichloropropene | ND | 120 | 250 | 03/27/2014 03:15 |
| trans-1,3-Dichloropropene | ND | 120 | 250 | 03/27/2014 03:15 |
| Diisopropyl ether (DIPE) | ND | 120 | 250 | 03/27/2014 03:15 |
| Ethylbenzene | **2000** | 120 | 250 | 03/27/2014 03:15 |
| Ethyl tert-butyl ether (ETBE) | ND | 120 | 250 | 03/27/2014 03:15 |
| Freon 113 | ND | 120 | 250 | 03/27/2014 03:15 |
| Hexachlorobutadiene | ND | 120 | 250 | 03/27/2014 03:15 |
| Hexachloroethane | ND | 120 | 250 | 03/27/2014 03:15 |
| 2-Hexanone | ND | 120 | 250 | 03/27/2014 03:15 |
| Isopropylbenzene | ND | 120 | 250 | 03/27/2014 03:15 |
| 4-Isopropyl toluene | ND | 120 | 250 | 03/27/2014 03:15 |
| Methyl-t-butyl ether (MTBE) | **4400** | 120 | 250 | 03/27/2014 03:15 |
| Methylene chloride | ND | 120 | 250 | 03/27/2014 03:15 |
| 4-Methyl-2-pentanone (MIBK) | ND | 120 | 250 | 03/27/2014 03:15 |
| Naphthalene | **480** | 120 | 250 | 03/27/2014 03:15 |
| n-Propyl benzene | **340** | 120 | 250 | 03/27/2014 03:15 |
| Styrene | ND | 120 | 250 | 03/27/2014 03:15 |
| 1,1,1,2-Tetrachloroethane | ND | 120 | 250 | 03/27/2014 03:15 |
| 1,1,2,2-Tetrachloroethane | ND | 120 | 250 | 03/27/2014 03:15 |
| Tetrachloroethene | ND | 120 | 250 | 03/27/2014 03:15 |
| Toluene | **7200** | 120 | 250 | 03/27/2014 03:15 |
| 1,2,3-Trichlorobenzene | ND | 120 | 250 | 03/27/2014 03:15 |
| 1,2,4-Trichlorobenzene | ND | 120 | 250 | 03/27/2014 03:15 |
| 1,1,1-Trichloroethane | ND | 120 | 250 | 03/27/2014 03:15 |
| 1,1,2-Trichloroethane | ND | 120 | 250 | 03/27/2014 03:15 |
| Trichloroethene | ND | 120 | 250 | 03/27/2014 03:15 |
| Trichlorofluoromethane | ND | 120 | 250 | 03/27/2014 03:15 |
| 1,2,3-Trichloropropane | ND | 120 | 250 | 03/27/2014 03:15 |
| 1,2,4-Trimethylbenzene | **2600** | 120 | 250 | 03/27/2014 03:15 |
| 1,3,5-Trimethylbenzene | **780** | 120 | 250 | 03/27/2014 03:15 |
| Vinyl Chloride | ND | 120 | 250 | 03/27/2014 03:15 |
| Xylenes, Total | **11,000** | 120 | 250 | 03/27/2014 03:15 |

| Surrogates | REC (%) | Limits | |
|---|---|---|---|
| Dibromofluoromethane | 88 | 70-130 | 03/27/2014 03:15 |
| Toluene-d8 | 90 | 70-130 | 03/27/2014 03:15 |
| 4-BFB | 95 | 70-130 | 03/27/2014 03:15 |

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Project:** | #14011.28; Hollis-Emeryville | **Extraction Method** | SW3510C |
| **Date Received:** | 3/20/14 20:00 | **Analytical Method:** | SW8270C-SIM |
| **Date Prepared:** | 3/24/14 | **Unit:** | µg/L |

## Polynuclear Aromatic Hydrocarbons (PAHs / PNAs) using SIM Mode by GC/MS

| Client ID | Lab ID | Matrix/ExtType | Date Collected | Instrument | Batch ID |
|---|---|---|---|---|---|
| **AMW-1** | **1403700-001C** | **Water** | **03/19/2014 11:24** | **GC35** | **88526** |

| Analytes | Result | RL | DF | Date Analyzed |
|---|---|---|---|---|
| Acenaphthene | ND | 0.50 | 1 | 03/24/2014 17:29 |
| Acenaphthylene | ND | 0.50 | 1 | 03/24/2014 17:29 |
| Anthracene | ND | 0.50 | 1 | 03/24/2014 17:29 |
| Benzo (a) anthracene | ND | 0.50 | 1 | 03/24/2014 17:29 |
| Benzo (b) fluoranthene | ND | 0.50 | 1 | 03/24/2014 17:29 |
| Benzo (k) fluoranthene | ND | 0.50 | 1 | 03/24/2014 17:29 |
| Benzo (g,h,i) perylene | ND | 0.50 | 1 | 03/24/2014 17:29 |
| Benzo (a) pyrene | ND | 0.50 | 1 | 03/24/2014 17:29 |
| Chrysene | ND | 0.50 | 1 | 03/24/2014 17:29 |
| Dibenzo (a,h) anthracene | ND | 0.50 | 1 | 03/24/2014 17:29 |
| Fluoranthene | ND | 0.50 | 1 | 03/24/2014 17:29 |
| Fluorene | ND | 0.50 | 1 | 03/24/2014 17:29 |
| Indeno (1,2,3-cd) pyrene | ND | 0.50 | 1 | 03/24/2014 17:29 |
| 1-Methylnaphthalene | ND | 0.50 | 1 | 03/24/2014 17:29 |
| 2-Methylnaphthalene | ND | 0.50 | 1 | 03/24/2014 17:29 |
| Naphthalene | ND | 0.50 | 1 | 03/24/2014 17:29 |
| Phenanthrene | ND | 0.50 | 1 | 03/24/2014 17:29 |
| Pyrene | ND | 0.50 | 1 | 03/24/2014 17:29 |

| Surrogates | REC (%) | Limits | Analytical Comments: b1 |
|---|---|---|---|
| 1-Fluoronapthalene | 105 | 30-130 | 03/24/2014 17:29 |
| 2-fluorobiphenyl | 101 | 30-130 | 03/24/2014 17:29 |

*(Cont.)*

CDPH ELAP 1644 ♦ NELAP 4033ORELAP HK Analyst's Initial Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Project:** | #14011.28; Hollis-Emeryville | **Extraction Method** | SW3510C |
| **Date Received:** | 3/20/14 20:00 | **Analytical Method:** | SW8270C-SIM |
| **Date Prepared:** | 3/24/14 | **Unit:** | µg/L |

## Polynuclear Aromatic Hydrocarbons (PAHs / PNAs) using SIM Mode by GC/MS

| Client ID | Lab ID | Matrix/ExtType | Date Collected | Instrument | Batch ID |
|---|---|---|---|---|---|
| **AMW-2** | **1403700-002C** | **Water** | **03/19/2014 16:32** | **GC35** | **88526** |

| Analytes | Result | RL | DF | Date Analyzed |
|---|---|---|---|---|
| Acenaphthene | ND | 0.50 | 1 | 03/24/2014 17:55 |
| Acenaphthylene | ND | 0.50 | 1 | 03/24/2014 17:55 |
| Anthracene | ND | 0.50 | 1 | 03/24/2014 17:55 |
| Benzo (a) anthracene | ND | 0.50 | 1 | 03/24/2014 17:55 |
| Benzo (b) fluoranthene | ND | 0.50 | 1 | 03/24/2014 17:55 |
| Benzo (k) fluoranthene | ND | 0.50 | 1 | 03/24/2014 17:55 |
| Benzo (g,h,i) perylene | ND | 0.50 | 1 | 03/24/2014 17:55 |
| Benzo (a) pyrene | ND | 0.50 | 1 | 03/24/2014 17:55 |
| Chrysene | ND | 0.50 | 1 | 03/24/2014 17:55 |
| Dibenzo (a,h) anthracene | ND | 0.50 | 1 | 03/24/2014 17:55 |
| Fluoranthene | ND | 0.50 | 1 | 03/24/2014 17:55 |
| Fluorene | ND | 0.50 | 1 | 03/24/2014 17:55 |
| Indeno (1,2,3-cd) pyrene | ND | 0.50 | 1 | 03/24/2014 17:55 |
| 1-Methylnaphthalene | **2.3** | 0.50 | 1 | 03/24/2014 17:55 |
| 2-Methylnaphthalene | **2.6** | 0.50 | 1 | 03/24/2014 17:55 |
| Naphthalene | **13** | 0.50 | 1 | 03/24/2014 17:55 |
| Phenanthrene | ND | 0.50 | 1 | 03/24/2014 17:55 |
| Pyrene | ND | 0.50 | 1 | 03/24/2014 17:55 |

| Surrogates | REC (%) | Limits | |
|---|---|---|---|
| 1-Fluoronapthalene | 89 | 30-130 | 03/24/2014 17:55 |
| 2-fluorobiphenyl | 82 | 30-130 | 03/24/2014 17:55 |

*(Cont.)*

CDPH ELAP 1644 ♦ NELAP 4033ORELAP HK Analyst's Initial Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Project:** | #14011.28; Hollis-Emeryville | **Extraction Method** | SW3510C |
| **Date Received:** | 3/20/14 20:00 | **Analytical Method:** | SW8270C-SIM |
| **Date Prepared:** | 3/24/14 | **Unit:** | µg/L |

## Polynuclear Aromatic Hydrocarbons (PAHs / PNAs) using SIM Mode by GC/MS

| Client ID | Lab ID | Matrix/ExtType | Date Collected | Instrument | Batch ID |
|---|---|---|---|---|---|
| **AMW-3** | **1403700-003C** | **Water** | **03/19/2014 09:40** | **GC35** | **88526** |

| Analytes | Result | RL | DF | Date Analyzed |
|---|---|---|---|---|
| Acenaphthene | ND | 0.50 | 1 | 03/24/2014 18:20 |
| Acenaphthylene | ND | 0.50 | 1 | 03/24/2014 18:20 |
| Anthracene | ND | 0.50 | 1 | 03/24/2014 18:20 |
| Benzo (a) anthracene | ND | 0.50 | 1 | 03/24/2014 18:20 |
| Benzo (b) fluoranthene | ND | 0.50 | 1 | 03/24/2014 18:20 |
| Benzo (k) fluoranthene | ND | 0.50 | 1 | 03/24/2014 18:20 |
| Benzo (g,h,i) perylene | ND | 0.50 | 1 | 03/24/2014 18:20 |
| Benzo (a) pyrene | ND | 0.50 | 1 | 03/24/2014 18:20 |
| Chrysene | ND | 0.50 | 1 | 03/24/2014 18:20 |
| Dibenzo (a,h) anthracene | ND | 0.50 | 1 | 03/24/2014 18:20 |
| Fluoranthene | ND | 0.50 | 1 | 03/24/2014 18:20 |
| Fluorene | ND | 0.50 | 1 | 03/24/2014 18:20 |
| Indeno (1,2,3-cd) pyrene | ND | 0.50 | 1 | 03/24/2014 18:20 |
| 1-Methylnaphthalene | **2.7** | 0.50 | 1 | 03/24/2014 18:20 |
| 2-Methylnaphthalene | **2.8** | 0.50 | 1 | 03/24/2014 18:20 |
| Naphthalene | **6.3** | 0.50 | 1 | 03/24/2014 18:20 |
| Phenanthrene | ND | 0.50 | 1 | 03/24/2014 18:20 |
| Pyrene | ND | 0.50 | 1 | 03/24/2014 18:20 |

| Surrogates | REC (%) | Limits | |
|---|---|---|---|
| 1-Fluoronapthalene | 116 | 30-130 | 03/24/2014 18:20 |
| 2-fluorobiphenyl | 105 | 30-130 | 03/24/2014 18:20 |

*(Cont.)*

CDPH ELAP 1644 ♦ NELAP 4033ORELAP HK Analyst's Initial Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Project:** | #14011.28; Hollis-Emeryville | **Extraction Method** | SW3510C |
| **Date Received:** | 3/20/14 20:00 | **Analytical Method:** | SW8270C-SIM |
| **Date Prepared:** | 3/24/14 | **Unit:** | µg/L |

## Polynuclear Aromatic Hydrocarbons (PAHs / PNAs) using SIM Mode by GC/MS

| Client ID | Lab ID | Matrix/ExtType | Date Collected | Instrument | Batch ID |
|---|---|---|---|---|---|
| **MW-3** | **1403700-004C** | **Water** | **03/19/2014 14:32** | **GC35** | **88526** |

| Analytes | Result | RL | DF | Date Analyzed |
|---|---|---|---|---|
| Acenaphthene | ND | 10 | 20 | 03/25/2014 15:23 |
| Acenaphthylene | ND | 10 | 20 | 03/25/2014 15:23 |
| Anthracene | ND | 10 | 20 | 03/25/2014 15:23 |
| Benzo (a) anthracene | ND | 10 | 20 | 03/25/2014 15:23 |
| Benzo (b) fluoranthene | ND | 10 | 20 | 03/25/2014 15:23 |
| Benzo (k) fluoranthene | ND | 10 | 20 | 03/25/2014 15:23 |
| Benzo (g,h,i) perylene | ND | 10 | 20 | 03/25/2014 15:23 |
| Benzo (a) pyrene | ND | 10 | 20 | 03/25/2014 15:23 |
| Chrysene | ND | 10 | 20 | 03/25/2014 15:23 |
| Dibenzo (a,h) anthracene | ND | 10 | 20 | 03/25/2014 15:23 |
| Fluoranthene | ND | 10 | 20 | 03/25/2014 15:23 |
| Fluorene | ND | 10 | 20 | 03/25/2014 15:23 |
| Indeno (1,2,3-cd) pyrene | ND | 10 | 20 | 03/25/2014 15:23 |
| 1-Methylnaphthalene | **80** | 10 | 20 | 03/25/2014 15:23 |
| 2-Methylnaphthalene | **150** | 10 | 20 | 03/25/2014 15:23 |
| Naphthalene | **360** | 10 | 20 | 03/25/2014 15:23 |
| Phenanthrene | ND | 10 | 20 | 03/25/2014 15:23 |
| Pyrene | ND | 10 | 20 | 03/25/2014 15:23 |

| Surrogates | REC (%) | Limits | |
|---|---|---|---|
| 1-Fluoronapthalene | 113 | 30-130 | 03/25/2014 15:23 |
| 2-fluorobiphenyl | 94 | 30-130 | 03/25/2014 15:23 |

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Project:** | #14011.28; Hollis-Emeryville | **Extraction Method:** | SW5030B |
| **Date Received:** | 3/20/14 20:00 | **Analytical Method:** | SW8021B/8015Bm |
| **Date Prepared:** | 3/22/14-3/26/14 | **Unit:** | µg/L |

## Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

| Client ID | Lab ID | Matrix/ExtType | Date Collected | Instrument | Batch ID |
|---|---|---|---|---|---|
| **AMW-1** | **1403700-001B** | **Water** | **03/19/2014 11:24** | **GC3** | **88488** |

| Analytes | Result | RL | DF | Date Analyzed |
|---|---|---|---|---|
| TPH(g) | ND | 50 | 1 | 03/23/2014 00:02 |
| TPH(mineral spirits) | ND | 50 | 1 | 03/23/2014 00:02 |
| MTBE | --- | 5.0 | 1 | 03/23/2014 00:02 |
| Benzene | --- | 0.50 | 1 | 03/23/2014 00:02 |
| Toluene | --- | 0.50 | 1 | 03/23/2014 00:02 |
| Ethylbenzene | --- | 0.50 | 1 | 03/23/2014 00:02 |
| Xylenes | --- | 0.50 | 1 | 03/23/2014 00:02 |

| Surrogates | REC (%) | Qualifiers | Limits | Analytical Comments: c2,b1 |
|---|---|---|---|---|
| aaa-TFT | 152 | S | 70-130 | 03/23/2014 00:02 |

| AMW-2 | 1403700-002B | Water | 03/19/2014 16:32 | GC3 | 88552 |
|---|---|---|---|---|---|

| Analytes | Result | RL | DF | Date Analyzed |
|---|---|---|---|---|
| TPH(g) | **550** | 50 | 1 | 03/24/2014 15:12 |
| TPH(mineral spirits) | **430** | 50 | 1 | 03/24/2014 15:12 |
| MTBE | --- | 50 | 10 | 03/25/2014 22:05 |
| Benzene | --- | 0.50 | 1 | 03/24/2014 15:12 |
| Toluene | --- | 0.50 | 1 | 03/24/2014 15:12 |
| Ethylbenzene | --- | 0.50 | 1 | 03/24/2014 15:12 |
| Xylenes | --- | 0.50 | 1 | 03/24/2014 15:12 |

| Surrogates | REC (%) | Limits | Analytical Comments: d1 |
|---|---|---|---|
| aaa-TFT | 107 | 70-130 | 03/24/2014 15:12 |

| AMW-3 | 1403700-003B | Water | 03/19/2014 09:40 | GC3 | 88488 |
|---|---|---|---|---|---|

| Analytes | Result | RL | DF | Date Analyzed |
|---|---|---|---|---|
| TPH(g) | **140** | 50 | 1 | 03/22/2014 11:24 |
| TPH(mineral spirits) | **110** | 50 | 1 | 03/22/2014 11:24 |
| MTBE | --- | 5.0 | 1 | 03/22/2014 11:24 |
| Benzene | --- | 0.50 | 1 | 03/22/2014 11:24 |
| Toluene | --- | 0.50 | 1 | 03/22/2014 11:24 |
| Ethylbenzene | --- | 0.50 | 1 | 03/22/2014 11:24 |
| Xylenes | --- | 0.50 | 1 | 03/22/2014 11:24 |

| Surrogates | REC (%) | Qualifiers | Limits | Analytical Comments: d1,c4 |
|---|---|---|---|---|
| aaa-TFT | 242 | S | 70-130 | 03/22/2014 11:24 |

*(Cont.)*

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Project:** | #14011.28; Hollis-Emeryville | **Extraction Method:** | SW5030B |
| **Date Received:** | 3/20/14 20:00 | **Analytical Method:** | SW8021B/8015Bm |
| **Date Prepared:** | 3/22/14-3/26/14 | **Unit:** | µg/L |

## Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

| Client ID | Lab ID | Matrix/ExtType | Date Collected | Instrument | Batch ID |
|---|---|---|---|---|---|
| **MW-3** | **1403700-004B** | **Water** | **03/19/2014 14:32** | **GC7** | **88594** |

| Analytes | Result | RL | DF | Date Analyzed |
|---|---|---|---|---|
| TPH(g) | **87,000** | 5000 | 100 | 03/26/2014 20:14 |
| TPH(mineral spirits) | **40,000** | 5000 | 100 | 03/26/2014 20:14 |
| MTBE | **---** | 500 | 100 | 03/26/2014 20:14 |
| Benzene | **---** | 50 | 100 | 03/26/2014 20:14 |
| Toluene | **---** | 50 | 100 | 03/26/2014 20:14 |
| Ethylbenzene | **---** | 50 | 100 | 03/26/2014 20:14 |
| Xylenes | **---** | 50 | 100 | 03/26/2014 20:14 |
| Surrogates | REC (%) | Limits | Analytical Comments: d1 | |
| aaa-TFT | 98 | 70-130 | | 03/26/2014 20:14 |

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Project:** | #14011.28; Hollis-Emeryville | **Extraction Method:** | SW3510C/3630C |
| **Date Received:** | 3/20/14 20:00 | **Analytical Method:** | SW8015B |
| **Date Prepared:** | 3/20/14 | **Unit:** | µg/L |

## Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

| Client ID | Lab ID | Matrix/ExtType | Date Collected | Instrument | Batch ID |
|---|---|---|---|---|---|
| **AMW-1** | **1403700-001B** | **Water** | **03/19/2014 11:24** | **GC6B** | **88412** |

| Analytes | Result | RL | DF | Date Analyzed |
|---|---|---|---|---|
| TPH-Diesel (C10-C23) | ND | 50 | 1 | 03/21/2014 19:21 |

| Surrogates | REC (%) | Limits | Analytical Comments: b1 | |
|---|---|---|---|---|
| C9 | 109 | 70-130 | | 03/21/2014 19:21 |

| Client ID | Lab ID | Matrix/ExtType | Date Collected | Instrument | Batch ID |
|---|---|---|---|---|---|
| **AMW-2** | **1403700-002B** | **Water** | **03/19/2014 16:32** | **GC6B** | **88412** |

| Analytes | Result | RL | DF | Date Analyzed |
|---|---|---|---|---|
| TPH-Diesel (C10-C23) | **190** | 50 | 1 | 03/22/2014 06:07 |

| Surrogates | REC (%) | Limits | Analytical Comments: e4 | |
|---|---|---|---|---|
| C9 | 110 | 70-130 | | 03/22/2014 06:07 |

| Client ID | Lab ID | Matrix/ExtType | Date Collected | Instrument | Batch ID |
|---|---|---|---|---|---|
| **AMW-3** | **1403700-003B** | **Water** | **03/19/2014 09:40** | **GC6B** | **88412** |

| Analytes | Result | RL | DF | Date Analyzed |
|---|---|---|---|---|
| TPH-Diesel (C10-C23) | **130** | 50 | 1 | 03/22/2014 07:18 |

| Surrogates | REC (%) | Limits | Analytical Comments: e4 | |
|---|---|---|---|---|
| C9 | 110 | 70-130 | | 03/22/2014 07:18 |

| Client ID | Lab ID | Matrix/ExtType | Date Collected | Instrument | Batch ID |
|---|---|---|---|---|---|
| **MW-3** | **1403700-004B** | **Water** | **03/19/2014 14:32** | **GC6B** | **88412** |

| Analytes | Result | RL | DF | Date Analyzed |
|---|---|---|---|---|
| TPH-Diesel (C10-C23) | **11,000** | 50 | 1 | 03/22/2014 00:11 |

| Surrogates | REC (%) | Limits | Analytical Comments: e4 | |
|---|---|---|---|---|
| C9 | 114 | 70-130 | | 03/22/2014 00:11 |

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Quality Control Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Date Prepared:** | 3/25/14 | **BatchID:** | 88571 |
| **Date Analyzed:** | 3/25/14 | **Extraction Method:** | SW5030B |
| **Instrument:** | GC18 | **Analytical Method:** | SW8260B |
| **Matrix:** | Water | **Unit:** | µg/L |
| **Project:** | #14011.28; Hollis-Emeryville | **Sample ID:** | MB/LCS-88571<br>1403665-015AMS/MSD |

## QC Summary Report for SW8260B

| Analyte | MB Result | LCS Result | RL | SPK Val | MB SS %REC | LCS %REC | LCS Limits |
|---|---|---|---|---|---|---|---|
| Acetone | ND | - | 10 | - | - | - | - |
| tert-Amyl methyl ether (TAME) | ND | 16.99 | 0.50 | 20 | - | 85 | 70-130 |
| Benzene | ND | 16.44 | 0.50 | 20 | - | 82.2 | 70-130 |
| Bromobenzene | ND | - | 0.50 | - | - | - | - |
| Bromochloromethane | ND | - | 0.50 | - | - | - | - |
| Bromodichloromethane | ND | - | 0.50 | - | - | - | - |
| Bromoform | ND | - | 0.50 | - | - | - | - |
| Bromomethane | ND | - | 0.50 | - | - | - | - |
| 2-Butanone (MEK) | ND | - | 2.0 | - | - | - | - |
| t-Butyl alcohol (TBA) | ND | 69.69 | 2.0 | 80 | - | 87.1 | 70-130 |
| n-Butyl benzene | ND | - | 0.50 | - | - | - | - |
| sec-Butyl benzene | ND | - | 0.50 | - | - | - | - |
| tert-Butyl benzene | ND | - | 0.50 | - | - | - | - |
| Carbon Disulfide | ND | - | 0.50 | - | - | - | - |
| Carbon Tetrachloride | ND | - | 0.50 | - | - | - | - |
| Chlorobenzene | ND | 18.22 | 0.50 | 20 | - | 91.1 | 70-130 |
| Chloroethane | ND | - | 0.50 | - | - | - | - |
| Chloroform | ND | - | 0.50 | - | - | - | - |
| Chloromethane | ND | - | 0.50 | - | - | - | - |
| 2-Chlorotoluene | ND | - | 0.50 | - | - | - | - |
| 4-Chlorotoluene | ND | - | 0.50 | - | - | - | - |
| Dibromochloromethane | ND | - | 0.50 | - | - | - | - |
| 1,2-Dibromo-3-chloropropane | ND | - | 0.20 | - | - | - | - |
| 1,2-Dibromoethane (EDB) | ND | 20.37 | 0.50 | 20 | - | 102 | 70-130 |
| Dibromomethane | ND | - | 0.50 | - | - | - | - |
| 1,2-Dichlorobenzene | ND | - | 0.50 | - | - | - | - |
| 1,3-Dichlorobenzene | ND | - | 0.50 | - | - | - | - |
| 1,4-Dichlorobenzene | ND | - | 0.50 | - | - | - | - |
| Dichlorodifluoromethane | ND | - | 0.50 | - | - | - | - |
| 1,1-Dichloroethane | ND | - | 0.50 | - | - | - | - |
| 1,2-Dichloroethane (1,2-DCA) | ND | 16.99 | 0.50 | 20 | - | 85 | 70-130 |
| 1,1-Dichloroethene | ND | 17.21 | 0.50 | 20 | - | 86.1 | 70-130 |
| cis-1,2-Dichloroethene | ND | - | 0.50 | - | - | - | - |
| trans-1,2-Dichloroethene | ND | - | 0.50 | - | - | - | - |
| 1,2-Dichloropropane | ND | - | 0.50 | - | - | - | - |
| 1,3-Dichloropropane | ND | - | 0.50 | - | - | - | - |
| 2,2-Dichloropropane | ND | - | 0.50 | - | - | - | - |
| 1,1-Dichloropropene | ND | - | 0.50 | - | - | - | - |
| cis-1,3-Dichloropropene | ND | - | 0.50 | - | - | - | - |
| trans-1,3-Dichloropropene | ND | - | 0.50 | - | - | - | - |

*(Cont.)*

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Quality Control Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Date Prepared:** | 3/25/14 | **BatchID:** | 88571 |
| **Date Analyzed:** | 3/25/14 | **Extraction Method:** | SW5030B |
| **Instrument:** | GC18 | **Analytical Method:** | SW8260B |
| **Matrix:** | Water | **Unit:** | µg/L |
| **Project:** | #14011.28; Hollis-Emeryville | **Sample ID:** | MB/LCS-88571<br>1403665-015AMS/MSD |

## QC Summary Report for SW8260B

| Analyte | MB Result | LCS Result | RL | SPK Val | MB SS %REC | LCS %REC | LCS Limits |
|---|---|---|---|---|---|---|---|
| Diisopropyl ether (DIPE) | ND | 16.13 | 0.50 | 20 | - | 80.6 | 70-130 |
| Ethylbenzene | ND | - | 0.50 | - | - | - | - |
| Ethyl tert-butyl ether (ETBE) | ND | 16.78 | 0.50 | 20 | - | 83.9 | 70-130 |
| Freon 113 | ND | - | 0.50 | - | - | - | - |
| Hexachlorobutadiene | ND | - | 0.50 | - | - | - | - |
| Hexachloroethane | ND | - | 0.50 | - | - | - | - |
| 2-Hexanone | ND | - | 0.50 | - | - | - | - |
| Isopropylbenzene | ND | - | 0.50 | - | - | - | - |
| 4-Isopropyl toluene | ND | - | 0.50 | - | - | - | - |
| Methyl-t-butyl ether (MTBE) | ND | 17.23 | 0.50 | 20 | - | 86.1 | 70-130 |
| Methylene chloride | ND | - | 0.50 | - | - | - | - |
| 4-Methyl-2-pentanone (MIBK) | ND | - | 0.50 | - | - | - | - |
| Naphthalene | ND | - | 0.50 | - | - | - | - |
| n-Propyl benzene | ND | - | 0.50 | - | - | - | - |
| Styrene | ND | - | 0.50 | - | - | - | - |
| 1,1,1,2-Tetrachloroethane | ND | - | 0.50 | - | - | - | - |
| 1,1,2,2-Tetrachloroethane | ND | - | 0.50 | - | - | - | - |
| Tetrachloroethene | ND | - | 0.50 | - | - | - | - |
| Toluene | ND | 16.06 | 0.50 | 20 | - | 80.3 | 70-130 |
| 1,2,3-Trichlorobenzene | ND | - | 0.50 | - | - | - | - |
| 1,2,4-Trichlorobenzene | ND | - | 0.50 | - | - | - | - |
| 1,1,1-Trichloroethane | ND | - | 0.50 | - | - | - | - |
| 1,1,2-Trichloroethane | ND | - | 0.50 | - | - | - | - |
| Trichloroethene | ND | 17.22 | 0.50 | 20 | - | 86.1 | 70-130 |
| Trichlorofluoromethane | ND | - | 0.50 | - | - | - | - |
| 1,2,3-Trichloropropane | ND | - | 0.50 | - | - | - | - |
| 1,2,4-Trimethylbenzene | ND | - | 0.50 | - | - | - | - |
| 1,3,5-Trimethylbenzene | ND | - | 0.50 | - | - | - | - |
| Vinyl Chloride | ND | - | 0.50 | - | - | - | - |
| Xylenes, Total | ND | - | 0.50 | - | - | - | - |
| **Surrogate Recovery** | | | | | | | |
| Dibromofluoromethane | 24.56 | 42.39 | | 45 | 98 | 94 | 70-130 |
| Toluene-d8 | 23.72 | 42.97 | | 45 | 95 | 95 | 70-130 |
| 4-BFB | 2.324 | 4.146 | | 4.5 | 93 | 92 | 70-130 |

*(Cont.)*

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Quality Control Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Date Prepared:** | 3/25/14 | **BatchID:** | 88571 |
| **Date Analyzed:** | 3/25/14 | **Extraction Method:** | SW5030B |
| **Instrument:** | GC18 | **Analytical Method:** | SW8260B |
| **Matrix:** | Water | **Unit:** | µg/L |
| **Project:** | #14011.28; Hollis-Emeryville | **Sample ID:** | MB/LCS-88571<br>1403665-015AMS/MSD |

## QC Summary Report for SW8260B

| Analyte | MS Result | MSD Result | SPK Val | SPKRef Val | MS %REC | MSD %REC | MS/MSD Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| tert-Amyl methyl ether (TAME) | 15.61 | 17.01 | 20 | ND | 78.1 | 85.1 | 70-130 | 8.60 | 20 |
| Benzene | 17.81 | 17.76 | 20 | ND | 89.1 | 88.8 | 70-130 | 0.314 | 20 |
| t-Butyl alcohol (TBA) | 33.25 | 37.98 | 80 | ND | 41.6,F1 | 47.5,F1 | 70-130 | 13.3 | 20 |
| Chlorobenzene | 18.66 | 18.47 | 20 | ND | 93.3 | 92.4 | 70-130 | 1.03 | 20 |
| 1,2-Dibromoethane (EDB) | 18.53 | 19.25 | 20 | ND | 92.6 | 96.3 | 70-130 | 3.84 | 20 |
| 1,2-Dichloroethane (1,2-DCA) | 16.65 | 18.15 | 20 | ND | 83.2 | 90.8 | 70-130 | 8.67 | 20 |
| 1,1-Dichloroethene | 18.54 | 19.3 | 20 | ND | 92.7 | 96.5 | 70-130 | 3.97 | 20 |
| Diisopropyl ether (DIPE) | 15.45 | 16.31 | 20 | ND | 77.2 | 81.5 | 70-130 | 5.41 | 20 |
| Ethyl tert-butyl ether (ETBE) | 15.45 | 16.73 | 20 | ND | 77.3 | 83.6 | 70-130 | 7.92 | 20 |
| Methyl-t-butyl ether (MTBE) | 15.58 | 16.72 | 20 | ND | 77.9 | 83.6 | 70-130 | 7.10 | 20 |
| Toluene | 16.81 | 16.4 | 20 | ND | 84.1 | 82 | 70-130 | 2.49 | 20 |
| Trichloroethene | 20.03 | 20.14 | 20 | 1.226 | 94 | 94.6 | 70-130 | 0.555 | 20 |
| **Surrogate Recovery** | | | | | | | | | |
| Dibromofluoromethane | 42.7 | 45.34 | 45 | | 95 | 101 | 70-130 | 6.00 | 20 |
| Toluene-d8 | 43.49 | 42.42 | 45 | | 97 | 94 | 70-130 | 2.51 | 20 |
| 4-BFB | 4.139 | 4.058 | 4.5 | | 92 | 90 | 70-130 | 1.98 | 20 |

*(Cont.)*

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Quality Control Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Date Prepared:** | 3/26/14 | **BatchID:** | 88609 |
| **Date Analyzed:** | 3/25/14 | **Extraction Method:** | SW5030B |
| **Instrument:** | GC28 | **Analytical Method:** | SW8260B |
| **Matrix:** | Water | **Unit:** | µg/L |
| **Project:** | #14011.28; Hollis-Emeryville | **Sample ID:** | MB/LCS-88609<br>1403780-009BMS/MSD |

## QC Summary Report for SW8260B

| Analyte | MB Result | LCS Result | RL | SPK Val | MB SS %REC | LCS %REC | LCS Limits |
|---|---|---|---|---|---|---|---|
| Acetone | ND | - | 10 | - | - | - | - |
| tert-Amyl methyl ether (TAME) | ND | 15.99 | 0.50 | 20 | - | 79.9 | 70-130 |
| Benzene | ND | 16.97 | 0.50 | 20 | - | 84.9 | 70-130 |
| Bromobenzene | ND | - | 0.50 | - | - | - | - |
| Bromochloromethane | ND | - | 0.50 | - | - | - | - |
| Bromodichloromethane | ND | - | 0.50 | - | - | - | - |
| Bromoform | ND | - | 0.50 | - | - | - | - |
| Bromomethane | ND | - | 0.50 | - | - | - | - |
| 2-Butanone (MEK) | ND | - | 2.0 | - | - | - | - |
| t-Butyl alcohol (TBA) | ND | 54.65 | 2.0 | 80 | - | 68.3, F2 | 70-130 |
| n-Butyl benzene | ND | - | 0.50 | - | - | - | - |
| sec-Butyl benzene | ND | - | 0.50 | - | - | - | - |
| tert-Butyl benzene | ND | - | 0.50 | - | - | - | - |
| Carbon Disulfide | ND | - | 0.50 | - | - | - | - |
| Carbon Tetrachloride | ND | - | 0.50 | - | - | - | - |
| Chlorobenzene | ND | 17.86 | 0.50 | 20 | - | 89.3 | 70-130 |
| Chloroethane | ND | - | 0.50 | - | - | - | - |
| Chloroform | ND | - | 0.50 | - | - | - | - |
| Chloromethane | ND | - | 0.50 | - | - | - | - |
| 2-Chlorotoluene | ND | - | 0.50 | - | - | - | - |
| 4-Chlorotoluene | ND | - | 0.50 | - | - | - | - |
| Dibromochloromethane | ND | - | 0.50 | - | - | - | - |
| 1,2-Dibromo-3-chloropropane | ND | - | 0.20 | - | - | - | - |
| 1,2-Dibromoethane (EDB) | ND | 16.6 | 0.50 | 20 | - | 83 | 70-130 |
| Dibromomethane | ND | - | 0.50 | - | - | - | - |
| 1,2-Dichlorobenzene | ND | - | 0.50 | - | - | - | - |
| 1,3-Dichlorobenzene | ND | - | 0.50 | - | - | - | - |
| 1,4-Dichlorobenzene | ND | - | 0.50 | - | - | - | - |
| Dichlorodifluoromethane | ND | - | 0.50 | - | - | - | - |
| 1,1-Dichloroethane | ND | - | 0.50 | - | - | - | - |
| 1,2-Dichloroethane (1,2-DCA) | ND | 16.12 | 0.50 | 20 | - | 80.6 | 70-130 |
| 1,1-Dichloroethene | ND | 19.31 | 0.50 | 20 | - | 96.5 | 70-130 |
| cis-1,2-Dichloroethene | ND | - | 0.50 | - | - | - | - |
| trans-1,2-Dichloroethene | ND | - | 0.50 | - | - | - | - |
| 1,2-Dichloropropane | ND | - | 0.50 | - | - | - | - |
| 1,3-Dichloropropane | ND | - | 0.50 | - | - | - | - |
| 2,2-Dichloropropane | ND | - | 0.50 | - | - | - | - |
| 1,1-Dichloropropene | ND | - | 0.50 | - | - | - | - |
| cis-1,3-Dichloropropene | ND | - | 0.50 | - | - | - | - |
| trans-1,3-Dichloropropene | ND | - | 0.50 | - | - | - | - |

*(Cont.)*

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Quality Control Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Date Prepared:** | 3/26/14 | **BatchID:** | 88609 |
| **Date Analyzed:** | 3/25/14 | **Extraction Method:** | SW5030B |
| **Instrument:** | GC28 | **Analytical Method:** | SW8260B |
| **Matrix:** | Water | **Unit:** | µg/L |
| **Project:** | #14011.28; Hollis-Emeryville | **Sample ID:** | MB/LCS-88609<br>1403780-009BMS/MSD |

## QC Summary Report for SW8260B

| Analyte | MB Result | LCS Result | RL | SPK Val | MB SS %REC | LCS %REC | LCS Limits |
|---|---|---|---|---|---|---|---|
| Diisopropyl ether (DIPE) | ND | 17.14 | 0.50 | 20 | - | 85.7 | 70-130 |
| Ethylbenzene | ND | - | 0.50 | - | - | - | - |
| Ethyl tert-butyl ether (ETBE) | ND | 16.91 | 0.50 | 20 | - | 84.5 | 70-130 |
| Freon 113 | ND | - | 0.50 | - | - | - | - |
| Hexachlorobutadiene | ND | - | 0.50 | - | - | - | - |
| Hexachloroethane | ND | - | 0.50 | - | - | - | - |
| 2-Hexanone | ND | - | 0.50 | - | - | - | - |
| Isopropylbenzene | ND | - | 0.50 | - | - | - | - |
| 4-Isopropyl toluene | ND | - | 0.50 | - | - | - | - |
| Methyl-t-butyl ether (MTBE) | ND | 16.35 | 0.50 | 20 | - | 81.7 | 70-130 |
| Methylene chloride | ND | - | 0.50 | - | - | - | - |
| 4-Methyl-2-pentanone (MIBK) | ND | - | 0.50 | - | - | - | - |
| Naphthalene | ND | - | 0.50 | - | - | - | - |
| n-Propyl benzene | ND | - | 0.50 | - | - | - | - |
| Styrene | ND | - | 0.50 | - | - | - | - |
| 1,1,1,2-Tetrachloroethane | ND | - | 0.50 | - | - | - | - |
| 1,1,2,2-Tetrachloroethane | ND | - | 0.50 | - | - | - | - |
| Tetrachloroethene | ND | - | 0.50 | - | - | - | - |
| Toluene | ND | 18.12 | 0.50 | 20 | - | 90.6 | 70-130 |
| 1,2,3-Trichlorobenzene | ND | - | 0.50 | - | - | - | - |
| 1,2,4-Trichlorobenzene | ND | - | 0.50 | - | - | - | - |
| 1,1,1-Trichloroethane | ND | - | 0.50 | - | - | - | - |
| 1,1,2-Trichloroethane | ND | - | 0.50 | - | - | - | - |
| Trichloroethene | ND | 16.86 | 0.50 | 20 | - | 84.3 | 70-130 |
| Trichlorofluoromethane | ND | - | 0.50 | - | - | - | - |
| 1,2,3-Trichloropropane | ND | - | 0.50 | - | - | - | - |
| 1,2,4-Trimethylbenzene | ND | - | 0.50 | - | - | - | - |
| 1,3,5-Trimethylbenzene | ND | - | 0.50 | - | - | - | - |
| Vinyl Chloride | ND | - | 0.50 | - | - | - | - |
| Xylenes, Total | ND | - | 0.50 | - | - | - | - |
| **Surrogate Recovery** | | | | | | | |
| Dibromofluoromethane | 21.64 | 36.69 | | 45 | 87 | 82 | 70-130 |
| Toluene-d8 | 22.24 | 38.62 | | 45 | 89 | 86 | 70-130 |
| 4-BFB | 2.396 | 4.158 | | 4.5 | 96 | 92 | 70-130 |

*(Cont.)*

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Quality Control Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Date Prepared:** | 3/26/14 | **BatchID:** | 88609 |
| **Date Analyzed:** | 3/25/14 | **Extraction Method:** | SW5030B |
| **Instrument:** | GC28 | **Analytical Method:** | SW8260B |
| **Matrix:** | Water | **Unit:** | µg/L |
| **Project:** | #14011.28; Hollis-Emeryville | **Sample ID:** | MB/LCS-88609<br>1403780-009BMS/MSD |

## QC Summary Report for SW8260B

| Analyte | MS Result | MSD Result | SPK Val | SPKRef Val | MS %REC | MSD %REC | MS/MSD Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| tert-Amyl methyl ether (TAME) | 18.57 | 18.78 | 20 | ND | 92.9 | 93.9 | 70-130 | 1.12 | 20 |
| Benzene | 18.23 | 18 | 20 | ND | 91.2 | 90 | 70-130 | 1.28 | 20 |
| t-Butyl alcohol (TBA) | 73.57 | 76.77 | 80 | ND | 92 | 96 | 70-130 | 4.25 | 20 |
| Chlorobenzene | 18.75 | 18.46 | 20 | ND | 93.8 | 92.3 | 70-130 | 1.59 | 20 |
| 1,2-Dibromoethane (EDB) | 19.16 | 19.25 | 20 | ND | 95.8 | 96.3 | 70-130 | 0.487 | 20 |
| 1,2-Dichloroethane (1,2-DCA) | 18.74 | 18.83 | 20 | ND | 93.7 | 94.1 | 70-130 | 0.497 | 20 |
| 1,1-Dichloroethene | 19.94 | 19.54 | 20 | ND | 99.7 | 97.7 | 70-130 | 2.07 | 20 |
| Diisopropyl ether (DIPE) | 18.58 | 18.76 | 20 | ND | 92.9 | 93.8 | 70-130 | 0.976 | 20 |
| Ethyl tert-butyl ether (ETBE) | 18.68 | 19.2 | 20 | ND | 93.4 | 96 | 70-130 | 2.75 | 20 |
| Methyl-t-butyl ether (MTBE) | 19.88 | 19.97 | 20 | ND | 99.4 | 99.8 | 70-130 | 0.439 | 20 |
| Toluene | 18.53 | 18.51 | 20 | ND | 92.7 | 92.5 | 70-130 | 0.152 | 20 |
| Trichloroethene | 18.14 | 18.15 | 20 | ND | 90.7 | 90.7 | 70-130 | 0 | 20 |
| **Surrogate Recovery** | | | | | | | | | |
| Dibromofluoromethane | 39.59 | 39.99 | 45 | | 88 | 89 | 70-130 | 1.01 | 20 |
| Toluene-d8 | 39.01 | 39.25 | 45 | | 87 | 87 | 70-130 | 0 | 20 |
| 4-BFB | 4.25 | 4.307 | 4.5 | | 94 | 96 | 70-130 | 1.33 | 20 |

*(Cont.)*

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Quality Control Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Date Prepared:** | 3/27/14 | **BatchID:** | 88674 |
| **Date Analyzed:** | 3/26/14 | **Extraction Method:** | SW5030B |
| **Instrument:** | GC18 | **Analytical Method:** | SW8260B |
| **Matrix:** | Water | **Unit:** | µg/L |
| **Project:** | #14011.28; Hollis-Emeryville | **Sample ID:** | MB/LCS-88674<br>1403789-001AMS/MSD |

## QC Summary Report for SW8260B

| Analyte | MB Result | LCS Result | RL | SPK Val | MB SS %REC | LCS %REC | LCS Limits |
|---|---|---|---|---|---|---|---|
| Acetone | ND | - | 10 | - | - | - | - |
| tert-Amyl methyl ether (TAME) | ND | 14.98 | 0.50 | 20 | - | 74.9 | 70-130 |
| Benzene | ND | 16.17 | 0.50 | 20 | - | 80.9 | 70-130 |
| Bromobenzene | ND | - | 0.50 | - | - | - | - |
| Bromochloromethane | ND | - | 0.50 | - | - | - | - |
| Bromodichloromethane | ND | - | 0.50 | - | - | - | - |
| Bromoform | ND | - | 0.50 | - | - | - | - |
| Bromomethane | ND | - | 0.50 | - | - | - | - |
| 2-Butanone (MEK) | ND | - | 2.0 | - | - | - | - |
| t-Butyl alcohol (TBA) | ND | 59.97 | 2.0 | 80 | - | 75 | 70-130 |
| n-Butyl benzene | ND | - | 0.50 | - | - | - | - |
| sec-Butyl benzene | ND | - | 0.50 | - | - | - | - |
| tert-Butyl benzene | ND | - | 0.50 | - | - | - | - |
| Carbon Disulfide | ND | - | 0.50 | - | - | - | - |
| Carbon Tetrachloride | ND | - | 0.50 | - | - | - | - |
| Chlorobenzene | ND | 17.76 | 0.50 | 20 | - | 88.8 | 70-130 |
| Chloroethane | ND | - | 0.50 | - | - | - | - |
| Chloroform | ND | - | 0.50 | - | - | - | - |
| Chloromethane | ND | - | 0.50 | - | - | - | - |
| 2-Chlorotoluene | ND | - | 0.50 | - | - | - | - |
| 4-Chlorotoluene | ND | - | 0.50 | - | - | - | - |
| Dibromochloromethane | ND | - | 0.50 | - | - | - | - |
| 1,2-Dibromo-3-chloropropane | ND | - | 0.20 | - | - | - | - |
| 1,2-Dibromoethane (EDB) | ND | 17.46 | 0.50 | 20 | - | 87.3 | 70-130 |
| Dibromomethane | ND | - | 0.50 | - | - | - | - |
| 1,2-Dichlorobenzene | ND | - | 0.50 | - | - | - | - |
| 1,3-Dichlorobenzene | ND | - | 0.50 | - | - | - | - |
| 1,4-Dichlorobenzene | ND | - | 0.50 | - | - | - | - |
| Dichlorodifluoromethane | ND | - | 0.50 | - | - | - | - |
| 1,1-Dichloroethane | ND | - | 0.50 | - | - | - | - |
| 1,2-Dichloroethane (1,2-DCA) | ND | 15.31 | 0.50 | 20 | - | 76.5 | 70-130 |
| 1,1-Dichloroethene | ND | 17.58 | 0.50 | 20 | - | 87.9 | 70-130 |
| cis-1,2-Dichloroethene | ND | - | 0.50 | - | - | - | - |
| trans-1,2-Dichloroethene | ND | - | 0.50 | - | - | - | - |
| 1,2-Dichloropropane | ND | - | 0.50 | - | - | - | - |
| 1,3-Dichloropropane | ND | - | 0.50 | - | - | - | - |
| 2,2-Dichloropropane | ND | - | 0.50 | - | - | - | - |
| 1,1-Dichloropropene | ND | - | 0.50 | - | - | - | - |
| cis-1,3-Dichloropropene | ND | - | 0.50 | - | - | - | - |
| trans-1,3-Dichloropropene | ND | - | 0.50 | - | - | - | - |

*(Cont.)*

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Quality Control Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Date Prepared:** | 3/27/14 | **BatchID:** | 88674 |
| **Date Analyzed:** | 3/26/14 | **Extraction Method:** | SW5030B |
| **Instrument:** | GC18 | **Analytical Method:** | SW8260B |
| **Matrix:** | Water | **Unit:** | µg/L |
| **Project:** | #14011.28; Hollis-Emeryville | **Sample ID:** | MB/LCS-88674<br>1403789-001AMS/MSD |

## QC Summary Report for SW8260B

| Analyte | MB Result | LCS Result | RL | SPK Val | MB SS %REC | LCS %REC | LCS Limits |
|---|---|---|---|---|---|---|---|
| Diisopropyl ether (DIPE) | ND | 14.73 | 0.50 | 20 | - | 73.7 | 70-130 |
| Ethylbenzene | ND | - | 0.50 | - | - | - | - |
| Ethyl tert-butyl ether (ETBE) | ND | 15.08 | 0.50 | 20 | - | 75.4 | 70-130 |
| Freon 113 | ND | - | 0.50 | - | - | - | - |
| Hexachlorobutadiene | ND | - | 0.50 | - | - | - | - |
| Hexachloroethane | ND | - | 0.50 | - | - | - | - |
| 2-Hexanone | ND | - | 0.50 | - | - | - | - |
| Isopropylbenzene | ND | - | 0.50 | - | - | - | - |
| 4-Isopropyl toluene | ND | - | 0.50 | - | - | - | - |
| Methyl-t-butyl ether (MTBE) | ND | 15.02 | 0.50 | 20 | - | 75.1 | 70-130 |
| Methylene chloride | ND | - | 0.50 | - | - | - | - |
| 4-Methyl-2-pentanone (MIBK) | ND | - | 0.50 | - | - | - | - |
| Naphthalene | ND | - | 0.50 | - | - | - | - |
| n-Propyl benzene | ND | - | 0.50 | - | - | - | - |
| Styrene | ND | - | 0.50 | - | - | - | - |
| 1,1,1,2-Tetrachloroethane | ND | - | 0.50 | - | - | - | - |
| 1,1,2,2-Tetrachloroethane | ND | - | 0.50 | - | - | - | - |
| Tetrachloroethene | ND | - | 0.50 | - | - | - | - |
| Toluene | ND | 16.17 | 0.50 | 20 | - | 80.9 | 70-130 |
| 1,2,3-Trichlorobenzene | ND | - | 0.50 | - | - | - | - |
| 1,2,4-Trichlorobenzene | ND | - | 0.50 | - | - | - | - |
| 1,1,1-Trichloroethane | ND | - | 0.50 | - | - | - | - |
| 1,1,2-Trichloroethane | ND | - | 0.50 | - | - | - | - |
| Trichloroethene | ND | 17.24 | 0.50 | 20 | - | 86.2 | 70-130 |
| Trichlorofluoromethane | ND | - | 0.50 | - | - | - | - |
| 1,2,3-Trichloropropane | ND | - | 0.50 | - | - | - | - |
| 1,2,4-Trimethylbenzene | ND | - | 0.50 | - | - | - | - |
| 1,3,5-Trimethylbenzene | ND | - | 0.50 | - | - | - | - |
| Vinyl Chloride | ND | - | 0.50 | - | - | - | - |
| Xylenes, Total | ND | - | 0.50 | - | - | - | - |
| **Surrogate Recovery** | | | | | | | |
| Dibromofluoromethane | 23.77 | 41.51 | | 45 | 95 | 92 | 70-130 |
| Toluene-d8 | 23.93 | 43.88 | | 45 | 96 | 98 | 70-130 |
| 4-BFB | 2.282 | 4.044 | | 4.5 | 91 | 90 | 70-130 |

*(Cont.)*

CDPH ELAP 1644 ♦ NELAP 4033ORELAP

QA/QC Officer

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Quality Control Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Date Prepared:** | 3/27/14 | **BatchID:** | 88674 |
| **Date Analyzed:** | 3/26/14 | **Extraction Method:** | SW5030B |
| **Instrument:** | GC18 | **Analytical Method:** | SW8260B |
| **Matrix:** | Water | **Unit:** | µg/L |
| **Project:** | #14011.28; Hollis-Emeryville | **Sample ID:** | MB/LCS-88674<br>1403789-001AMS/MSD |

## QC Summary Report for SW8260B

| Analyte | MS Result | MSD Result | SPK Val | SPKRef Val | MS %REC | MSD %REC | MS/MSD Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| tert-Amyl methyl ether (TAME) | 14.71 | 14.72 | 20 | ND | 73.5 | 73.6 | 70-130 | 0.0938 | 20 |
| Benzene | 16.12 | 15.71 | 20 | ND | 80.6 | 78.6 | 70-130 | 2.54 | 20 |
| t-Butyl alcohol (TBA) | 31.03 | 42.04 | 80 | ND | 38.8,F1 | 52.5,F1 | 70-130 | 30.1,F1 | 20 |
| Chlorobenzene | 17.76 | 17.48 | 20 | ND | 88.8 | 87.4 | 70-130 | 1.62 | 20 |
| 1,2-Dibromoethane (EDB) | 18.03 | 17.93 | 20 | ND | 90.1 | 89.6 | 70-130 | 0.547 | 20 |
| 1,2-Dichloroethane (1,2-DCA) | 15.53 | 15.27 | 20 | ND | 77.6 | 76.4 | 70-130 | 1.66 | 20 |
| 1,1-Dichloroethene | 17 | 16.19 | 20 | ND | 85 | 80.9 | 70-130 | 4.92 | 20 |
| Diisopropyl ether (DIPE) | 14.6 | 14.62 | 20 | ND | 73 | 73.1 | 70-130 | 0.146 | 20 |
| Ethyl tert-butyl ether (ETBE) | 14.86 | 14.83 | 20 | ND | 74.3 | 74.2 | 70-130 | 0.189 | 20 |
| Methyl-t-butyl ether (MTBE) | 14.74 | 14.89 | 20 | ND | 73.7 | 74.5 | 70-130 | 1.06 | 20 |
| Toluene | 15.66 | 15.36 | 20 | ND | 78.3 | 76.8 | 70-130 | 1.92 | 20 |
| Trichloroethene | 17.04 | 16.93 | 20 | ND | 85.2 | 84.7 | 70-130 | 0.649 | 20 |
| **Surrogate Recovery** | | | | | | | | | |
| Dibromofluoromethane | 41.76 | 41.42 | 45 | | 93 | 92 | 70-130 | 0.801 | 20 |
| Toluene-d8 | 42.79 | 42.41 | 45 | | 95 | 94 | 70-130 | 0.880 | 20 |
| 4-BFB | 3.943 | 3.954 | 4.5 | | 88 | 88 | 70-130 | 0 | 20 |

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Quality Control Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Date Prepared:** | 3/24/14 | **BatchID:** | 88526 |
| **Date Analyzed:** | 3/24/14 | **Extraction Method** | SW3510C |
| **Instrument:** | GC35 | **Analytical Method:** | SW8270C-SIM |
| **Matrix:** | Water | **Unit:** | µg/L |
| **Project:** | #14011.28; Hollis-Emeryville | **Sample ID:** | MB/LCS-88526 |

## QC Summary Report for SW8270C

| Analyte | MB Result | LCS Result | RL | SPK Val | MB SS %REC | LCS %REC | LCS Limits |
|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | - | 0.50 | - | - | - | - |
| Acenaphthylene | ND | - | 0.50 | - | - | - | - |
| Anthracene | ND | - | 0.50 | - | - | - | - |
| Benzo (a) anthracene | ND | - | 0.50 | - | - | - | - |
| Benzo (b) fluoranthene | ND | - | 0.50 | - | - | - | - |
| Benzo (k) fluoranthene | ND | - | 0.50 | - | - | - | - |
| Benzo (g,h,i) perylene | ND | - | 0.50 | - | - | - | - |
| Benzo (a) pyrene | ND | 8.662 | 0.50 | 10 | - | 86.6 | 30-130 |
| Chrysene | ND | 9.568 | 0.50 | 10 | - | 95.7 | 30-130 |
| Dibenzo (a,h) anthracene | ND | - | 0.50 | - | - | - | - |
| Fluoranthene | ND | - | 0.50 | - | - | - | - |
| Fluorene | ND | - | 0.50 | - | - | - | - |
| Indeno (1,2,3-cd) pyrene | ND | - | 0.50 | - | - | - | - |
| 1-Methylnaphthalene | ND | 11.42 | 0.50 | 10 | - | 114 | 30-130 |
| 2-Methylnaphthalene | ND | 9.549 | 0.50 | 10 | - | 95.5 | 30-130 |
| Naphthalene | ND | - | 0.50 | - | - | - | - |
| Phenanthrene | ND | 9.739 | 0.50 | 10 | - | 97.4 | 30-130 |
| Pyrene | ND | 9.799 | 0.50 | 10 | - | 98 | 30-130 |
| **Surrogate Recovery** | | | | | | | |
| 1-Fluoronapthalene | 24.62 | 25.07 | | 25 | 98 | 100 | 30-130 |
| 2-fluorobiphenyl | 24.13 | 22.69 | | 25 | 97 | 91 | 30-130 |

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Quality Control Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Date Prepared:** | 3/22/14 | **BatchID:** | 88488 |
| **Date Analyzed:** | 3/21/14 | **Extraction Method:** | SW5030B |
| **Instrument:** | GC3 | **Analytical Method:** | SW8021B/8015Bm |
| **Matrix:** | Water | **Unit:** | µg/L |
| **Project:** | #14011.28; Hollis-Emeryville | **Sample ID:** | MB/LCS-88488<br>1403688-001AMS/MSD |

## QC Summary Report for SW8021B/8015Bm

| Analyte | MB Result | LCS Result | RL | SPK Val | MB SS %REC | LCS %REC | LCS Limits |
|---|---|---|---|---|---|---|---|
| TPH(btex) | ND | 61.33 | 40 | 60 | - | 102 | 70-130 |
| MTBE | ND | 10.39 | 5.0 | 10 | - | 104 | 70-130 |
| Benzene | ND | 9.871 | 0.50 | 10 | - | 98.7 | 70-130 |
| Toluene | ND | 9.76 | 0.50 | 10 | - | 97.6 | 70-130 |
| Ethylbenzene | ND | 9.707 | 0.50 | 10 | - | 97.1 | 70-130 |
| Xylenes | ND | 29.43 | 0.50 | 30 | - | 98.1 | 70-130 |
| **Surrogate Recovery** | | | | | | | |
| aaa-TFT | 9.736 | 9.659 | | 10 | 97 | 97 | 70-130 |

| Analyte | MS Result | MSD Result | SPK Val | SPKRef Val | MS %REC | MSD %REC | MS/MSD Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| TPH(btex) | 57.59 | 55.99 | 60 | ND | 96 | 93.3 | 70-130 | 2.83 | 20 |
| MTBE | 10.57 | 9.957 | 10 | ND | 106 | 99.6 | 70-130 | 5.93 | 20 |
| Benzene | 10.34 | 9.523 | 10 | ND | 103 | 95.2 | 70-130 | 8.24 | 20 |
| Toluene | 10.15 | 9.507 | 10 | ND | 101 | 95.1 | 70-130 | 6.51 | 20 |
| Ethylbenzene | 10.19 | 9.491 | 10 | ND | 102 | 94.9 | 70-130 | 7.12 | 20 |
| Xylenes | 30.65 | 28.75 | 30 | ND | 102 | 95.8 | 70-130 | 6.40 | 20 |
| **Surrogate Recovery** | | | | | | | | | |
| aaa-TFT | 9.984 | 9.869 | 10 | | 100 | 99 | 70-130 | 1.16 | 20 |

*(Cont.)*

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Quality Control Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Date Prepared:** | 3/24/14 | **BatchID:** | 88552 |
| **Date Analyzed:** | 3/24/14 | **Extraction Method:** | SW5030B |
| **Instrument:** | GC3 | **Analytical Method:** | SW8021B/8015Bm |
| **Matrix:** | Water | **Unit:** | µg/L |
| **Project:** | #14011.28; Hollis-Emeryville | **Sample ID:** | MB/LCS-88552<br>1403808-001BMS/MSD |

## QC Summary Report for SW8021B/8015Bm

| Analyte | MB Result | LCS Result | RL | SPK Val | MB SS %REC | LCS %REC | LCS Limits |
|---|---|---|---|---|---|---|---|
| TPH(btex) | ND | 69.59 | 40 | 60 | - | 116 | 70-130 |
| MTBE | ND | 10.1 | 5.0 | 10 | - | 101 | 70-130 |
| Benzene | ND | 9.493 | 0.50 | 10 | - | 94.9 | 70-130 |
| Toluene | ND | 9.399 | 0.50 | 10 | - | 94 | 70-130 |
| Ethylbenzene | ND | 9.374 | 0.50 | 10 | - | 93.7 | 70-130 |
| Xylenes | ND | 28.4 | 0.50 | 30 | - | 94.7 | 70-130 |
| **Surrogate Recovery** | | | | | | | |
| aaa-TFT | 9.748 | 9.502 | | 10 | 97 | 95 | 70-130 |

| Analyte | MS Result | MSD Result | SPK Val | SPKRef Val | MS %REC | MSD %REC | MS/MSD Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| TPH(btex) | 59.44 | 60.12 | 60 | ND | 99.1 | 100 | 70-130 | 1.15 | 20 |
| MTBE | 10.23 | 11.41 | 10 | ND | 102 | 114 | 70-130 | 10.9 | 20 |
| Benzene | 9.784 | 10.51 | 10 | ND | 97.8 | 105 | 70-130 | 7.19 | 20 |
| Toluene | 9.665 | 10.47 | 10 | ND | 96.6 | 105 | 70-130 | 8.02 | 20 |
| Ethylbenzene | 9.943 | 10.64 | 10 | ND | 99.4 | 106 | 70-130 | 6.80 | 20 |
| Xylenes | 29.33 | 31.37 | 30 | ND | 97.8 | 105 | 70-130 | 6.70 | 20 |
| **Surrogate Recovery** | | | | | | | | | |
| aaa-TFT | 9.708 | 9.866 | 10 | | 97 | 99 | 70-130 | 1.61 | 20 |

*(Cont.)*

CDPH ELAP 1644 ♦ NELAP 4033ORELAP

QA/QC Officer

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Quality Control Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Date Prepared:** | 3/25/14 | **BatchID:** | 88594 |
| **Date Analyzed:** | 3/25/14 | **Extraction Method:** | SW5030B |
| **Instrument:** | GC3 | **Analytical Method:** | SW8021B/8015Bm |
| **Matrix:** | Water | **Unit:** | µg/L |
| **Project:** | #14011.28; Hollis-Emeryville | **Sample ID:** | MB/LCS-88594<br>1403788-001AMS/MSD |

## QC Summary Report for SW8021B/8015Bm

| Analyte | MB Result | LCS Result | RL | SPK Val | MB SS %REC | LCS %REC | LCS Limits |
|---|---|---|---|---|---|---|---|
| TPH(btex) | ND | 54.3 | 40 | 60 | - | 90.5 | 70-130 |
| MTBE | ND | 9.999 | 5.0 | 10 | - | 100 | 70-130 |
| Benzene | ND | 10.37 | 0.50 | 10 | - | 104 | 70-130 |
| Toluene | ND | 10.38 | 0.50 | 10 | - | 104 | 70-130 |
| Ethylbenzene | ND | 10.31 | 0.50 | 10 | - | 103 | 70-130 |
| Xylenes | ND | 31.06 | 0.50 | 30 | - | 104 | 70-130 |
| **Surrogate Recovery** | | | | | | | |
| aaa-TFT | 10.43 | 10.11 | | 10 | 104 | 101 | 70-130 |

| Analyte | MS Result | MSD Result | SPK Val | SPKRef Val | MS %REC | MSD %REC | MS/MSD Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| TPH(btex) | 67.08 | 67.47 | 60 | ND | 112 | 112 | 70-130 | 0 | 20 |
| MTBE | 10.68 | 10.88 | 10 | ND | 107 | 109 | 70-130 | 1.83 | 20 |
| Benzene | 10.15 | 10.11 | 10 | ND | 102 | 101 | 70-130 | 0.441 | 20 |
| Toluene | 11.7 | 11.78 | 10 | 0.9807 | 107 | 108 | 70-130 | 0.656 | 20 |
| Ethylbenzene | 10.35 | 10.26 | 10 | ND | 104 | 103 | 70-130 | 0.896 | 20 |
| Xylenes | 31.36 | 30.79 | 30 | 0.7703 | 102 | 100 | 70-130 | 1.82 | 20 |
| **Surrogate Recovery** | | | | | | | | | |
| aaa-TFT | 10.73 | 10.66 | 10 | | 107 | 107 | 70-130 | 0 | 20 |

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Quality Control Report

| | | | |
|---|---|---|---|
| **Client:** | All West Environmental, Inc | **WorkOrder:** | 1403700 |
| **Date Prepared:** | 3/20/14 | **BatchID:** | 88412 |
| **Date Analyzed:** | 3/22/14 | **Extraction Method** | SW3510C/3630C |
| **Instrument:** | GC11A | **Analytical Method:** | SW8015B |
| **Matrix:** | Water | **Unit:** | µg/L |
| **Project:** | #14011.28; Hollis-Emeryville | **Sample ID:** | MB/LCS-88412 |

## QC Summary Report for SW8015B

| Analyte | MB Result | LCS Result | RL | SPK Val | MB SS %REC | LCS %REC | LCS Limits |
|---|---|---|---|---|---|---|---|
| TPH-Diesel (C10-C23) | ND | 706 | 50 | 1000 | - | 70.6 | 70-130 |
| **Surrogate Recovery** | | | | | | | |
| C9 | 728.9 | 693.5 | | 625 | 117 | 111 | 70-130 |

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD



**WorkOrder: 1403700** **ClientCode: AWE**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

**Report to:**
Christopher Houlihan
All West Environmental, Inc
2141 Mission Street, Ste 100
San Francisco, CA 94110
(415) 391-2510 FAX: (415) 391-2008

Email: choulihan@allwest1.com
cc/3rd Party:
PO:
ProjectNo: #14011.28; Hollis-Emeryville

**Bill to:**
Darlene Torio
All West Environmental, Inc
2141 Mission Street, Ste 100
San Francisco, CA 94110
darlene@allwest1.com

**Requested TAT:** **5 days**

***Date Received:*** **03/20/2014**
***Date Printed:*** **03/20/2014**

| Lab ID | Client ID | Matrix | Collection Date | Hold | Requested Tests (See legend below) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 1403700-001 | AMW-1 | Water | 3/19/2014 11:24 | ☐ | A | C | B | A | B | | | | | | | |
| 1403700-002 | AMW-2 | Water | 3/19/2014 16:32 | ☐ | A | C | B | | B | | | | | | | |
| 1403700-003 | AMW-3 | Water | 3/19/2014 9:40 | ☐ | A | C | B | | B | | | | | | | |
| 1403700-004 | MW-3 | Water | 3/19/2014 14:32 | ☐ | A | C | B | | B | | | | | | | |

**Test Legend:**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 8260B_W | 2 | 8270D-PNA_W | 3 | G-MBTEX_W | 4 | PREDF REPORT | 5 | TPH(D)WSG_W |
| 6 | | 7 | | 8 | | 9 | | 10 | |
| 11 | | 12 | | | | | | | |

**Prepared by: Zoraida Cortez**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# WORK ORDER SUMMARY

**Client Name:** ALL WEST ENVIRONMENTAL, INC
**Project:** #14011.28; Hollis-Emeryville
**Comments:**

**QC Level:** LEVEL 2
**Client Contact:** Christopher Houlihan
**Contact's Email:** choulihan@allwest1.com

**Work Order:** 1403700
**Date Received:** 3/20/2014

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

| Lab ID | Client ID | Matrix | Test Name | Number of Containers | Bottle & Preservative | De-chlorinated | Collection Date & Time | TAT | Sediment Content | Hold | SubOut |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1403700-001A | AMW-1 | Water | SW8260B (VOCs) | 1 | VOA w/ HCl | ☐ | 3/19/2014 11:24 | 5 days | 1%+ | ☐ | |
| 1403700-001B | AMW-1 | Water | SW8015B (Diesel w/ S.G. Clean-Up) | 3 | VOA w/ HCl | ☐ | 3/19/2014 11:24 | 5 days | 1%+ | ☐ | |
| | | | SW8021B/8015Bm (G/MBTEX) <Benzene_2, Ethylbenzene_2, MTBE_2, Toluene_2, TPH(g)_1, TPH(mineral spirits)_1, Xylenes_2> | | | ☐ | | 5 days | 1%+ | ☐ | |
| | | | | 1 | 1LA w/ HCl | ☐ | | | 1%+ | ☐ | |
| 1403700-001C | AMW-1 | Water | SW8270C (PAHs/PNAs) | 1 | 1LA | ☐ | 3/19/2014 11:24 | 5 days | 1%+ | ☐ | |
| 1403700-002A | AMW-2 | Water | SW8260B (VOCs) | 1 | VOA w/ HCl | ☐ | 3/19/2014 16:32 | 5 days | Present | ☐ | |
| 1403700-002B | AMW-2 | Water | SW8015B (Diesel w/ S.G. Clean-Up) | 3 | VOA w/ HCl | ☐ | 3/19/2014 16:32 | 5 days | Present | ☐ | |
| | | | SW8021B/8015Bm (G/MBTEX) <Benzene_2, Ethylbenzene_2, MTBE_2, Toluene_2, TPH(g)_1, TPH(mineral spirits)_1, Xylenes_2> | | | ☐ | | 5 days | Present | ☐ | |
| 1403700-002C | AMW-2 | Water | SW8270C (PAHs/PNAs) | 1 | 1LA | ☐ | 3/19/2014 16:32 | 5 days | Present | ☐ | |
| 1403700-003A | AMW-3 | Water | SW8260B (VOCs) | 1 | VOA w/ HCl | ☐ | 3/19/2014 9:40 | 5 days | Present | ☐ | |
| 1403700-003B | AMW-3 | Water | SW8015B (Diesel w/ S.G. Clean-Up) | 3 | VOA w/ HCl | ☐ | 3/19/2014 9:40 | 5 days | Present | ☐ | |
| | | | SW8021B/8015Bm (G/MBTEX) <Benzene_2, Ethylbenzene_2, MTBE_2, Toluene_2, TPH(g)_1, TPH(mineral spirits)_1, Xylenes_2> | | | ☐ | | 5 days | Present | ☐ | |

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

**Bottle Legend:**

1LA = 1L Amber Glass Jar, Unpreserved
1LA w/ HCl = 1L Amber Glass Jar w/ Hydrochloric acid
VOA w/ HCl = 43mL VOA w/ HCl

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# WORK ORDER SUMMARY

**Client Name:** ALL WEST ENVIRONMENTAL, INC
**Project:** #14011.28; Hollis-Emeryville
**Comments:**

**QC Level:** LEVEL 2
**Client Contact:** Christopher Houlihan
**Contact's Email:** choulihan@allwest1.com

**Work Order:** 1403700
**Date Received:** 3/20/2014

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

| Lab ID | Client ID | Matrix | Test Name | Number of Containers | Bottle & Preservative | De-chlorinated | Collection Date & Time | TAT | Sediment Content | Hold | SubOut |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1403700-003C | AMW-3 | Water | SW8270C (PAHs/PNAs) | 1 | 1LA | ☐ | 3/19/2014 9:40 | 5 days | Present | ☐ | |
| 1403700-004A | MW-3 | Water | SW8260B (VOCs) | 1 | VOA w/ HCl | ☐ | 3/19/2014 14:32 | 5 days | Present | ☐ | |
| 1403700-004B | MW-3 | Water | SW8015B (Diesel w/ S.G. Clean-Up) | 3 | VOA w/ HCl | ☐ | 3/19/2014 14:32 | 5 days | Present | ☐ | |
| | | | SW8021B/8015Bm (G/MBTEX) <Benzene_2, Ethylbenzene_2, MTBE_2, Toluene_2, TPH(g)_1, TPH(mineral spirits)_1, Xylenes_2> | | | ☐ | | 5 days | Present | ☐ | |
| 1403700-004C | MW-3 | Water | SW8270C (PAHs/PNAs) | 1 | 1LA | ☐ | 3/19/2014 14:32 | 5 days | Present | ☐ | |

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

**Bottle Legend:**

1LA = 1L Amber Glass Jar, Unpreserved
1LA w/ HCl = 1L Amber Glass Jar w/ Hydrochloric acid
VOA w/ HCl = 43mL VOA w/ HCl

1403700

# McCampbell Analytical, Inc.

1534 Willow Pass Rd. / Pittsburg, Ca. 94565-1701
www.mccampbell.com / main@mccampbell.com
Telephone: (877) 252-9262 / Fax: (925) 252-9269

PAGE 1 of 2

Geotracker Global ID # **T0600102099**

# CHAIN OF CUSTODY RECORD

**TURN AROUND TIME:** RUSH ☐ 1 DAY ☐ 2 DAY ☐ 3 DAY ☐ 5 DAY ☑ 10 DAY ☐

GeoTracker EDF ☑ PDF ☑ EDD ☐ Write On (DW) ☐ EQuIS ☐

Effluent Sample Requiring "J" flag ☐ UST Clean Up Fund Project ☐; Claim #____

| | |
|---|---|
| **Report To:** Christopher Houlihan | **Bill To:** darlene@allwest1.com |
| **Company:** AllWest Environmental, Inc. | |
| 2141 Mission St., Suite 100 | |
| San Francisco, CA 94110 | E-Mail: choulihan@allwest1.com |
| Tele: (415) 391-2510 | Fax: (415) 391-2008 |
| Project #: 14011.28 | Project Name: Hollis-Emeryville |
| Project Location: Emeryville, CA | Purchase Order# |
| Sampler Signature: | |

| SAMPLE ID | Location/ Field Point Name | SAMPLING Date | SAMPLING Time | # Containers | MATRIX: Ground Water | Waste Water | Drinking Water | Sea Water | Soil | Air | Sludge | Other | METHOD PRESERVED: HCL | $HNO_3$ | Other |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AMW-1 | AMW-1 | 3/19/14 | 1124 | 2 | X | | | | | | | | X | | |
| AMW-1 | AMW-1 | 3/19/14 | 1124 | 2 | X | | | | | | | | X | | |
| AMW-1 | AMW-1 | 3/19/14 | 1124 | 1 | X | | | | | | | | X | | |
| AMW-1 | AMW-1 | 3/19/14 | 1124 | 1 | X | | | | | | | | | | |
| AMW-2 | AMW-2 | 3/19/14 | 1632 | 2 | X | | | | | | | | X | | |
| AMW-2 | AMW-2 | 3/19/14 | 1632 | 2 | X | | | | | | | | X | | |
| AMW-2 | AMW-2 | 3/19/14 | 1632 | 1 | X | | | | | | | | X | | |
| AMW-2 | AMW-2 | 3/19/14 | 1632 | 1 | X | | | | | | | | | | |
| AMW-3 | AMW-3 | 3/19/14 | 0940 | 2 | X | | | | | | | | X | | |
| AMW-3 | AMW-3 | 3/19/14 | 0940 | 2 | X | | | | | | | | X | | |
| AMW-3 | AMW-3 | 3/19/14 | 0946 | 1 | X | | | | | | | | X | | |

**Analysis Request**

| BTEX/ MTBE & TPH as Gas (8021/ 8015) | TPH as Diesel (8015) with silica gel cleanup | Total Petroleum Oil & Grease (1664 / 5520 E/B&F) | Total Petroleum Hydrocarbons (418.1) | EPA 505/ 608 / 8081 (Cl Pesticides) | EPA 608 / 8082 PCB's ; Aroclors / Congeners | EPA 507 / 8141 (NP Pesticides) | EPA 515 / 8151 (Acidic Cl Herbicides) | BTEX/ MTBE & TPH as Gas (8260) | EPA 524.2 / 624 / 8260 (VOCs) | EPA 525.2 / 625 / 8270 (SVOCs) | EPA 8270 SIM / 8310 (PAHs / PNAs) | CAM 17 Metals (200.7 / 200.8 / 6010 / 6020) | LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020) | Metals (200.7 / 200.8 / 6010 / 6020) | Filter sample for DISSOLVED metals analysis | TPH-g, TPH-mineral spirits by 8015/2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | X | | | | | | | X |
| | X | | | | | | | | | | X | | | | | |
| | | | | | | | | | X | | | | | | | X |
| | | | | | | | | | | | X | | | | | |
| | | | | | | | | | | | | | | | | |

****MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.**

| Relinquished By: | Date: | Time: | Received By: |
|---|---|---|---|
| | 3/20/14 | 1400 | |
| Relinquished By: | Date: | Time: | Received By: |
| | 3/20/14 | 1545 | |
| Relinquished By: | Date: | Time: | Received By: |
| | | | |

ICE/t° 2-4

GOOD CONDITION____

HEAD SPACE ABSENT____

DECHLORINATED IN LAB____

APPROPRIATE CONTAINERS____

PRESERVED IN LAB____

COMMENTS:

VOAS O&G METALS OTHER HAZARDOUS:

PRESERVATION_____ pH<2_____

# McCampbell Analytical, Inc.

1534 Willow Pass Rd. / Pittsburg, Ca. 94565-1701
www.mccampbell.com / main@mccampbell.com
Telephone: (877) 252-9262 / Fax: (925) 252-9269
Geotracker Global ID # T0600102099

PAGE 2 of 2

# CHAIN OF CUSTODY RECORD

**TURN AROUND TIME:** RUSH ☐ 1 DAY ☐ 2 DAY ☐ 3 DAY ☐ 5 DAY ☑
GeoTracker EDF ☑ PDF ☑ EDD ☐ Write On (DW) ☐ EQuIS ☐ 10 DAY ☐
Effluent Sample Requiring "J" flag ☐ UST Clean Up Fund Project ☐; Claim #_____

**Report To:** Christopher Houlihan — **Bill To:** darlene@allwest1.com
**Company:** AllWest Environmental, Inc.
**2141 Mission St., Suite 100**
**San Francisco, CA 94110** — **E-Mail:** choulihan@allwest1.com
**Tele:** (415) 391-2510 — **Fax:** (415) 391-2008
**Project #:** 14011.28 — **Project Name:** Hollis-Emeryville
**Project Location:** Emeryville, CA — **Purchase Order#**
**Sampler Signature:**

| SAMPLE ID | Location/ Field Point Name | SAMPLING Date | SAMPLING Time | # Containers | MATRIX: Ground Water | Waste Water | Drinking Water | Sea Water | Soil | Air | Sludge | Other | METHOD PRESERVED: HCL | $HNO_3$ | Other |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AMW-3 | AMW-3 | 3/19/14 | 0940 | 1 | X | | | | | | | | | | |
| MW-3 | MW-3 | 3/19/14 | 1432 | 2 | X | | | | | | | | X | | |
| MW-3 | MW-3 | 3/19/14 | 1432 | 2 | X | | | | | | | | X | | |
| MW-3 | MW-3 | 3/19/14 | 1432 | 1 | X | | | | | | | | X | | |
| MW-3 | MW-3 | 3/19/14 | 1432 | 1 | X | | | | | | | | | | |

**Analysis Request**

| BTEX/ MTBE & TPH as Gas (8021/ 8015) | TPH as Diesel (8015) with silica gel cleanup | Total Petroleum Oil & Grease (1664 / 5520 E/B&F) | Total Petroleum Hydrocarbons (418.1) | EPA 505/ 608 / 8081 (Cl Pesticides) | EPA 608 / 8082 PCB's ; Aroclors / Congeners | EPA 507 / 8141 (NP Pesticides) | EPA 515 / 8151 (Acidic Cl Herbicides) | BTEX/ MTBE & TPH as Gas (8260) | EPA 524.2 / 624 / 8260 (VOCs) | EPA 525.2 / 625 / 8270 (SVOCs) | EPA 8270 SIM / 8310 (PAHs / PNAs) | CAM 17 Metals (200.7 / 200.8 / 6010 / 6020) | LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020) | Metals (200.7 / 200.8 / 6010 / 6020) | Filter sample for DISSOLVED metals analysis | TPH-g, TPH-mineral spirits by 8015/2021 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | X | | | | | | | | |
| | | | | | | | | | X | | | | | | | | | | |
| | | | | | | | | | | | | | | | | X | | | |
| | X | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | X | | | | | | | | |

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

| Relinquished By: | Date: | Time: | Received By: |
|---|---|---|---|
| | 3/20/14 | 1400 | |
| | 3/20/14 | 1545 | |
| | | | |

ICE/t°_____ COMMENTS:
GOOD CONDITION_____
HEAD SPACE ABSENT_____
DECHLORINATED IN LAB_____
APPROPRIATE CONTAINERS_____
PRESERVED IN LAB_____

VOAS O&G METALS OTHER HAZARDOUS:
PRESERVATION_____ pH<2_____

McCampbell Analytical, Inc.
*"When Quality Counts"*

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

# Sample Receipt Checklist

Client Name: **All West Environmental, Inc**
Date and Time Received: **3/20/2014 8:00:55 PM**

Project Name: **#14011.28; Hollis-Emeryville**
LogIn Reviewed by: Zoraida Cortez

WorkOrder N°: **1403700** Matrix: Water
Carrier: Rob Pringle (MAI Courier)

## Chain of Custody (COC) Information

| | | |
|---|---|---|
| Chain of custody present? | Yes ☑ | No ☐ |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ |
| Chain of custody agrees with sample labels? | Yes ☑ | No ☐ |
| Sample IDs noted by Client on COC? | Yes ☑ | No ☐ |
| Date and Time of collection noted by Client on COC? | Yes ☑ | No ☐ |
| Sampler's name noted on COC? | Yes ☑ | No ☐ |

## Sample Receipt Information

| | | | |
|---|---|---|---|
| Custody seals intact on shipping container/cooler? | Yes ☐ | No ☐ | NA ☑ |
| Shipping container/cooler in good condition? | Yes ☑ | No ☐ | |
| Samples in proper containers/bottles? | Yes ☑ | No ☐ | |
| Sample containers intact? | Yes ☑ | No ☐ | |
| Sufficient sample volume for indicated test? | Yes ☑ | No ☐ | |

## Sample Preservation and Hold Time (HT) Information

| | | | |
|---|---|---|---|
| All samples received within holding time? | Yes ☑ | No ☐ | |
| Container/Temp Blank temperature | Cooler Temp: 2.4°C | | NA ☐ |
| Water - VOA vials have zero headspace / no bubbles? | Yes ☑ | No ☐ | NA ☐ |
| Sample labels checked for correct preservation? | Yes ☑ | No ☐ | |
| Metal - pH acceptable upon receipt (pH<2)? | Yes ☐ | No ☐ | NA ☑ |
| Samples Received on Ice? | Yes ☑ | No ☐ | |

(Ice Type: WET ICE )

** NOTE: If the "No" box is checked, see comments below.*

Comments:

# APPENDIX D

# APPLICATION FOR AUTHORIZATION TO USE

**REPORT TITLE:** FIRST QUARTER 2014 GROUNDWATER MONITORING REPORT

Former McGrath Steel
6655 Hollis Street and 1471 67th Street
Emeryville, California

**PROJECT NUMBER:** 14011.28

To: AllWest Environmental, Inc.
2141 Mission Street, Suite 100
San Francisco, CA 94110

From (Applicant): _____

_____

_____

*(Please clearly identify name and address of person/entity applying for permission to use or copy this document)*

Ladies and Gentlemen:

Applicant states they have thoroughly reviewed the report and had the opportunity to discuss with AllWest the report's methodology, findings and conclusion(s).

Applicant hereby applies for permission to rely upon AllWest's work product, as described above, for the purpose of (state here the purpose for which you wish to rely upon the work product):

Applicant only can accept and rely upon AllWest work product under the strict understanding that Applicant is bound by all provisions in the Terms and Conditions attached to the report. Every report, recommendation, finding, or conclusion issued by AllWest shall be subject to the limitations stated in the Agreement and subject report(s). If this is agreeable, please sign below and return one copy of this letter to us along with the applicable fees. Upon receipt and if acceptable, our signed letter will be returned. AllWest may withhold permission at its sole discretion or require additional re-use fees or terms.

**FEES:** A $1,500 coordination and reliance fee, payable in advance, will apply. If desired, for an additional $150 report reproduction fee, we will reissue the report in the name of the Applicant; the report date, however, will remain the same. All checks will be returned if your request for reliance is not approved.

| **REQUESTED BY** | **APPROVED BY** |
|---|---|
| _____ | **AllWest Environmental, Inc.** |
| Applicant Company | |
| _____ | _____ |
| Print Name and Title | Print Name and Title |
| _____ | _____ |
| Signature and Date | Signature and Date |

## GENERAL CONDITIONS TO THE WORK AUTHORIZATION AGREEMENT

It is hereby agreed that the Client retains AllWest to provide services as set forth in the Work Authorization attached hereto (the "Work"). This contract shall be controlled by the following terms and conditions, and these terms and conditions shall also control any further assignments performed pursuant to this Work Authorization. Client's signature on this Work Authorization constitutes Client's agreement to the all terms to this contract, including these General Conditions.

### FEES AND COSTS

1. AllWest shall charge for work performed by its personnel at the rates identified in the Work Authorization. These rates are subject to reasonable increases by AllWest upon giving Client 30 days advance notice. Reimbursable Costs will be charged to the Client in addition to the fees for the basic services under this Agreement and all Additional Services (defined below) under the Agreement. Reimbursable Costs include, but are not limited to, expenses for travel, including transportation, meals, lodging, long distance telephone and other related expenses, as well as the costs of reproduction of all drawings for the Client's use, costs for specifications and type-written reports, permit and approval fees, automobile travel reimbursement, costs and fees of subcontractors, and soil and other materials testing. No overtime is accrued for time spent in travel. All costs incurred which relate to the services or materials provided by a contractor or subcontractor to AllWest shall be invoiced by AllWest on the basis of cost plus twenty percent (20%). Automobile travel reimbursement shall be at the rate of fifty- eight cents ($0.58) per mile. All other reimbursable costs shall be invoiced and billed by AllWest at the rate of 1.1 times the direct cost to AllWest. Reimbursable costs will be charged to the client only as outlined in the Work Authorization if the scope of work is for Phase I Environmental Site Assessment, Property Condition Assessment, Seismic Assessment or ALTA survey. Invoices for work performed shall be submitted monthly. Payment will be due upon receipt of invoice. Client shall pay interest on the balance of unpaid invoices which are overdue by more than 30 days, at a rate of 18% per annum as well as all attorney fees and costs incurred by AllWest to secure payment of unpaid invoices. AllWest may waive such fees at its sole discretion.

### STANDARD OF CARE

2. AllWest will perform its work in accordance with the standard of care of its industry, as it is at the time of the work being performed, and applicable in the locale of the work being performed. AllWest makes no other warranties, express or implied regarding its work.

### LIMITATION OF REMEDIES

3. Client expressly agrees that to the fullest extent permitted by law, Client's remedies for any liability incurred by AllWest, and/or its employees or agents, for any and all claims arising from AllWest's services, shall be $50,000 or its fees, whichever is greater.

Client may request a higher limitation of remedies, but must do so in writing. Upon such written request, AllWest may agree to increase this limit in exchange for a mutually negotiated higher fee commensurate with the increased risk to AllWest. Any such agreed increase in fee and limitation of remedies amount must be memorialized by written agreement which expressly amends the terms of this clause.

As used in this section, the term "limitation of remedies" shall apply to claims of any kind, including, but not limited to, claims brought in contract, tort, strict liability, or otherwise, for any and all injuries, claims, losses, expenses, or damages whatsoever arising out of or in any way related to AllWest's services or the services of AllWest's subcontractors, consultants, agents, officers, directors, and employees from any cause(s). AllWest shall not be liable for any claims of loss of profits or any other indirect, incidental, or consequential damages of any nature whatsoever. Client & AllWest have specifically negotiated this limitation.

### INDEMNIFICATION

4. Notwithstanding any other provision of this Agreement, Client agrees, to the fullest extent permitted by law, to waive any claim against, release from any liability or responsibility for, and , indemnify and hold harmless AllWest, its employees, agents and sub-consultants (collectively, Consultant) from and against any and all damages, liabilities, claims, actions or costs of any kind, including reasonable attorney's fees and defense costs, arising or alleged to arise out of or to be in any way connected with the Project or the performance or non-performance of Consultant of any services under this Agreement, excepting only any such liabilities determined by a court or other forum of competent jurisdiction to have been caused by the negligence or willful misconduct of Consultant. This provision shall be in addition to any rights of indemnity that Consultant may have under the law and shall survive and remain in effect following the termination of this Agreement for any reason. Should any part of this provision be determined to be unenforceable, AllWest and Client agree that the rest of the provision shall apply to the maximum extent permitted by law. The Client's duty to defend AllWest shall arise immediately upon tender of any matter potentially covered by the above obligations to indemnify and hold harmless.

### MEDIATION & JUDICIAL REFERENCE

5. In an effort to resolve any conflicts or disputes that arise regarding the performance of this agreement, the Client & AllWest agree that all such disputes shall be submitted to non-binding mediation, using a mutually agreed upon mediation service experienced in the resolution of construction disputes. Unless the parties mutually agree otherwise, such mediation shall be a condition precedent to the initiation of any other adjudicative proceedings. It is further agreed that any dispute that is not settled pursuant to such mediation shall be adjudicated by a court appointed referee in accordance with the Judicial Reference procedures as set forth in California Code of Civil Procedure Section 638 et seq. The parties hereby mutually agree to waive any right to a trial by jury regarding any dispute arising out of this agreement.

The parties further agree to include a similar mediation, Judicial Reference & waiver of jury trial provision in their agreements with other independent contractors & consultants retained for the project and require them to similarly agree to these dispute resolution procedures. The cost of said Mediation shall be split equally between the parties. This agreement to mediate shall be specifically enforceable under the prevailing law of the jurisdiction in which this agreement was signed.

### HAZARDOUS WASTE

6. Client acknowledges that AllWest and its sub-contractors have played no part in the creation of any hazardous waste, pollution sources, nuisance, or chemical or industrial disposal problem, which may exist, and that AllWest has been retained for the sole purpose of performing the services set out in the scope of work within this Agreement, which may include, but is not necessarily limited to such services as assisting the Client in assessing any problem which may exist and in assisting the

Client in formulating a remedial program. Client acknowledges that while necessary for investigations, commonly used exploration methods employed by AllWest may penetrate through contaminated materials and serve as a connecting passageway between the contaminated material and an uncontaminated aquifer or groundwater, possibly inducing cross contamination. While back-filling with grout or other means, according to a state of practice design is intended to provide a seal against such passageway, it is recognized that such a seal may be imperfect and that there is an inherent risk in drilling borings of performing other exploration methods in a hazardous waste site.

AllWest will not sign or execute hazardous waste manifests or other waste tracking documents on behalf of Client unless Client specifically establishes AllWest as an express agent of Client under a written agency agreement approved by AllWest. In addition, Client agrees that AllWest shall not be required to sign any documents, no matter requested by whom, that would have the effect of AllWest providing any form of certification, guarantee, or warranty as to any matter or to opine on conditions for which the existence AllWest cannot ascertain. Client also agrees that it shall never seek or otherwise attempt to have AllWest provide any form of such certification, guarantee or warranty in exchange for resolution of any disputes between Client and AllWest, or as a condition precedent to making payment to AllWest for fees and costs owing under this Agreement.

Client understands and agrees that AllWest is not, and has no responsibility as, a generator, operator, treater, storer, transporter , arranger or disposer of hazardous or toxic substances found or identified at the site, including investigation-derived waste. The Client shall undertake and arrange for the removal, treatment, storage, disposal and/or treatment of hazardous material and investigation derived waste (such as drill cuttings) and further, assumes full responsibility for such wastes to the complete exclusion of any responsibility, duty or obligation upon AllWest. AllWest's responsibilities shall be limited to recommendations regarding such matters and assistance with appropriate arrangements if authorized by Client.

## FORCE MAJUERE

7. Neither party shall be responsible for damages or delays in performance under this Agreement caused by acts of God, strikes, lockouts, accidents or other events or condition (other than financial inability ) beyond the other Party's reasonable control.

## TERMINATION

8. This Agreement may be terminated by either party upon ten (10) days' written notice should the other party substantially fail to perform in accordance with its duties and responsibilities as set forth in this Agreement and such failure to perform is through no fault of the party initiating the termination. Client agrees that if it chooses to terminate AllWest for convenience, and AllWest has otherwise satisfactorily performed its obligations under this Agreement to that point, AllWest shall be paid no less than eighty percent (80%) of the contract price, provided, however, that if AllWest shall have completed more than eighty percent of the Work at the time of said termination, AllWest shall be compensated as provided in the Work Authorization for all services performed prior to the termination date which fall within the scope of work described in the Work Authorization and may as well, at its sole discretion and in accordance with said Schedule of Fees, charge Client, and Client agrees to pay AllWest's reasonable costs and labor in winding up its files and removing equipment and other materials from the Project.

Upon notice of termination by Client to AllWest, AllWest may issue notice of such termination to other consultants, contractors, subcontractors and to governing agencies having jurisdiction over the Project, and take such other actions as are reasonably necessary in order to give notice that AllWest is no longer associated with the Project and to protect AllWest from claims of liability from the work of others.

## DOCUMENTS

9. Any documents prepared by AllWest, including, but not limited to proposals, project specifications, drawings, calculations, plans and maps, and any ideas and designs incorporated therein, as well as any reproduction of the above are instruments of service and shall remain the property of AllWest and AllWest retains copyrights to these instruments of service. AllWest grants to Client a non-exclusive license to use these instruments of service for the purpose of completing and maintaining the Project. The Client shall be permitted to retain a copy of any instruments of service, but Client expressly agrees and acknowledges that the instruments of service may not be used by the Client on other projects, or for any other purpose, except the project for which they were prepared, unless Client first obtains a written agreement expanding the license to such use from AllWest, and with appropriate compensation to AllWest. Client further agrees that such instruments of service shall not be provided to any third parties without the express written permission of AllWest.

Client shall furnish, or cause to be furnished to AllWest all documents and information known to Client that relate to the identity, location, quantity, nature, or characteristics of any asbestos, PCBs, or any other hazardous materials or waste at, on or under the site. In addition, Client will furnish or cause to be furnished such reports, data, studies, plans, specifications, documents and other information on surface or subsurface site conditions, e.g., underground tanks, pipelines and buried utilities, required by AllWest for proper performance of its services. IF Client fails to provide AllWest with all hazardous material subject matter reports including geotechnical assessments in its possession during the period that AllWest is actively providing its services (including up to 30 days after its final invoice), Client shall release AllWest from any and all liability for risks and damages the Client incurs resulting from its reliance on AllWest's professional opinion. AllWest shall be entitled to rely upon Client - provided documents and information in performing the services required in this Agreement; however, AllWest assumes no responsibility or liability for the accuracy or completeness of Client-provided documents. Client-provided documents will remain the property of the Client.

## ACCESS TO PROJECT

10. Client grants to AllWest the right of access and entry to the Project at all times necessary for AllWest to perform the Work. If Client is not the owner of the Project, then Client represents that Client has full authority to grant access and right of entry to AllWest for the purpose of AllWest's performance of the Work. This right of access and entry extends fully to any agents, employees, contractors or subcontractors of AllWest upon reasonable proof of association with AllWest. Client's failure to provide such timely access and permission shall constitute a material breach of this Agreement excusing AllWest from performance of its duties under this Agreement.

## CONFIDENTIAL INFORMATION

11. Both Client and AllWest understand that in conjunction with AllWest's performance of the Work on the project, both Client and AllWest may receive or be exposed to Proprietary Information of the other. As used herein, the term "Proprietary Information" refers to any and all information of a confidential, proprietary or secret nature which may be either applicable to, or relate in any way to: (a) the personal, financial or other affairs of the business of each of the Parties, or (b) the

research and development or investigations of each of the Parties. Proprietary Information includes, for example and without limitation, trade secrets, processes, formulas, data, know-how, improvements, inventions, techniques, software technical data, developments, research projects, plans for future development, marketing plans and strategies. Each of the Parties agrees that all Proprietary Information of the other party is and shall remain exclusively the property of that other party. The parties further acknowledge that the Proprietary Information of the other party is a special, valuable and unique asset of that party, and each of the Parties agrees that at all times during the terms of this Agreement and thereafter to keep in confidence and trust all Proprietary Information of the other party, whether such Proprietary Information was obtained or developed by the other party before, during or after the term of this Agreement. Each of the Parties agrees not to sell, distribute, disclose or use in any other unauthorized manner the Proprietary Information of the other party. AllWest further agrees that it will not sell, distribute or disclose information or the results of any testing obtained by AllWest during the performance of the Work without the prior written approval of Client unless required to do so by federal, state or local statute, ordinance or regulation.

## INDEPENDENT CONTRACTOR

12. Both Client and AllWest agree that AllWest is an independent contractor in the performance of the Work under this Agreement. All persons or parties employed by AllWest in connection with the Work are the agents, employees or subcontractors of AllWest and not of Client. Accordingly, AllWest shall be responsible for payment of all taxes arising out of AllWest's activities in performing the Work under this Agreement.

## ENTIRE AGREEMENT

13. This Agreement contains the entire agreement between the Parties pertaining to the subject matter contained in it and supersedes and replaces in its entirety all prior and contemporaneous proposals, agreements, representations and understandings of the Parties. The Parties have carefully read and understand the contents of this Agreement and sign their names to the same as their own free act.

## INTEGRATION

14. This is a fully integrated Agreement. The terms of this Agreement may be modified only by a writing signed by both Parties. The terms of this Agreement were fully negotiated by the Parties and shall not be construed for or against the Client or AllWest but shall be interpreted in accordance with the general meaning of the language in an effort to reach the intended result.

## MODIFICATION / WAIVER / PARTIAL INVALIDITY

15. Failure on the part of either party to complain of any act or omission of the other, or to declare the other party in default, shall not constitute a waiver by such party of its rights hereunder. If any provision of this Agreement or its application be unenforceable to any extent, the Parties agree that the remainder of this Agreement shall not be affected and shall be enforced to the greatest extent permitted by law.

## INUREMENT / TITLES

16. Subject to any restrictions on transfers, assignments and encumbrances set forth herein, this Agreement shall inure to the benefit of and be binding upon the undersigned Parties and their respective heirs, executors, legal representatives, successors and assigns. Paragraph titles or captions contained in this Agreement are inserted only as a matter of convenience, and for reference only, and in no way limit, define or extend the provisions of any paragraph. , et al., incurred in that action or proceeding, in addition to any other relief to which it or they may be entitled.

## AUTHORITY

17. Each of the persons executing this Agreement on behalf of a corporation does hereby covenant and warrant that the corporation is duly authorized and existing under the laws of its respective state of incorporation, that the corporation has and is qualified to do business in its respective state of incorporation, that the corporation has the full right and authority to enter into this Agreement, and that each person signing on behalf of the corporation is authorized to do so. If the Client is a joint venture, limited liability company or a partnership, the signatories below warrant that said entity is properly and duly organized and existing under the laws of the state of its formation and pursuant to the organizational and operating document of the entity, and the laws of the state of its formation, said signatory has authority act on behalf of and commit the entity to this Agreement.

## COUNTERPARTS

18. This Agreement may be signed in counterparts by each of the Parties hereto and, taken together, the signed counterparts shall constitute a single document.

## THIRD PARTY BENEFICIARIES / CONTROLLING LAW

19. There are no intended third party beneficiaries of this Agreement. The services, data & opinions expressed by AllWest are for the sole use of the client, are for a particular project and may not be relied upon by anyone other than the client. This Agreement shall be controlled by the laws of the State of California and any action by either party to enforce this Agreement shall be brought in San Francisco County, California.

## TIME BAR TO LEGAL ACTION

20. Any legal actions by either party against the other related to this Agreement, shall be barred after one year has passed from the time the claimant knew or should have known of its claim, and under no circumstances shall be initiated after two years have passed from the date by which AllWest completes its services.