

# SUPPLEMENTAL OFFSITE ASSESSMENT AND FIRST QUARTER 2015 GROUNDWATER MONITORING REPORT

Panama Street Site 12908, 12910, 12918, 12922, 12930, 12950 and 12964 Panama Street Los Angeles, California 90066

Site ID 2040430, SCP No. 1292

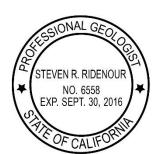
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### 1. INTRODUCTION

Alta Environmental LP (Alta) has prepared this Supplemental Offsite Assessment and First Quarter 2015 Groundwater Monitoring Report for the Panama Street site, located at 12964, 12950, 12930, 12922, 12918, 12910, and 12908 Panama Street in the City of Los Angeles, California (hereafter referred to as the "Site"). The scope of work was conducted in accordance with the *Work Plan to Complete Delineation of Lateral and Vertical Extent of Contamination*, prepared by Alta (dated August 29, 2014), and on the Los Angeles Regional Water Quality Board (LARWQCB) approval letter dated September 15, 2014. The objective of the assessment was to evaluate the northern extent of soil matrix and soil vapor impacts beneath Panama Street north of Building #1, to evaluate the southeastern extent of soil matrix and groundwater impacts beneath Culver Boulevard beyond the EZ Storage site, and to update the groundwater gradient and monitoring conditions throughout the Site.

This report discusses the results of the offsite assessment work conducted under the approved permits from the City of Los Angeles, Department of Public Works, Bureau of Engineering (LADPW). The field work was conducted within the public right-of-ways of Panama Street and Culver Boulevard within the LADPW jurisdiction. Access permits from Caltrans has not been granted yet, therefore this report does not include the proposed work to be conducted within the jurisdiction of Caltrans.

A partial report of data available regarding these activities was submitted to the LARWQCB on February 13, 2015, to meet the requirements of LARWQCB correspondence dated December 8, 2014. This report contains the data included in the first report, as well as information not available and complete as of February 12, 2015.

### 2. BACKGROUND

Multiple tenants, many with connections to the military and to aerospace industries, have utilized the Site since its development more than 50 years ago as an industrial property. Teledyne Technologies Incorporated dba Teledyne Microelectronic Technologies (Teledyne) and/or its predecessors in interest first leased a portion of the Site beginning in 1957, leasing at later times additional portions of Site and finally leasing the entire Site in 1979. Teledyne vacated the Site on July 31, 2013 and no longer leases the subject property.

Prior to vacating the Site, Teledyne engaged Alta to conduct a follow-up Phase II Environmental Site Assessment (ESA) to assess potential environmental concerns presented in a January 2013 Phase I ESA report developed by Environ International Corporation on behalf of the property owner. The results of our Phase II ESA (Alta, 2014), conducted from April to July 2013, identified various chemical impacts to subsurface soils, soil-vapor and groundwater beneath the Site.

### 2.1 Site Location and Description

The Site is an approximately 5.73-acre commercial/industrial property located in a commercial area of Los Angeles, California, near the unincorporated community of Marina Del Rey. The Site is bound by a storage facility and Culver Boulevard to the southeast, a Marina Freeway (Highway 90) frontage road to the south, Alla Road followed by commercial properties to the west, Panama Street followed by residences to the north, and a property owned by Teledyne Technologies Incorporated to the northeast. According to the City of Los Angeles, Department of City Planning online Zone Information and Map Access System, the Site is zoned M1-1 (Limited Industrial) and M2-1 (Light Industrial).

The Site is developed with four single-story buildings (Buildings #1, #2, #3/6, and #4), a former chemical storage shed, a former hazardous waste storage area, a former Manufacturing Services Department, and

asphalt and concrete paved driveways, parking lots, and walk-ways. A security fence encircles the property. The topography across the Site is generally flat, with a slight slope to the south. Stormwater surface flow on the northern portion of the property follows a southeast-northwest trending concrete swale between Buildings #1 and #3/6 and discharges to Panama Street. Stormwater surface flow on the southern portion of the property drains to a west-east trending concrete swale in the southern parking lot and discharges to a storm channel running along the property line between the Site and the adjoining storage facility. This storm channel discharges to a storm drain located near the southern corner of the property. A Site Vicinity Map is presented as Figure 1 and a USGS Site Topographic Map is included as Figure 2.

# 3. REGIONAL GEOLOGY AND HYDROGEOLOGY

# 3.1 Regional Geology

The Site is situated within the Ballona Gap of the Santa Monica Basin. Holocene age alluvium forms much of the surficial deposits in this area, including clay-rich Bellflower aquiclude and underlying gravels of the Ballona aquifer (DWR, 1961). Soils encountered during Alta's 2013 assessment of the Site were predominantly clay with localized lenses of silt and sand to 10 feet below ground surface (bgs), underlain by alternating sequences of clay and sand to total depths explored.

# 3.2 Regional Hydrogeology

The Site is situated within the Coastal sub-basin of the Santa Monica Basin, near the southern boundary. The basin is bound by the Santa Monica Mountains to the northwest, the Pacific Ocean to the west, the Newport-Inglewood fault to the northeast, and the Ballona escarpment and Baldwin Hills to the south and southeast. The primary groundwater producing zones within the Santa Monica basin include the aquifers within the recent alluvium and the underlying San Pedro Formation (Silverado Aquifer) (DWR, 1961). The nearest surface water body to the Site is Ballona Creek, located approximately ¼ mile southeast of the Site (Figure 2).

Depth to the uppermost groundwater ranged from approximately 10 to 12.5 feet bgs during Alta's assessment. Based on our most recent monitoring event conducted on February 2, 2015, groundwater flow direction of the uppermost groundwater zone was calculated to be to the southwest at a gradient of 0.0034-feet per foot.

#### 4. SITE ASSESSMENT

The following summarizes the field work conducted under the approved permits from the City of Los Angeles, Department of Public Works, Bureau of Engineering (LADPW). The field work was conducted within the public right-of-ways of Panama Street and Culver Boulevard.

#### 4.1 Pre-field Activities

#### 4.1.1 Health and Safety Plan

Prior to conducting field work for the project, Alta prepared a site-specific Health and Safety Plan (HASP) that was implemented per California Occupational Safety and Health Administration California Code of Regulations (CCR) Title 8, Section 5192 requirements. The scope of work and potential contaminants that could be encountered during the investigation was addressed in the HASP. The on-site health and safety officer was responsible for implementation of the HASP. Daily tailgate meetings were held with Alta personnel and subcontractors at the beginning of each day of fieldwork. The scope of work, safety hazards, and safety procedures were discussed during the tailgate meetings. All field personnel, including

subcontractors, were required to review and sign the HASP before beginning any fieldwork. All Alta and subcontractor personnel conducting field work onsite have received the OSHA Hazardous Waste Operation training in accordance with 29 CFR 1910.120 and CCR Title 8, Section 5192. The Site assessment work was completed with no reportable injuries or illnesses.

#### 4.1.2 Permitting

Prior to conducting field work, two separate encroachment/excavation permits (E-permits) for drilling in the public right-of-way were obtained from the LADPW for the four offsite borings on Panama Street (B102 through B105) and the two wells on Culver Boulevard (MW7 and MW8). As part of the permitting process, Alta prepared and submitted a utility map for the boring and well locations. The map was reviewed and stamped by a California Professional Civil Engineer. Approval to conduct field operations in Panama Street and Culver Boulevard was also required by the City of Los Angeles Department of Transportation (DOT). A traffic control plan was submitted to the DOT for review and approval. After the traffic control plan was approved, Alta submitted the approved traffic control plan, the stamped utility map, and appropriate fees to the LADPW. The LADPW then provided the encroachment/excavation permits. Copies of the permits for the borings (E-1485-0066) and for the wells (E-1485-0067) are provided in Appendix A.

Traffic control in accordance with the DOT-approved traffic control plan was set up and maintained during the drilling of the borings and installation of the vapor probes on Panama Street, and during the installation, development, and sampling of the wells on Culver Boulevard.

Before installing Wells MW7 and MW8, Alta obtained a groundwater monitoring well construction permit from the Los Angeles County Department of Public Health (Public Health). A copy of the Public Health permit is also included in Appendix A.

#### 4.1.3 Utility Clearance

Alta conducted a site reconnaissance to locate and mark the four proposed boring locations on Panama Street and the two wells on Culver Boulevard. These locations were inspected for site accessibility, underground utilities, overhead power lines, and any additional potential issues that might have been encountered during fieldwork. All locations were marked with white spray paint, as required by Underground Service Alert (USA). USA was notified at least 48 hours before any drilling activities commenced at the Site.

A geophysical survey was conducted by Spectrum Geophysics of Burbank, California prior to drilling activities, for the purpose of locating identifiable buried utilities and other subsurface anomalies in the vicinities of each proposed boring and well location. The equipment used in the geophysical survey consisted of a Radio Detection 4000 transmitter with matched receiver, Dynatel 500A transmitter with matched receiver, shallow focus metal detector (M-scope), and MALA E-Z Locator ground penetrating radar (GPR) unit coupled to a 500-MHz antenna.

### 4.2 Offsite Sample Collection and Analysis on Panama Street

On January 14 and 15, 2015, a total of four (4) borings (B102 to B105) were advanced on the south side of Panama Street and north of the chlorinated solvent plumes in soil vapor and soil matrix (primarily tetrachloroethene [PCE] and trichloroethene [TCE]) previously identified within Building #1). The locations of Borings B102 to B105 are shown on Figures 3 through 12. The borings were advanced to various depths ranging from 6.75 feet to 10.5 feet below ground surface (bgs) utilizing hand auger methods. Note that Alta proposed to utilize a direct-push Geoprobe drilling rig to advance the borings, but due to

obstructions encountered at 6.75 feet bgs at B102 and B103, and to avoid damage to potential underground utilities, Alta elected to advance all borings using a hand auger. It was determined that the obstruction was likely a 51" diameter storm drain identified on utility maps provided by the LADPW. Borings B102 and B103 were terminated at 6.75 feet bgs at the suspected storm drain, and vapor probes were subsequently installed. To avoid the suspected storm drain, Borings B104 and B105 were advanced at locations farther north from the planned locations, approximately 8 feet from the curb. Thus the obstruction was avoided and the target depth of 10 feet bgs was attained.

#### 4.2.1 Soil-Matrix Sample Collection and Analysis

Soil samples were collected at depths of 2.5- and 5-feet bgs from Borings B102 and B103, and at 2.5-, 5-, and 10-feet bgs from Borings B104 and B105. Soil samples were collected from either the end of the hand auger, or with the use of a manually-operated slide hammer equipped with a 6-inch long acetate sleeve. Prior to each soil sample collection, the hand auger and/or slide hammer were decontaminated with a three-bucket wash consisting of a non-phosphate cleaning solution, tap water, and a final rinse in distilled water.

The samples were labeled with the boring identification number and depth, and date and time of collection. All soil samples for VOC analysis were collected using pre-preserved 40-milliliter (ml) vials in accordance with EPA Method 5035 procedures. Following collection, each sample was stored in ziplock bags and placed in portable cooler maintained at 4 degrees Celsius, and transported to a California certified environmental laboratory on the same day of collection. The samples were recorded on a chain-of-custody record identifying the sample identification, date and time of collection, sample matrix and containers, preservative, requested analyses, sampler's name, couriers used, and responsible laboratory personnel.

The soils encountered during the investigation were logged continuously using the Unified Soils Classification System (USCS) by a California Professional Geologist (PG). The volatile organic vapor concentration of each soil sample was screened using a PID calibrated to 50 ppm hexane. The soils were placed in a plastic bag and the PID probe was inserted into the bag, and the reading was recorded. The lithology, PID readings, field observation, and sampling depths of the borings were documented on boring logs, included in Appendix B.

Each sample was analyzed for Title 22 Metals by EPA Method 6010B/7471A and VOCs by EPA Method 8260B. A duplicate soil sample was collected from sample B105-5.0. The duplicate sample was collected using the same sampling procedures as the primary sample, and analyzed for the same analytes. Laboratory analytical reports and chain-of-custody documentation for the soil samples are presented in Appendix C. A summary of the VOC and metals analyses are provided in Tables 1 and 2, respectively. The distribution and isoconcentration contours of compounds of concern are depicted in Figures 4 through 12.

#### 4.2.2 Soil Vapor Sample Collection and Analysis

Following soil matrix sampling, vapor probes were installed in each of the four borings and soil-vapor samples were collected from the probes. All vapor samples were collected in Summa canisters and analyzed at an offsite fixed laboratory for VOCs by EPA Method TO-15. Vapor probes were installed and sampled in accordance with the Department of Toxic Substances Control (DTSC) and California Regional Water Quality Control Board – Los Angeles Region (LARWQCB) *Advisory – Active Soil Gas Investigations (2012)* protocol (Advisory).

Probe Installation: At each of the boring locations, dual-nested vapor probes were installed at depths 3 and 6.5 feet bgs in Borings B102 and B103, and at 4 and 8 feet bgs in Borings B104 and B105. The depths of the probes were dependent on the depths of the borings and the depth to groundwater. Each vapor probe was placed within a one-foot #3 sand pack. One foot of dry granular bentonite was placed on top of each sand pack to preclude the infiltration of hydrated bentonite grout. The boreholes were then grouted between probes and to the surface with hydrated bentonite. Teflon® tubing (¼ inch) was connected from the vapor point to the surface. The end of the tubing was labeled with the vapor well number and depth, and a three-way valve was installed to eliminate ambient air diffusion into the well. Soil vapor wells, once set, were allowed to equilibrate for a minimum of 48 hours prior to sample collection. To allow future sampling of the probes, the probes were protected within a 6-inch well box installed at the surface of each boring location. The well box was secured in concrete flush with the street surface. All reusable vapor probe components were decontaminated prior to use at each vapor sample location.

**Purge Volume Test:** On January 19, 2015, a three-volume purge test (one, three, and ten purge volumes) was conducted at sampling location B103-3' to establish the optimal purge volume to be used for the probes in accordance with the Advisory. The purge volume samples were collected in 1-liter Summa canisters. The purge flow rate was approximately 200 milliliters per minute (mL/min). Based on the purge volume test, the optimal purge volume was determined to be one purge volume.

**Sample Collection:** On January 20, 2015, following the purge volume test, vapor samples were collected from the remaining probes using 1-liter Summa canisters. After conducting a shut-in vacuum test, the samples were collected through a valve connected to the tubing attached at the top of each probe, withdrawing each sample at a rate of 200 mL/min. A duplicate vapor sample was collected from probe B102-6.5. The samples were immediately transported to a California certified environmental laboratory for VOC analysis, in accordance with the Advisory. All soil vapor samples collected were documented on a chain-of-custody form.

**Leak Test:** A leak test was conducted at each soil vapor probe location to determine if leakage was present at the boring surface. N-Propanol and n-pentane were used as the source of the tracer compound. The tracer gas compounds were not detected in any of the soil vapor samples.

**Laboratory Analysis:** The soil vapor samples collected for this investigation were analyzed for VOCs by EPA Method TO-15 by the offsite California certified laboratory. The laboratory analytical reports and chain-of-custody documentation for the soil vapor samples are presented in Appendix D. The soil-vapor sample results are summarized in Table 3. The maximum VOC of concern detected for each boring are depicted in Figure 3.

### 4.3 Offsite Well Installations and Soil Sample Analysis on Culver Boulevard

On January 26, 2015, Alta drilled and installed Wells MW7 and MW8 in the left southwest-bound lane of Culver Boulevard. The well locations are shown on Figures 4 through 13. The wells were drilled and installed using a hollow-stem auger drilling rig equipped with 10-inch-diameter augers. The borings for the groundwater monitoring wells were each drilled to 19.5 feet bgs. The upper five feet of each boring was hand-augered for additional utility clearance purposes.

#### 4.3.1 Soil Sample Collection and Analyses

Soil samples for geologic logging and laboratory analysis were collected at 2.5, 5, 10, 15, and 18 feet bgs, and at changes in lithology or observed contamination by driving a modified California split-spoon

sampler into the undisturbed ground. Prior to drilling, the augers were decontaminated with a steam-cleaning unit over an auger rack that permits collection of decontamination water. Before each soil sample was collected, the sampling equipment was decontaminated with a three-bucket wash consisting of a non-phosphate cleaning solution, tap water, and a final rinse in distilled water.

Samples for VOC analysis were collected at or above the water surface at 2.5, 5, and 10 feet bgs using pre-preserved 40-milliliter (ml) vials in accordance with EPA Method 5035 procedures. Note that due to the detection of hydrocarbon odors at Boring MW8 at 2 feet bgs, a brass sleeve was inserted into the teeth of the hand auger and a soil sample for TPH analysis was collected. The sleeve was capped with Teflon sheeting and sealed with polyurethane end-caps. All samples were labeled with the well identification number and depth, and date and time of collection. Following collection, each sample was stored in ziplock bags and placed in portable cooler maintained at 4 degrees Celsius, and transported to a California certified environmental laboratory on the same day of collection. The samples were recorded on a chain-of-custody record identifying the sample identification, date and time of collection, sample matrix and containers, preservative, requested analyses, sampler's name, couriers used, and responsible laboratory personnel.

The soil samples were logged in accordance with the USCS by a PG. The volatile organic vapor concentration of each soil sample was screened using a PID calibrated to 50 ppm hexane. The soils were placed in a plastic bag and the PID probe was inserted into the bag, and the reading was recorded. The lithology, PID readings, field observations, and sampling depths of the borings for Wells MW7 and MW8 were documented on boring logs, included in Appendix B.

Each sample was analyzed for VOCs by EPA Method 8260B. A duplicate soil sample for VOC analyses was collected from MW8 at 2.5 feet bgs. The duplicate sample was collected using the same sampling procedures as the primary sample, and analyzed for the same laboratory analyses. The sleeve collected from MW8 at 2.5 feet bgs was analyzed for TPH as gasoline, diesel, and motor oil by EPA Method 8015B. Laboratory analytical reports and chain-of-custody documentation for the soil samples are presented in Appendix C. A summary of the VOC analyses are provided in Table 4.

#### 4.3.2 Well Installation

Following the drilling and soil sampling, 4-inch-diameter Schedule 40 PVC blank and 0.01-inch screened casings were installed in each boring. The depths of the screened intervals were dependent on the depth to water and boring lithology. The wells were screened from 9 to 19 feet bgs. The top of the screened intervals were placed slightly above the observed groundwater surface. The bottom of the screened intervals were placed at the top of the underlying clay layer at the base of the aquifer. Note that as indicated in the Regional Board Comments section of the LARWQCB approval letter dated September 15, 2014: "The tops of well screens in the proposed off-site wells shall not extent to depths of shallower than 10 feet bgs". Because groundwater was encountered during drilling at 10 to 11 feet, due to the necessity to install the top of the screen slightly above the water table, Alta consulted with the LARWQCB onsite representative (Jeff Brooks) regarding the depth to the top of the screen interval. Mr. Brooks granted approval to install the top of the screen at 9 feet bgs, with the hydrated bentonite seal installed at 1.5 to 8 feet bgs.

The annular space of the wells were backfilled with #2/12 sand filter to one foot above the top of the screened interval. The screened sections were surged with a surge block to allow the sand pack to settle, and additional sand was added to approximately one foot above the top of the perforated interval. A hydrated bentonite seal was then placed on the sand from approximately 1.5 to 8 feet bgs. An approximately 6-inch thick layer of concrete was then placed on the bentonite. Each well was completed

in a 12-inch-diameter, traffic-rated well box secured with concrete, set flush with the street surface. The well construction details are included on the boring and well installation logs, included in Appendix B.

#### 4.3.3 Well Development

On January 29, 2015, the wells were developed using a stainless steel bailer and surge block situated on a well development rig. Approximately 40 to 50 gallons of groundwater were removed from each well. Due to the poor conductivity of the aquifer and lack of available groundwater, the wells were bailed dry several times. The pH, electrical conductivity (EC), temperature, turbidity, total dissolved solids, and depth to groundwater were monitored during well development. Turbidity levels were lowered to 404 and 795 nephelometric turbidity units (NTUs) in Wells MW7 and MW8, respectively. Turbidity levels could not be lowered further due to the time constraints allowed in the LADPW permit. The measured groundwater parameters, static groundwater levels, casing diameters and total depths, and total gallons removed were documented and recorded on the Well Development Records provided in Appendix E. The removed water was placed in DOT-approved 55-gallon drums pending disposal.

#### 4.3.4 Well Survey

On February 2 through 4, 2015, the new and existing groundwater monitoring wells were surveyed by a California-licensed land surveyor. The top of the well casings and rim and the horizontal coordinates of each well were surveyed relative to the City of Los Angeles Benchmark Number 11028 utilizing Differential Global Positioning System technology. The northing and easting of each well were measured using the California State Plane (NAD83) system, with the vertical datum measured in feet above mean sea level. On February 2 through 4, 2015, the horizontal coordinates of previous borings drilled onsite and the borings on Panama Street were also surveyed. The top of casing elevations for the five wells are documented on Table 5. The final survey report is included in Appendix F.

# 4.4 First Quarter 2015 Groundwater Monitoring

On February 2, 2015, groundwater monitoring was performed at each of the existing onsite wells (GW1, GW2, and GW3) and the newly installed offsite wells (MW7 and MW8). Groundwater monitoring and sampling procedures were conducted in general accordance with the United States Environmental Protection Agency's Low Stress Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells guidance document, dated July 30, 1996, revised January 19, 2010. Traffic control was set up on Culver Boulevard while Wells MW7 and MW8 were purged and sampled.

#### 4.4.1 Groundwater Elevations

Prior to sampling each well, depth to groundwater was measured using an electronic interface probe referenced to the survey mark at the top of each well casing. The total well depth was also measured by lowering the interface probe to the bottom of each well. Groundwater elevations were calculated by subtracting the water table depth from the top-of-casing elevations. The groundwater gradient and flow direction were calculated using these water-table elevations. A summary of the top of casing elevations, depth to groundwater, and the groundwater elevations in each well are provided on Table 5. The groundwater elevations, equipotential contours, and the groundwater gradient and flow direction are illustrated on Figure 13.

#### 4.4.2 Well Purging and Sampling

Following groundwater elevation measurements, each well was purged using a low-flow, variable-rate submersible pump and new, teflon-lined polyethylene tubing. Purge water was pumped via flexible

discharge tubing into a five-gallon bucket and then emptied into a 55-gallon DOT-approved drum for storage and subsequent disposal. During purging, pH, electrical conductivity (EC), temperature, turbidity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) were measured using a flow-through cell water-quality meter. Each well was purged until these parameters stabilized, and until the turbidity was lowered to less than 16 nephelometric turbidity units (NTUs) or until stable. The well purging parameters and approximate volume of water purged were recorded on the Groundwater Monitoring Well Purging Records, included in Appendix G.

Groundwater samples were collected using a new disposable polyethylene bailer after these parameters stabilized, indicating that representative formation water was entering the well. The groundwater samples were slowly decanted into laboratory provided sample containers, sealed with Teflon®-lined septa, properly labeled, placed on ice in a portable cooler maintained at 4 degrees Celsius, and transported on the same day of sample collection to the laboratory for analysis. The samples were recorded on a chain-of-custody record identifying the sample identification, date and time of collection, sample matrix and containers, preservative, requested analyses, sampler's name, couriers used, and responsible laboratory personnel. In addition to the primary groundwater monitoring samples, a duplicate sample (collected from GW3), and a trip blank (TB) and equipment blank (EB) sample were also collected.

Before each well was measured or purged, the meters and pump used during this sampling event were decontaminated using a three-bucket wash consisting of a phosphate-free cleaning solution, followed by rinsing in tap and distilled water.

#### 4.4.3 Groundwater Sample Analyses

Groundwater samples collected during this investigation were submitted to Eurofins/Calscience for the following analyses:

- Volatile Organic Compounds (VOCs) by EPA Method 8260B;
- 1,4-dioxane by EPA Method 8270C;
- Title 22 metals by EPA Method 6010B/7470A;
- Dissolved gases (methane, ethene, ethane, and carbon dioxide) by Method RSK-175M;
- Total dissolved iron and manganese by EPA Method 6010B;
- Sulfate, nitrate, and chloride by EPA Method 300;
- Boron by EPA Method 200.7;
- Total dissolved solids (TDS) by SM 2540C;
- Total organic carbon (TOC) by SM 5310D;
- Total alkalinity/carbonate/bicarbonate (each as calcium carbonate) by Standard Method 2320B;
   and
- Total sulfide by Standard Method 4500-S2-D.

The trip and equipment blank samples were analyzed for VOCs by EPA Method 8260B only. A summary of the groundwater sample results are included in Tables 6 through 9. The VOC results are plotted and contoured on Figure 13. Laboratory reports and chain-of-custody documents are presented in Appendix H.

### 4.5 Investigation-derived Waste Disposal

Investigation-derived wastes (soil cuttings, decontamination water, and well development and purge water) generated during the field operations were placed in 55-gallon Department of Transportation (DOT) drums and temporarily stored on-site, pending disposal. The drum contents are being profiled and will be transported and disposed at an approval disposal facility after profiling is completed.

### 5. FINDINGS AND CONCLUSIONS

# 5.1 Lithology

Soils encountered at Borings B102 to B105 to the depths explored (10.5 feet bgs) consisted predominantly of silty clays and silty fat clays, with scattered coarse sand gravel. The upper 5 to 7 feet of soils are suspected to be fill material, which was encountered in all borings. The soils become more plastic and wet with depth. Very wet to saturated soils, interpreted to be the uppermost groundwater beneath the site, were encountered in Borings B104 and B105 at approximately 9 and 10 feet bgs. No staining or odors were noted in any of the Panama Street borings. No significant PID readings were detected.

Soils encountered in the borings for Wells MW7 and MW8 consisted of clays and silts to approximately 9 to 10 feet bgs, underlain by water-saturated silty fine sand with fine to medium-grained sand interbeds to approximately 19 feet bgs. Fat clays were encountered at the bottom of each boring at 19 to 19.5 feet bgs. Groundwater was encountered at approximately 10 to 11 feet bgs. No staining or odors were noted in either boring, except for hydrocarbon odors in shallow fill soils detected in the upper two feet of the boring for MW8. No significant PID readings were detected.

# 5.2 Laboratory Results of Soil-Matrix Samples

A tabulated summary of the laboratory analytical results for VOCs and Title 22 metals in the soil-matrix of the Panama Street borings are provided in Tables 1 and 2, respectively. A summary of the soil-matrix concentrations from Borings MW7 and MW8 are provided in Table 4.

Updated soil plume maps showing the distribution, extent, and isoconcentration contours of PCE, TCE, and cis-1,2-DCE at 2.5, 5, and 10 feet bgs, and the locations of Borings B102 to B105 and Wells MW7 and MW8, are provided on Figures 4 through 12. Note that these figures illustrate the interpreted isoconcentration contours at the Attenuation Factor Soil Screening Levels (AF-SSLs) calculated using the LARWQCB's attenuation factor for each compound and depth, showing the areas that are above AF-SSLs for PCE, TCE, and cis-1,2-DCE. The isoconcentration contours at the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) May 2013 Tier 1 Environmental Screening Levels (ESLs), using Summary Table A - ESLs in Shallow Soils, Groundwater is Current or Potential Source of Drinking Water (SFRWQCB-ESLS) for each compound are also shown.

A summary of the soil analytical results from Borings B102 through B105, MW7, and MW8 are provided below.

#### 5.2.1 Volatile Organic Compounds

Trace concentrations of PCE were detected in sample B104-10 (0.18J micrograms per kilogram [μg/kg], and MW7-2.5, MW7-5, and MW7-10 at 0.68J to 1.6 μg/kg. No PCE concentrations were detected above Method Detection Limits (MDLs) in any other soil samples. The trace detections at 10 feet bgs in B104 and MW7 are likely due to the presence of low PCE concentrations in groundwater originating from the subject site.

- As indicated on Figures 4, 5, and 6, and based on the laboratory analytical results, the northnorthwestern and southeastern extent of the PCE concentrations in the upper 10 feet of soil is sufficiently defined. None of the PCE concentrations detected during this investigation exceed their respective AF-SSLs.
- No concentrations of trichloroethene (TCE) or cis-1,2-dichloroethene (cis-1,2-DCE) were detected above MDLs in any of the soil samples. As indicated on Figures 7 through 12, the northnorthwestern and southeastern extent of TCE and cis-1,2-DCE concentrations in the soil matrix are defined.
- Trace levels of benzene were detected in six soil samples, ranging from 0.11J μg/kg to 0.33J μg/kg, the highest concentration of which is well below the AF-SSLs of 4.0 μg/kg to 6.0 μg/kg for the subject site. The benzene concentrations are also below US Environmental Protection Agency Region 9 Regional Screening Levels, and the SFRWQCB-ESLs (residential or industrial scenarios).
- Trace to low levels of acetone, carbon disulfide, chlorobenzene, and 1,4-dichlorobenzene were also detected in at least one sample, the highest concentrations of which are below US Environmental Protection Agency – Region 9 Regional Screening Levels, and SFRWQCB-ESLs (residential or industrial scenarios).
- No concentrations of TPH as gasoline, diesel, or motor oil were detected in the sample collected at MW8-2.5. Due to the absence of TPH concentrations, and the low to nondetectable VOC concentrations in soil samples from boring MW8, the noted hydrocarbon odors in the upper two feet of MW8 is not significant.

#### 5.2.2 Metals (Panama Street Borings)

• Concentrations of Title 22 Metals from Borings B102 to B105 drilled on Panama Street were reported below the 2010 California Office of Environmental Health Hazard Assessment's (OEHHA) California Human Health Screening Levels (CHHSLs, commercial/industrial scenario) and the SFRWQCB-ESLs (commercial/industrial scenario), with the exception of arsenic in all soil samples (Table 2). Detected concentrations of arsenic ranged from 9.11 mg/kg (B105-5) to 25.9 mg/kg (B104-2.5). The elevated arsenic concentrations in shallow soils may be related to the presence of fill above the suspected storm drain. Note that arsenic is a naturally occurring metal in southern California soils and elevated concentrations of arsenic are frequently encountered. Soil samples collected from Borings MW7 and MW8 were not analyzed for Title 22 metals.

# 5.3 Laboratory Results of Soil-Vapor Samples (Panama Street Borings)

- As indicated on Table 3, low concentrations of PCE were detected in all soil-vapor samples collected, ranging from 0.018 μg/l to 0.285 μg/l. The highest PCE concentrations were detected in vapor probe B105 at 8 feet bgs. Reported PCE concentrations were below the 2010 industrial CHHSLs (non-engineered soils) in all vapor probes, and were also below the 2010 residential CHHSLs (for non-engineered soils) in all probes except for B102-6.5 and B105-8. None of the PCE concentrations in shallow probes exceeded residential (0.180 μg/l) or industrial (0.603 μg/l) CHHSLs.
- Note that PCE was detected at slightly higher concentrations in the deeper probes than in the corresponding shallow probes at the same locations. This may be due to the presence of PCE vapors slightly above the capillary fringe, on the outer fringes of the dissolved-phase PCE plume.

- As indicated on Figure 3, the full lateral extent of detectable PCE concentrations in soil-vapor was not fully defined to the north. However, PCE concentrations decrease significantly north of Building #1, and the northern extent of PCE concentrations that exceed the residential CHHSL of 0.180 μg/l in shallow probes were also defined.
- Low concentrations of TCE were detected in only one probe, B105-8 at 0.019 μg/l. This concentration is below the 2010 residential and industrial CHHSLs.
- Degradation compounds of TCE (cis-1,2-DCE and vinyl chloride) were not detected in any of the vapor samples.
- Trace concentrations of benzene were detected in all probes except B103-3, ranging from 0.008 μg/l to 0.030 μg/l. Reported benzene concentrations were below the 2010 residential and industrial CHHSLs (non-engineered soils) in all vapor probes.
- Other VOCs detected that also have listed CHHSLs include ethylbenzene (maximum concentration of 0.238 μg/l), toluene (maximum concentration of 0.186 μg/l), and total xylenes (maximum concentration of 0.881 μg/l). These concentrations are well below the corresponding residential and industrial CHHSLs.
- Other VOCs that were detected in at least one sample that do not have listed CHHSL values include 2—butanone (MEK), chloroform, cyclohexane, dibromochloromethane, ethanol, 4-ethyltoluene, freon 113, heptane, hexane, 2-hexanone, isopropyl alcohol, methylene chloride, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene. The concentrations of these VOCS are very low and not considered significant. Note that the majority of VOCs detected in vapor samples collected from Borings B102 through B105 were also detected in onsite samples by Alta (2013) or by GeoSyntec (2014).

# 5.4 First Quarter 2015 Groundwater Monitoring Results

- The depth to groundwater in Wells GW1, GW2, GW3, MW7, and MW8 measured on February 2, 2015 ranged from 9.85 to 12.20 feet below top of casing (Table 5). The depths to groundwater in Wells GW1, GW2, and GW3 increased by an average of 0.31-foot since the previous measurements on October 13, 2014. As indicated on Figure 13, the groundwater flow direction is to the southwest at a gradient of 0.0034 feet per foot, similar to the results of the previous event.
- Concentrations of VOCs were reported below California Department of Public Health Maximum Contaminant Levels (MCLs), with the exception of PCE, TCE, and cis-1,2-dichloroethene.
- Concentrations of PCE were detected in Wells GW1, GW3, and MW7 at 21 μg/l, 140 μg/l (primary and duplicate samples), and 4.5 μg/l, respectively. The PCE concentration in GW3 increased since the previous event from 27 μg/l (25 μg/l in the duplicate) to 140 μg/l, the highest detected concentration to date for this well. The increase of PCE concentrations in this well is likely due to the rise of the water table.
- Low concentrations of TCE were detected in all five wells, ranging from 0.66J μg/l to 8.4 μg/l. The highest concentration of 8.4 μg/l was detected in down-gradient Well GW1, which is similar to the concentration of the previous event (8.2 μg/l).
- Concentrations of cis-1,2-DCE were detected only in down-gradient Well GW1, at 23 μg/l. This
  concentration is also similar to the concentration detected in this well during the previous event
  (26 μg/l).

- The lateral extent of detectable PCE, TCE, and/or cis-1,2-DCE concentrations are defined to the west (cross-gradient, beneath Building #1) and to the north and northeast (up-gradient). The cross-gradient extent to the southeast in the vicinities of Wells MW7 and MW8 has been sufficiently defined. The down-gradient extent to the southwest has not been defined. The highest PCE, TCE, and/or cis-1,2-DCE concentrations are located onsite, extending from the central portion of the Site (hazardous waste storage yard) to the southwest in the down-gradient direction.
- No concentrations of 1,4-dioxane were detected in any of the wells during this sampling event. Since the previous event, 1,4-dioxane concentrations decreased in down-gradient Well GW1 from 1.3 μg/l to below detection limits (Table 7).
- As indicated on Table 8, low concentrations of barium, molybdenum, selenium, thallium, vanadium, and zinc were detected in all five wells. Similar to the previous event, only thallium was detected above MCLs, at maximum concentrations of 0.00502J milligrams per liter (mg/l) (MW7). The concentrations of Title 22 Metals detected in the groundwater samples are considered to be within background levels for the uppermost groundwater zone in the Site vicinity.
- The presence of cis-1,2-DCE likely indicates that biological degradation of TCE has occurred. As TCE degrades, cis-1,2-DCE concentrations will appear, followed by the appearance of vinyl chloride. Vinyl chloride has not been detected in any of the groundwater monitoring wells at the site. The only detection of vinyl chloride has been at hydro-punch sampling location B43A, which exhibited a trace concentration of 1.10J µg/l (sampled June 6, 2013).
- The pH levels measured in the five wells (7.01 to 7.17, measured at the end of purging) are in the range for optimal microbial growth to occur.
- Significant total organic carbon (TOC) concentrations were detected, ranging from 30 mg/l to 46 mg/l. This likely indicates the presence of significant microbial populations in the aquifer.
- Elevated concentrations of carbon dioxide were detected, ranging from 22.1 mg/l to 37.9 mg/l.
   Carbon dioxide is a byproduct of microbe respiration, indicating that microbe respiration processes may be occurring.
- The presence of sulfate (180 mg/l to 350 mg/l) may indicate that the anaerobic microbes are using sulfate as an electron receptor.
- A summary of the monitored natural attenuation parameters are included in Table 9.

The above conclusions regarding monitored natural attenuation parameters are still preliminary, based on only five wells and two sampling events. More conclusive interpretations can be made from additional wells (to be installed offsite in accordance with the approved investigation Work Plan) monitored over a longer period of time.

# 6. RECOMMENDATIONS

Alta is in the process of obtaining access permits from Caltrans for the remaining four offsite wells (PMW4, PMW5, PMW6, and PMW9) and two borings (PB106 and PB110). After the access permit from Caltrans is obtained, Alta recommends that the remainder of the proposed investigation detailed in the Work Plan dated August 29, 2014, and as approved with conditions in the LARWQCB letter dated September 15, 2014 be implemented.

Based on the findings and conclusions noted above, Alta believes the extent of VOCs in soil matrix and soil vapor has been sufficiently assessed north of Building #1 beneath Panama Street, and does not believe that additional offsite investigation in this area is necessary. The extent of VOCs in soil matrix and groundwater beneath Culver Boulevard to the southeast has also been adequately assessed.

#### **REFERENCES**

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- 4. California Department of Water Resources (DWR), Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County, Bulletin Number 104, 1961.
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- 9. Department of Toxic Substances Control/California Regional Water Quality Control Board Los Angeles and San Francisco Region (DTSC/LARWQCB), Advisory Active Soil Gas Investigations; April 2012.
- 10. Environ, Phase I Environmental Site Assessment, Teledyne Electronic Technologies, 12964, 12950, 12930, 12922, 12918, 12910, and 12908 Panama Street, Los Angeles Ca, Draft.
- 11. United States Environmental Protection Agency, Low Stress Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells guidance document, dated July 30, 1996, revised January 19, 2010.

Soil Matrix Sample Results for VOCs Panama Street Borings Los Angeles, California

		Sample ID:	B102-2.5	B102-5.0	B103-2.5	B103-5.0
VOCs in Soil		Date:	1/14/2015	1/14/2015	1/14/2015	1/14/2015
by EPA Method 8260B	MDL (µg/kg):	RL (µg/kg):	\	/OC Concent	•	1)
Acetone	4.7-6.2	38-50	7.8J	8.2J	27J	18J
Benzene	0.098-0.13	0.75-1.0	ND	0.13J	ND	ND
Bromobenzene (Phenyl bromide) Bromochloromethane	0.16-0.21	0.75-1.0	ND	ND	ND	ND
Bromodichloromethane	0.52-0.69 0.18-0.23	1.5-2.0 0.75-1.0	ND ND	ND ND	ND ND	ND ND
Bromoform (Tribromomethane)	0.6-0.79	3.8-5.0	ND	ND	ND ND	ND ND
Bromomethane (Methyl bromide)	7.1-9.4	15-20	ND	ND	ND	ND
2-Butanone (MEK)	2.8-3.8	15-20	ND	ND	ND	ND
n-Butylbenzene	0.12-0.16	0.75-1.0	ND	ND	ND	ND
sec-Butylbenzene	0.44-0.58	0.75-1.0	ND	ND	ND	ND
tert-Butylbenzene Carbon Disulfide	0.11-0.15 0.23-0.31	0.75-1.0 7.5-10	ND ND	ND ND	ND ND	ND ND
Carbon tetrachloride	0.21-0.28	0.75-1.0	ND	ND	ND	ND
Chlorobenzene	0.17-0.22	0.75-1.0	ND	ND	ND	ND
Chloroethane	1.1-1.5	1.5-2.0	ND	ND	ND	ND
Chloroform (Trichloromethane)	0.18-0.24	0.75-1.0	ND	ND	ND	ND
Chloromethane (Methyl chloride)	0.23-0.3	15-20	ND	ND	ND	ND
2-Chlorotoluene	0.17-0.23	0.75-1.0	ND ND	ND	ND	ND
4-Chlorotoluene 1,2-Dibromo-3-chloropropane (DBCP)	0.16-0.21 1.3-1.7	0.75-1.0 3.8-5.0	ND ND	ND ND	ND ND	ND ND
Dibromochloromethane	0.43-0.57	1.5-2.0	ND ND	ND ND	ND ND	ND ND
1,2-Dibromoethane (EDB)	0.19-0.255	0.75-1.0	ND	ND	ND	ND
Dibromomethane	0.58-0.77	0.75-1.0	ND	ND	ND	ND
1,2-Dichlorobenzene	0.17-0.23	0.75-1.0	ND	ND	ND	ND
1,3-Dichlorobenzene	0.13-0.18	0.75-1.0	ND	ND	ND	ND
1,4-Dichlorobenzene	0.17-0.22	0.75-1.0	ND	ND	ND	ND
Dichlorodifluoromethane 1,1-Dichloroethane	0.33-0.44 0.16-0.21	1.5-2.0 0.75-1.0	ND ND	ND ND	ND ND	ND ND
1,2-Dichloroethane (EDC)	0.16-0.21	0.75-1.0	ND ND	ND ND	ND	ND ND
1,1-Dichloroethene	0.26-0.35	0.75-1.0	ND	ND	ND	ND
cis-1,2-Dichloroethene	0.21-0.28	0.75-1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.38-0.51	0.75-1.0	ND	ND	ND	ND
1,2-Dichloropropane	0.33-0.44	0.75-1.0	ND	ND	ND	ND
1,3-Dichloropropane 2,2-Dichloropropane	0.19-0.25 0.25-0.33	0.75-1.0 3.8-5.0	ND ND	ND ND	ND ND	ND ND
1,1-Dichloropropene	0.25-0.33	1.5-2.0	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.19-0.25	0.75-1.0	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.46-0.61	1.5-2.0	ND	ND	ND	ND
Ethylbenzene	0.11-0.15	0.75-1.0	ND	ND	ND	ND
2-Hexanone	1.3-1.8	15-20	ND	ND	ND	ND
Isopropylbenzene	0.41-0.55	0.75-1.0	ND	ND	ND	ND
p-Isopropyltoluene 4-Methyl-2-pentanone (MIBK)	0.47-0.63 3.3-4.3	0.75-1.0 15-20	ND ND	ND ND	ND ND	ND ND
Methyl-tert-butyl ether (MTBE)	0.22-0.3	1.5-2.0	ND	ND	ND	ND
Methylene chloride (DCM)	1.0-1.3	7.5-10	ND	ND	ND	ND
Naphthalene	0.64-0.81	7.5-10	ND	ND	ND	ND
n-Propylbenzene	0.38-0.5	1.5-2.0	ND	ND	ND	ND
Styrene	0.54-0.6	0.75-1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane 1,1,2,2-Tetrachloroethane	0.18-0.24 0.26-0.35	0.75-1.0 1.5-2.0	ND ND	ND ND	ND ND	ND ND
Tetrachloroethene	0.16-0.21	0.75-1.0	ND ND	ND ND	ND ND	ND ND
Toluene (Methyl benzene)	0.39-0.52	0.75-1.0	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0.69-0.91	1.5-2.0	ND	ND	ND	ND
1,2,4-Trichlorobenzene	0.23-0.31	1.5-2.0	ND	ND	ND	ND
1,1,1-Trichloroethane	0.17-0.23	0.75-1.0	ND	ND	ND	ND
1,1,2-Trichloroethane	0.27-0.35	0.75-1.0	ND	ND ND	ND	ND
Trichloroethene Trichlorofluoromethane	0.23-0.3 0.28-0.38	1.5-2.0 7.5-1.0	ND ND	ND ND	ND ND	ND ND
1,2,3-Trichloropropane	0.63-0.83	1.5-2.0	ND	ND	ND	ND
1,2,4-Trimethylbenzene	0.44-0.59	1.5-2.0	ND	ND	ND	ND
1,3,5-Trimethylbenzene	0.41-0.55	1.5-2.0	ND	ND	ND	ND
Vinyl Acetate	3.6-4.7	7.5-10	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	0.38-0.5	0.75-1.0	ND	ND	ND	ND
o-Xylene m,p-Xylenes	0.42-0.56 0.2-0.27	0.75-1.0 1.5-2.0	ND ND	ND ND	ND ND	ND ND
пт,р-лутепез	U.Z-U.Z1	Dilution Factor:	1 1	ND 1	1 1	1 1
		a				

### NOTES:

VOC = Volatile Organic Compound

RL = Reporting Limit

MDL = Method Detection Limit

 $\ensuremath{\mathsf{ND}}$  = Indicated constituents not detected above the MDL

 $\mu$ g/kg = micrograms per kilogram

 ${\sf J}$  = Analyte detected; However result is an estimated value between the MDL and the RL



Soil Matrix Sample Results for VOCs Panama Street Borings Los Angeles, California

		Sample ID:	B104-2.5	B104-5.0	B104-10	B105-2.5	B105-5.0	B105-5.0-DUP
VOCs in Soil		Date:	1/15/2015	1/15/2015	1/15/2015	1/15/2015	1/15/2015	1/15/2015
by EPA Method 8260B	MDL (µg/kg):	RL (µg/kg):			VOC C	oncentration	ı (µg/kg)	
Acetone	4.7-6.2	38-50	ND	12J	7.5J	7.6J	10J	13J
Benzene	0.098-0.13	0.75-1.0	0.11J	ND	ND	ND	0.33J	0.21J
Bromobenzene (Phenyl bromide)	0.16-0.21	0.75-1.0	ND	ND	ND	ND	ND	ND
Bromochloromethane	0.52-0.69	1.5-2.0	ND	ND	ND	ND	ND	ND
Bromodichloromethane	0.18-0.23	0.75-1.0	ND	ND	ND	ND	ND	ND
Bromoform (Tribromomethane) Bromomethane (Methyl bromide)	0.6-0.79 7.1-9.4	3.8-5.0 15-20	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
2-Butanone (MEK)	2.8-3.8	15-20	ND	ND	ND ND	ND ND	ND ND	ND ND
n-Butylbenzene	0.12-0.16	0.75-1.0	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	0.44-0.58	0.75-1.0	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	0.11-0.15	0.75-1.0	ND	ND	ND	ND	ND	ND
Carbon Disulfide	0.23-0.31	7.5-10	0.78J	ND	ND	ND	ND	ND
Carbon tetrachloride	0.21-0.28	0.75-1.0	ND	ND	ND	ND	ND	ND
Chlorobenzene	0.17-0.22	0.75-1.0	ND	ND	ND	ND	ND	0.21J
Chloroethane	1.1-1.5	1.5-2.0	ND	ND	ND	ND	ND	ND
Chloroform (Trichloromethane) Chloromethane (Methyl chloride)	0.18-0.24	0.75-1.0 15-20	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
2-Chlorotoluene	0.23-0.3 0.17-0.23	0.75-1.0	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
4-Chlorotoluene	0.17-0.23	0.75-1.0	ND	ND	ND ND	ND ND	ND ND	ND ND
1,2-Dibromo-3-chloropropane (DBCP)	1.3-1.7	3.8-5.0	ND	ND	ND ND	ND	ND	ND
Dibromochloromethane	0.43-0.57	1.5-2.0	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	0.19-0.255	0.75-1.0	ND	ND	ND	ND	ND	ND
Dibromomethane	0.58-0.77	0.75-1.0	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	0.17-0.23	0.75-1.0	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	0.13-0.18	0.75-1.0	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene Dichlorodifluoromethane	0.17-0.22	0.75-1.0	ND ND	ND	ND ND	ND ND	<b>0.21J</b> ND	ND ND
1,1-Dichloroethane	0.33-0.44 0.16-0.21	1.5-2.0 0.75-1.0	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
1.2-Dichloroethane (EDC)	0.24-0.31	0.75-1.0	ND ND	ND	ND ND	ND	ND	ND
1,1-Dichloroethene	0.26-0.35	0.75-1.0	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	0.21-0.28	0.75-1.0	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.38-0.51	0.75-1.0	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	0.33-0.44	0.75-1.0	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	0.19-0.25	0.75-1.0	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	0.25-0.33	3.8-5.0	ND	ND	ND ND	ND ND	ND ND	ND
1,1-Dichloropropene cis-1,3-Dichloropropene	0.25-0.33 0.19-0.25	1.5-2.0 0.75-1.0	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
trans-1,3-Dichloropropene	0.19-0.25	1.5-2.0	ND	ND	ND ND	ND ND	ND ND	ND ND
Ethylbenzene	0.11-0.15	0.75-1.0	ND	ND	ND ND	ND	ND	ND
2-Hexanone	1.3-1.8	15-20	ND	ND	ND	ND	ND	ND
Isopropylbenzene	0.41-0.55	0.75-1.0	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	0.47-0.63	0.75-1.0	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	3.3-4.3	15-20	ND	ND	ND	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	0.22-0.3	1.5-2.0	ND	ND	ND	ND	ND	ND
Methylene chloride (DCM)	1.0-1.3	7.5-10	ND	ND	ND	ND	ND	ND
Naphthalene n-Propylbenzene	0.64-0.81 0.38-0.5	7.5-10 1.5-2.0	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
Styrene	0.54-0.6	0.75-1.0	ND	ND	ND ND	ND ND	ND ND	ND
1,1,1,2-Tetrachloroethane	0.18-0.24	0.75-1.0	ND	ND	ND ND	ND ND	ND ND	ND ND
1.1.2.2-Tetrachloroethane	0.26-0.35	1.5-2.0	ND	ND	ND	ND	ND	ND
Tetrachloroethene	0.16-0.21	0.75-1.0	ND	ND	0.18J	ND	ND	ND
Toluene (Methyl benzene)	0.39-0.52	0.75-1.0	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0.69-0.91	1.5-2.0	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	0.23-0.31	1.5-2.0	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	0.17-0.23	0.75-1.0	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	0.27-0.35	0.75-1.0	ND	ND	ND ND	ND ND	ND ND	ND ND
Trichloroethene Trichlorofluoromethane	0.23-0.3 0.28-0.38	1.5-2.0 7.5-1.0	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
1,2,3-Trichloropropane	0.63-0.83	1.5-2.0	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
1,2,4-Trimethylbenzene	0.44-0.59	1.5-2.0	ND	ND	ND ND	ND	ND	ND
1,3,5-Trimethylbenzene	0.41-0.55	1.5-2.0	ND	ND	ND ND	ND	ND	ND
Vinyl Acetate	3.6-4.7	7.5-10	ND	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	0.38-0.5	0.75-1.0	ND	ND	ND	ND	ND	ND
o-Xylene	0.42-0.56	0.75-1.0	ND	ND	ND	ND	ND	ND
m,p-Xylenes	0.2-0.27	1.5-2.0 Dilution Factor:	ND 1	ND 1	ND 1	ND 1	ND 1	ND

### NOTES:

VOC = Volatile Organic Compound

RL = Reporting Limit

MDL = Method Detection Limit

ND = Indicated constituents not detected above the MDL

μg/kg = micrograms per kilogram

J = Analyte detected; However result is an estimated value between the MDL and the RL



# Soil Matrix Sample Results for VOCs Panama Street Borings Los Angeles, California

Acetone			Sample ID:	B105-10
Acetone	VOCs in Soil		Date:	1/15/2015
Benzene   0.098-0.13   0.75-1.0   ND	by EPA Method 8260B	1100/	100	
Bromobloromethane				
Bromochloromethane				
Bromodichloromethane   0.18-0.23   0.75-1.0   ND				
Bromoform (Tribromomethane)   0.6-0.79   3.8-5.0   ND				
Brommethane (Methy) bromide   7.1-9.4   15-20 ND				
In-Butybenzene				
sec-Butylbenzene         0.44-0.58         0.75-1.0         ND           carbon Disulide         0.11-0.15         0.75-1.0         ND           Carbon Disulide         0.23-0.31         7.5-10         ND           Carbon Disulide         0.21-0.28         0.75-1.0         ND           Chloroberne         0.17-0.22         0.75-1.0         ND           Chlorobrane         1.1-1.5         1.5-2.0         ND           Chloroform (Trichloromethane)         0.18-0.24         0.75-1.0         ND           Chlorosteme         0.17-0.23         0.75-1.0         ND           Chlorostoluene         0.16-0.21         0.75-1.0         ND           4-Chlorotoluene         0.16-0.21         0.75-1.0         ND           1,2-Dibromo-3-chloropopane (DBCP)         1.3-1.7         3.8-5.0         ND           1,2-Dibromo-3-chloropopane (EDB)         0.19-0.255         0.75-1.0         ND           1,2-Dibromo-3-chloropopane (EDB)         0.19-0.255         0.75-1.0         ND           1,2-Dibromo-3-chloropopane         0.88-0.77         0.75-1.0         ND           1,2-Dibromo-3-chloropopane         0.19-0.255         0.75-1.0         ND           1,2-Dibromo-3-chloropopane         0.19-0.255         0.75-		2.8-3.8	15-20	ND
Intr-Butylbenzene				
Carbon Disulfide         0.23-0.31         7.5-10         ND           Carbon tetrachloride         0.21-0.28         0.75-1.0         ND           Chlorobenzene         0.17-0.22         0.75-1.0         ND           Chloroethane         1.1-1.5         1.5-2.0         ND           Chlorom (Trichloromethane)         0.18-0.24         0.75-1.0         ND           Chlorotoluene         0.17-0.23         0.75-1.0         ND           4-Chlorotoluene         0.16-0.21         0.75-1.0         ND           1,2-Dibromo-3-chloropropane (DBCP)         1.3-1.7         3.8-5.0         ND           1,2-Dibromo-3-chloropropane (DBCP)         1.3-1.7         3.8-5.0         ND           1,2-Dibromo-3-chloropropane (DBCP)         1.3-1.7         3.8-5.0         ND           1,2-Dibromoethane (EDB)         0.19-0.255         0.75-1.0         ND           1,2-Dichlorobenzene         0.13-0.18         0.75-1.0         ND           1,3-Dichlorobenzene         0.13-0.18         0.75-1.0         ND           Dichlorodifluoromethane         0.33-0.44         1.5-2.0         ND           1,1-Dichloroethane         0.16-0.21         0.75-1.0         ND           1,1-Dichloroethane (EDC)         0.24-0.31 <td< td=""><td></td><td></td><td></td><td></td></td<>				
Carbon tetrachloride         0.21-0.28         0.75-1.0         ND           Chlorobenzene         0.17-0.22         0.75-1.0         ND           Chloroethane         1.1-1.5         1.5-2.0         ND           Chloroform (Trichloromethane)         0.18-0.24         0.75-1.0         ND           Chlorotorluene         0.17-0.23         0.75-1.0         ND           2-Chlorotoluene         0.16-0.21         0.75-1.0         ND           4-Chlorotoluene         0.16-0.21         0.75-1.0         ND           1,2-Dibromo-3-chloropropane (DBCP)         1.3-1.7         3.8-5.0         ND           Dibromochloromethane         0.43-0.57         1.5-2.0         ND           Dibromochloromethane         0.43-0.57         1.5-2.0         ND           Dibromomethane         0.19-0.255         0.75-1.0         ND           Dibromomethane         0.17-0.23         0.75-1.0         ND           1,2-Dichlorobenzene         0.17-0.23         0.75-1.0         ND           1,2-Dichlorobenzene         0.17-0.23         0.75-1.0         ND           1,4-Dichlorobenzene         0.17-0.22         0.75-1.0         ND           1,4-Dichloroethane         0.15-0.2         0.75-1.0         ND <td></td> <td></td> <td></td> <td></td>				
Chlorobenzene				
Chlorotethane				
Chioroform (Trichioromethane)				
2-Chiorotoluene				
A-Chilorotoluene	Chloromethane (Methyl chloride)	0.23-0.3	15-20	ND
1,2-Dibromo-3-chloropropane (DBCP)				
Dibromochloromethane   0.43-0.57   1.5-2.0   ND   1,2-Dibromoethane (EDB)   0.19-0.255   0.75-1.0   ND   1,2-Dichloromethane   0.58-0.77   0.75-1.0   ND   1,2-Dichlorobenzene   0.17-0.23   0.75-1.0   ND   1,3-Dichlorobenzene   0.17-0.23   0.75-1.0   ND   1,3-Dichlorobenzene   0.17-0.23   0.75-1.0   ND   1,3-Dichlorobenzene   0.17-0.22   0.75-1.0   ND   1,4-Dichlorodifluoromethane   0.33-0.44   1.5-2.0   ND   1,1-Dichloroethane   0.16-0.21   0.75-1.0   ND   1,1-Dichloroethane   0.16-0.21   0.75-1.0   ND   1,1-Dichloroethane   0.24-0.33   0.75-1.0   ND   1,1-Dichloroethane   0.24-0.33   0.75-1.0   ND   1,1-Dichloroethene   0.26-0.35   0.75-1.0   ND   1,1-Dichloroethene   0.21-0.28   0.75-1.0   ND   1,2-Dichloroethene   0.38-0.51   0.75-1.0   ND   1,2-Dichloropropane   0.38-0.51   0.75-1.0   ND   1,2-Dichloropropane   0.38-0.51   0.75-1.0   ND   1,2-Dichloropropane   0.33-0.44   0.75-1.0   ND   1,2-Dichloropropane   0.19-0.25   0.75-1.0   ND   1,2-Dichloropropane   0.19-0.25   0.75-1.0   ND   1,3-Dichloropropane   0.25-0.33   3.8-5.0   ND   1,1-Dichloropropane   0.25-0.33   1.5-2.0   ND   1,1-Dichloropropene   0.25-0.33   1.5-2.0   ND   1,1-Dichloropropene   0.19-0.25   0.75-1.0   ND   1,1-Dichloropropene   0.19-0.25   0.75-1.0				
1,2-Dibromoethane (EDB)				
Dibromomethane				
1,2-Dichlorobenzene	, , ,			
1,3-Dichlorobenzene         0.13-0.18         0.75-1.0         ND           1,4-Dichlorobenzene         0.17-0.22         0.75-1.0         ND           Dichlorodifluoromethane         0.33-0.44         1.5-2.0         ND           1,1-Dichloroethane         0.16-0.21         0.75-1.0         ND           1,2-Dichloroethane (EDC)         0.24-0.31         0.75-1.0         ND           1,1-Dichloroethene         0.26-0.35         0.75-1.0         ND           cis-1,2-Dichloroethene         0.21-0.28         0.75-1.0         ND           trans-1,2-Dichloroethene         0.38-0.51         0.75-1.0         ND           1,2-Dichloropropane         0.19-0.25         0.75-1.0         ND           1,3-Dichloropropane         0.19-0.25         0.75-1.0         ND           2,2-Dichloropropane         0.25-0.33         1.5-2.0         ND           1,1-Dichloropropene         0.19-0.25         0.75-1.0         ND           trans-1,3-Dichloropropene         0.19-0.25         0.75-1.0         ND           trans-1,3-Dichloropropene         0.19-0.25         0.75-1.0         ND           trans-1,3-Dichloropropene         0.19-0.25         0.75-1.0         ND           Ethylbenzene         0.11-0.15				
1,4-Dichlorobenzene	,			
Dichlorodifluoromethane         0.33-0.44         1.5-2.0         ND           1,1-Dichloroethane         0.16-0.21         0.75-1.0         ND           1,2-Dichloroethane (EDC)         0.24-0.31         0.75-1.0         ND           1,1-Dichloroethene         0.26-0.35         0.75-1.0         ND           1,1-Dichloroethene         0.21-0.28         0.75-1.0         ND           1,2-Dichloroethene         0.38-0.51         0.75-1.0         ND           1,2-Dichloropropane         0.33-0.44         0.75-1.0         ND           1,3-Dichloropropane         0.19-0.25         0.75-1.0         ND           1,3-Dichloropropane         0.25-0.33         3.8-5.0         ND           1,1-Dichloropropane         0.25-0.33         3.8-5.0         ND           cis-1,3-Dichloropropene         0.25-0.33         3.8-5.0         ND           cis-1,3-Dichloropropene         0.19-0.25         0.75-1.0         ND           cis-1,3-Dichloropropene         0.19-0.25         0.75-1.0         ND           trans-1,3-Dichloropropene         0.11-0.15         0.75-1.0         ND           2-Hexanone         1.3-1.8         15-2.0         ND           1sopropylbenzene         0.11-0.15         0.75-1.0				
1,2-Dichloroethane (EDC)         0.24-0.31         0.75-1.0         ND           1,1-Dichloroethene         0.26-0.35         0.75-1.0         ND           tics-1,2-Dichloroethene         0.21-0.28         0.75-1.0         ND           trans-1,2-Dichloroethene         0.38-0.51         0.75-1.0         ND           1,2-Dichloropropane         0.33-0.44         0.75-1.0         ND           1,3-Dichloropropane         0.25-0.33         3.8-5.0         ND           1,1-Dichloropropene         0.25-0.33         1.5-2.0         ND           1,1-Dichloropropene         0.19-0.25         0.75-1.0         ND           trans-1,3-Dichloropropene         0.46-0.61         1.5-2.0         ND           Ethylbenzene         0.11-0.15         0.75-1.0         ND           Leycanone         1.3-1.8         15-20         ND           Isopropylbenzene         0.41-0.55         0.75-1.0         ND           P-Isopropyltoluene         0.47-0.63         0.75-1.0         ND           4-Methyl-2-pentanone (MIBK)         3.3-4.3         15-20         ND           Methyl-tert-butyl ether (MTBE)         0.22-0.3         1.5-2.0         ND           Methyl-tert-butyl ether (MTBE)         0.22-0.3         1.5-2.0				
1,1-Dichloroethene         0.26-0.35         0.75-1.0         ND           cis-1,2-Dichloroethene         0.21-0.28         0.75-1.0         ND           trans-1,2-Dichloroethene         0.38-0.51         0.75-1.0         ND           1,2-Dichloropropane         0.33-0.44         0.75-1.0         ND           1,3-Dichloropropane         0.19-0.25         0.75-1.0         ND           2,2-Dichloropropane         0.25-0.33         3.8-5.0         ND           cis-1,3-Dichloropropene         0.25-0.33         1.5-2.0         ND           cis-1,3-Dichloropropene         0.19-0.25         0.75-1.0         ND           trans-1,3-Dichloropropene         0.46-0.61         1.5-2.0         ND           Ethylbenzene         0.11-0.15         0.75-1.0         ND           Isopropylbenzene         0.41-0.55         0.75-1.0         ND           Isopropyltoluene         0.47-0.63         0.75-1.0         ND           4-Methyl-2-pentanone (MIBK)         3.3-4.3         15-20         ND           Methyl-tert-butyl ether (MTBE)         0.22-0.3         1.5-2.0         ND           Methylene chloride (DCM)         1.0-1.3         7.5-10         ND           Naphthalene         0.64-0.81         7.5-10			0.75-1.0	
cis-1,2-Dichloroethene         0.21-0.28         0.75-1.0         ND           trans-1,2-Dichloroethene         0.38-0.51         0.75-1.0         ND           1,2-Dichloropropane         0.33-0.44         0.75-1.0         ND           1,3-Dichloropropane         0.19-0.25         0.75-1.0         ND           2,2-Dichloropropane         0.25-0.33         3.8-5.0         ND           1,1-Dichloropropene         0.19-0.25         0.75-1.0         ND           cis-1,3-Dichloropropene         0.19-0.25         0.75-1.0         ND           Ethylbenzene         0.19-0.25         0.75-1.0         ND           Ethylbenzene         0.11-0.15         0.75-1.0         ND           2-Hexanone         1.3-1.8         15-2.0         ND           Isopropylbenzene         0.41-0.55         0.75-1.0         ND           P-Isopropyltoluene         0.41-0.55         0.75-1.0         ND           4-Methyl-2-pentanone (MIBK)         3.3-4.3         15-20         ND           Methylene chloride (DCM)         1.0-1.3         7.5-10         ND           Methylene chloride (DCM)         1.0-1.3         7.5-10         ND           N-Propylbenzene         0.34-0.6         0.75-1.0         ND				
trans-1,2-Dichloroethene         0.38-0.51         0.75-1.0         ND           1,2-Dichloropropane         0.33-0.44         0.75-1.0         ND           1,3-Dichloropropane         0.19-0.25         0.75-1.0         ND           2,2-Dichloropropane         0.25-0.33         3.8-5.0         ND           1,1-Dichloropropene         0.25-0.33         1.5-2.0         ND           cis-1,3-Dichloropropene         0.19-0.25         0.75-1.0         ND           trans-1,3-Dichloropropene         0.46-0.61         1.5-2.0         ND           Ethylbenzene         0.11-0.15         0.75-1.0         ND           2-Hexanone         1.3-1.8         15-20         ND           Isopropylbenzene         0.41-0.55         0.75-1.0         ND           p-Isopropyltoluene         0.47-0.63         0.75-1.0         ND           Methyl-2-pentanone (MIBK)         3.3-4.3         15-20         ND           Methyl-ert-butyl ether (MTBE)         0.22-0.3         1.5-2.0         ND           Methylene chloride (DCM)         1.0-1.3         7.5-10         ND           Naphthalene         0.64-0.81         7.5-10         ND           Npripibenzene         0.38-0.5         1.5-2.0         ND				
1,2-Dichloropropane         0.33-0.44         0.75-1.0         ND           1,3-Dichloropropane         0.19-0.25         0.75-1.0         ND           2,2-Dichloropropane         0.25-0.33         3.8-5.0         ND           1,1-Dichloropropene         0.25-0.33         1.5-2.0         ND           cis-1,3-Dichloropropene         0.19-0.25         0.75-1.0         ND           trans-1,3-Dichloropropene         0.46-0.61         1.5-2.0         ND           Ethylbenzene         0.11-0.15         0.75-1.0         ND           2-Hexanone         1.3-1.8         15-20         ND           Isopropylbenzene         0.41-0.55         0.75-1.0         ND           P-Isopropyltoluene         0.47-0.63         0.75-1.0         ND           4-Methyl-2-pentanone (MIBK)         3.3-4.3         15-20         ND           Methyl-tert-butyl ether (MTBE)         0.22-0.3         1.5-2.0         ND           Methyl-tert-butyl ether (MTBE)         0.22-0.3         1.5-2.0         ND           Methylene chloride (DCM)         1.0-1.3         7.5-10         ND           Naphthalene         0.64-0.81         7.5-10         ND           N-Propylbenzene         0.38-0.5         1.5-2.0         ND				
1,3-Dichloropropane				
2,2-Dichloropropane   0.25-0.33   3.8-5.0   ND   1,1-Dichloropropene   0.25-0.33   1.5-2.0   ND   cis-1,3-Dichloropropene   0.19-0.25   0.75-1.0   ND   trans-1,3-Dichloropropene   0.46-0.61   1.5-2.0   ND   Ethylbenzene   0.11-0.15   0.75-1.0   ND   2-Hexanone   1.3-1.8   15-20   ND   Isopropylbenzene   0.41-0.55   0.75-1.0   ND   p-Isopropyltoluene   0.47-0.63   0.75-1.0   ND   p-Isopropyltoluene   0.47-0.63   0.75-1.0   ND   Methyl-2-pentanone (MIBK)   3.3-4.3   15-20   ND   Methyl-tert-butyl ether (MTBE)   0.22-0.3   1.5-2.0   ND   Methylene chloride (DCM)   1.0-1.3   7.5-10   ND   Naphthalene   0.64-0.81   7.5-10   ND   n-Propylbenzene   0.38-0.5   1.5-2.0   ND   Styrene   0.54-0.6   0.75-1.0   ND   1,1,2-Tetrachloroethane   0.18-0.24   0.75-1.0   ND   1,1,2-Tetrachloroethane   0.16-0.21   0.75-1.0   ND   Toluene (Methyl benzene)   0.39-0.52   0.75-1.0   ND   1,2,3-Trichlorobenzene   0.69-0.91   1.5-2.0   ND   1,2,4-Trichloroethane   0.17-0.23   0.75-1.0   ND   1,1,2-Trichloroethane   0.27-0.35   0.75-1.0   ND   1,1,2-Trichloroethane   0.27-0.35   0.75-1.0   ND   Trichloroethene   0.23-0.31   1.5-2.0   ND   1,1,2-Trichloroethane   0.27-0.35   0.75-1.0   ND   1,1,2-Trichloroethane   0.28-0.38   7.5-1.0   ND   1,2,3-Trichloroethane   0.28-0.38   7.5-1.0   N				
1,1-Dichloropropene				
trans-1,3-Dichloropropene         0.46-0.61         1.5-2.0         ND           Ethylbenzene         0.11-0.15         0.75-1.0         ND           2-Hexanone         1.3-1.8         15-20         ND           Isopropylbenzene         0.47-0.63         0.75-1.0         ND           p-Isopropyltoluene         0.47-0.63         0.75-1.0         ND           4-Methyl-2-pentanone (MIBK)         3.3-4.3         15-20         ND           Methyl-tert-butyl ether (MTBE)         0.22-0.3         1.5-2.0         ND           Methylene chloride (DCM)         1.0-1.3         7.5-10         ND           Naphthalene         0.64-0.81         7.5-10         ND           Naphthalene         0.64-0.81         7.5-10         ND           Styrene         0.54-0.6         0.75-1.0         ND           Styrene         0.54-0.6         0.75-1.0         ND           1,1,2-Tetrachloroethane         0.18-0.24         0.75-1.0         ND           1,1,2-Tetrachloroethane         0.16-0.21         0.75-1.0         ND           1,2,3-Trichloroethene         0.69-0.91         1.5-2.0         ND           1,2,3-Trichlorobenzene         0.69-0.91         1.5-2.0         ND           1				
Ethylbenzene         0.11-0.15         0.75-1.0         ND           2-Hexanone         1.3-1.8         15-20         ND           Isopropylbenzene         0.41-0.55         0.75-1.0         ND           p-Isopropyltoluene         0.47-0.63         0.75-1.0         ND           4-Methyl-2-pentanone (MIBK)         3.3-4.3         15-20         ND           Methyl-tert-butyl ether (MTBE)         0.22-0.3         1.5-2.0         ND           Methylene chloride (DCM)         1.0-1.3         7.5-10         ND           Naphthalene         0.64-0.81         7.5-10         ND           n-Propylbenzene         0.38-0.5         1.5-2.0         ND           Styrene         0.54-0.6         0.75-1.0         ND           1,1,1,2-Tetrachloroethane         0.18-0.24         0.75-1.0         ND           1,1,2,2-Tetrachloroethane         0.26-0.35         1.5-2.0         ND           1,1,2,2-Tetrachloroethane         0.16-0.21         0.75-1.0         ND           1,2,3-Trichloroethene         0.69-0.91         1.5-2.0         ND           1,2,3-Trichlorobenzene         0.69-0.91         1.5-2.0         ND           1,1,1-Trichloroethane         0.17-0.23         0.75-1.0         ND	cis-1,3-Dichloropropene	0.19-0.25	0.75-1.0	ND
2-Hexanone				
Isopropylbenzene				
p-Isopropyltoluene         0.47-0.63         0.75-1.0         ND           4-Methyl-2-pentanone (MIBK)         3.3-4.3         15-20         ND           Methyl-tert-butyl ether (MTBE)         0.22-0.3         1.5-2.0         ND           Methylene chloride (DCM)         1.0-1.3         7.5-10         ND           Maphthalene         0.64-0.81         7.5-10         ND           n-Propylbenzene         0.38-0.5         1.5-2.0         ND           Styrene         0.54-0.6         0.75-1.0         ND           1,1,2-Tetrachloroethane         0.18-0.24         0.75-1.0         ND           1,1,2-Tetrachloroethane         0.26-0.35         1.5-2.0         ND           Tetrachloroethene         0.16-0.21         0.75-1.0         ND           Toluene (Methyl benzene)         0.39-0.52         0.75-1.0         ND           1,2,3-Trichlorobenzene         0.69-0.91         1.5-2.0         ND           1,2,4-Trichloroethane         0.17-0.23         0.75-1.0         ND           1,1,2-Trichloroethane         0.17-0.23         0.75-1.0         ND           Trichlorofluoromethane         0.27-0.35         0.75-1.0         ND           Trichlorofluoromethane         0.28-0.38         7.5-1.0				
4-Methyl-2-pentanone (MIBK)         3.3-4.3         15-20         ND           Methyl-tert-butyl ether (MTBE)         0.22-0.3         1.5-2.0         ND           Methylene chloride (DCM)         1.0-1.3         7.5-10         ND           Naphthalene         0.64-0.81         7.5-10         ND           n-Propylbenzene         0.38-0.5         1.5-2.0         ND           Styrene         0.54-0.6         0.75-1.0         ND           1,1,2-Tetrachloroethane         0.18-0.24         0.75-1.0         ND           1,1,2,2-Tetrachloroethane         0.26-0.35         1.5-2.0         ND           Tetrachloroethene         0.16-0.21         0.75-1.0         ND           Toluene (Methyl benzene)         0.39-0.52         0.75-1.0         ND           1,2,3-Trichloroebenzene         0.69-0.91         1.5-2.0         ND           1,2,4-Trichloroethane         0.17-0.23         0.75-1.0         ND           1,1,2-Trichloroethane         0.17-0.23         0.75-1.0         ND           1,1,2-Trichloroethane         0.27-0.35         0.75-1.0         ND           Trichloroethane         0.23-0.3         1.5-2.0         ND           Trichloroethane         0.23-0.3         1.5-2.0         ND <td></td> <td></td> <td></td> <td></td>				
Methyl-tert-butyl ether (MTBE)         0.22-0.3         1.5-2.0         ND           Methylene chloride (DCM)         1.0-1.3         7.5-10         ND           Naphthalene         0.64-0.81         7.5-10         ND           n-Propylbenzene         0.38-0.5         1.5-2.0         ND           Styrene         0.54-0.6         0.75-1.0         ND           1,1,1,2-Tetrachloroethane         0.18-0.24         0.75-1.0         ND           1,1,2,2-Tetrachloroethane         0.26-0.35         1.5-2.0         ND           Tetrachloroethene         0.16-0.21         0.75-1.0         ND           1,2,3-Trichloroethene         0.69-0.91         1.5-2.0         ND           1,2,3-Trichlorobenzene         0.69-0.91         1.5-2.0         ND           1,2,4-Trichloroethane         0.17-0.23         0.75-1.0         ND           1,1,1-Trichloroethane         0.17-0.23         0.75-1.0         ND           1,1,2-Trichloroethane         0.27-0.35         0.75-1.0         ND           Trichlorofluoromethane         0.28-0.38         1.5-2.0         ND           Trichlorofluoromethane         0.28-0.38         7.5-1.0         ND           1,2,3-Trichloropropane         0.63-0.83         1.5-2.0				
Methylene chloride (DCM)         1.0-1.3         7.5-10         ND           Naphthalene         0.64-0.81         7.5-10         ND           n-Propylbenzene         0.38-0.5         1.5-2.0         ND           Styrene         0.54-0.6         0.75-1.0         ND           1,1,1,2-Tetrachloroethane         0.18-0.24         0.75-1.0         ND           1,1,2,2-Tetrachloroethane         0.26-0.35         1.5-2.0         ND           Tetrachloroethene         0.16-0.21         0.75-1.0         ND           Toluene (Methyl benzene)         0.39-0.52         0.75-1.0         ND           1,2,3-Trichlorobenzene         0.69-0.91         1.5-2.0         ND           1,2,4-Trichloroethane         0.17-0.23         0.75-1.0         ND           1,1,1-Trichloroethane         0.17-0.23         0.75-1.0         ND           1,1,1-Trichloroethane         0.27-0.35         0.75-1.0         ND           Trichlorofluoromethane         0.23-0.3         1.5-2.0         ND           Trichlorofluoromethane         0.28-0.38         7.5-1.0         ND           1,2,3-Trichloropropane         0.63-0.83         1.5-2.0         ND           1,2,4-Trimethylbenzene         0.44-0.59         1.5-2.0         <				
Naphthalene         0.64-0.81         7.5-10         ND           n-Propylbenzene         0.38-0.5         1.5-2.0         ND           Styrene         0.54-0.6         0.75-1.0         ND           1,1,2-Tetrachloroethane         0.18-0.24         0.75-1.0         ND           1,1,2,2-Tetrachloroethane         0.26-0.35         1.5-2.0         ND           Tetrachloroethene         0.16-0.21         0.75-1.0         ND           Toluene (Methyl benzene)         0.39-0.52         0.75-1.0         ND           1,2,3-Trichlorobenzene         0.69-0.91         1.5-2.0         ND           1,2,4-Trichlorobenzene         0.23-0.31         1.5-2.0         ND           1,1,1-Trichloroethane         0.17-0.23         0.75-1.0         ND           1,1,2-Trichloroethane         0.27-0.35         0.75-1.0         ND           Trichlorofluoromethane         0.23-0.3         1.5-2.0         ND           Trichlorofluoromethane         0.28-0.38         7.5-1.0         ND           1,2,3-Trichloropropane         0.63-0.83         1.5-2.0         ND           1,2,3-Trimethylbenzene         0.44-0.59         1.5-2.0         ND           1,3,5-Trimethylbenzene         0.41-0.55         1.5-2.0 <t< td=""><td></td><td></td><td></td><td></td></t<>				
Styrene         0.54-0.6         0.75-1.0         ND           1,1,1,2-Tetrachloroethane         0.18-0.24         0.75-1.0         ND           1,1,2,2-Tetrachloroethane         0.26-0.35         1.5-2.0         ND           Tetrachloroethene         0.16-0.21         0.75-1.0         ND           Toluene (Methyl benzene)         0.39-0.52         0.75-1.0         ND           1,2,3-Trichlorobenzene         0.69-0.91         1.5-2.0         ND           1,2,4-Trichloroethane         0.17-0.23         0.75-1.0         ND           1,1,2-Trichloroethane         0.17-0.23         0.75-1.0         ND           1,1,2-Trichloroethane         0.27-0.35         0.75-1.0         ND           Trichloroethene         0.23-0.3         1.5-2.0         ND           Trichlorofluoromethane         0.28-0.38         7.5-1.0         ND           1,2,3-Trichloropropane         0.63-0.83         1.5-2.0         ND           1,2,4-Trimethylbenzene         0.44-0.59         1.5-2.0         ND           1,2,5-Trimethylbenzene         0.44-0.55         1.5-2.0         ND           Vinyl Acetate         3.6-4.7         7.5-10         ND           Vinyl Acetate         0.42-0.56         0.75-1.0         ND<				
1,1,1,2-Tetrachloroethane         0.18-0.24         0.75-1.0         ND           1,1,2,2-Tetrachloroethane         0.26-0.35         1.5-2.0         ND           Tetrachloroethene         0.16-0.21         0.75-1.0         ND           Toluene (Methyl benzene)         0.39-0.52         0.75-1.0         ND           1,2,3-Trichlorobenzene         0.69-0.91         1.5-2.0         ND           1,2,4-Trichlorobenzene         0.23-0.31         1.5-2.0         ND           1,1,1-Trichloroethane         0.17-0.23         0.75-1.0         ND           1,1,2-Trichloroethane         0.27-0.35         0.75-1.0         ND           Trichloroethene         0.23-0.3         1.5-2.0         ND           Trichlorofluoromethane         0.28-0.38         7.5-1.0         ND           1,2,3-Trichloropropane         0.63-0.83         1.5-2.0         ND           1,2,4-Trimethylbenzene         0.44-0.59         1.5-2.0         ND           1,3,5-Trimethylbenzene         0.44-0.55         1.5-2.0         ND           Vinyl Acetate         3.6-4.7         7.5-10         ND           Vinyl Acetate         0.38-0.5         0.75-1.0         ND           0-Xylene         0.42-0.56         0.75-1.0         ND				
1,1,2,2-Tetrachloroethane         0.26-0.35         1.5-2.0         ND           Tetrachloroethene         0.16-0.21         0.75-1.0         ND           Toluene (Methyl benzene)         0.39-0.52         0.75-1.0         ND           1,2,3-Trichlorobenzene         0.69-0.91         1.5-2.0         ND           1,2,4-Trichlorobenzene         0.23-0.31         1.5-2.0         ND           1,1,1-Trichloroethane         0.17-0.23         0.75-1.0         ND           1,1,2-Trichloroethane         0.27-0.35         0.75-1.0         ND           Trichloroethene         0.23-0.3         1.5-2.0         ND           Trichlorofluoromethane         0.28-0.38         7.5-1.0         ND           1,2,4-Trimethylbenzene         0.63-0.83         1.5-2.0         ND           1,2,4-Trimethylbenzene         0.44-0.59         1.5-2.0         ND           1,3,5-Trimethylbenzene         0.41-0.55         1.5-2.0         ND           Vinyl Acetate         3.6-4.7         7.5-10         ND           Vinyl chloride (Chloroethene)         0.38-0.5         0.75-1.0         ND           0-Xylene         0.42-0.56         0.75-1.0         ND	- 7 -			
Tetrachloroethene         0.16-0.21         0.75-1.0         ND           Toluene (Methyl benzene)         0.39-0.52         0.75-1.0         ND           1,2,3-Trichlorobenzene         0.69-0.91         1.5-2.0         ND           1,2,4-Trichlorobenzene         0.23-0.31         1.5-2.0         ND           1,1,1-Trichloroethane         0.17-0.23         0.75-1.0         ND           1,1,2-Trichloroethane         0.27-0.35         0.75-1.0         ND           Trichloroethene         0.23-0.3         1.5-2.0         ND           Trichlorofluoromethane         0.28-0.38         7.5-1.0         ND           1,2,3-Trichloropropane         0.63-0.83         1.5-2.0         ND           1,2,4-Trimethylbenzene         0.44-0.59         1.5-2.0         ND           1,3,5-Trimethylbenzene         0.41-0.55         1.5-2.0         ND           Vinyl Acetate         3.6-4.7         7.5-10         ND           Vinyl chloride (Chloroethene)         0.38-0.5         0.75-1.0         ND           0-Xylene         0.42-0.56         0.75-1.0         ND				
Toluene (Methyl benzene)         0.39-0.52         0.75-1.0         ND           1,2,3-Trichlorobenzene         0.69-0.91         1.5-2.0         ND           1,2,4-Trichlorobenzene         0.23-0.31         1.5-2.0         ND           1,1,1-Trichlorobethane         0.17-0.23         0.75-1.0         ND           1,1,2-Trichloroethane         0.27-0.35         0.75-1.0         ND           Trichloroethene         0.23-0.3         1.5-2.0         ND           Trichlorofluoromethane         0.28-0.38         7.5-1.0         ND           1,2,3-Trichloropropane         0.63-0.83         1.5-2.0         ND           1,2,4-Trimethylbenzene         0.44-0.59         1.5-2.0         ND           1,3,5-Trimethylbenzene         0.41-0.55         1.5-2.0         ND           Vinyl Acetate         3.6-4.7         7.5-10         ND           Vinyl Acetate         0.38-0.5         0.75-1.0         ND           0-Xylene         0.42-0.56         0.75-1.0         ND				
1,2,3-Trichlorobenzene         0.69-0.91         1.5-2.0         ND           1,2,4-Trichlorobenzene         0.23-0.31         1.5-2.0         ND           1,1,1-Trichloroethane         0.17-0.23         0.75-1.0         ND           1,1,2-Trichloroethane         0.27-0.35         0.75-1.0         ND           Trichloroethene         0.23-0.3         1.5-2.0         ND           Trichlorofluoromethane         0.28-0.38         7.5-1.0         ND           1,2,3-Trichloropropane         0.63-0.83         1.5-2.0         ND           1,2,4-Trimethylbenzene         0.44-0.59         1.5-2.0         ND           1,3,5-Trimethylbenzene         0.41-0.55         1.5-2.0         ND           Vinyl Acetate         3.6-4.7         7.5-10         ND           Vinyl chloride (Chloroethene)         0.38-0.5         0.75-1.0         ND           0-Xylene         0.42-0.56         0.75-1.0         ND				
1,2,4-Trichlorobenzene         0.23-0.31         1.5-2.0         ND           1,1,1-Trichloroethane         0.17-0.23         0.75-1.0         ND           1,1,2-Trichloroethane         0.27-0.35         0.75-1.0         ND           Trichloroethene         0.23-0.3         1.5-2.0         ND           Trichloroffuoromethane         0.28-0.38         7.5-1.0         ND           1,2,3-Trichloropropane         0.63-0.83         1.5-2.0         ND           1,2,4-Trimethylbenzene         0.44-0.59         1.5-2.0         ND           1,3,5-Trimethylbenzene         0.41-0.55         1.5-2.0         ND           Vinyl Acetate         3.6-4.7         7.5-10         ND           Vinyl Acidate         0.38-0.5         0.75-1.0         ND           0-Xylene         0.42-0.56         0.75-1.0         ND				
1,1,1-Trichloroethane         0.17-0.23         0.75-1.0         ND           1,1,2-Trichloroethane         0.27-0.35         0.75-1.0         ND           Trichloroethene         0.23-0.3         1.5-2.0         ND           Trichlorofluoromethane         0.28-0.38         7.5-1.0         ND           1,2,3-Trichloropropane         0.63-0.83         1.5-2.0         ND           1,2,4-Trimethylbenzene         0.44-0.59         1.5-2.0         ND           1,3,5-Trimethylbenzene         0.41-0.55         1.5-2.0         ND           Vinyl Acetate         3.6-4.7         7.5-10         ND           Vinyl chloride (Chloroethene)         0.38-0.5         0.75-1.0         ND           0-Xylene         0.42-0.56         0.75-1.0         ND				
1,1,2-Trichloroethane         0.27-0.35         0.75-1.0         ND           Trichloroethene         0.23-0.3         1.5-2.0         ND           Trichlorofluoromethane         0.28-0.38         7.5-1.0         ND           1,2,3-Trichloropropane         0.63-0.83         1.5-2.0         ND           1,2,4-Trimethylbenzene         0.44-0.59         1.5-2.0         ND           1,3,5-Trimethylbenzene         0.41-0.55         1.5-2.0         ND           Vinyl Acetate         3.6-4.7         7.5-10         ND           Vinyl chloride (Chloroethene)         0.38-0.5         0.75-1.0         ND           o-Xylene         0.42-0.56         0.75-1.0         ND				
Trichlorofluoromethane         0.28-0.38         7.5-1.0         ND           1,2,3-Trichloropropane         0.63-0.83         1.5-2.0         ND           1,2,4-Trimethylbenzene         0.44-0.59         1.5-2.0         ND           1,3,5-Trimethylbenzene         0.41-0.55         1.5-2.0         ND           Vinyl Acetate         3.6-4.7         7.5-10         ND           Vinyl Acidite         0.38-0.5         0.75-1.0         ND           o-Xylene         0.42-0.56         0.75-1.0         ND	1,1,2-Trichloroethane			
1,2,3-Trichloropropane     0.63-0.83     1.5-2.0     ND       1,2,4-Trimethylbenzene     0.44-0.59     1.5-2.0     ND       1,3,5-Trimethylbenzene     0.41-0.55     1.5-2.0     ND       Vinyl Acetate     3.6-4.7     7.5-10     ND       Vinyl chloride (Chloroethene)     0.38-0.5     0.75-1.0     ND       o-Xylene     0.42-0.56     0.75-1.0     ND				
1,2,4-Trimethylbenzene       0.44-0.59       1.5-2.0       ND         1,3,5-Trimethylbenzene       0.41-0.55       1.5-2.0       ND         Vinyl Acetate       3.6-4.7       7.5-10       ND         Vinyl chloride (Chloroethene)       0.38-0.5       0.75-1.0       ND         o-Xylene       0.42-0.56       0.75-1.0       ND				
1,3,5-Trimethylbenzene         0.41-0.55         1.5-2.0         ND           Vinyl Acetate         3.6-4.7         7.5-10         ND           Vinyl chloride (Chloroethene)         0.38-0.5         0.75-1.0         ND           o-Xylene         0.42-0.56         0.75-1.0         ND				
Vinyl Acetate         3.6-4.7         7.5-10         ND           Vinyl chloride (Chloroethene)         0.38-0.5         0.75-1.0         ND           o-Xylene         0.42-0.56         0.75-1.0         ND				
Vinyl chloride (Chloroethene)         0.38-0.5         0.75-1.0         ND           o-Xylene         0.42-0.56         0.75-1.0         ND				
o-Xylene 0.42-0.56 0.75-1.0 ND				
m,p-xyienes   <b>0.2-0.27</b>   <b>1.5-2.0</b>   ND	m,p-Xylenes	0.2-0.27	1.5-2.0	ND
Dilution Factor: 1				

### NOTES:

VOC = Volatile Organic Compound

RL = Reporting Limit
MDL = Method Detection Limit

 $\ensuremath{\mathsf{ND}}$  = Indicated constituents not detected above the MDL

 $\mu$ g/kg = micrograms per kilogram

 ${\sf J}$  = Analyte detected; However result is an estimated value between the MDL and the RL



Soil Matrix Sample Results for Title 22 Metals Panama Street Borings Los Angeles, California

							Ti	lo 22 Motol	c by EDA M	othed 6010	2/7474 \ (ma/ka)							
		Title 22 Metals by EPA Method 6010B/7471A (mg/kg) and Mecury by EPA Method 7471 (mg/kg) in Soil																
Sample ID	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury (By EPA 7471)	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
	MDL (mg/kg):	0.142-0.151	0.247-0.263	0.147-0.157	0.130-0.139	0.129-0.137	0.136-0.144	0.141-0.15	0.128-0.137	0.125-0.134	0.00559-0.00597	0.126-0.147	0.138-0.147	0.285-0.304	0.0816-0.087	0.144-0.154	0.135-0.143	0.169-0.180
	RL (mg/kg):	0.714-0.761	0.714-0.761	0.476-0.508	0.238-0.254	0.476-0.508	0.238-0.254	0.238-0.25	0.476-0.508	0.476-0.508	0.0794-0.0847	0.238-0.254	0.238-0.254	0.714-0.761	0.238-0.254	0.714-0.761	0.238-0.254	0.952-1.020
ESLs - Comn	mercial/Industrial:	40	0.96	1,500	8.0	12.0	750	80	230	320	10	40	150	10	40	10	200	600
B102-2.5	1/14/2015	ND	13.1	158	0.729	0.161J	42	11.8	31.9	4.25	0.0199J	0.532	35.3	ND	ND	ND	65.8	81.2
B102-5.0	1/14/2015	ND	13.2	132	0.730	0.269J	43.6	12.4	28.4	4.54	0.0220J	0.562	35.0	ND	ND	ND	64.4	87.6
B103-2.5	1/14/2015	ND	11.8	229	0.628	0.569	39.6	10.9	28.1	3.79	0.0186J	0.423	32.2	ND	ND	ND	56.5	78.5
B103-5.0	1/14/2015	ND	12.7	122	0.610	0.288J	39.9	11.1	28.9	3.53	0.0267J	0.771	33.0	ND	ND	ND	58.2	80.2
B104-2.5	1/15/2015	ND	25.9	144	0.763	0.867	49.0	23.3	38.1	5.74	0.0269J	2.64	49.7	ND	ND	ND	76.6	98.0
B104-5.0	1/15/2015	ND	11.0	118	0.539	0.304J	34.9	10.5	26.0	3.89	0.0207J	0.863	29.8	ND	ND	ND	52.3	69.0
B104-10	1/15/2015	ND	12.4	99.1	0.504	0.469J	33.3	10.0	24.3	3.85	0.0233J	0.832	29.7	ND	ND	ND	52.8	64.8
B105-2.5	1/15/2015	ND	9.84	157	0.784	0.525	48.8	12.7	37.7	6.84	0.0024J	0.976	41.3	ND	ND	ND	76.9	90.7
B105-5.0	1/15/2015	ND	9.11	92.4	0.469	0.355J	32.4	9.37	23.1	5.11	0.0254J	0.746	26.3	ND	ND	ND	47.8	61.3
B105-5.0 dup	1/15/2015	ND	14.3	139	0.729	0.320J	44.7	13.2	33.0	4.57	0.0251J	1.36	37.3	ND	ND	ND	66.8	82.4
B105-10	1/15/2015	ND	10.8	128	0.587	0.336J	39.6	11.6	27.7	4.35	0.0195J	0.859	32.2	ND	ND	ND	59.0	74.6

#### NOTES:

mg/kg = milligrams per kilogram

ND = Indicates constituent not detected at or above the MDL

MDL = Method Detection Limit

RL = Reporting Limit

J = Analyte detected; however result is an estimated value between the MDL and the RL

ESLs = Environmental Screening Levels, based on the CRWQCB-San Francisco Bay Region's Screening for Environmental Concerns at Site with Contaminated Soil and Groundwater, using Summary Table A (May 2013) - ESLs in Shallow Soils, Groundwater is Current or Potential Source of Drinking Water



VOCs in Soil Gas	Sample ID:	Sample ID:	B102-3	B102-6.5	B102-6.5 DUP	B103-3 1P	B103-3 3P	B103-3 10P	B103-6.5	B104-4	B104-8	B105-4	B105-8
by EPA Method TO-15	Date:	Date:	1/20/2015	1/20/2015	1/20/2015	1/19/2015	1/19/2015	1/19/2015	1/20/2015	1/20/2015	1/20/2015	1/20/2015	1/20/2015
	CHHSLs (µg/L):	PQL (μg/L):			VOC Concent			1			Concentrations		
Acetone		0.001	ND	ND	ND	ND	ND	ND	ND 0.024	ND 0.030	ND 0.040	ND 0.025	ND 0.008
Benzene	0.122	0.002	0.013	0.011	0.012	ND	ND	ND	0.024	0.030	0.018		0.008 ND
Benzyl Chloride		0.003	ND ND	ND ND	ND ND	ND 0.011	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	0.023
Bromodichloromethane Bromoform	-	0.004	ND ND	ND ND	ND ND	0.011 ND	ND ND	ND ND	ND	ND ND	ND ND	ND ND	0.023 ND
		0.006	ND	ND	ND	ND	ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND
Bromomethane 2-Butanone (MEK)		0.002	0.060	0.027	0.026	0.043	0.043	ND ND	0.061	0.039	0.04	ND ND	0.029
Carbon Disulfide		0.002	ND.	ND	ND	ND	ND	ND ND	ND	ND ND	ND ND	ND ND	ND ND
Carbon Tetrachloride	0.085	0.002	ND	ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene		0.003	ND	ND	ND	ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
Chloroform	-	0.002	ND	ND	ND	0.008	0.005	0.004	ND	0.016	ND	0.010	0.017
Cyclohexane		0.002	ND	ND ND	ND ND	ND.	ND.	ND	ND	0.016	ND	ND	ND
Dibromochloromethane		0.005	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND	ND	ND	0.014	ND
1.2-Dibromoethane	-	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	-	0.004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	-	0.004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	-	0.004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane		0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.167	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	-	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
c-1,2-Dichloroethene	44.4	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
t-1,2-Dichloroethene	88.7	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane		0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	-	0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
t-1,3-Dichloropropene	-	0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	-	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethanol	-	0.001	0.009	0.011	0.007	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl acetate	-	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl benzene	14,000	0.003	0.034	ND	ND	0.059	0.040	0.031	0.107	0.238	ND	0.076	ND
4-Ethyltoluene	-	0.003	0.013	ND	ND	ND	ND	ND	0.027	0.022	0.024	0.042	ND
Freon 11		0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND ND
Freon 12	-	0.003	ND	ND	ND	ND	ND	ND	ND ND	ND 0.065	ND 0.101	ND 0.722	0.837
Freon 113 Freon 114	-	0.005	ND ND	ND ND	ND ND	0.012 ND	0.010 ND	0.010 ND	ND	ND	ND	ND	ND
Heptane	-	0.004	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	0.267	0.030	0.033	ND ND
Hexane		0.002	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND	0.061	0.043	ND	ND ND
2-Hexanone (MBK)		0.002	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND.	ND	0.006	ND ND
Isopropyl Alcohol		0.002	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	0.018	ND ND	ND	ND ND
Methylene Chloride		0.002	ND	ND	ND ND	0.021	0.013	0.010	ND	ND ND	ND	ND	ND ND
4-Methyl-2-Pentanone	-	0.002	ND	ND ND	ND ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	13.4	0.002	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND	ND ND	ND ND	ND ND
Naphthalene	0.106	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propylene	-	0.001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	-	0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	-	0.004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	0.603	0.002	0.154	0.194	0.211	0.020	0.018	0.018	0.026	0.077	0.120	0.060	0.285
Tetrahydrofuran	-	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	378	0.002	0.074	0.026	0.027	0.157	0.101	0.075	0.186	0.158	0.056	0.186	0.043
1,2,4-Trichlorobenzene	_	0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	2,800	0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	-	0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1.77	0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.019
1,2,4-Trimethylbenzene	-	0.003	0.029	0.010	0.010	0.042	0.021	0.024	0.043	0.009	0.010	0.056	0.013
1,3,5-Trimethylbenzene	-	0.003	ND	ND	ND	0.005	ND	0.008	ND	ND	ND	ND	ND
Vinyl Acetate	-	0.004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	0.045	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p/m-Xylene	890	0.003	0.321	0.138	0.156	0.285	0.195	0.144	0.816	0.561	0.175	0.748	0.095
o-Xylene	880	0.003	0.020	0.006	0.006	0.038	0.025	0.019	0.065	0.036	0.015	0.049	0.007
Dilution Factor			1	1	1	1	1	1	1	1	1	1	1



# Soil Matrix Sample Results for VOCs Off-Site Groundwater Wells MW7 and MW8 Panama Street Site

		Sample ID:	MW7-2.5	MW7-5	MW7-10	MW8-2.5
VOCs in Soil		Date:	1/26/2015	1/26/2015	1/26/2015	1/26/2015
by EPA Method 8260B	MDL (µg/kg):	RL (µg/kg):		/OC Concent		
Acetone	4.5-5.8	36-47	6.4J	7.2J	5.3J	6.4J
Benzene	0.094-0.12	0.73-0.93	ND	ND	ND	0.20J
Bromobenzene (Phenyl bromide)	0.15-0.2	0.73-0.93	ND	ND	ND	ND
Bromochloromethane	0.5-0.64 0.17-0.22	1.5-1.9	ND ND	ND ND	ND ND	ND ND
Bromodichloromethane Bromoform (Tribromomethane)	0.17-0.22	0.73-0.93 3.6-4.7	ND ND	ND ND	ND ND	ND ND
Bromomethane (Methyl bromide)	6.8-8.8	15-19	ND	ND	ND	ND ND
2-Butanone (MEK)	2.7-3.5	15-19	ND	ND	ND	ND
n-Butylbenzene	0.11-0.15	0.73-0.93	ND	ND	ND	ND
sec-Butylbenzene	0.42-0.54	0.73-0.93	ND	ND	ND	ND
tert-Butylbenzene	0.11-0.14	0.73-0.93	ND	ND	ND	ND
Carbon Disulfide	0.22-0.29 0.21-0.26	7.3-9.3 0.73-0.93	ND ND	ND ND	ND ND	ND ND
Carbon tetrachloride Chlorobenzene	0.16-0.21	0.73-0.93	ND ND	ND ND	ND ND	ND ND
Chloroethane	1.1-1.4	1.5-1.9	ND	ND	ND	ND ND
Chloroform (Trichloromethane)	0.17-0.22	0.73-0.93	ND	ND	ND	ND
Chloromethane (Methyl chloride)	0.22-0.28	15-19	ND	ND	ND	ND
2-Chlorotoluene	0.17-0.22	0.73-0.93	ND	ND	ND	ND
4-Chlorotoluene	0.15-0.2	0.73-0.93	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	0.41-0.53	1.5-1.9	ND	ND	ND	ND
Dibromochloromethane 1,2-Dibromoethane (EDB)	1.3-1.6 0.19-0.24	3.6-4.7 0.73-0.93	ND ND	ND ND	ND ND	ND ND
Dibromomethane	0.19-0.24	0.73-0.93	ND	ND	ND	ND ND
1.2-Dichlorobenzene	0.17-0.21	0.73-0.93	ND	ND	ND	ND ND
1,3-Dichlorobenzene	0.13-0.16	0.73-0.93	ND	ND	ND	ND
1,4-Dichlorobenzene	0.16-0.21	0.73-0.93	ND	ND	ND	ND
Dichlorodifluoromethane	0.32-0.41	1.5-1.9	ND	ND	ND	ND
1,1-Dichloroethane	0.15-0.2	0.73-0.93	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	0.23-0.29	0.73-0.93	ND	ND	ND	ND
1,1-Dichloroethene cis-1,2-Dichloroethene	0.25-0.32 0.2-0.26	0.73-0.93 0.73-0.93	ND ND	ND ND	ND ND	ND ND
trans-1,2-Dichloroethene	0.37-0.47	0.73-0.93	ND	ND	ND	ND ND
1,2-Dichloropropane	0.32-0.41	0.73-0.93	ND	ND	ND	ND
1,3-Dichloropropane	0.18-0.24	0.73-0.93	ND	ND	ND	ND
2,2-Dichloropropane	0.24-0.31	3.6-4.7	ND	ND	ND	ND
1,1-Dichloropropene	0.24-0.31	1.5-1.9	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.18-0.24	0.73-0.93	ND ND	ND ND	ND ND	ND ND
trans-1,3-Dichloropropene Ethylbenzene	0.44-0.57 0.11-0.14	1.5-1.9 0.73-0.93	ND	ND	ND	ND ND
2-Hexanone	1.3-1.6	15-19	ND	ND	ND	ND
Isopropylbenzene	0.4-0.51	0.73-0.93	ND	ND	ND	ND
p-Isopropyltoluene	0.46-0.59	0.73-0.93	ND	ND	ND	ND
Methyl-tert-butyl ether (MTBE)	0.21-0.28	1.5-1.9	ND	ND	ND	ND
Methylene chloride (DCM)	0.97-1.2	7.3-9.3	ND	ND	ND	ND
Naphthalene	0.59-0.76	7.3-9.3	ND	ND	ND	ND
n-Propylbenzene Styrene	0.36-0.47 0.44-0.56	1.5-1.9 0.73-0.93	ND ND	ND ND	ND ND	ND ND
1,1,1,2-Tetrachloroethane	0.17-0.22	0.73-0.93	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.25-0.32	1.5-1.9	ND	ND	ND	ND
Tetrachloroethene	0.15-0.2	0.73-0.93	0.68J	0.71J	1.6	ND
Toluene (Methyl benzene)	0.37-0.48	0.73-0.93	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0.66-0.85	1.5-1.9	ND	ND	ND	ND
1,2,4-Trichlorobenzene	0.23-0.29	1.5-1.9	ND	ND	ND	ND
1,1,1-Trichloroethane 1,1,2-Trichloroethane	0.16-0.21 0.26-0.33	0.73-0.93 0.73-0.93	ND ND	ND ND	ND ND	ND ND
Trichloroethene	0.20-0.33	1.5-1.9	ND	ND	ND	ND ND
Trichlorofluoromethane	0.27-0.35	7.3-9.3	ND	ND	ND	ND
1,2,3-Trichloropropane	0.6-0.77	1.5-1.9	ND	ND	ND	ND
1,2,4-Trimethylbenzene	0.43-0.55	1.5-1.9	ND	ND	ND	ND
1,3,5-Trimethylbenzene	0.4-0.51	1.5-1.9	ND	ND	ND	ND
Vinyl Acetate	3.4-4.4	7.3-9.3	ND	ND	ND	ND ND
Vinyl chloride (Chloroethene) o-Xvlene	0.37-0.47	0.73-0.93 1.5-1.9	ND ND	ND ND	ND ND	ND ND
m,p-Xylenes	0.19-0.25 0.4-0.52	1.5-1.9 0.73-0.93	ND ND	ND ND	ND ND	ND ND
mile Admino	0.4-0.32	Dilution Factor:	1	1	1	1
			•			

#### NOTES:

VOC = Volatile Organic Compound

RL = Reporting Limit

MDL = Method Detection Limit

ND = Indicated constituents not detected above the MDL

 $\mu$ g/kg = micrograms per kilogram

J = Analyte detected; However result is an estimated value between the MDL and the RL



# Soil Matrix Sample Results for VOCs Off-Site Groundwater Wells MW7 and MW8 Panama Street Site

		Sample ID:	MW8-2.5-DUP	MW8-5	MW8-10
VOCs in Soil		Date:	1/26/2015	1/26/2015	1/26/2015
by EPA Method 8260B	MDL (µg/kg):	RL (µg/kg):	VOC Cor	ncentration (	µg/kg)
Acetone	4.5-5.8	36-47	8.3J	11J	ND
Bromobenzene (Phenyl bromide)	0.094-0.12 0.15-0.2	0.73-0.93	<b>0.29J</b> ND	ND ND	ND ND
Bromochloromethane	0.15-0.2	0.73-0.93 1.5-1.9	ND ND	ND	ND
Bromodichloromethane	0.17-0.22	0.73-0.93	ND	ND	ND
Bromoform (Tribromomethane)	0.58-0.74	3.6-4.7	ND	ND	ND
Bromomethane (Methyl bromide)	6.8-8.8	15-19	ND	ND	ND
2-Butanone (MEK)	2.7-3.5	15-19	ND	ND	ND
n-Butylbenzene sec-Butylbenzene	0.11-0.15 0.42-0.54	0.73-0.93 0.73-0.93	ND ND	ND ND	ND ND
tert-Butylbenzene	0.42-0.54	0.73-0.93	ND ND	ND	ND
Carbon Disulfide	0.22-0.29	7.3-9.3	ND	ND	ND
Carbon tetrachloride	0.21-0.26	0.73-0.93	ND	ND	ND
Chlorobenzene	0.16-0.21	0.73-0.93	ND	ND	ND
Chloroethane	1.1-1.4	1.5-1.9	ND	ND	ND
Chloroform (Trichloromethane)	0.17-0.22	0.73-0.93	ND ND	ND	ND ND
Chloromethane (Methyl chloride) 2-Chlorotoluene	0.22-0.28 0.17-0.22	15-19 0.73-0.93	ND ND	ND ND	ND ND
4-Chlorotoluene	0.17-0.22	0.73-0.93	ND ND	ND ND	ND ND
1,2-Dibromo-3-chloropropane (DBCP)	0.41-0.53	1.5-1.9	ND	ND	ND
Dibromochloromethane	1.3-1.6	3.6-4.7	ND	ND	ND
1,2-Dibromoethane (EDB)	0.19-0.24	0.73-0.93	ND	ND	ND
Dibromomethane	0.56-0.72	0.73-0.93	ND	ND	ND
1,2-Dichlorobenzene	0.17-0.21	0.73-0.93	ND	ND	ND
1,3-Dichlorobenzene	0.13-0.16	0.73-0.93	ND ND	ND	ND
Dichlorodifluoromethane	0.16-0.21 0.32-0.41	0.73-0.93 1.5-1.9	ND ND	ND ND	ND ND
1,1-Dichloroethane	0.32-0.41	0.73-0.93	ND	ND	ND
1,2-Dichloroethane (EDC)	0.23-0.29	0.73-0.93	ND	ND	ND
1,1-Dichloroethene	0.25-0.32	0.73-0.93	ND	ND	ND
cis-1,2-Dichloroethene	0.2-0.26	0.73-0.93	ND	ND	ND
trans-1,2-Dichloroethene	0.37-0.47	0.73-0.93	ND	ND	ND
1,2-Dichloropropane	0.32-0.41	0.73-0.93	ND	ND	ND
1,3-Dichloropropane 2,2-Dichloropropane	0.18-0.24 0.24-0.31	0.73-0.93 3.6-4.7	ND ND	ND ND	ND ND
1,1-Dichloropropene	0.24-0.31	1.5-1.9	ND ND	ND	ND
cis-1,3-Dichloropropene	0.18-0.24	0.73-0.93	ND	ND	ND
trans-1,3-Dichloropropene	0.44-0.57	1.5-1.9	ND	ND	ND
Ethylbenzene	0.11-0.14	0.73-0.93	ND	ND	ND
2-Hexanone	1.3-1.6	15-19	ND	ND	ND
Isopropylbenzene	0.4-0.51	0.73-0.93	ND	ND	ND
p-Isopropyltoluene	0.46-0.59 0.21-0.28	0.73-0.93 1.5-1.9	ND ND	ND ND	ND
Methyl-tert-butyl ether (MTBE) Methylene chloride (DCM)	0.21-0.28	7.3-9.3	ND ND	ND ND	ND ND
Naphthalene	0.59-0.76	7.3-9.3	ND	ND	ND
n-Propylbenzene	0.36-0.47	1.5-1.9	ND	ND	ND
Styrene	0.44-0.56	0.73-0.93	ND	ND	ND
1,1,1,2-Tetrachloroethane	0.17-0.22	0.73-0.93	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.25-0.32	1.5-1.9	ND	ND	ND
Tetrachloroethene	0.15-0.2	0.73-0.93	ND	ND	ND
Toluene (Methyl benzene) 1,2,3-Trichlorobenzene	0.37-0.48	0.73-0.93	ND ND	ND ND	ND ND
1,2,4-Trichlorobenzene	0.66-0.85 0.23-0.29	1.5-1.9 1.5-1.9	ND ND	ND ND	ND ND
1.1.1-Trichloroethane	0.16-0.21	0.73-0.93	ND	ND	ND
1,1,2-Trichloroethane	0.26-0.33	0.73-0.93	ND	ND	ND
Trichloroethene	0.22-0.28	1.5-1.9	ND	ND	ND
Trichlorofluoromethane	0.27-0.35	7.3-9.3	ND	ND	ND
1,2,3-Trichloropropane	0.6-0.77	1.5-1.9	ND	ND	ND
1,2,4-Trimethylbenzene	0.43-0.55	1.5-1.9	ND	ND	ND
1,3,5-Trimethylbenzene	0.4-0.51	1.5-1.9	ND ND	ND ND	ND
Vinyl Acetate Vinyl chloride (Chloroethene)	3.4-4.4 0.37-0.47	7.3-9.3 0.73-0.93	ND ND	ND ND	ND ND
o-Xylene	0.37-0.47	1.5-1.9	ND ND	ND	ND
m,p-Xylenes	0.4-0.52	0.73-0.93	ND	ND	ND
		Dilution Factor:	1	1	1

#### NOTES:

VOC = Volatile Organic Compound

RL = Reporting Limit

MDL = Method Detection Limit

ND = Indicated constituents not detected above the MDL

 $\mu g/kg = micrograms \ per \ kilogram$   $J = Analyte \ detected; However \ result \ is \ an \ estimated \ value \ between \ the \ MDL \ and \ the \ RL$ 



# Groundwater Elevations 12922 Panama Street Los Angeles, California

Measurement Date	Top of Casing Elevation (ft. AMSL)	Depth to Groundwater Below top of Casing (ft.)	Groundwater Elevation (ft. AMSL)								
	GW	<b>/</b> 1									
06/18/13	12.33	12.27	0.06								
07/26/13	12.33	12.28	0.05								
10/13/14	12.33	12.56	-0.23								
02/02/15	12.33	12.20	0.13								
GW2											
06/18/13	11.86	9.72	2.14								
07/26/13	11.86	9.71	2.15								
10/13/14	11.86	10.09	1.77								
02/02/15	11.86	9.85	2.01								
	GW	/3									
06/18/13	11.53	10.71	0.82								
07/26/13	11.53	10.78	0.75								
10/13/14	11.53	11.05	0.48								
02/02/15	11.53	10.71	0.82								
	MV	V7									
02/02/15	11.67	11.12	0.55								
	MV	V8									
02/02/15	12.24	11.08	1.16								

# NOTES:

ft. = feet

AMSL = Above Mean Sea Level

Wells surveyed by DMC Engineering on June 14, 2013 and February 2, 2015

VOCs by			Sample ID: Date:	B1A 4/26/2013	B3A 4/25/2013	B7A 4/26/2013	4/25/2013	B25A 4/26/2013
EPA Method 8260B in Water	MDL (µa/L):	RL (µg/L):	MCL (µg/L)	4/20/2010		Concentration		4/20/2010
Acetone	10	20.00	moz (µg/z)	ND	ND	ND	ND	ND
Benzene	0.14	0.50	1.0	ND	ND	ND	ND	ND
Bromobenzene (Phenyl bromide)	0.3	1.00		ND	ND	ND	ND	ND
Bromochloromethane (Chlorobromomethane)	0.48	1.00		ND	ND	ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	0.21	1.00		ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	0.5	1.00		ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	3.9	10.00		ND	ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	2.2	10.00		ND	ND	ND	ND	ND ND
n-Butylbenzene	0.23 0.25	1.00 1.00		ND ND	ND ND	ND ND	ND ND	ND ND
sec-Butylbenzene tert-Butylbenzene	0.25	1.00		ND ND	ND ND	ND ND	ND ND	ND ND
Carbon disulfide	0.41	10.00		ND	ND ND	ND ND	ND ND	ND ND
Carbon tetrachloride (Tetrachloromethane)	0.23	0.50	0.5	ND	ND	ND	ND	ND ND
Chlorobenzene	0.17	1.00	0.0	ND	ND	ND	ND	ND
Chloroethane	2.3	5.00		ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	0.665	5.00		ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	0.46	1.00		ND	ND	1.05	ND	ND
Chloromethane (Methyl chloride)	1.8	10.00		ND	ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	0.130	1.00		ND	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	0.240	1.00		ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	1.200	5.00		ND	ND	ND	ND	ND
Dibromochloromethane	0.250	1.00		ND	ND	ND ND	ND	ND ND
1,2-Dibromoethane (EDB, Ethylene dibromide)  Dibromomethane	0.36	1.00		ND ND	ND ND	ND ND	ND ND	ND ND
Dibromometnane 1,2-Dichlorobenzene (o-Dichlorobenzene)	0.46 0.46	1.00 1.00	600	ND ND	ND ND	203	ND ND	1.52
1,3-Dichlorobenzene (m-Dichlorobenzene)	0.46	1.00	000	ND ND	ND ND	ND	ND ND	ND
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.43	1.00	5.0	ND ND	ND ND	2.51	ND ND	ND ND
Dichlorodifluoromethane	0.46	1.00		ND	ND	ND	ND	ND
1,1-Dichloroethane	0.28	1.00	5.0	ND	ND	4.52	ND	0.425J
1,2-Dichloroethane	0.24	0.50	0.5	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	0.43	1.00	6.0	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	0.48	1.00	6.0	ND	ND	47	ND	81
rans-1,2-Dichloroethene	0.37	1.00	10	ND	ND	0.950J	ND	1.22
1,2-Dichloropropane	0.42	1.00	5.0	ND	ND	ND	ND	ND
1,3-Dichloropropane	0.3	1.00		ND	ND	ND	ND	ND
2,2-Dichloropropane	0.36	1.00		ND	ND	ND	ND	ND
1,1-Dichloropropene	0.46 0.25	1.00 0.50		ND ND	ND ND	ND ND	ND ND	ND ND
cis-1,3-Dichloropropene trans-1,3-Dichloropropene	0.25	0.50		ND ND	ND ND	ND ND	ND ND	ND ND
Ethylbenzene	0.14	1.00	300	ND	ND ND	ND ND	ND ND	ND ND
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	0.413	3.00		ND	ND	ND	ND	ND.
2-Hexanone	2.1	10.00		ND	ND	ND	ND	ND
Isopropylbenzene	0.58	1.00		ND	ND	ND	ND	ND
p-Isopropyltoluene (4-Isopropyltoluene)	0.16	1.00		ND	ND	ND	ND	ND
MTBE	0.310	1.00	13	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	4.400	10.00		ND	ND	ND	ND	ND
Methylene chloride (Dichloromethane, DCM)	0.640	10.00		ND	ND	ND	ND	ND
Naphthalene	2.5	10.00		ND	ND	ND	ND	ND
n-Propylbenzene	0.17	1.00		ND	ND	ND	ND	ND
Styrene	0.17	1.00	100	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	0.4	1.00	1.0	ND ND	ND	ND ND	ND	ND
1,1,2,2-Tetrachloroethane Tetrachloroethene (Tetrachloroethylene)	0.41 0.39	1.00 1.00	1.0 5.0	ND ND	ND ND	ND 24.8	ND ND	ND 2.61
Toluene (Methyl benzene)	0.33	1.00	150	ND	ND ND	ND	ND ND	ND
1,2,3-Trichlorobenzene	0.51	1.00	130	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	0.5	1.00	5.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	0.3	1.00	200	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	0.38	1.00	5.0	ND	ND	ND	ND	ND
Trichloroethene (TCE)	0.37	1.00	5.0	ND	0.360J	121	0.980J	29.4
Trichlorofluoromethane	1.7	10.00	150	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	0.64	5.00		ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	0.36	1.00		ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	0.28	1.00		ND	ND	ND	ND	ND
Vinyl acetate	2.8	10.00	0.5	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	0.3	0.50	0.5	ND	ND	ND ND	ND	ND
p-Xylene m- & p-Xylenes	0.230 0.240	1.00 1.00	1,750 1,750	ND ND	ND ND	ND ND	ND ND	ND ND
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.240	10.00	1,750	- אר	- 14D	- אר	- ND	IND
NOTES:  VOC = Volatile Organic Compound  MDL = Method Detection Limit for samples collected during current samp  RL = Reporting Limit for samples collected during current sampling even  MCLs = California Department of Public Health Maximum Contaminant L  ND = Indicated constituents not detected at or above the MDL  J = Analyte detected; however, result is an estimated value between the I  B = Trip blank sample  EB = Equipment blank sample  ug/L = micrograms per liter  — Compound not analyzed	oling event, see prior t, see prior laborator evels, Updated July	laboratory reports fy reports for RLs of	or MDLs of historica	I samples	_	_	_	_



VOCs by			Sample ID: Date:	4/26/2013	4/25/2013	4/30/2013	6/6/21013	B38A 6/7/201
EPA Method 8260B in Water	MDL (ug/L):	RL (µg/L):	MCL (µg/L)	4/20/2010		Concentration		0,11,201
cetone	10	20.00	moz (µg/z)	ND	ND	ND	ND	ND
enzene	0.14	0.50	1.0	ND	ND	ND	ND	ND
romobenzene (Phenyl bromide)	0.3	1.00		ND	ND	ND	ND	ND
romochloromethane (Chlorobromomethane)	0.48	1.00		ND	ND	ND	ND	ND
romodichloromethane (Dichlorobromomethane)	0.21	1.00		0.220J	ND	ND	0.260J	ND
romoform (Tribromomethane)	0.5	1.00		ND	ND	ND	ND	ND
romomethane (Methyl bromide)	3.9	10.00		ND	ND	ND	ND	ND
Butanone (MEK, Methyl ethyl ketone)	2.2	10.00		ND	ND	ND	ND	ND
-Butylbenzene	0.23	1.00		ND	ND	ND	ND	ND
ec-Butylbenzene	0.25 0.28	1.00 1.00		ND ND	ND ND	ND ND	ND ND	ND ND
ert-Butylbenzene arbon disulfide	0.28	10.00		ND ND	ND ND	ND ND	ND ND	ND ND
arbon disulide arbon tetrachloride (Tetrachloromethane)	0.41	0.50	0.5	ND ND	ND	ND ND	ND ND	ND ND
hlorobenzene	0.17	1.00	0.5	ND	ND ND	ND	ND	ND
hloroethane	2.3	5.00		ND	ND	ND	ND	ND
-Chloroethyl vinyl ether	0.665	5.00		ND	ND	ND	ND	ND
hloroform (Trichloromethane)	0.46	1.00		0.730J	ND	ND	0.840J	1.29
hloromethane (Methyl chloride)	1.8	10.00		ND	ND	ND	ND	ND
-Chlorotoluene (p-Chlorotoluene)	0.130	1.00		ND	ND	ND	ND	ND
-Chlorotoluene (o-Chlorotoluene)	0.240	1.00		ND	ND	ND	ND	ND
2-Dibromo-3-chloropropane (DBCP)	1.200	5.00		ND	ND	ND	ND	ND
ibromochloromethane	0.250	1.00		ND	ND	ND	ND	ND
2-Dibromoethane (EDB, Ethylene dibromide)	0.36	1.00		ND	ND	ND	ND	ND
ibromomethane	0.46	1.00	000	ND	ND	ND	ND	ND
,2-Dichlorobenzene (o-Dichlorobenzene)	0.46	1.00	600	ND	ND	ND	ND	ND
,3-Dichlorobenzene (m-Dichlorobenzene) ,4-Dichlorobenzene (p-Dichlorobenzene)	0.4 0.43	1.00 1.00	5.0	ND ND	ND ND	ND ND	ND ND	ND ND
ichlorodifluoromethane	0.43	1.00	5.0	ND ND	ND ND	ND ND	ND ND	ND ND
1-Dichloroethane	0.28	1.00	5.0	ND	ND ND	ND	ND	ND
2-Dichloroethane	0.24	0.50	0.5	ND	ND ND	ND	ND	ND
1-Dichloroethene (1,1-Dichloroethylene)	0.43	1.00	6.0	ND	ND	ND	ND	ND
s-1,2-Dichloroethene	0.48	1.00	6.0	ND	ND	ND	ND	ND
ans-1,2-Dichloroethene	0.37	1.00	10	ND	ND	ND	ND	ND
2-Dichloropropane	0.42	1.00	5.0	ND	ND	ND	ND	ND
3-Dichloropropane	0.3	1.00		ND	ND	ND	ND	ND
2-Dichloropropane	0.36	1.00		ND	ND	ND	ND	ND
,1-Dichloropropene	0.46	1.00		ND	ND	ND	ND	ND
s-1,3-Dichloropropene	0.25	0.50		ND	ND	ND	ND	ND
ans-1,3-Dichloropropene	0.25	0.50		ND	ND	ND	ND	ND
thylbenzene	0.14	1.00	300	ND	ND	ND	ND	ND
lexachlorobutadiene (1,3-Hexachlorobutadiene)	0.413	3.00		ND	ND	ND	ND	ND
-Hexanone	2.1 0.58	10.00		ND ND	ND ND	ND ND	ND ND	ND
sopropylbenzene -Isopropyltoluene (4-Isopropyltoluene)	0.58	1.00 1.00		ND ND	ND ND	ND ND	ND ND	ND ND
TBE	0.310	1.00	13	ND ND	ND ND	ND ND	ND	ND ND
-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	4.400	10.00	13	ND	ND ND	ND	ND	ND ND
lethylene chloride (Dichloromethane, DCM)	0.640	10.00		ND	ND	ND	ND	ND
aphthalene	2.5	10.00		ND	ND	ND	ND	ND
-Propylbenzene	0.17	1.00		ND	ND	ND	ND	ND
tyrene	0.17	1.00	100	ND	ND	ND	ND	ND
1,1,2-Tetrachloroethane	0.4	1.00		ND	ND	ND	ND	ND
1,2,2-Tetrachloroethane	0.41	1.00	1.0	ND	ND	ND	ND	ND
etrachloroethene (Tetrachloroethylene)	0.39	1.00	5.0	36.8	ND	ND	1.13	120
oluene (Methyl benzene)	0.24	1.00	150	ND	ND	ND	ND	ND
2,3-Trichlorobenzene	0.51	1.00		ND	ND	ND	ND	ND
2,4-Trichlorobenzene	0.5	1.00	5.0	ND	ND	ND	ND	ND
1,1-Trichloroethane	0.3	1.00	200	ND	ND	ND	ND	ND
1,2-Trichloroethane	0.38	1.00	5.0	ND 1 21	ND 0.570 I	ND	ND 0.550 I	ND 1.62
richloroethene (TCE) richlorofluoromethane	0.37 1.7	1.00 10.00	5.0 150	1.31 ND	<b>0.570J</b> ND	ND ND	<b>0.550J</b> ND	1.62 ND
,2,3-Trichloropropane	0.64	5.00	130	ND ND	ND ND	ND ND	ND ND	ND ND
2,4-Trimethylbenzene	0.36	1.00		ND	ND ND	ND ND	ND	ND ND
3,5-Trimethylbenzene	0.28	1.00		ND	ND	ND	ND	ND
inyl acetate	2.8	10.00		ND	ND	ND	ND	ND
inyl chloride (Chloroethene)	0.3	0.50	0.5	ND	ND	ND	ND	ND
-Xylene	0.230	1.00	1,750	ND	ND	ND	ND	ND
- & p-Xylenes	0.240	1.00	1,750	ND	ND	ND	ND	ND
1,2-Trichloro-1,2,2-Trifluoroethane	0.78	10.00	1,200	-	_	_	_	_
DTES:  Co = Volatile Organic Compound  DL = Method Detection Limit for samples collected during current sam  = Reporting Limit for samples collected during current sampling eveit  CLs = California Department of Public Heatth Maximum Contaminant  > Indicated constituents not detected at or above the MDL  = Analyte detected; however, result is an estimated value between the  = Trip blank sample  = Equipment blank sample  Le micrograms per liter	nt, see prior laborator Levels, Updated July	y reports for RLs of		ı				



600 5.0 0.5 6.0 6.0 10 5.0	ND	ND	6/7/2013 Concentration ND	(High Part   High Part   Hig	ND
600 5.0 5.0 6.0 6.0 10 5.0	ND	0.200J	ND	ND	0.190J ND
600 5.0 5.0 6.0 6.0 10 5.0	ND	ND	ND	ND	ND
5.0 5.0 0.5 6.0 6.0 10 5.0	ND	ND	ND	ND	ND N
5.0 5.0 0.5 6.0 6.0 10 5.0	ND	ND N	ND	ND	ND N
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5.0 5.0 0.5 6.0 6.0 10 5.0	ND N	ND N	ND	ND N	ND N
5.0 5.0 0.5 6.0 6.0 10 5.0	ND	ND N	ND N	ND N	ND N
5.0 5.0 0.5 6.0 6.0 10 5.0	ND N	ND N	ND N	ND N	ND N
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5.0 5.0 0.5 6.0 6.0 10 5.0	ND	ND N	ND ND O.700J ND	ND N	ND ND O.580J ND
5.0 5.0 0.5 6.0 6.0 10 5.0	ND 0.580J ND	ND 0.610J ND	ND 0.700J ND	ND N	ND 0.580,0 ND
5.0 5.0 0.5 6.0 6.0 10 5.0	0.580J  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	0.610J  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	0.700J  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	ND N	0.580J ND 1.01 ND
5.0 5.0 0.5 6.0 6.0 10 5.0	ND	ND N	ND N	ND N	ND ND ND ND ND ND ND ND ND ND ND ND ND N
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5.0 5.0 0.5 6.0 6.0 10 5.0	ND N	ND N	ND N	ND N	ND ND ND ND 4.91 ND ND ND ND ND 131 1.96 ND
5.0 5.0 0.5 6.0 6.0 10 5.0	ND N	ND N	ND ND ND 0.570J ND ND ND ND ND ND ND ND ND ND ND ND ND	ND ND ND O.630J ND ND ND ND ND ND 19.1 0.540J ND ND ND	ND ND ND 4.91 ND ND ND ND 131 1.96
5.0 5.0 0.5 6.0 6.0 10 5.0	ND N	ND N	ND ND 0.570J ND ND ND ND ND ND ND ND ND ND ND ND ND	ND ND 0.630J ND ND ND ND ND 19.1 0.540J ND ND ND ND	ND ND 4.91 ND ND ND ND 131 1.96 ND
5.0 5.0 0.5 6.0 6.0 10 5.0	ND ND ND ND ND 1.54 ND 3.52 2.12 ND	ND 9.64 ND ND ND 1.78 ND 1.78 ND 1.12 140 5.72 ND	ND 0.570J ND ND ND ND ND ND ND ND 40.6 0.740J ND ND ND	ND 0.630J ND ND ND ND 19.1 0.540J ND ND ND ND	ND 4.91 ND ND ND 2.43 ND ND 131 1.96
5.0 5.0 0.5 6.0 6.0 10 5.0	ND ND ND ND 1.54 ND 3.52 2.12 ND	9.64 ND ND ND 1.78 ND 1.12 1.12 ND	0.570J ND	0.630J  ND  ND  ND  ND  19.1  0.540J  ND  ND  ND	4.91 ND ND ND 2.43 ND ND 131 1.96 ND
5.0 5.0 0.5 6.0 6.0 10 5.0	ND N	ND ND ND ND 1.78 ND 1.12 140 5.72 ND ND ND ND	ND ND ND ND ND ND 40.6 0.740J ND ND ND	ND ND ND 2.38 ND ND 19.1 0.540J ND ND	ND ND ND 2.43 ND ND 131 1.96 ND
5.0 0.5 6.0 6.0 10 5.0	ND ND ND 1.54 ND 3.52 2.12 ND	ND ND 1.78 ND 1.12 140 5.72 ND ND ND ND ND ND ND ND	ND ND ND ND ND 40.6 0.740J ND ND ND	ND ND 2.38 ND ND 19.1 0.540J ND ND	ND ND 2.43 ND ND 131 1.96 ND
0.5 6.0 6.0 10 5.0	1.54 ND 3.52 2.12 ND ND ND ND ND ND	1.78 ND 1.12 140 5.72 ND ND ND ND ND	ND ND ND 40.6 0.740J ND ND ND	2.38 ND ND 19.1 0.540J ND ND ND	2.43 ND ND 131 1.96 ND
0.5 6.0 6.0 10 5.0	ND 3.52 2.12 ND	ND 1.12 140 5.72 ND ND ND ND ND	ND ND 40.6 0.740J ND ND ND ND	ND ND 19.1 0.540J ND ND ND	ND ND 131 1.96 ND ND
6.0 6.0 10 5.0	3.52 2.12 ND ND ND ND ND ND ND	1.12 140 5.72 ND ND ND ND ND	ND 40.6 0.740J ND ND ND ND	ND 19.1 0.540J ND ND ND	ND 131 1.96 ND ND
6.0 10 5.0	2.12  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	140 5.72 ND ND ND ND ND ND	40.6 0.740J ND ND ND ND	19.1 0.540J ND ND ND	131 1.96 ND ND
10 5.0	ND ND ND ND ND ND ND	5.72 ND ND ND ND ND	0.740J ND ND ND ND	0.540J ND ND ND	1.96 ND ND
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13	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
	ND	ND	ND	ND	ND
400	ND ND	ND	ND	ND ND	ND ND
100					ND ND
1.0					ND ND
					2.39
					ND.
					ND
5.0	ND	ND	ND	ND	ND
200	ND	ND	ND	ND	ND
5.0	ND	ND	ND	ND	ND
5.0	7.29	50.5	9.42	75.9	26.3
150	ND	ND	ND	ND	ND
					ND
					ND
					ND ND
0.5					1.10J
					1.103 ND
					ND
		_		_	_
	200 5.0 5.0 150 150 0.5 1,750 1,750 1,200	1.0 ND 1.0 ND 5.0 9.18 150 ND ND 5.0 ND S.0 ND 5.0 ND 5.0 ND 5.0 ND 5.0 ND 1,750 ND N	ND	ND	ND



Water Sample Results for VOCs 12922 Panama Street Los Angeles, California

Part				Sample ID:	B48A	B55A	B57A	B59A	B60A
Apeterican   10   20.00	VOCs by								6/7/2013
Benzener   0.14   0.50   1.0   ND   ND   ND   ND   ND   ND   ND   N		MDL (µg/L):	RL (µg/L):	MCL (µg/L)		VOC	Concentration	(µg/L)	
Bromochizome (Phinoptizomonethane)   0.3   1.00   NO NO ND ND ND ND ND ND Stromochizomethane (Chirochoromonethane)   0.21   1.00   NO ND									ND
Bomonchicomentame (Chicorotomomentame)   0.48   1.00   NO	(5)			1.0					ND
Bromode/Informomentane (Dichlorobromomentane)   0.21   1.00   ND   ND   ND   ND   ND   ND   ND									ND
Bornomethane (Metry tromonethane)   0.5   1.00   ND									ND ND
Bomonesthane (Methyl bromsle)   3.9   10.00   ND   ND   ND   ND   ND   ND   ND									ND ND
2.22   10,00									ND ND
nButybenzene         0.23         1.00         ND									ND
Sec-Butybenzene									ND
Inter-Buty/benzenee									ND
Carbon tetrachloride (Tetrachloromethane)         0.23         0.50         N.D									ND
Chlorocethrage		0.41	10.00		ND	ND	ND	ND	ND
Chicroethane	hloride (Tetrachloromethane)	0.23	0.50	0.5	ND	ND	ND	ND	ND
2-Chlorotethy winyl ether	e								ND
Chiorom (Trichioromethane)		-							ND
Chloromethane (Methy chloride)									ND
4-Chicrototuene (p-Chicrototuene)  2-240  1.00  ND  ND  ND  ND  ND  ND  ND  ND  ND	,								0.610J
2-Chlorotoluene (o-Chlorotoluene)   0.240   1.00   ND									ND
12-Distromo-3-chloropropane (DBCP)   1.200   5.00   ND   ND   ND   ND   ND   ND   ND									ND ND
Dibromochloromethane   0.250   1.00   ND									ND ND
12-Dibromoethane (EDB, Ethylene dibromide)   0.36   1.00   ND ND ND ND ND ND ND Dibromomentane   0.46   1.00   ND									ND
Dibromorethane									ND
12-Dichlorobenzene (0-Dichlorobenzene)									ND
13-Dichlorobenzene (m-Dichlorobenzene)				600					ND
Dichlorodifluoromethane									ND
1.1-Dichloroethane	enzene (p-Dichlorobenzene)	0.43		5.0					ND
12-Dichloroethane   0.24   0.50   0.5   ND   ND   ND   ND   1,1-Dichloroethne (1,1-Dichloroethylene)   0.43   1.00   6.0   ND   ND   ND   0.360J									ND
1,1-Dichloroethene (1,1-Dichloroethylene)   0.43   1.00   6.0   ND   ND   ND   0.360J									0.400J
cis-1,2-Dichloroethene         0.48         1.00         6.0         22.9         72.9         1.84         ND           trans-1,2-Dichloroethene         0.37         1.00         10         1.27         1.44         ND         ND<									ND
trans-1,2-Dichloroethene	, , ,								ND
1,2-Dichloropropane									0.710J
1.3-Dichloropropane         0.3         1.00         ND         ND<									ND
2,2-Dichloropropane         0.36         1.00         ND				5.0					ND ND
1,1-Dichloropropene									ND
cis-1,3-Dichloropropene         0.25         0.50         ND         ND <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>ND</td></t<>									ND
trans-1,3-Dichloropropene         0.25         0.50         ND									ND
Ethylbenzene									ND
2-Hexanone   2.1   10.00   ND		0.14		300	ND	ND	ND	ND	ND
Isopropylbenzene	tadiene (1,3-Hexachlorobutadiene)	0.413	3.00		ND	ND	ND	ND	ND
D-Isopropyltoluene (4-Isopropyltoluene)   D.16   D.00		2.1	10.00		ND	ND	ND	ND	ND
MTBE		0.58	1.00		ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)         4.400         10.00         ND	uene (4-Isopropyltoluene)								ND
Methylene chloride (Dichloromethane, DCM)         0.640         10.00         ND         ND <t< td=""><td></td><td></td><td></td><td>13</td><td></td><td></td><td></td><td></td><td>ND</td></t<>				13					ND
Naphthalene   2.5   10.00   ND   ND   ND   ND   ND   ND   ND									ND
n-Propylbenzene         0.17         1.00         ND         ND <td>oride (Dichloromethane, DCM)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>ND</td>	oride (Dichloromethane, DCM)								ND
Styrene   0.17   1.00   100   ND   ND   ND   ND   ND   ND   ND	200								ND ND
1,1,1,2-Tetrachloroethane	ene ene			100					ND ND
1,1,2,2-Tetrachloroethane         0.41         1.00         1.0         ND	chloroethane			100					ND ND
Tetrachloroethene (Tetrachloroethylene)         0.39         1.00         5.0         67.5         1.14         1.49         26.6           Toluene (Methyl benzene)         0.24         1.00         150         ND				1.0					ND ND
Toluene (Methyl benzene)   0.24   1.00   150   ND   ND   ND   ND     1,2,3-Trichlorobenzene   0.51   1.00   ND   ND   ND   ND   ND     1,2,4-Trichlorobenzene   0.5   1.00   5.0   ND   ND   ND   ND   ND     1,1,1-Trichloroethane   0.3   1.00   200   ND   ND   ND   ND   ND     1,1,2-Trichloroethane   0.38   1.00   5.0   ND   ND   ND   ND   ND     Trichloroethane (TCE)   0.37   1.00   5.0   22.6   23.4   4.54   1.05     Trichlorofluoromethane   1.7   10.00   150   ND   ND   ND   ND     1,2,3-Trichloroppane   0.64   5.00   ND   ND   ND   ND     1,2,4-Trimethylbenzene   0.36   1.00   ND   ND   ND   ND     1,3,5-Trimethylbenzene   0.28   1.00   ND   ND   ND   ND     ND   ND   ND									13.8
1,2,3-Trichlorobenzene         0.51         1.00         ND         ND <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>ND</td></td<>									ND
1,2,4-Trichlorobenzene         0.5         1.00         5.0         ND         ND <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>ND</td></th<>									ND
1,1,1-Trichloroethane         0.3         1.00         200         ND				5.0					ND
Trichloroethene (TCE)         0.37         1.00         5.0         22.6         23.4         4.54         1.05           Trichlorofluoromethane         1.7         10.00         150         ND		0.3	1.00	200	ND	ND	ND	ND	ND
Trichlorofluoromethane         1.7         10.00         150         ND         ND <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>ND</td></t<>									ND
1,2,3-Trichloropropane         0.64         5.00         ND         ND <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.750J</td></td<>									0.750J
1,2,4-Trimethylbenzene         0.36         1.00         ND         ND         ND         ND           1,3,5-Trimethylbenzene         0.28         1.00         ND         ND         ND         ND				150					ND
1,3,5-Trimethylbenzene         0.28         1.00         ND         ND         ND         ND									ND
									ND
TAILURI ACELARE I ACO I IU.UU I ND I ND I ND I ND I ND I	yiberizene								ND
	(Chloroothone)			0.5					ND ND
Vinyl chloride (Chloroethene)         0.3         0.50         0.5         ND         ND         ND         ND           o-Xylene         0.230         1.00         1,750         ND         ND         ND         ND	(Chiloroetherie)								ND ND
U-Zylerie U-Zyle	es								ND
1.1,2-Trichloro-1,2,2-Trifluoroethane 0.78 10.00 1,200 — — — — —						_		_	



VOCs by			Sample ID: Date:	B65A 6/28/2013	B70A 6/28/2013	6/18/2013	6/18/2013	GW3 6/18/201
EPA Method 8260B in Water	MDL (ug/L):	RL (µg/L):	MCL (µg/L)	0/20/2013		Concentration		0/10/20
cetone	10	20.00	MOE (µg/E)	ND	ND	ND	ND	ND
enzene	0.14	0.50	1.0	ND	ND	ND	ND	ND
romobenzene (Phenyl bromide)	0.3	1.00		ND	ND	ND	ND	ND
romochloromethane (Chlorobromomethane)	0.48	1.00		ND	ND	ND	ND	ND
romodichloromethane (Dichlorobromomethane)	0.21	1.00		ND	0.920J	ND	0.945J	ND
romoform (Tribromomethane)	0.5	1.00		ND	ND	ND	0.465J	ND
romomethane (Methyl bromide)	3.9	10.00		ND	ND	ND	ND	ND
-Butanone (MEK, Methyl ethyl ketone)	2.2	10.00		ND	ND	ND	ND	ND
-Butylbenzene	0.23	1.00		ND	ND	ND	ND	ND
ec-Butylbenzene	0.25 0.28	1.00 1.00		ND ND	ND ND	ND ND	ND ND	ND ND
ert-Butylbenzene Earbon disulfide	0.41	10.00		ND ND	ND ND	ND ND	ND ND	ND ND
carbon disulinde carbon tetrachloride (Tetrachloromethane)	0.23	0.50	0.5	ND ND	ND	ND ND	ND ND	ND ND
hlorobenzene	0.17	1.00	0.5	ND	ND ND	ND	ND	ND
Chloroethane	2.3	5.00		ND	ND	ND	ND	ND
-Chloroethyl vinyl ether	0.665	5.00		ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	0.46	1.00		ND	1.64	0.670J	0.875J	0.640
Chloromethane (Methyl chloride)	1.8	10.00		ND	ND	ND	ND	ND
-Chlorotoluene (p-Chlorotoluene)	0.130	1.00		ND	ND	ND	ND	ND
-Chlorotoluene (o-Chlorotoluene)	0.240	1.00		ND	ND	ND	ND	ND
,2-Dibromo-3-chloropropane (DBCP)	1.200	5.00		ND	ND	ND	ND	ND
ibromochloromethane	0.250	1.00		ND	ND	ND	ND	ND
2-Dibromoethane (EDB, Ethylene dibromide)	0.36	1.00		ND	ND	ND	ND	ND
ibromomethane	0.46	1.00		ND	ND	ND	ND	ND
,2-Dichlorobenzene (o-Dichlorobenzene)	0.46	1.00	600	ND	ND	ND	ND	ND
,3-Dichlorobenzene (m-Dichlorobenzene)	0.4	1.00		ND ND	ND	ND ND	ND	ND
,4-Dichlorobenzene (p-Dichlorobenzene) vichlorodifluoromethane	0.43 0.46	1.00 1.00	5.0	ND ND	ND ND	ND ND	ND ND	ND ND
,1-Dichloroethane	0.46	1.00	5.0	ND ND	ND ND	ND ND	ND ND	ND ND
,2-Dichloroethane	0.24	0.50	0.5	ND ND	ND ND	ND ND	ND ND	ND ND
,1-Dichloroethene (1,1-Dichloroethylene)	0.43	1.00	6.0	ND	ND ND	ND ND	ND	ND
s-1,2-Dichloroethene	0.48	1.00	6.0	ND ND	ND ND	13.5	ND	ND
ans-1,2-Dichloroethene	0.37	1.00	10	ND	ND ND	0.290J	ND	ND
2-Dichloropropane	0.42	1.00	5.0	ND	ND	ND	ND	ND
,3-Dichloropropane	0.3	1.00	0.0	ND	ND	ND	ND	ND
,2-Dichloropropane	0.36	1.00		ND	ND	ND	ND	ND
,1-Dichloropropene	0.46	1.00		ND	ND	ND	ND	ND
is-1,3-Dichloropropene	0.25	0.50		ND	ND	ND	ND	ND
ans-1,3-Dichloropropene	0.25	0.50		ND	ND	ND	ND	ND
thylbenzene	0.14	1.00	300	ND	ND	ND	ND	ND
lexachlorobutadiene (1,3-Hexachlorobutadiene)	0.413	3.00		ND	ND	ND	ND	ND
-Hexanone	2.1	10.00		ND	ND	ND	ND	ND
sopropylbenzene	0.58	1.00		ND	ND	ND	ND	ND
-Isopropyltoluene (4-Isopropyltoluene)	0.16	1.00		ND	ND	ND	ND	ND
ITBE	0.310	1.00	13	ND	ND	ND	ND	ND
-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	4.400	10.00		ND	ND	ND	ND	ND
lethylene chloride (Dichloromethane, DCM)	0.640	10.00		ND	ND	ND	ND	ND
aphthalene	2.5	10.00		ND	ND	ND	ND	ND
-Propylbenzene	0.17	1.00	400	ND	ND	ND	ND	ND
tyrene	0.17	1.00	100	ND	ND	ND	ND	ND
1,1,2-Tetrachloroethane	0.4	1.00	10	ND	ND	ND ND	ND	ND
,1,2,2-Tetrachloroethane	0.41	1.00	1.0	ND <b>0.480J</b>	ND 6.63	ND 30.8	ND ND	ND 125
etrachloroethene (Tetrachloroethylene) oluene (Methyl benzene)	0.39 0.24	1.00 1.00	5.0 150	0.480J ND	6.63 ND	30.8 ND	ND ND	125 ND
,2,3-Trichlorobenzene	0.51	1.00	130	ND	ND	ND ND	ND	ND ND
,2,4-Trichlorobenzene	0.5	1.00	5.0	ND ND	ND ND	ND ND	ND ND	ND
1,1-Trichloroethane	0.3	1.00	200	ND	ND	ND	ND	ND
1,2-Trichloroethane	0.38	1.00	5.0	ND	ND	ND	ND	ND
richloroethene (TCE)	0.37	1.00	5.0	3.15	0.810J	6.92	0.570J	2.18
richlorofluoromethane	1.7	10.00	150	ND	ND	ND	ND	ND
2,3-Trichloropropane	0.64	5.00		ND	ND	ND	ND	ND
,2,4-Trimethylbenzene	0.36	1.00		ND	ND	ND	ND	ND
3,5-Trimethylbenzene	0.28	1.00		ND	ND	ND	ND	ND
inyl acetate	2.8	10.00		ND	ND	ND	ND	ND
inyl chloride (Chloroethene)	0.3	0.50	0.5	ND	ND	ND	ND	ND
-Xylene	0.230	1.00	1,750	ND	ND	ND	ND	ND
- & p-Xylenes 1,2-Trichloro-1,2,2-Trifluoroethane	0.240 0.78	1.00 10.00	1,750 1,200	ND —	ND —	ND -	ND —	ND
OTES:  DC = Volatile Organic Compound  DL = Method Detection Limit for samples collected during current sam  = Reporting Limit for samples collected during current sampling ever  CLs = California Department of Public Health Maximum Contaminant  > Indicated constituents not detected at or above the MDL  = Analyte detected; however, result is an estimated value between the  = Trip blank sample  \$\text{3} = \text{Equipment blank sample}\$	nt, see prior laborator Levels, Updated July	y reports for RLs of		ı				



VOCs by			Sample ID: Date:	GW1 7/26/2013	GW2 7/26/2013	GW3 7/26/201
EPA Method 8260B in Water	MDL (µg/L):	RL (µg/L):	MCL (µg/L)		Concentration	
cetone	MDC (μg/C).	20.00	IVICE (µg/E)	ND	ND	ND
Benzene	0.14	0.50	1.0	ND	ND	ND
Bromobenzene (Phenyl bromide)	0.3	1.00		ND	ND	ND
Fromochloromethane (Chlorobromomethane)	0.48	1.00		ND	ND	ND
Fromodichloromethane (Dichlorobromomethane)	0.21	1.00		ND	ND	0.26J
Fromoform (Tribromomethane)	0.5	1.00		ND	ND	ND
Fromomethane (Methyl bromide)	3.9	10.00		ND	ND	ND
-Butanone (MEK, Methyl ethyl ketone)	2.2	10.00		ND	ND	ND
-Butylbenzene	0.23	1.00		ND	ND	ND
ec-Butylbenzene	0.25	1.00		ND	ND	ND
ert-Butylbenzene	0.28	1.00		ND	ND	ND
Carbon disulfide	0.41	10.00	0.5	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	0.23	0.50	0.5	ND ND	ND	ND
Chlorobenzene Chloroethane	0.17 2.3	1.00 5.00		ND ND	ND ND	ND ND
-Chloroethyl vinyl ether	0.665	5.00			_	-
Chloroform (Trichloromethane)	0.46	1.00		ND ND	ND	0.66J
Chloromethane (Methyl chloride)	1.8	10.00		ND	ND	ND
-Chlorotoluene (p-Chlorotoluene)	0.130	1.00		ND	ND	ND
-Chlorotoluene (o-Chlorotoluene)	0.240	1.00		ND	ND	ND
,2-Dibromo-3-chloropropane (DBCP)	1.200	5.00		ND	ND	ND
Dibromochloromethane	0.250	1.00		ND	ND	ND
,2-Dibromoethane (EDB, Ethylene dibromide)	0.36	1.00		ND	ND	ND
Dibromomethane	0.46	1.00		ND	ND	ND
,2-Dichlorobenzene (o-Dichlorobenzene)	0.46	1.00	600	2.1	ND	ND
,3-Dichlorobenzene (m-Dichlorobenzene)	0.4	1.00		ND	ND	ND
,4-Dichlorobenzene (p-Dichlorobenzene)	0.43	1.00	5.0	ND	ND	ND
richlorodifluoromethane	0.46	1.00		ND	ND	ND
,1-Dichloroethane	0.28	1.00	5.0	0.56J	ND	ND
,2-Dichloroethane	0.24	0.50	0.5	ND	ND	ND
,1-Dichloroethene (1,1-Dichloroethylene)	0.43	1.00	6.0	0.72J	ND	ND
is-1,2-Dichloroethene	0.48	1.00	6.0	44	ND	ND
ans-1,2-Dichloroethene	0.37	1.00	10	1.6	ND	ND
2-Dichloropropane	0.42	1.00	5.0	ND	ND	ND
,3-Dichloropropane	0.3 0.36	1.00 1.00		ND ND	ND ND	ND ND
,2-Dichloropropane	0.36	1.00		ND ND	ND ND	ND ND
,1-Dichloropropene is-1,3-Dichloropropene	0.46	0.50		ND ND	ND ND	ND ND
rans-1,3-Dichloropropene	0.25	0.50		ND	ND	ND
thylbenzene	0.14	1.00	300	ND	ND	ND
lexachlorobutadiene (1,3-Hexachlorobutadiene)	0.413	3.00			_	_
-Hexanone	2.1	10.00		ND	ND	ND
sopropylbenzene	0.58	1.00		ND	ND	ND
-Isopropyltoluene (4-Isopropyltoluene)	0.16	1.00		ND	ND	ND
MTBE	0.310	1.00	13	ND	ND	ND
-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	4.400	10.00		ND	ND	ND
Methylene chloride (Dichloromethane, DCM)	0.640	10.00		ND	ND	ND
laphthalene	2.5	10.00		ND	ND	ND
-Propylbenzene	0.17	1.00		ND	ND	ND
styrene	0.17	1.00	100	ND	ND	ND
,1,1,2-Tetrachloroethane	0.4	1.00		ND	ND	ND
,1,2,2-Tetrachloroethane	0.41	1.00	1.0	ND	ND	ND
etrachloroethene (Tetrachloroethylene)	0.39	1.00	5.0	20	ND	40 ND
oluene (Methyl benzene)	0.24	1.00	150	ND	ND	ND
,2,3-Trichlorobenzene ,2,4-Trichlorobenzene	0.51	1.00	5.0	ND ND	ND ND	ND ND
,1,1-Trichloroethane	0.3	1.00	200	ND ND	ND ND	ND ND
1,2-Trichloroethane	0.38	1.00	5.0	ND	ND	ND
richloroethene (TCE)	0.37	1.00	5.0	20	0.79J	1.1
richlorofluoromethane	1.7	10.00	150	ND	ND	ND
2,3-Trichloropropane	0.64	5.00	.50	ND	ND	ND
2,4-Trimethylbenzene	0.36	1.00		ND	ND	ND
3,5-Trimethylbenzene	0.28	1.00		ND	ND	ND
inyl acetate	2.8	10.00		ND	ND	ND
inyl chloride (Chloroethene)	0.3	0.50	0.5	ND	ND	ND
-Xylene	0.230	1.00	1,750	ND	ND	ND
- & p-Xylenes 1,2-Trichloro-1,2,2-Trifluoroethane	0.240 0.78	1.00 10.00	1,750 1,200	ND 160	ND ND	ND ND
TIES:  DC = Volatile Organic Compound  DL = Method Detection Limit for samples collected during current samp  = Reporting Limit for samples collected during current sampling even  CLs = California Department of Public Health Maximum Contaminant L  = Indicated constituents not detected at or above the MDL  = Analyte detected; however, result is an estimated value between the  = Trip blank sample	oling event, see prior t, see prior laboratory evels, Updated July	laboratory reports f	or MDLs of historical			



Water Sample Results for VOCs 12922 Panama Street Los Angeles, California

			Comple ID:	GW1	CWA	CM3	GW3-Dup	GW1
VOCs by			Sample ID: Date:	10/13/2014	GW2 10/13/2014	GW3 10/13/2014	10/13/2014	2/2/2015
EPA Method 8260B in Water	MDL (ug/L):	RL (ug/L):	MCL (µg/L)	10/10/2014		tration (µg/L)	10/10/2014	2/2/2010
Acetone	10	20.00	o_ (µg, _)	ND	ND	ND	ND	ND
Benzene	0.14	0.50	1.0	ND	ND	ND	ND	ND
Bromobenzene (Phenyl bromide)	0.3	1.00		ND	ND	ND	ND	ND
Bromochloromethane (Chlorobromomethane)	0.48	1.00		ND	ND	ND	ND	ND
Bromodichloromethane (Dichlorobromomethane) Bromoform (Tribromomethane)	0.21 0.5	1.00 1.00		ND ND	ND ND	ND ND	ND ND	ND ND
Bromomethane (Methyl bromide)	3.9	10.00		ND ND	ND ND	ND ND	ND ND	ND ND
2-Butanone (MEK, Methyl ethyl ketone)	2.2	10.00		ND	ND	ND	ND	ND
n-Butylbenzene	0.23	1.00		ND	ND	ND	ND	ND
sec-Butylbenzene	0.25	1.00		ND	ND	ND	ND	ND
tert-Butylbenzene	0.28	1.00		ND	ND	ND	ND	ND
Carbon disulfide	0.41	10.00		ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	0.23	0.50	0.5	ND	4.9	ND	ND	ND
Chlorobenzene	0.17	1.00		ND	ND	ND	ND	ND
Chloroethane	2.3 0.665	5.00 5.00		ND —	ND —	ND —	ND —	ND ND
2-Chloroethyl vinyl ether Chloroform (Trichloromethane)	0.46	1.00		ND	ND	ND	ND	ND ND
Chloromethane (Methyl chloride)	1.8	10.00		ND	ND ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	0.130	1.00		ND	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	0.240	1.00		ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	1.200	5.00		ND	ND	ND	ND	ND
Dibromochloromethane	0.250	1.00		ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	0.36	1.00		ND	ND	ND	ND	ND
Dibromomethane	0.46	1.00	000	ND 0.501	ND ND	ND	ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	0.46	1.00	600	0.52J	ND ND	ND	ND	ND
1,3-Dichlorobenzene (m-Dichlorobenzene) 1,4-Dichlorobenzene (p-Dichlorobenzene)	0.4 0.43	1.00 1.00	5.0	ND ND	ND ND	ND ND	ND ND	ND ND
Dichlorodifluoromethane	0.46	1.00	3.0	ND	ND ND	ND ND	ND ND	ND
1,1-Dichloroethane	0.28	1.00	5.0	0.31	ND	ND	ND	ND
1,2-Dichloroethane	0.24	0.50	0.5	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	0.43	1.00	6.0	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	0.48	1.00	6.0	26	ND	ND	ND	23
trans-1,2-Dichloroethene	0.37	1.00	10	0.51J	ND	ND	ND	ND
1,2-Dichloropropane	0.42	1.00	5.0	ND	ND	ND	ND	ND
1,3-Dichloropropane 2,2-Dichloropropane	0.3 0.36	1.00 1.00		ND ND	ND ND	ND ND	ND ND	ND ND
1,1-Dichloropropene	0.46	1.00		ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.25	0.50		ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.25	0.50		ND	ND	ND	ND	ND
Ethylbenzene	0.14	1.00	300	ND	ND	ND	ND	ND
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	0.413	3.00		_	_	-		ND
2-Hexanone	2.1	10.00		ND	ND	ND	ND	ND
Isopropylbenzene	0.58	1.00		ND	ND	ND	ND	ND
p-Isopropyltoluene (4-Isopropyltoluene) MTBE	0.16 0.310	1.00 1.00	13	ND ND	ND ND	ND ND	ND ND	ND ND
4-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	4.400	10.00	13	ND ND	ND ND	ND ND	ND ND	ND ND
Methylene chloride (Dichloromethane, DCM)	0.640	10.00		ND ND	ND ND	ND	ND ND	ND
Naphthalene	2.5	10.00		ND	ND	ND	ND	ND
n-Propylbenzene	0.17	1.00		ND	ND	ND	ND	ND
Styrene	0.17	1.00	100	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	0.4	1.00		ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.41	1.00	1.0	ND	ND	ND 07	ND 05	ND 24
Tetrachloroethene (Tetrachloroethylene)	0.39 0.24	1.00	5.0	14 ND	ND ND	<b>27</b> ND	<b>25</b> ND	21 ND
Toluene (Methyl benzene)		1.00	150	ND	ND ND			
1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene	0.51 0.5	1.00 1.00	5.0	ND ND	ND ND	ND ND	ND ND	ND ND
1,1,1-Trichloroethane	0.3	1.00	200	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	0.38	1.00	5.0	ND	ND	ND	ND	ND
Trichloroethene (TCE)	0.37	1.00	5.0	8.2	0.62J	1.1	1.1	8.4
Trichlorofluoromethane	1.7	10.00	150	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	0.64	5.00		ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	0.36	1.00		ND ND	ND ND	ND ND	ND ND	ND
1,3,5-Trimethylbenzene Vinyl acetate	0.28 2.8	1.00 10.00		ND ND	ND ND	ND ND	ND ND	ND ND
Vinyl acetate Vinyl chloride (Chloroethene)	0.3	0.50	0.5	ND ND	ND ND	ND ND	ND ND	ND ND
o-Xylene	0.230	1.00	1,750	ND	ND	ND	ND	ND
m- & p-Xylenes	0.240	1.00	1,750	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.78	10.00	1,200	57	ND	ND	ND	120
NOTES:								



VOCs by EPA Method 8260B in Water			Sample ID: Date:	GW2 2/2/2015	GW3 2/2/2015	GW3-Dup 2/2/2015	MW7 2/2/2015
	MDL (ua/L):	RL (ua/L):	MCL (µg/L)			VOC Concer	
Acetone	10	20.00		ND	ND	ND	ND
Benzene	0.14	0.50	1.0	ND	ND	ND	ND
Bromobenzene (Phenyl bromide)	0.3	1.00		ND	ND	ND	ND
romochloromethane (Chlorobromomethane)	0.48	1.00		ND	ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	0.21	1.00		ND	ND	ND	0.22J
Bromoform (Tribromomethane)	0.5	1.00		ND	ND	ND	ND
Bromomethane (Methyl bromide)	3.9	10.00		ND ND	ND	ND	ND
-Butanone (MEK, Methyl ethyl ketone)	2.2	10.00		ND	ND	ND	ND
n-Butylbenzene dec-Butylbenzene	0.23 0.25	1.00 1.00		ND ND	ND ND	ND ND	ND ND
ert-Butylbenzene	0.28	1.00		ND ND	ND ND	ND ND	ND ND
Carbon disulfide	0.41	10.00		ND ND	ND ND	ND ND	ND
Carbon tetrachloride (Tetrachloromethane)	0.23	0.50	0.5	ND	ND ND	ND ND	ND
Chlorobenzene	0.17	1.00	0.0	ND	ND	ND	ND
Chloroethane	2.3	5.00		ND	ND	ND	ND
-Chloroethyl vinyl ether	0.665	5.00		ND	ND	ND	ND
Chloroform (Trichloromethane)	0.46	1.00		ND	ND	ND	0.61J
Chloromethane (Methyl chloride)	1.8	10.00		ND	ND	ND	ND
-Chlorotoluene (p-Chlorotoluene)	0.130	1.00		ND	ND	ND	ND
-Chlorotoluene (o-Chlorotoluene)	0.240	1.00		ND	ND	ND	ND
,2-Dibromo-3-chloropropane (DBCP)	1.200	5.00		ND	ND	ND	ND
Dibromochloromethane	0.250	1.00		ND	ND	ND	0.32J
,2-Dibromoethane (EDB, Ethylene dibromide)	0.36	1.00		ND	ND	ND	ND
Dibromomethane	0.46	1.00	000	ND	ND	ND	ND
,2-Dichlorobenzene (o-Dichlorobenzene)	0.46	1.00	600	ND ND	ND ND	ND	ND
,3-Dichlorobenzene (m-Dichlorobenzene) ,4-Dichlorobenzene (p-Dichlorobenzene)	0.4	1.00 1.00	5.0	ND ND	ND ND	ND ND	ND ND
,4-Dichlorobenzene (p-Dichlorobenzene) Dichlorodifluoromethane	0.43	1.00	5.0	ND ND	ND ND	ND ND	ND ND
,1-Dichloroethane	0.28	1.00	5.0	ND	ND	ND ND	ND
.2-Dichloroethane	0.24	0.50	0.5	ND ND	ND	ND	ND
,1-Dichloroethene (1,1-Dichloroethylene)	0.43	1.00	6.0	ND	ND	ND	ND
is-1,2-Dichloroethene	0.48	1.00	6.0	ND	ND	ND	ND
ans-1,2-Dichloroethene	0.37	1.00	10	ND	ND	ND	ND
,2-Dichloropropane	0.42	1.00	5.0	ND	ND	ND	ND
,3-Dichloropropane	0.3	1.00		ND	ND	ND	ND
,2-Dichloropropane	0.36	1.00		ND	ND	ND	ND
,1-Dichloropropene	0.46	1.00		ND	ND	ND	ND
is-1,3-Dichloropropene	0.25	0.50		ND	ND	ND	ND
rans-1,3-Dichloropropene	0.25	0.50		ND	ND	ND	ND
thylbenzene	0.14	1.00	300	ND	ND	ND	ND
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	0.413	3.00		ND_	ND	ND	ND
?-Hexanone	2.1	10.00		ND ND	ND	ND	ND ND
sopropylbenzene	0.58 0.16	1.00 1.00		ND ND	ND ND	ND ND	ND ND
o-Isopropyltoluene (4-Isopropyltoluene) MTBE	0.16	1.00	13	ND ND	ND ND	ND ND	ND ND
I-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	4.400	10.00	13	ND ND	ND ND	ND ND	ND
Methylene chloride (Dichloromethane, DCM)	0.640	10.00		ND	ND	ND	ND
laphthalene	2.5	10.00		ND	ND	ND	ND
-Propylbenzene	0.17	1.00		ND	ND	ND	ND
Styrene	0.17	1.00	100	ND	ND	ND	ND
,1,1,2-Tetrachloroethane	0.4	1.00		ND	ND	ND	ND
,1,2,2-Tetrachloroethane	0.41	1.00	1.0	ND	ND	ND	ND
etrachloroethene (Tetrachloroethylene)	0.39	1.00	5.0	ND	140	140	4.5
	0.24	1.00	150	ND	ND	ND	ND
oluene (Methyl benzene)	0.51	1.00		ND	ND	ND	ND
,2,3-Trichlorobenzene	0.5	1.00	5.0	ND	ND	ND	ND
,2,3-Trichlorobenzene ,2,4-Trichlorobenzene	0.3	1.00	200	ND ND	ND	ND	ND
,2,3-Trichlorobenzene ,2,4-Trichlorobenzene ,1,1-Trichloroethane	0.00		5.0	ND	ND	ND	ND 0.001
,2,3-Trichlorobenzene ,2,4-Trichlorobenzene ,1,1-Trichloroethane ,1,2-Trichloroethane	0.38	1.00			~ ~		
,2,3-Trichlorobenzene ,2,4-Trichlorobenzene ,1,1-Trichloroethane ,1,2-Trichloroethane richloroethene (TCE)	0.37	1.00	5.0	0.66J	3.6	3.4	0.69J
,2,3-Trichlorobenzene ,2,4-Trichlorobenzene ,1,1-Trichloroethane ,1,2-Trichloroethane richloroethene (TCE) richlorofluoromethane	0.37 1.7	1.00 10.00		<b>0.66J</b> ND	ND	ND	ND
2,3-Trichlorobenzene 2,4-Trichlorobenzene 1,1-Trichloroethane 1,2-Trichloroethane richloroethene (TCE) richlorofluoromethane 2,3-Trichloropropane	0.37 1.7 0.64	1.00 10.00 5.00	5.0	0.66J ND ND	ND ND	ND ND	ND ND
.2,3-Trichlorobenzene .2,4-Trichlorobenzene .1,1-Trichloroethane .1,2-Trichloroethane richloroethene (TCE) richlorofluoromethane .2,3-Trichloropropane .2,4-Trimethylbenzene	0.37 1.7 0.64 0.36	1.00 10.00 5.00 1.00	5.0	ND ND ND ND	ND ND ND	ND ND ND	ND ND ND
2,3-Trichlorobenzene 2,4-Trichlorobenzene 1,1,1-Trichloroethane 1,1,2-Trichloroethane richloroethene (TCE) richlorofluoromethane 2,3-Trichloropropane 2,4-Trimethylbenzene 3,5-Trimethylbenzene	0.37 1.7 0.64 0.36 0.28	1.00 10.00 5.00 1.00 1.00	5.0	ND ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND ND
2,3-Trichlorobenzene 2,4-Trichlorobenzene 1,1-Trichloroethane 1,2-Trichloroethane richloroethene (TCE) richlorofluoromethane 2,3-Trichloropropane 2,4-Trimethylbenzene 3,5-Trimethylbenzene inyl acetate	0.37 1.7 0.64 0.36 0.28 2.8	1.00 10.00 5.00 1.00 1.00	5.0 150	ND ND ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND ND
,2,3-Trichlorobenzene ,2,4-Trichlorobenzene ,1,1-Trichloroethane ,1,2-Trichloroethane richloroethene (TCE)	0.37 1.7 0.64 0.36 0.28	1.00 10.00 5.00 1.00 1.00	5.0 150	ND ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND ND
,2,3-Trichlorobenzene ,2,4-Trichlorobenzene ,1,1-Trichloroethane ,1,2-Trichloroethane richloroethene (TCE) richlorofluoromethane ,2,3-Trichloropropane ,2,4-Trimethylbenzene ,3,5-Trimethylbenzene inyl acetate inyl chloride (Chloroethene)	0.37 1.7 0.64 0.36 0.28 2.8 0.3	1.00 10.00 5.00 1.00 1.00 10.00 0.50	5.0 150	ND	ND ND ND ND ND	ND ND ND ND ND	ND ND ND ND ND



Water Sample Results for VOCs 12922 Panama Street Los Angeles, California

			Sample ID:	MANAG	ТВ	EB
VOCs by			Sample ID:	MW8 2/2/2015	2/2/2015	2/2/2015
EPA Method 8260B in Water	MDL (µg/L):	RL (ua/L):	MCL (µg/L)			
Acetone	10	20.00	(1-3-7	ND	ND	ND
Benzene	0.14	0.50	1.0	ND	ND	ND
Bromobenzene (Phenyl bromide)	0.3	1.00		ND	ND	ND
Bromochloromethane (Chlorobromomethane)	0.48	1.00		ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	0.21	1.00		ND	ND	ND
Bromoform (Tribromomethane)	0.5	1.00		ND	ND	ND
Bromomethane (Methyl bromide)	3.9	10.00		ND ND	ND	ND 40
2-Butanone (MEK, Methyl ethyl ketone)	2.2 0.23	10.00 1.00		ND ND	ND ND	13 ND
n-Butylbenzene sec-Butylbenzene	0.25	1.00		ND ND	ND ND	ND ND
tert-Butylbenzene	0.28	1.00		ND ND	ND ND	ND ND
Carbon disulfide	0.41	10.00		ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	0.23	0.50	0.5	ND	ND	ND
Chlorobenzene	0.17	1.00		ND	ND	ND
Chloroethane	2.3	5.00		ND	ND	ND
2-Chloroethyl vinyl ether	0.665	5.00		ND	ND	ND
Chloroform (Trichloromethane)	0.46	1.00		ND	ND	ND
Chloromethane (Methyl chloride)	1.8	10.00		ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	0.130	1.00		ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	0.240	1.00		ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	1.200	5.00		ND	ND	ND
Dibromochloromethane	0.250	1.00		ND	ND	ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	0.36	1.00		ND	ND	ND
Dibromomethane	0.46	1.00	coo	ND	ND ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene) 1,3-Dichlorobenzene (m-Dichlorobenzene)	0.46 0.4	1.00 1.00	600	ND ND	ND ND	ND ND
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.43	1.00	5.0	ND ND	ND ND	ND ND
Dichlorodifluoromethane	0.46	1.00	5.0	ND	ND	ND
1,1-Dichloroethane	0.28	1.00	5.0	ND	ND	ND
1.2-Dichloroethane	0.24	0.50	0.5	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	0.43	1.00	6.0	ND	ND	ND
cis-1,2-Dichloroethene	0.48	1.00	6.0	ND	ND	ND
trans-1,2-Dichloroethene	0.37	1.00	10	ND	ND	ND
1,2-Dichloropropane	0.42	1.00	5.0	ND	ND	ND
1,3-Dichloropropane	0.3	1.00		ND	ND	ND
2,2-Dichloropropane	0.36	1.00		ND	ND	ND
1,1-Dichloropropene	0.46	1.00		ND	ND	ND
cis-1,3-Dichloropropene	0.25	0.50		ND	ND	ND
trans-1,3-Dichloropropene	0.25 0.14	0.50 1.00	300	ND ND	ND ND	ND ND
Ethylbenzene Hexachlorobutadiene (1,3-Hexachlorobutadiene)	0.413	3.00	300	ND ND	ND ND	ND ND
2-Hexanone	2.1	10.00		ND ND	ND ND	ND ND
Isopropylbenzene	0.58	1.00		ND ND	ND ND	ND ND
p-Isopropyltoluene (4-Isopropyltoluene)	0.16	1.00		ND	ND	ND
MTBE	0.310	1.00	13	ND	ND	ND
4-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	4.400	10.00		ND	ND	ND
Methylene chloride (Dichloromethane, DCM)	0.640	10.00		ND	ND	ND
Naphthalene	2.5	10.00		ND	ND	ND
n-Propylbenzene	0.17	1.00		ND	ND	ND
Styrene	0.17	1.00	100	ND	ND	ND
1,1,1,2-Tetrachloroethane	0.4	1.00		ND	ND	ND
1,1,2,2-Tetrachloroethane	0.41	1.00	1.0	ND	ND	ND
Tetrachloroethene (Tetrachloroethylene)	0.39	1.00	5.0	ND	ND	ND
Toluene (Methyl benzene)	0.24	1.00	150	ND	ND	ND
1,2,3-Trichlorobenzene	0.51	1.00	E 0	ND	ND ND	ND ND
1,2,4-Trichlorobenzene 1,1,1-Trichloroethane	0.5	1.00 1.00	5.0 200	ND ND	ND ND	ND ND
1,1,2-Trichloroethane	0.38	1.00	5.0	ND ND	ND ND	ND ND
Trichloroethene (TCE)	0.37	1.00	5.0	1.2	ND ND	ND ND
Trichlorofluoromethane	1.7	10.00	150	ND	ND ND	ND ND
1,2,3-Trichloropropane	0.64	5.00	.50	ND	ND	ND
1,2,4-Trimethylbenzene	0.36	1.00		ND	ND	ND
1,3,5-Trimethylbenzene	0.28	1.00		ND	ND	ND
Vinyl acetate	2.8	10.00		ND	ND	ND
Vinyl chloride (Chloroethene)	0.3	0.50	0.5	ND	ND	ND
o-Xylene	0.230	1.00	1,750	ND	ND	ND
m- & p-Xylenes	0.240	1.00	1,750	ND	ND	ND
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.78	10.00	1,200	ND	ND	ND



### Groundwater Sample Results for 1,4-dioxane 12922 Panama Street Los Angeles, California

Sample ID	Sample Date	EPA Method 8270C(M) 1,4-Dioxane (ug/L)
	RL:	1.0
	MDL:	0.280
	ESL:	2.5
B48A	6/28/2013	54
B65A	6/28/2013	ND
B70A	6/28/2013	ND
GW1	6/18/2013	ND
GW2	6/18/2013	ND
GW3	6/18/2013	ND
GW1	7/26/2013	1.9
GW2	7/26/2013	ND
GW3	7/26/2013	ND
GW1	10/13/2014	1.3
GW2	10/13/2014	ND
GW3	10/13/2014	ND
GW3-Dup	10/13/2014	ND
GW1	2/2/2015	ND
GW2	2/2/2015	ND
GW3	2/2/2015	ND
GW3-Dup	2/2/2015	ND
MW7	2/2/2015	ND
MW8	2/2/2015	ND

#### NOTES:

ND = Indicates constituents not detected above the MDL

RL = Reporting Limit

MDL = Method Detection Limit

ug/L = micrograms per liter

ESLs = Environmental Screening Levels, based on the CRWQCB-San Francisco
Bay Region's Screening for Environmental Concerns at Site with
Contaminated Soil and Groundwater, using Summary Table A (May 2013) ESLs in Summary Table A (May 2013) - ESLs in Shallow Soils, Groundwater

is Current or Potential Source of Drinking Water



#### TABLE 8

Water Sample Results for Title 22 Metals 12922 Panama Street Los Angeles, California

							Title	22 Metals by	EPA Method	6010B/7470	A (mg/L) in W	ater						
Sample ID	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
RL (m	ig/L):	0.01-0.015	0.0100	0.0100	0.0100	0.005-0.01	0.0100	0.0100	0.0100	0.0100	0.0100	0.0100	0.01-0.015	0.0050	0.0150	0.0100	0.0100	0.0005
MDL (r	ng/L):	0.0079	0.0044	0.00296	0.00056	0.0027	0.00271	0.00295	0.00267	0.0041	0.0028	0.00298	0.0070	0.0014	0.0029	0.0024	0.0035	0.000045
MCLs (	mg/L):	0.006	0.010	1.0	0.004	0.005	0.050	NA	1.3	0.015	NA	0.1	0.05	NA	0.002	NA	NA	0.002
B1A	4/26/2013	0.154	ND	0.132	ND	ND	ND	0.0018J	ND	ND	0.0215	0.0124	ND	ND	ND	0.0048J	0.0108	ND
B3A	4/25/2013	ND	0.0032J	0.0446	ND	ND	ND	0.0057J	ND	ND	0.0559	0.0161	0.0177	ND	ND	ND	ND	ND
B7A	4/26/2013	ND	0.0070J	0.0703	ND	ND	0.0022J	0.0025J	0.0025J	ND	0.0374	0.0140	ND	ND	ND	0.0121	ND	ND
B24A	4/25/2013	ND	ND	0.0751	ND	0.0011J	ND	0.0094J	ND	ND	0.0580	0.0168	0.0267	ND	ND	ND	ND	ND
B25A	4/26/2013	ND	ND	0.0375	ND	ND	ND	0.0039J	ND	ND	0.0512	0.0153	ND	ND	ND	ND	ND	ND
B26A	4/26/2013	0.0081J	ND	0.0881	ND	ND	ND	0.0066J	ND	ND	0.0504	0.0119	ND	ND	ND	ND	ND	ND
B28A	4/25/2013	ND	ND	0.0297	ND	0.0009J	ND	ND	ND	ND	0.0210	0.0106	0.0113	ND	ND	ND	ND	ND
B36A	4/30/2013	ND	ND	0.079	ND	ND	ND	ND	ND	ND	0.0205	0.0044J	ND	ND	ND	0.0052J	ND	ND
B37A	6/6/2013	ND	0.0177	0.331	0.0037J	0.0301	0.111	0.371	0.0855	ND	0.0111	0.307	0.0164	ND	ND	0.0785	0.244	ND
B38A	6/7/2013	ND	0.0159	0.594	ND	0.0139	0.0381	0.444	0.0889	ND	0.0035J	0.173	ND	ND	ND	0.1	0.118	ND
B39A	6/7/2013	ND	0.0272	0.322	ND	0.0202	0.0589	0.241	0.0926	ND	0.0015J	0.179	ND	ND	ND	0.211	0.176	ND
B40A	6/7/2013	ND	0.0051J	0.227	ND	0.026	0.167	0.355	0.118	ND	0.0171	0.34	0.0144	ND	ND	0.111	0.21	0.0007
B41A	6/7/2013	ND	0.0248	0.21	ND	0.0187	0.0243	0.188	0.0402	ND	ND	0.172	0.0104	ND	ND	0.102	0.103	0.0015
B42A	6/6/2013	ND	0.0148	0.497	0.0041J	0.0317	0.0926	0.224	0.0579	ND	0.0036J	0.23	0.169	ND	ND	0.142	0.157	ND
B43A	6/6/2013	ND	0.0185	0.471	ND	0.02	0.085	0.0896	0.106	ND	0.0012J	0.195	0.0077J	ND	ND	0.368	0.208	ND
B48A	6/28/2013	ND	ND	0.0147	ND	0.0023J	ND	0.0048J	ND	ND	0.0182	0.0201	0.0214	ND	ND	0.0060J	ND	ND
B55A	6/6/2013	ND	0.0162	0.42	0.0028J	0.0166	0.104	0.231	0.0855	ND	0.0054J	0.242	0.0077J	ND	ND	0.116	0.196	ND
B57A	6/7/2013	ND	0.0416	0.38	ND	0.0331	0.0025J	0.125	0.0462	ND	ND	0.161	0.0169	ND	ND	0.0648	0.137	ND
B59A	6/7/2013	ND	0.0293	0.95	ND	0.0331	0.0036J	0.0688	0.0603	ND	ND	0.178	0.0068J	ND	ND	0.0974	0.148	ND
B60A	6/7/2013	ND	0.0458	2.16	ND	0.0355	0.0034J	0.127	0.0125	ND	ND	0.187	0.0146	ND	ND	0.0086J	0.122	ND
B65A	6/28/2013	ND	ND	0.0574	ND	ND	ND	ND	ND	ND	0.0158	0.0115	ND	ND	ND	0.0078J	ND	ND
B70A	6/28/2013	ND	ND	0.0178	ND	ND	ND	ND	ND	ND	0.0143	0.0099J	ND	ND	ND	0.0043J	ND	ND
GW1	6/18/2013	ND	ND	0.052	ND	ND	ND	ND	ND	ND	0.0426	0.018	ND	ND	ND	ND	0.0137	ND
GW2	6/18/2013	ND	ND	0.0249	ND	ND	ND	ND	ND	ND	0.0179	0.0141	ND	ND	ND	ND	ND	ND
GW3	6/18/2013	ND	ND	0.0331	ND	ND	ND	ND	ND	ND	0.0180	ND	ND	ND	ND	ND	ND	ND
GW1	7/26/2013	ND	ND	0.0866	ND	ND	0.00997J	0.00353J	0.00798J	ND	0.0430	0.00930J	ND	ND	ND	0.0188	0.0481	ND
GW2	7/26/2013	ND	ND	0.0451	ND	ND	0.00545J	ND	0.00280J	ND	0.0158	ND	ND	ND	ND	0.0103	0.0830	ND
GW3	7/26/2013	ND	ND	0.0633	ND	ND	0.00293J	ND	0.00636J	ND	0.0202	ND	0.00816J	ND	ND	0.00684J	0.0146	ND
GW1	10/13/2014	ND	0.00479J	0.0334	ND ND	ND	ND	ND	ND	ND	0.0393	ND	ND	0.00184J	ND 0.000001	0.00438J	0.0842	ND
GW2	10/13/2014	ND	ND	0.0248	ND	ND	ND	ND	ND	ND	0.0153	ND	ND	0.00189J	0.00396J	0.00515J	0.0330	ND
GW3	10/13/2014	ND	ND	0.0723	ND	ND	ND	ND	ND	ND	0.0195	ND	ND	0.00179J	ND 0.00000.1	0.00472J	0.0131	ND
GW3-Dup	10/13/2014	ND	ND	0.0752	ND	ND	ND	ND	ND	ND	0.0198	ND	ND 0.0454	0.00201J	0.00323J	0.00433J	0.00698J	ND
GW1	2/2/2015	ND	ND	0.0317	ND	ND	ND	ND	ND	ND	0.0413	ND	0.0151	ND	0.00488J	0.00459J	0.017	ND ND
GW2	2/2/2015	ND	ND	0.0194	ND	ND	ND	ND	ND	ND	0.0151	ND	0.0109J	ND	0.00325J	0.00363J	0.0937	ND ND
GW3 Dun	2/2/2015	ND	ND ND	0.0507	ND ND	ND	ND	ND	ND ND	ND	0.0225	ND ND	0.0116J	ND ND	0.00486J	0.004J	0.01	ND ND
GW3-Dup	2/2/2015	ND	ND ND	0.0484	ND	ND	ND	ND	ND	ND	0.0205	ND	0.0132J	ND	ND 0.00F02.L	0.00395J	0.013	ND ND
MW7	2/2/2015	ND ND	ND ND	0.0391	ND ND	ND	ND	ND	ND ND	ND	0.0162	ND	0.0152	ND	0.00502J	0.00427J	0.0304	
MW8	2/2/2015	טא	ND	0.0263	ND	ND	ND	ND	ND	ND	0.0239	ND	0.0162	ND	0.00433J	0.00468J	0.00486J	ND

#### NOTES:

mg/L = milligrams per liter

ND = Indicates constituent not detected at or above the PQL

J = Analyte detected; however result is an estimated value between the Method Detection Limit (MDL) and the PQL. (See associated lab report for applicable MDLs)

MDL = Method Detection Limit for samples collected during current sampling event, see prior laboratory reports for MDLs of historical samples

RL = Reporting Limit for samples collected during current sampling event, see prior laboratory reports for RLs of historical samples

MCLs = California Department of Public Health Maximum Contaminant Levels, Updated July 2014

N/A = Not applicable



#### TABLE 9

#### Water Sample Results for Monitored Natural Attenuation Parameters 12922 Panama Street Los Angeles, California

		Ш	PA Method R	SK-175M (ug/	(L)	EPA M	ethod 300.0 (	mg/L)	EPA Method 200.7 (mg/L)	EPA Method	3005A (mg/L)			<b>General Che</b>	mistry (mg/L)		
Sample ID	Sample Date	Ethane	Ethene	Methane	Carbon Dioxide	Chloride	Nitrate	Sulfate	Boron	Dissolved Iron	Manganese	Total Dissolved Soilds (SM 2540C)	Total Sulfide (SM4500-S2- D)	Total Organic Carbon (SM 5310D)	Total Alkalinity (as CaCO3) (SM 2320B)	Bicarbonate (as CaCO3) (SM 2320B)	Carbonate (as CaCO3) (SM 2320B)
R	L:	1.0	1.0	1.0	17.0	1.0-5.0	0.5	5.0	0.020	0.1000	0.0050	1.0	0.05	2.5	5.0	5.0	1.0
ME	L:	0.08	0.10	0.04	0.0547	0.12-0.61	0.130	0.94	0.00476	0.0101	0.0027	0.82	0.030	0.13	0.848	0.848	0.85
GW1	10/13/2014	ND	0.234J	0.812J	30,800	94	3.5	350	0.582	0.0165J	0.452	1,120	ND	42	414	414	ND
GW2	10/13/2014	ND	ND	0.184J	34,200	92	2.6	380	0.524	0.0131J	0.0489	1,160	ND	40	426	426	ND
GW3	10/13/2014	ND	0.109J	0.141J	36,500	89	7.2	290	0.534	0.0128J	ND	1,010	ND	38	417	417	ND
GW3-Dup	10/13/2014	ND	0.158J	0.124J	37,000	89	7.2	290	0.545	0.0190J	ND	995	ND	38	418	418	ND
GW1	2/2/2015	ND	ND	0.321J	37,900	93	3.3	330	0.482	ND	0.452	985	ND	43	407	407	ND
GW2	2/2/2015	ND	ND	0.0470J	34,300	88	2.7	350	0.443	ND	0.0482	995	ND	42	413	413	ND
GW3	2/2/2015	ND	ND	ND	22,100	40	8.9	180	0.427	ND	ND	605	ND	30	285	285	ND
GW3-Dup	2/2/2015	ND	ND	ND	23,600	40	8.9	190	0.419	ND	ND	645	ND	30	301	301	ND
MW7	2/2/2015	ND	ND	0.0470J	30,500	93	9.4	280	0.652	ND	0.0551	980	ND	44	427	427	ND
MW8	2/2/2015	ND	ND	0.161J	34,700	95	8.0	270	0.575	ND	0.237	925	ND	46	432	432	ND

#### NOTES:

RL = Reporting Limit for undiluted samples

MDL = Method Detection Limit for undiluted samples

ND = Indicated constituents not detected above the MDL

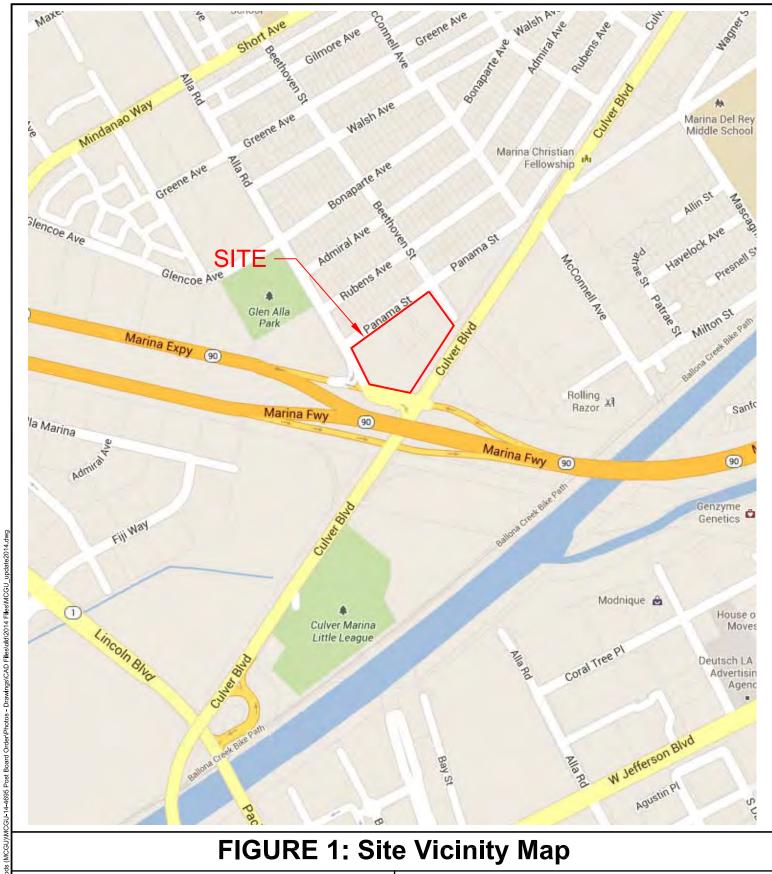
μg/L = micrograms per liter

mg/L = milligrams per liter

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.



# **FIGURES**



CLIENT: McGuire Woods, LLP

PROJECT #: MCGU-14-4695

SITE LOCATION:

Panama Street Site
12922 Panama Street
Les Appeles Colifornia 20066

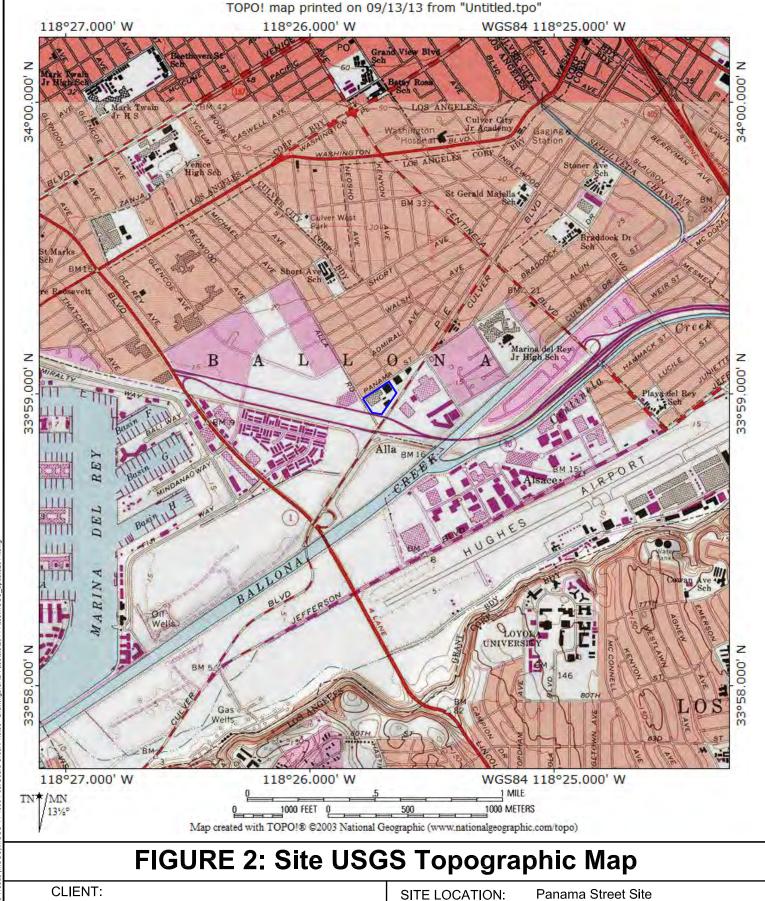
Los Angeles, California 90066



3777 Long Beach Blvd., Annex Bldg. Long Beach, CA 90807 (562) 495-5777 www.altaenviron.com



NORTH



CLIENT: McGuire Woods, LLP

Panama Street Site 12922 Panama Street Los Angeles, California 90066

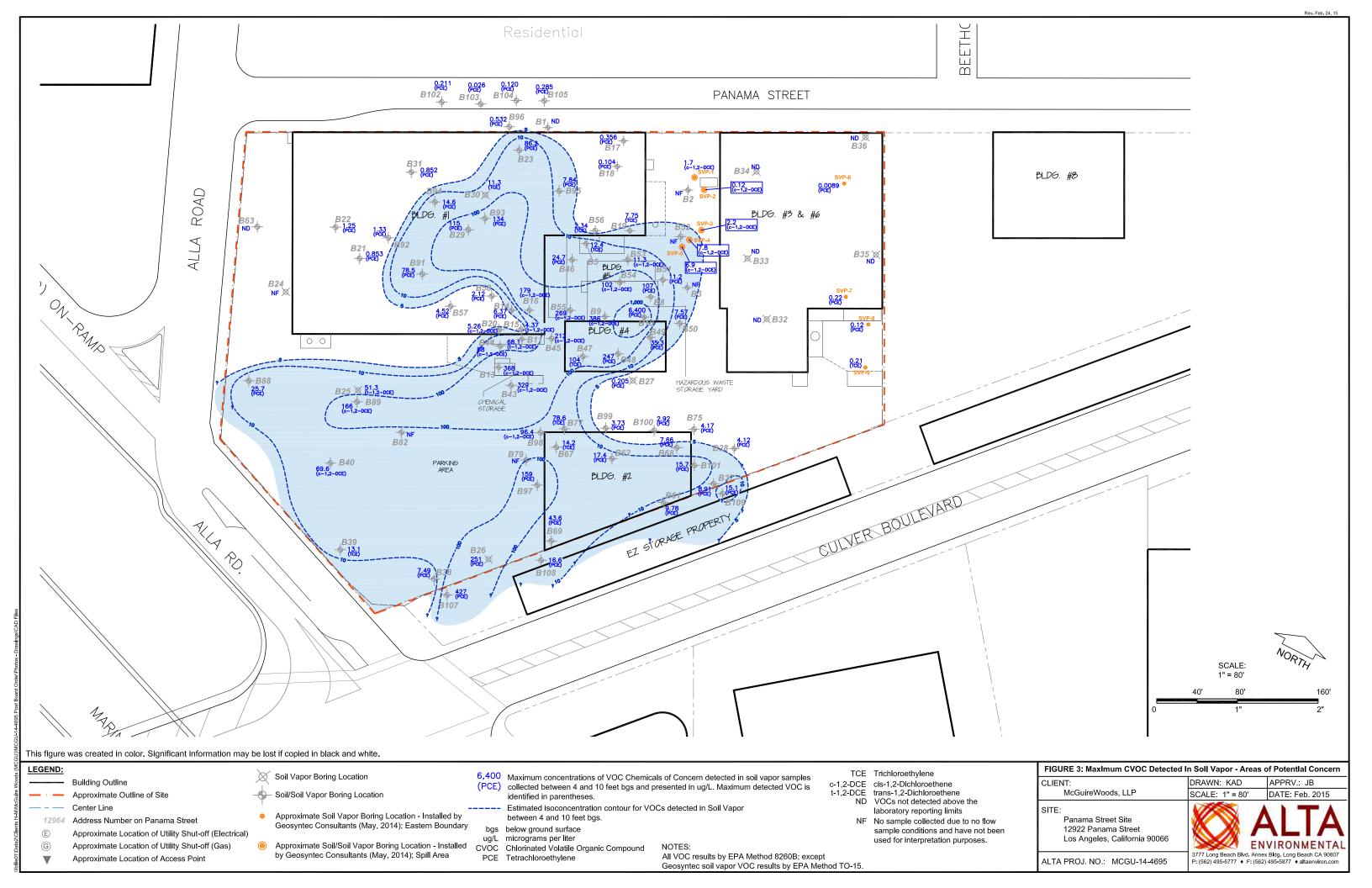
PROJECT #: MCGU-13-2252

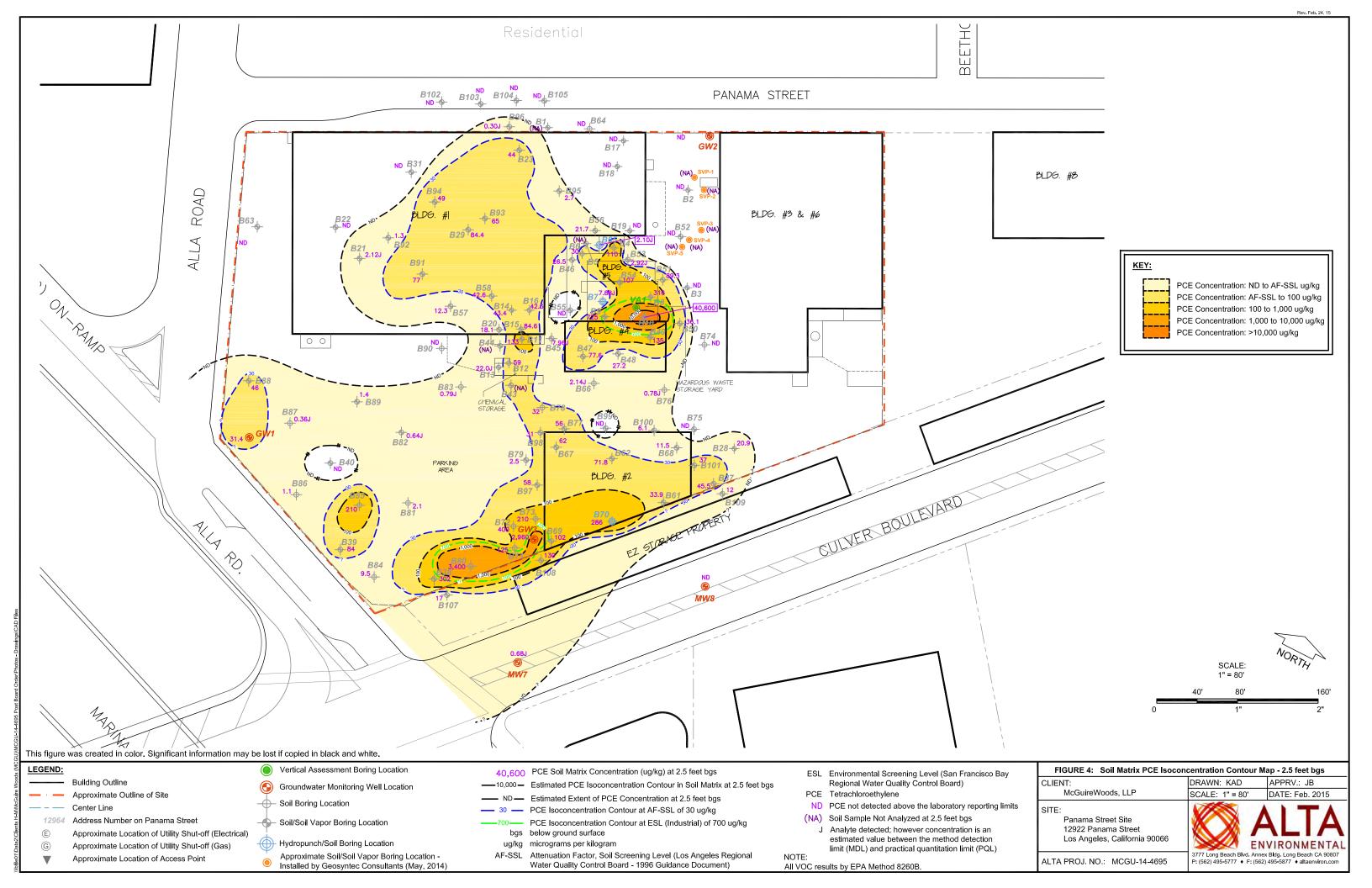
**ALTA**ENVIRONMENTAL

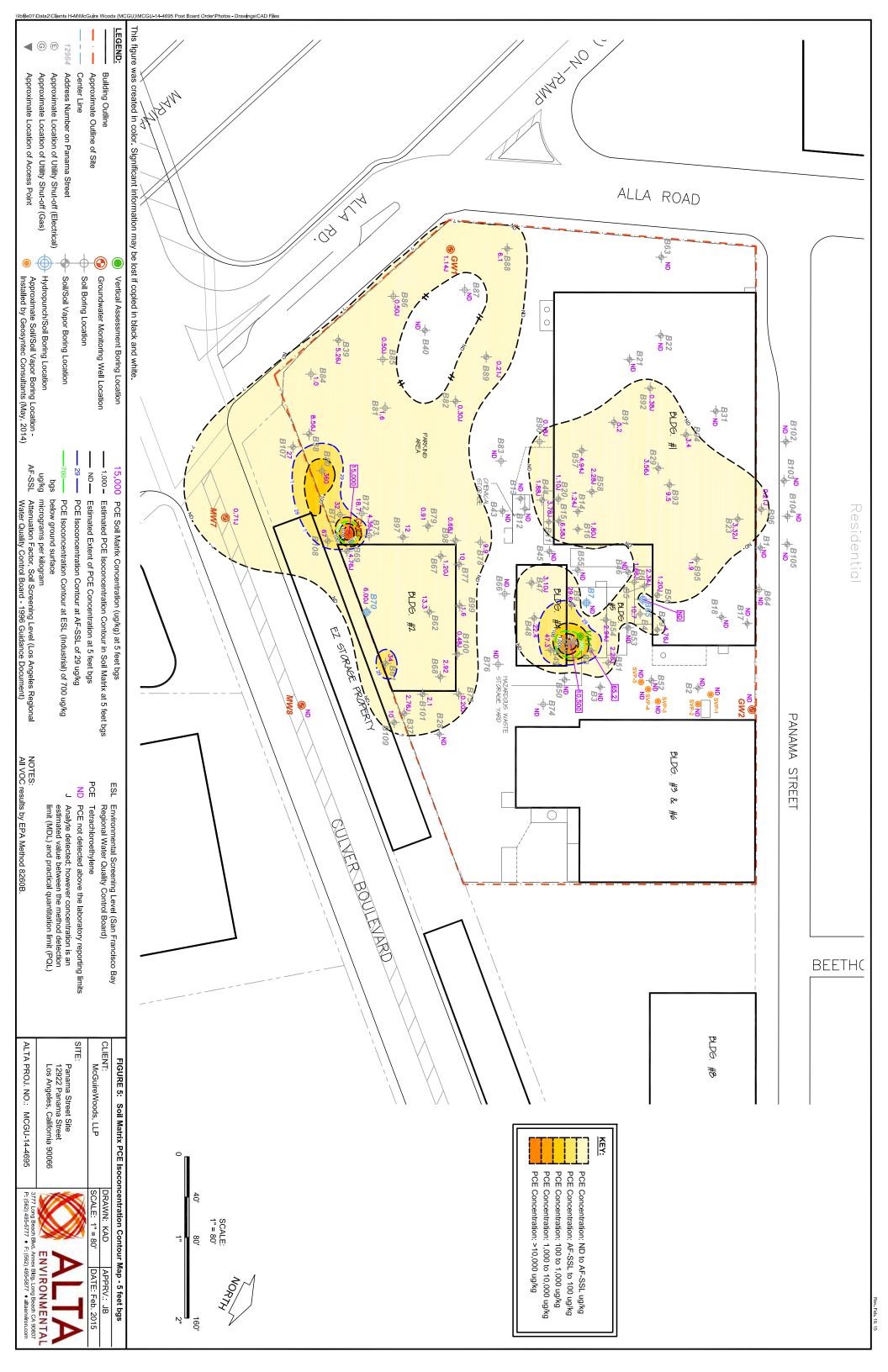
3777 Long Beach Blvd., Annex Bldg. Long Beach, CA 90807 (562) 495-5777 www.altaenviron.com DRAWN: KD APPROVED: JB

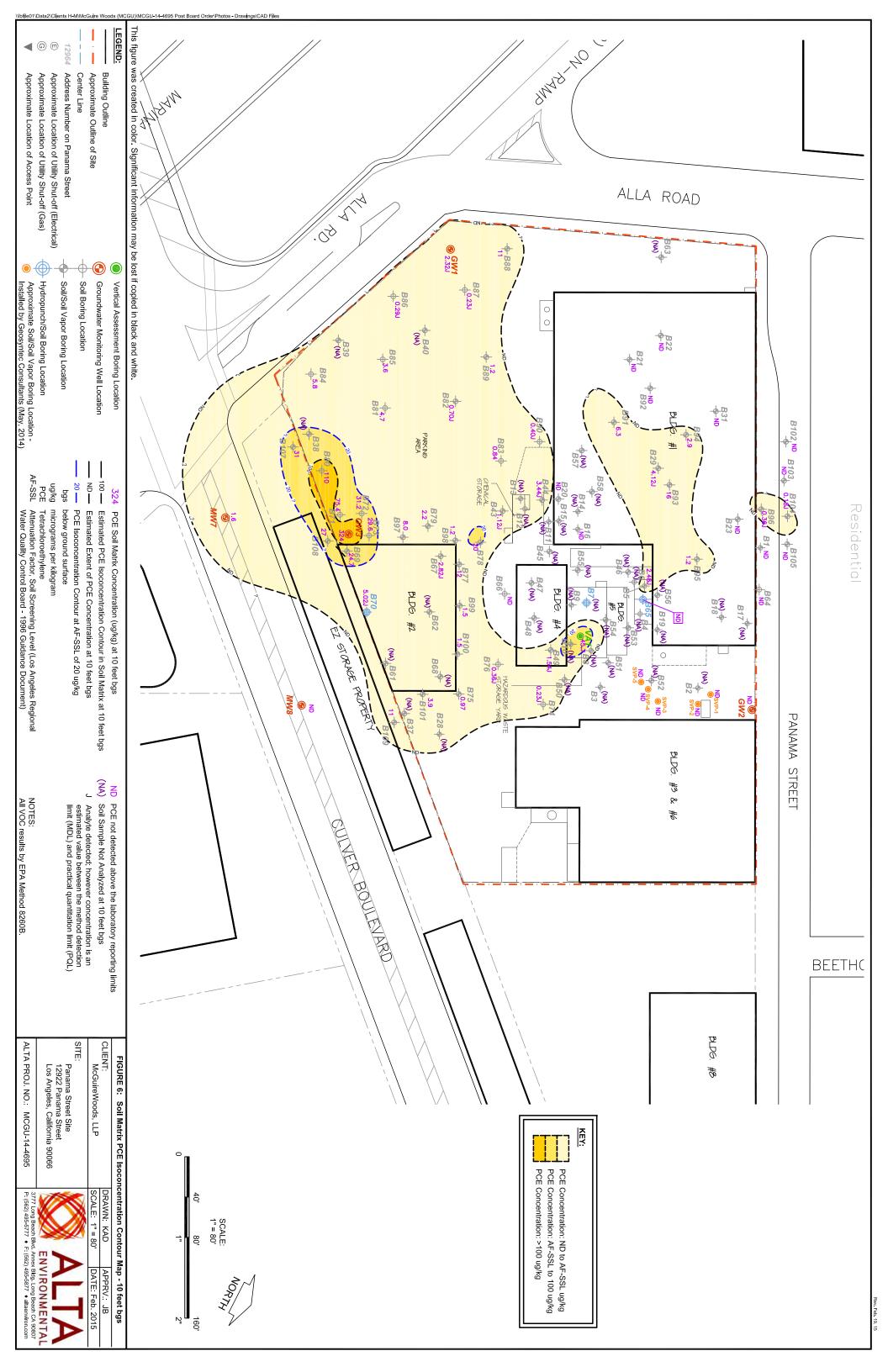
SCALE:
As Noted DATE: 12/5/14

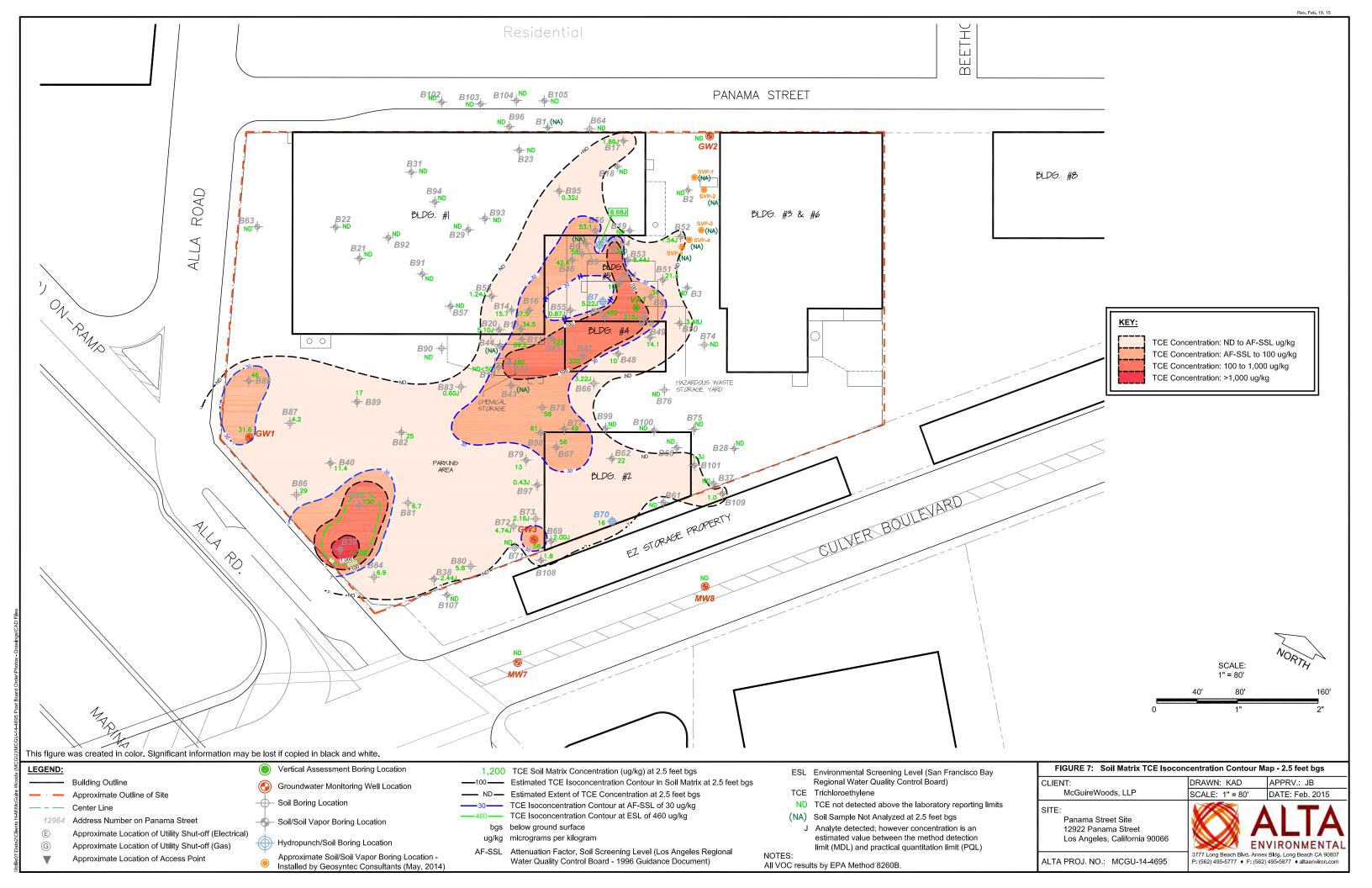


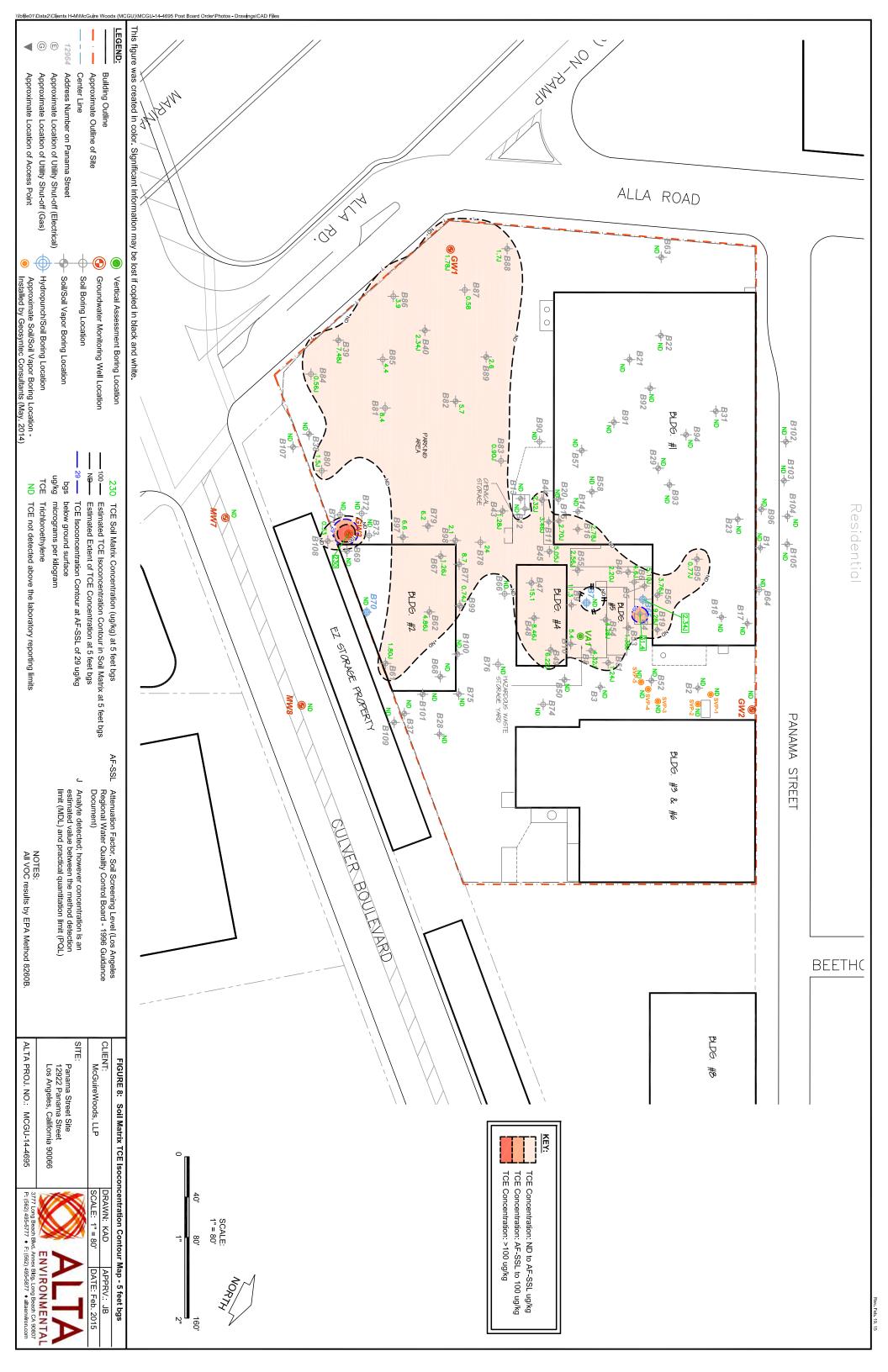


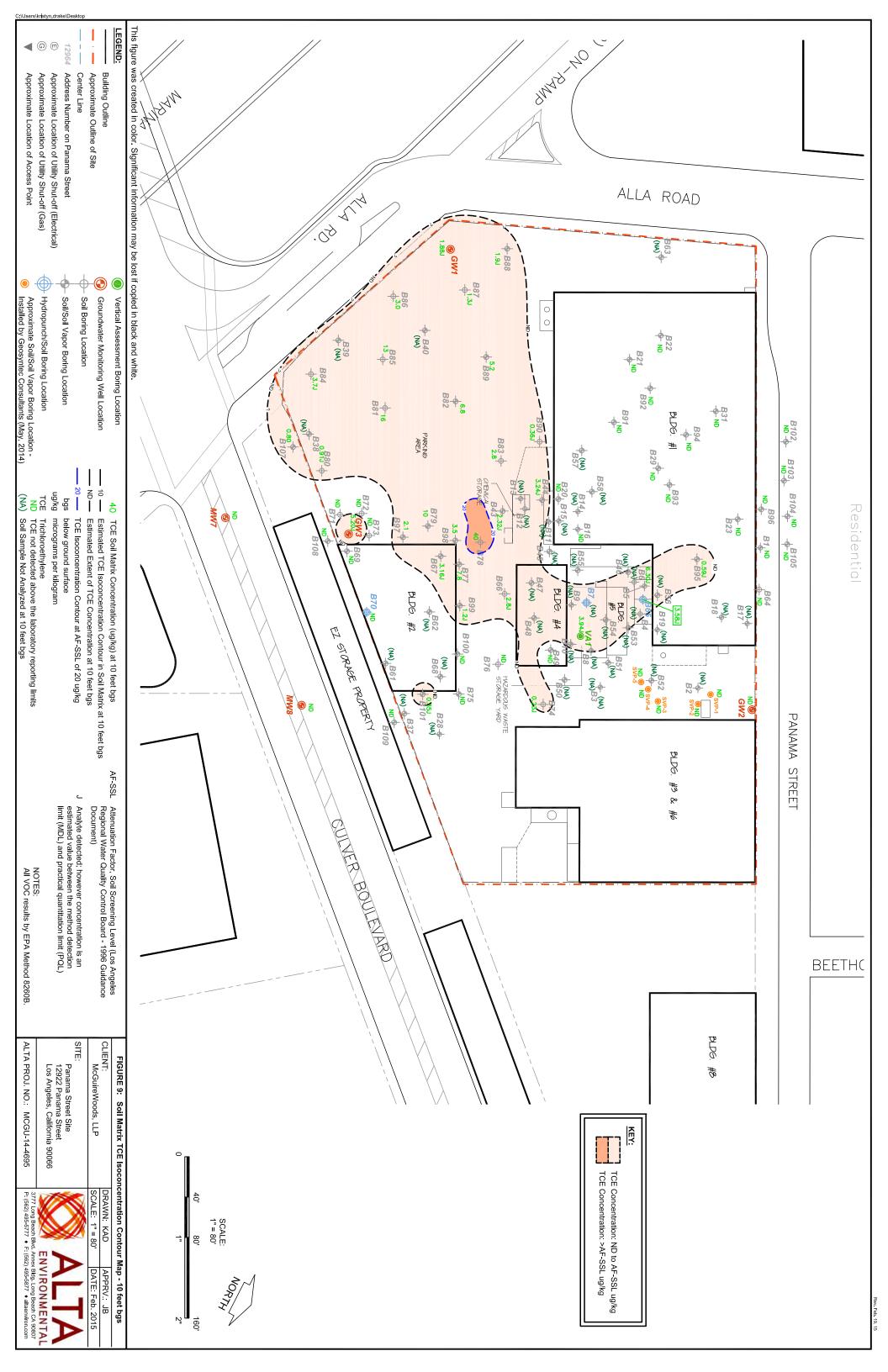


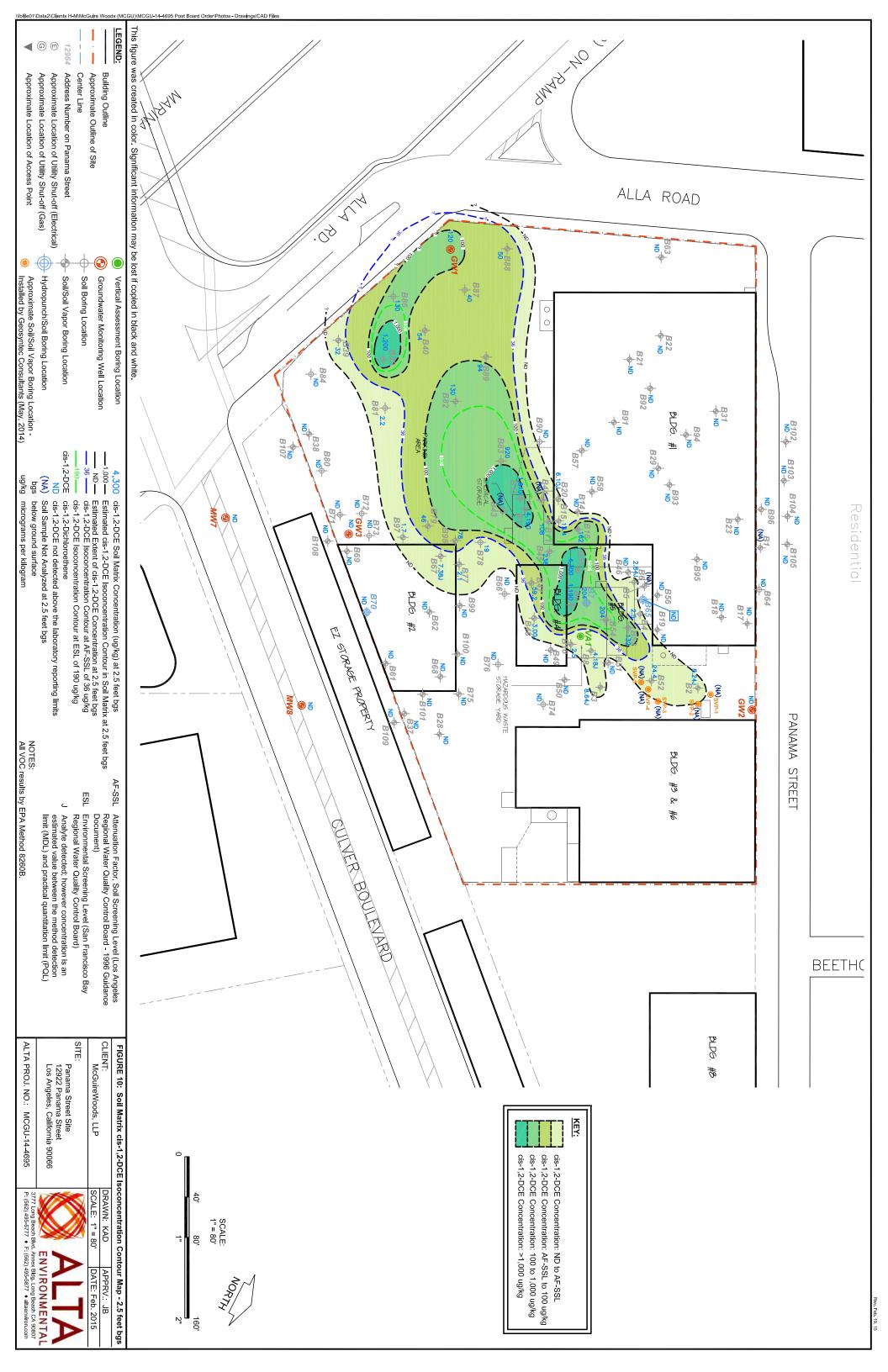


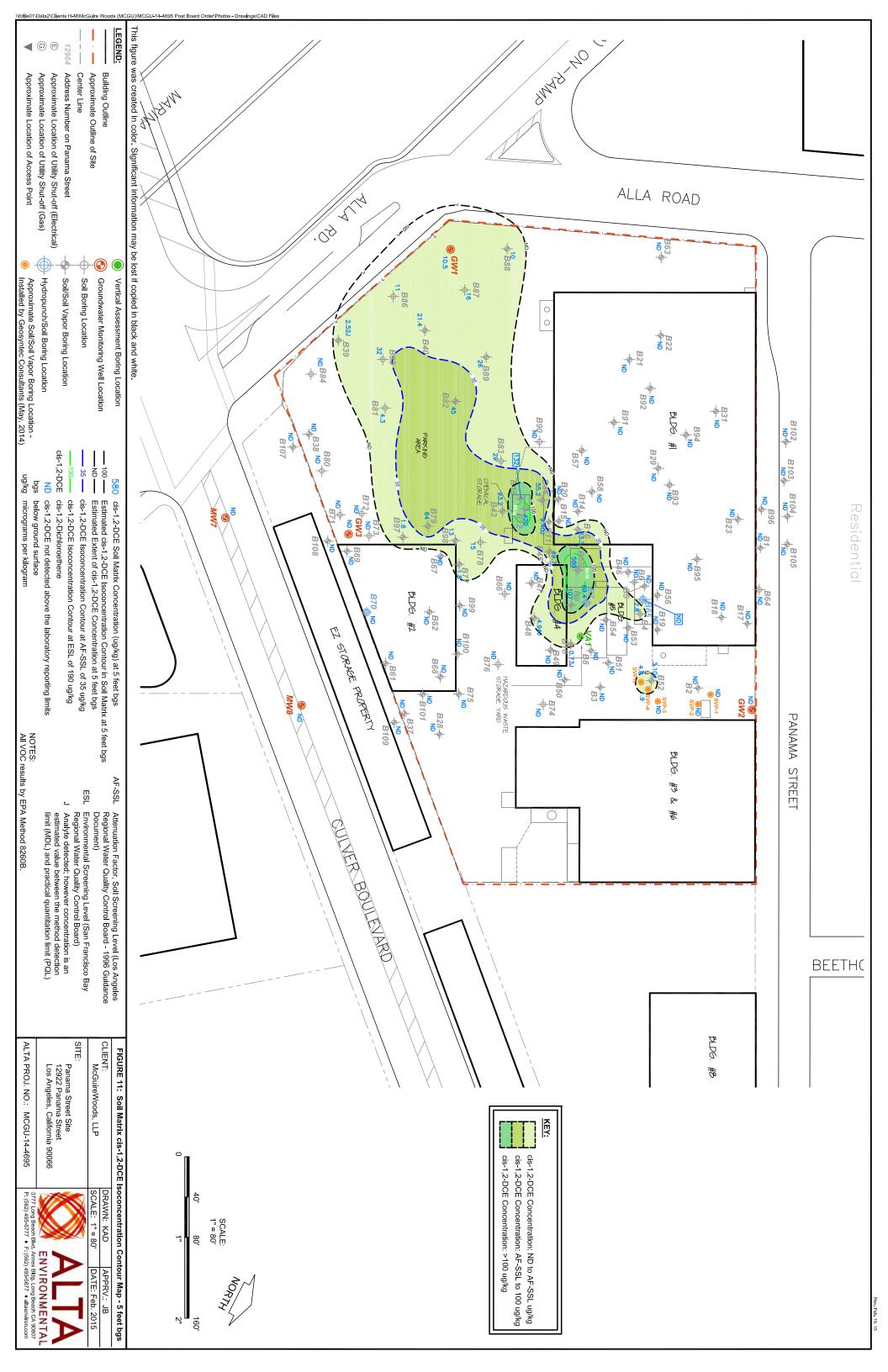


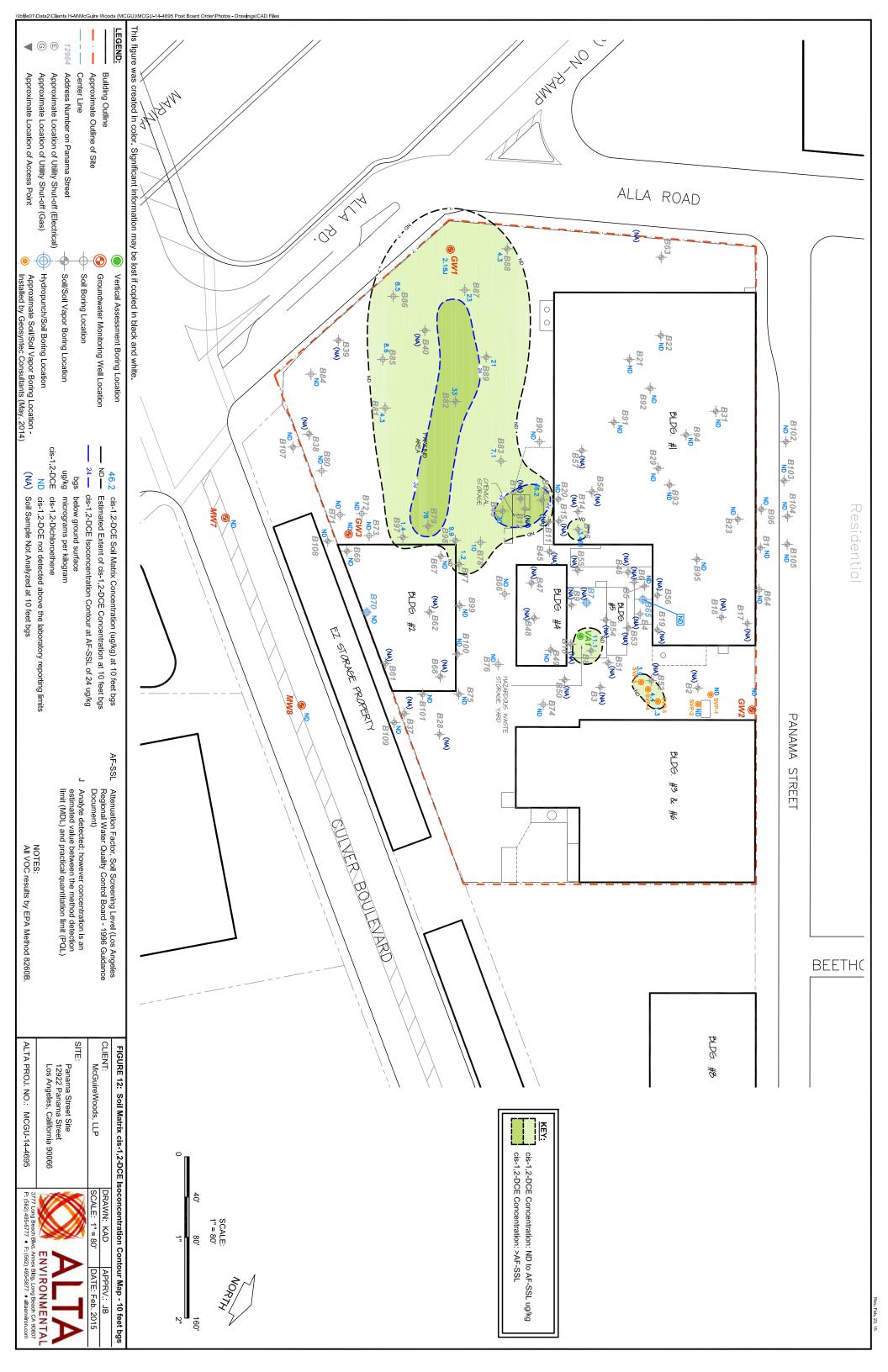


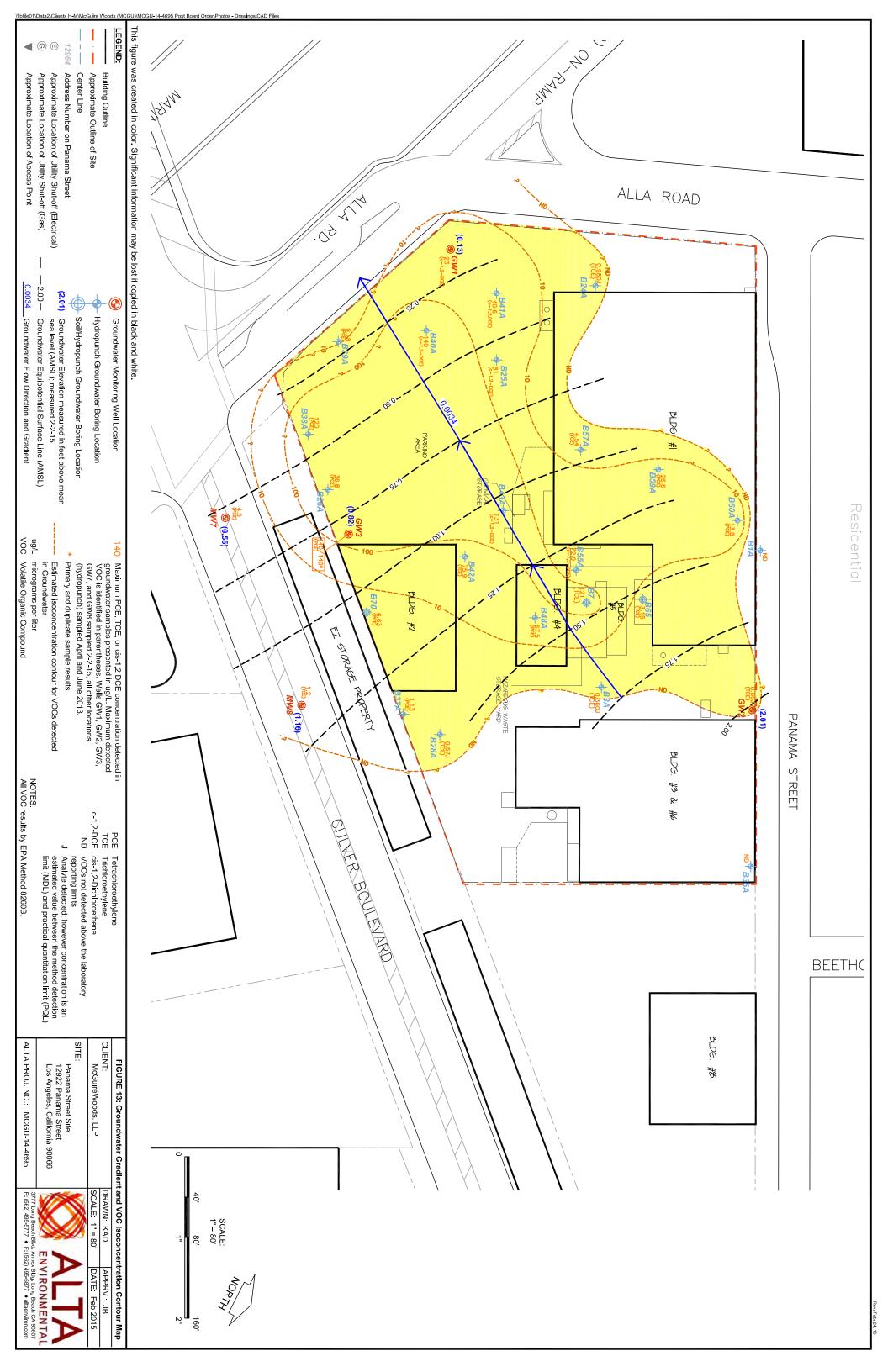












# **APPENDIX A LADPW** and Public Health Permits

City of Los Angeles Dept. of Public Works Bureau of Engineering 78-3.652 (R9-89)

APPLICATION / PERMIT FOR EXCAVATION
IN OR ADJACENT TO PUBLIC STREETS
UNDER CHAPTER 6, ARTICLE 2, LOS ANGELES MUNICIPAL CODE

100 4000500						EGISTER VALIDATED OR RECEIPT SHOWN					
JOB ADDRESS  12922 Panama	St. Los Angeles	CA			RECEIPT NO.						
PROPERTY OW		-	IT FOR								
Alta Environme		TOWAGEN	II I OIX				ur soilboring, locat				
ADDRESS							gs in Caltrans right Taffic control per				
3777 Long Beac	h Blvd., Annex	Building			Backfill aproved b	y Green Book s	tandards is require	ed. Call for			
CITY Long Beac	ch				inspection before	any work is don	e at 213-485-8384	4.			
STATE	CA	ZIP CODE	<u> </u>	90807							
TELEPHONE	562-495-5777		-								
Purpose of Exca Soilboring	vation										
WORK ORDER NO. LIAB. INS. C.A. NO. INSURANCE EXPIRES											
	654	26	20	015-11-19		QTY	RATE	SUBTOTAL			
				0:00:00:0	E-permit	Q I I	+	OODTOTAL			
"A" PERMIT N	O. SURETY C.A.		MISC.	RECEIPT NO.	Excavation	1	\$425.00	\$425.00			
WAIVER REC. N	NO. MISC. CAS	SH BOND			A-Permit Basic Fee	0	\$265.00	\$0.00			
	N( 296	O.			Revocable Permit	0	\$0.00	\$0.00			
	NOTICE TO	PERMITT	EE		E-Permit Special Eng Fee	0.00	\$145.00	\$0.00			
PERMIT MUST E	RE ON JOB AT A	II TIMES			Special Insp						
THIS PERMIT EX WORK HAS COM	KPIRES 6 MONT MMENCED. (LAI	HS FROM MC 62.02)		ICE UNLESS	Reg Rate / Hr (4 hrs min.)	6	\$95.00	\$570.00			
KEEP SIDEWAL					Tie-Back (Less than 20 ft. below	0	\$605.00	\$0.00			
	INSPECTION	IS REQUI	KED		street surface)	U	\$605.00	\$0.00			
I hereby agree to the City of Los Ar requirements ma	ngeles, all amend	Iments there			Tie Back (20 ft. or more below street surface)	0	\$605.00	\$0.00			
Call Bureau of C commencing wo			rinspec	ction prior to	Left De-Tensioned Anc Rods/Ea	0	\$2,040.00	\$0.00			
X					Street Damage Restoratn-SDRF	0	\$0.00	\$0.00			
PRINT NAME					Slurry Seal Damage Restrtn Fee-SSDRF	0 sq. ft.					
Alta Environmer	ntal LP				SDRF/SSDRF Eng Admin	0	\$18.00	\$0.00			
					2% SURCHARGE			\$19.90			
					7% SURCHARGE			\$69.65			
					TOTAL			\$1,084.55			
					Ма	BY ryam Azarbayja	ani	DATE 12/12/2014			
						AU OF ENGINEE	ERING				
					STREETS AFFEC						
JOB ADDRESS 12922 Panama S	st., Los Angeles	CA			SPECIAL DEPO: E-1485-0066	SIT PERMIT NO	).				
					<u> </u>						

#### **GENERAL CONDITIONS:**

WORK IN PUBLIC RIGHT OF WAY IS ALLOWED ONLY BETWEEN THE HOURS OF 9:00 A.M. AND 3:30 P.M.

PERMITTEE SHALL STOP WORK AND CONTACT THE PERMITTING AGENCY PRIOR TO CUTTING OR EXCAVATING ANY DECORATIVE SIDEWALK, PAVEMENT, OR CROSSWALK.

ANY DAMAGE TO DECORATIVE SIDEWALK, PAVEMENT, OR CROSSWALK MUST BE REPAIRED IN KIND OR RECONSTRUCTED IN KIND BY THE PERMITTEE, AS DIRECTED BY THE PERMITTING AGENCY, IN A MANNER SATISFACTORY TO THE CITY ENGINEER AND THE INSPECTOR OF PUBLIC WORKS.

#### **INSPECTION**

# CALL BUREAU OF CONTRACT ADMINISTRATION FOR INSPECTION PRIOR TO COMMENCING WORK.

BUREAU OF CONTRACT ADMINISTRATION INSPECTION WORK MUST BE REQUESTED NO LATER THAN NOON OF PRECEDING WORK DAY. THE NUMBERS TO CALL FOR THE INSPECTION ARE:

JOB LOCATIONS IN SAN FERNANDO VALLEY: (818) 374-1188

JOB LOCATIONS NOT IN SAN FERNANDO VALLEY: (213) 485-5080

CALL FOR INSPECTION OF PERMANENT RESURFACING NO LATER THAN NOON OF THE PRECEDING WORK DAY.

City of Los Angeles Dept. of Public Works Bureau of Engineering 78-3.652 (R9-89)

APPLICATION / PERMIT FOR EXCAVATION
IN OR ADJACENT TO PUBLIC STREETS
UNDER CHAPTER 6, ARTICLE 2, LOS ANGELES MUNICIPAL CODE

	ı ı	INIS PERIVITI IS NO	I VALID UNLESS REC	EGISTER VALIDATED OR RECEIPT SHOWN					
JOB ADDRESS	St Loe	Angeles, CA (Alla F	Road/Culver Blvd )	RECEIPT NO.					
		ONTRACTOR/AGEN	•						
Alta Environmen		JN I RAC I UR/AGEN	TFOR			o monitoring wells ells constructed in			
ADDRESS	h Dhai	A Desilations		of way are not pa	rt of this permit.	Please call inspec			
		Annex Building		is done at 213-48	5-5080.				
CITY Long Beac		Izin cons							
	CA	ZIP CODE	90807						
	562-495	5-5777							
Purpose of Excaving Well									
WORK ORDER N	IO. L	IAB. INS. C.A. NO.	INSURANCE EXPIRES						
ER400259		65426	2015-11-19 00:00:00.0		QTY	RATE	SUBTOTAL		
"A" PERMIT NO	O	SURETY BOND C.A. NO.	MISC. RECEIPT NO.	E-permit Excavation	0	\$425.00	\$0.00		
				A-Permit Basic Fee	0	\$265.00	\$0.00		
WAIVER REC. N	10. M	ISC. CASH BOND NO.		Revocable		+			
		29686		Permit	0	\$0.00	\$0.00		
	NOTI	CE TO PERMITTI	EE	E-Permit Special Eng Fee	0.00	\$145.00	\$0.00		
PERMIT MUST BE ON JOB AT ALL TIMES. THIS PERMIT EXPIRES 6 MONTHS FROM ISSUANCE UNLESS WORK HAS COMMENCED. (LAMC 62.02)				Special Insp Reg Rate / Hr (4 hrs min.)	0	\$95.00	\$0.00		
KEEP SIDEWALKS AND GUTTERS CLEAR.  INSPECTION IS REQUIRED				Tie-Back (Less than 20 ft. below street surface)	0	\$605.00	\$0.00		
	ngeles, a	all amendments there	the Municipal Code of eto, and any special	Tie Back (20 ft. or more below street surface)	0	\$605.00	\$0.00		
Call Bureau of C commencing wo			inspection prior to	Left De-Tensioned Anc Rods/Ea	0	\$2,040.00	\$0.00		
x				Street Damage Restoratn-SDRF	0	\$0.00	\$0.00		
PRINT NAME				Slurry Seal Damage Restrtn Fee-SSDRF	0 sq. ft.				
Alta Environmen	Ital LP			SDRF/SSDRF Eng Admin	0	\$18.00	\$0.00		
				2% SURCHARGE			\$1.00		
				7% SURCHARGE			\$1.00		
				TOTAL			\$2.00		
				Ма	BY ryam Azarbayja	ani	DATE 12/12/2014		
					AU OF ENGINE	ERING			
IOD ADDDESS				STREETS AFFEC					
JOB ADDRESS 12922 Panama S	t., Los A	Angeles, CA (Alla R	load/Culver Blvd.)	SPECIAL DEPOS E-1485-0067	SII PERMIT NO	).			

#### **GENERAL CONDITIONS:**

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ANY DAMAGE TO DECORATIVE SIDEWALK, PAVEMENT, OR CROSSWALK MUST BE REPAIRED IN KIND OR RECONSTRUCTED IN KIND BY THE PERMITTEE, AS DIRECTED BY THE PERMITTING AGENCY, IN A MANNER SATISFACTORY TO THE CITY ENGINEER AND THE INSPECTOR OF PUBLIC WORKS.

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CALL FOR INSPECTION OF PERMANENT RESURFACING NO LATER THAN NOON OF THE PRECEDING WORK DAY.





DATE: 10-29-2014

## **Drinking Water Program**

5050 Commerce Drive, Baldwin Park, CA 91706
Telephone: (626) 430-5420 • Facsimile: (626) 813-3013 • Email: waterquality@ph.lacounty.gov
http://publichealth.lacounty.gov/eh/ep/dw/dw main.htm

# **Work Plan Approval**

TO BE COMPLETED BY APPLICANT:

WORK SITE ADDRESS	CITY	ZIP	EMAIL ADDRESS FOR WELL PERMIT APPROVAL
12922 Panama St		90066	
12922 Panama St	Los Angeles	90000	Jonathan.barkman@altaenviron.com

#### NOTICE:

- WORK PLAN APPROVALS ARE VALID FOR 180 DAYS. 30 DAY EXTENSIONS OF WORK PLAN APPROVALS ARE CONSIDERED ON AN INDIVIDUAL (CASE-BY-CASE) BASIS AND MAY BE SUBJECT TO ADDITIONAL PLAN REVIEW FEES (HOURLY RATE AS APPLICABLE).
- WORK PLAN MODIFICATIONS MAY BE REQUIRED IF WELL AND GEOLOGIC CONDITIONS ENCOUNTERED AT THE SITE INSPECTION ARE FOUND TO DIFFER FROM THE SCOPE OF WORK PRESENTED TO THE DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM.
- WORK PLAN APPROVALS ARE LIMITED TO COMPLIANCE WITH THE CALIFORNIA WELL STANDARDS AND THE LOS ANGELES COUNTY CODE AND DOES NOT
  GRANT ANY RIGHTS TO CONSTRUCT, RENOVATE, OR DECOMMISSION ANY WELL. THE APPLICANT IS RESPONSIBLE FOR SECURING ALL OTHER
  NECESSARY PERMITS SUCH AS WATER RIGHTS, PROPERTY RIGHTS, COASTAL COMMISSION APPROVALS, USE COVENANTS, ENCROACHMENT
  PERMISSIONS, UTILITY LINE SETBACKS, CITY/COUNTY PUBLIC WORKS RIGHTS OF WAY, ETC.
- ALL FIELD WORK MUST BE CONDUCTED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL GEOLOGIST LICENSED IN THE STATE OF CALIFORNIA.
- THIS PERMIT IS NOT COMPLETE UNTIL ALL OF THE FOLLOWING REQUIREMENTS ARE SIGNED BY THE DEPUTY HEALTH OFFICER. WORK SHALL NOT BE INITIATED WITHOUT A WORK PLAN APPROVAL STAMPED BY THE DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM.
- ONCE APPROVED NOTIFY BELINDA LARSEN AT <u>blarsen@ph.lacounty.gov</u> PREFERABLY 4 BUSINESS DAYS BEFORE WORK IS SCHEDULED TO BEGIN.

#### TO BE COMPLETED BY DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM:

X WORK PLAN APPROVED
ADDITIONAL APPROVAL CONDITIONS:

On 10-23-2014 \$ 3,114.00 was paid for permit # 893602 to construct 6 monitoring wells. Follow the work plan submitted and maintain any setback requirements. Follow all requirements set-forth in the California Well Standards bulletin (74-90). Notify me by e-mail prior to start of work at blarsen@ph.lacounty.gov.



□ ANNULAR SEAL FINA	INSPECTION REQUIRED	WELL COMPLETION L	OG REQUIRED
DATE ACCEPTED:	REHS signature	DATE ACCEPTED:	REHS signature
□ WATER QUALITY—BA	CTERIOLOGICAL STANDARDS REQUIRED	□ WATER QUALITY—CH	EMICAL STANDARDS REQUIRED
DATE ACCEPTED:	REHS signature	DATE ACCEPTED:	REHS signature
□ WATER SUPPLY YIEL	D REQUIRED	OTHER REQUIREMEN	T
DATE ACCEPTED:	REHS signature	DATE ACCEPTED:	REHS signature





## **Drinking Water Program**

5050 Commerce Drive, Baldwin Park, CA 91706

Telephone: (626) 430-5420 • Facsimile: (626) 813-3013 • Email: waterquality@ph.lacounty.gov http://publichealth.lacounty.gov/eh/ep/dw/dw main.htm

# **Service Request Application**

SERVICE	FEE		QTY		TOTALS
PRODUCTION WELLS					
□ residential drinking water, □ public/municipal, □ irrigation, □ cathodic					
□ Construction	\$ 844.00	×		= \$	
□ Decommission □ Renovation	\$ 1103.00	×		= \$	
NON-PRODUCTION WELLS □ Construction, □ Decommission					
$\square$ monitoring, $\square$ piezo, $\square$ injection, $\square$ water extraction, $\square$ sparge, $\square$ test					
each well, first 24 wells	\$ 519.00	×	6	= \$	\$3,114
each additional well starting with the 25 <sup>th</sup>	\$ 130.00	×		= \$	
CPT/HYDROPUNCH/SOIL BORINGS INTO GROUNDWATER (contact the Drinking Water Program for projects of 25 borings or more)	\$ 130.00	×		= \$	
GEOTHERMAL HEAT EXCHANGE WELLS	\$ 519.00	×		= \$	
WELL SITE PLAN REVIEW	\$ 584.00	×		= \$	_
WATER SUPPLY YIELD EVALUATION commercial facility	\$ 1038.00	×		= \$	-
WATER SUPPLY YIELD EVALUATION residential (1-4 service connections)	\$ 844.00	×		= \$	
WATER SUPPLY YIELD EVALUATION Public Water Systems (5 or more service connections)	\$ 519.00	×		= \$	
WATER TREATMENT SYSTEM EVALUATION	\$ 519.00	×		= \$	
WATER SAMPLING commercial food service facility for USDA certification	\$ 714.00	×		= \$	-

Applications are nontransferable. Field Personnel cannot accept payments. DO NOT SEND CASH.

Make checks or money orders payable to:

#### LOS ANGELES COUNTY DEPARTMENT OF PUBLIC HEALTH

Allow **10** business days for work plan review and response. Cancellations of service requests are subject to a \$65.00 processing fee plus additional plan review fees (hourly rate as applicable).

12922 Panama Street	Los Angeles	CA	Alla Road	10/23/2014
WORK SITE ADDRESS	CITY	ZIP	CROSS STREET/PARCEL#	DATE

All application status inquiries should be emailed to waterquality@ph.lacounty.gov with the work site address above.

CONTACT OFFICE	DEPARTME	ENT STAMP
	DATE:	CHECK#
SITE/PERMIT# INSPECTOR:	RECEIPT#	AMOUNT: \$

Revised: October 2012





## **Drinking Water Program**

5050 Commerce Drive, Baldwin Park, CA 91706

Telephone: (626) 430-5420 • Facsimile: (626) 813-3013 • Email: waterquality@ph.lacounty.gov

http://publichealth.lacounty.gov/eh/ep/dw/dw\_main.htm

## Well Permit Application

	VVCII		Applic	ation				
work site address 12922 Panama Street	Los An	geles		<sup>ZIP</sup> 90066	NUMBER OF WELLS 6	START DATE 11/17/14		
	OWNER			EMAIL				
Greenberg Glusker Fields Claman &	Machtinger LLP, I	David E. Cran	ston	DCranston@g	greenbergglusker.co	m		
ADDRESS	CITY			ZIP	TELEPHONE	TELEPHONE		
1900 Avenue of the Stars, 21st Flr.	Los Ang	eles		90067	310-785-6897	310-785-6897		
DRILLEF	<b>R</b>		PROJECT CON	NTACT	C-57 LICENSE NU	JMBER		
Cascade Drilling, LP		Tracy Sp		938110				
ADDRESS			CITY		ZIP			
1333 West 9th Street			Upland					
EMAIL			TELEPHONE		MOBILE			
tspilotro@cascadedrilling.	com		562-929	-8176				
CONSULTA	NT		PROJECT CON	NTACT	PROJECT MANAC	GER		
Alta Environmental			Reid Shig	eno	Jonathan B	arkman		
ADDRESS			CITY		ZIP			
3777 Long Beach Blvd., Anne	ex Building		Long Bea	ch	90807			
EMAIL			TELEPHONE		MOBILE			
jonathan.barkman@altaenvir	on.com		562-495-5	5777	310-920-8	404		
ATTACH ALL SUPPORTING DOCUME	NTS, INCLUDING:							
☑ written narrative describing wo	ork plan details							
☑ vertical well diagram detailing seal, (3) the screens/slotting,	•				e casing, (2) the a	nnular (sanitary)		
	•	_			water features, bl	ue line streams,		
FOR WELL DECOMMISSION:	□ well construct	ion logs, 🗆	the method	l of assessme	nt, □ type and am	nount of sealant,		
and $\square$ the method of upper se	eal pressure appl	lication (inclu	ıding PSI aı	nd time applied	d)			
PRODUCTION W	ELLS .			NON-F	PRODUCTION WELLS			
☐ PUBLIC (MUNICIPAL UTILITY) ☐ PF	RIVATE RESIDENCE		MONITOR	RING	☐ PIEZOMETER			
☐ IRRIGATION ☐ CA	ATHODIC PROTECTION	V.			☐ WATER EXTR			
☐ GEOTHERMAL HEAT EXCHANGE			☐ AIR SPAF			RE-PRODUCTION)		
□ OTHER			☐ HYDROP		☐ CONE PENETI	ROMETER (CPT)		
				RING INTO GROUN	DWATER			
NAME OF C-57 LICENSEE			NAME OF A		I I amadhan Di			
CIONATUDE					I - Jonathan Ba	rkman		
SIGNATURE		SIGNATURE						

BY SIGNING ABOVE, I HEREBY AGREE TO COMPLY IN EVERY RESPECT WITH ALL THE REGULATIONS, ORDINANCES, AND LAWS OF THE STATE OF CALIFORNIA, THE COUNTY OF LOS ANGELES, THE DEPARTMENT OF PUBLIC HEALTH, AND THE ENVIRONMENTAL HEALTH DRINKING WATER PROGRAM.

Revised: October 2012





#### **Drinking Water Program**

5050 Commerce Drive, Baldwin Park, CA 91706
Telephone: (626) 430-5420 • Facsimile: (626) 813-3013 • Email: waterquality@ph.lacounty.gov
http://publichealth.lacounty.gov/eh/ep/dw/dw main.htm

# Well Permit Approval

TO BE COMPLETED BY APPLICANT:

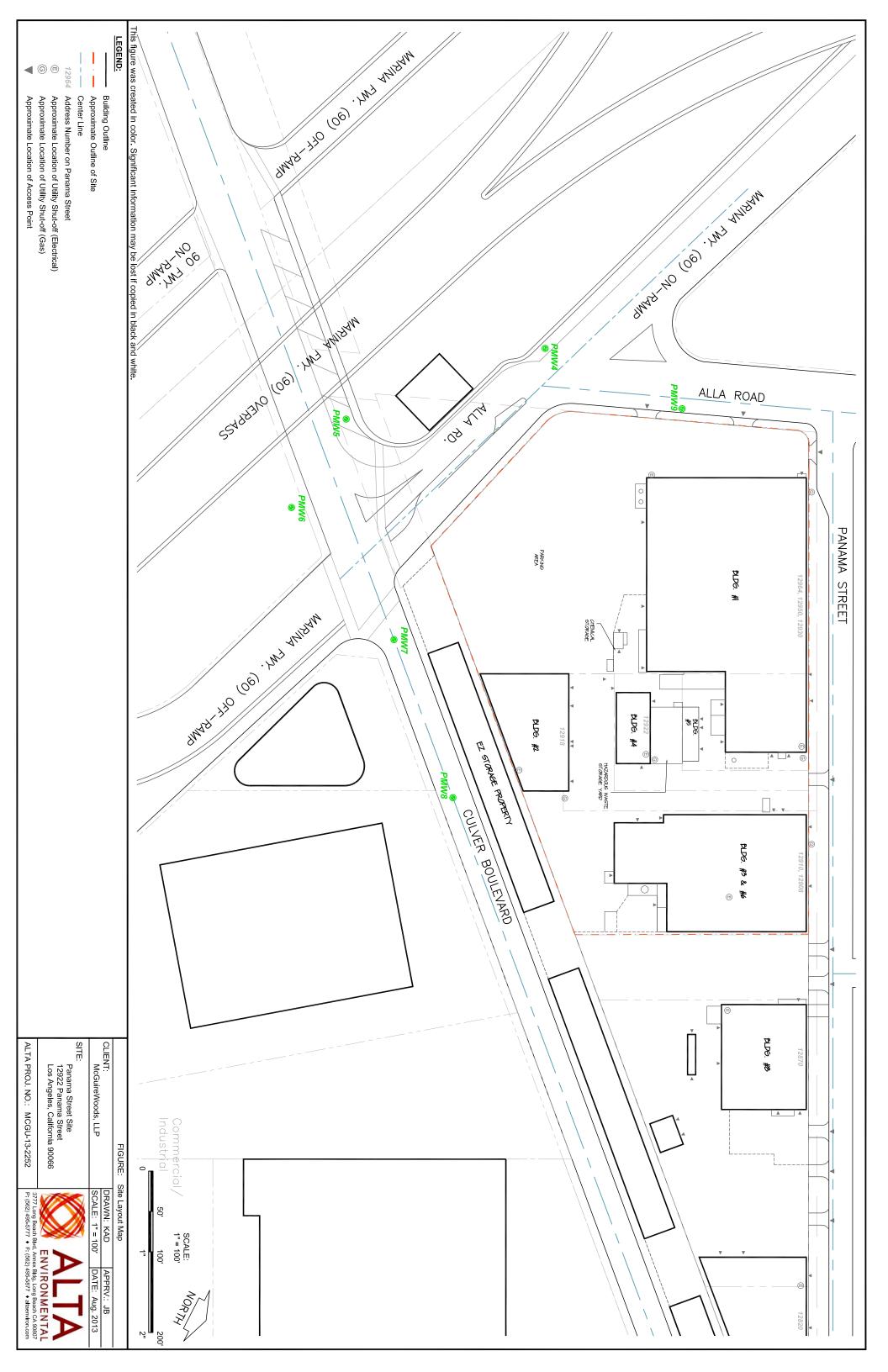
WORK SITE ADDRESS	CITY	ZIP	EMAIL ADDRESS FOR WELL PERMIT APPROVAL						
12922 Panama Street	Los Angeles	90066	jonathan.barkman@altaenviron.com						

#### NOTICE:

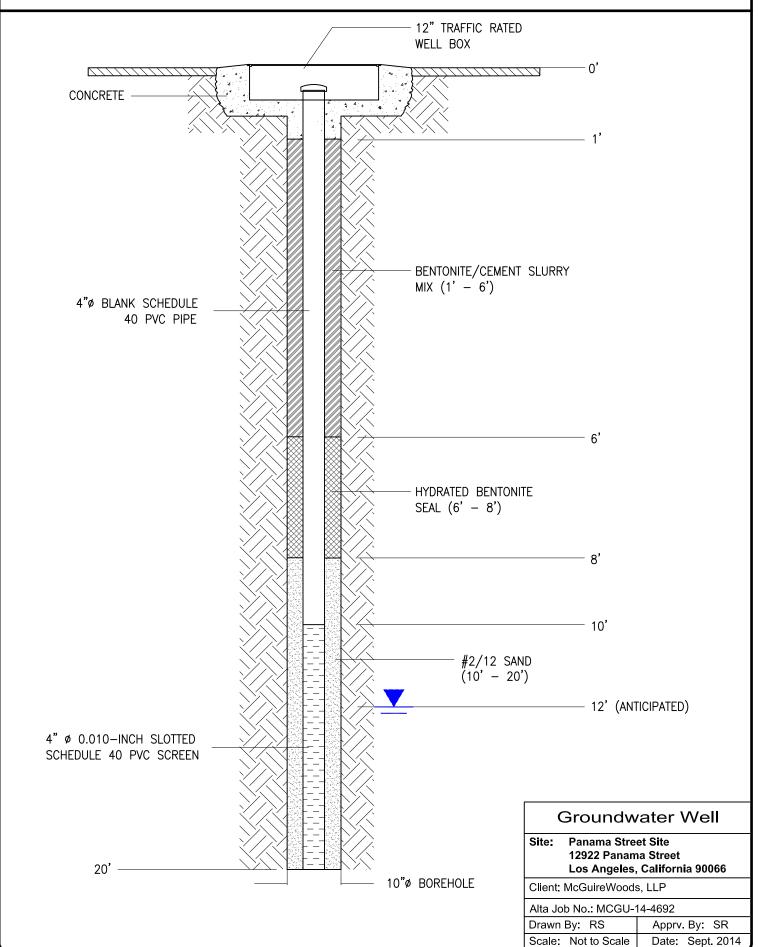
- WORK PLAN APPROVALS ARE VALID FOR 180 DAYS. 30 DAY EXTENSIONS OF WORK PLAN APPROVALS ARE CONSIDERED ON AN INDIVIDUAL (CASE-BY-CASE) BASIS AND MAY BE SUBJECT TO ADDITIONAL PLAN REVIEW FEES (HOURLY RATE AS APPLICABLE).
- WORK PLAN MODIFICATIONS MAY BE REQUIRED IF WELL AND GEOLOGIC CONDITIONS ENCOUNTERED AT THE SITE INSPECTION ARE FOUND TO DIFFER
  FROM THE SCOPE OF WORK PRESENTED TO THE DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM.
- THIS WELL PERMIT APPROVAL IS LIMITED TO COMPLIANCE WITH THE CALIFORNIA WELL STANDARDS AND THE LOS ANGELES COUNTY CODE AND DOES
  NOT GRANT ANY RIGHTS TO CONSTRUCT, RENOVATE, OR DECOMMISSION ANY WELL. THE APPLICANT IS RESPONSIBLE FOR SECURING ALL OTHER
  NECESSARY PERMITS SUCH AS WATER RIGHTS, PROPERTY RIGHTS, COASTAL COMMISSION APPROVALS, USE COVENANTS, ENCROACHMENT
  PERMISSIONS, UTILITY LINE SETBACKS, CITY/COUNTY PUBLIC WORKS RIGHTS OF WAY, ETC.
- ALL FIELD WORK MUST BE CONDUCTED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL GEOLOGIST LICENSED IN THE STATE OF CALIFORNIA.
- THIS PERMIT IS NOT COMPLETE UNTIL ALL OF THE FOLLOWING REQUIREMENTS ARE SIGNED BY THE DEPUTY HEALTH OFFICER. WORK SHALL NOT BE INITIATED WITHOUT A WORK PLAN APPROVAL STAMPED BY THE DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM.
- NOTIFY THE DRINKING WATER PROGRAM BY EMAIL 3 BUSINESS DAYS BEFORE WORK IS SCHEDULED TO BEGIN.

TO BE C	TO BE COMPLETED BY DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM:									
☐ WORK PLAN INCOMPLETE; SUBMIT THE FOLLOWING:	☐ WORK PLAN APPROVED	)	DATE:							
OODWIT THE FOLLOWING.	Los Angeles County Drinking Water s	stamp	ADDITIONAL APPROVAL CONDITIONS:							
☐ ANNULAR SEAL FINAL INSPECTION RE	OLURED		LOG REQUIRED							
DATE ACCEPTED: REHS sig		DATE ACCEPTED:	REHS signature							
☐ WATER QUALITY—BACTERIOLOGICAL			HEMICAL STANDARDS REQUIRED							
DATE ACCEPTED: REHS sig	nature	DATE ACCEPTED:	REHS signature							
☐ WATER SUPPLY YIELD REQUIRED		□ OTHER REQUIREMENT								
DATE ACCEPTED: REHS sig	nature	DATE ACCEPTED:	REHS signature							
Davida a de Oatala a a 0040										

Revised: October 2012



# GROUNDWATER MONITORING WELL CONSTRUCTION DIAGRAM



# **APPENDIX B**

**Boring Logs** 

LOCATION Panama Street. Los Angeles, California  DRILLING METHOD Hand-auger  SAMPLING METHOD Hand-auger  BORING DIAMETER 4"  BORING DEPTH (FT BGS) 6.75 WELL DEPTH (FT BGS) 3' & 6.5 LOGGED BYSR CHECKED BY SR  REMARKS PID calibrated to 50 ppm hexane, hand augered borings to total process of the company of t									SLOT SIZE NA SCREEN INTERVAL NA GRAVEL PACK TYPE #3 Sand  DRILLING CONTRACTOR Interphase Environmental  DEPTH TO WATER DURING DRILLING (FT BGS) NA  DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA		
WELL-MOURIED MICCO-14-4899 PANAMA STREET GPJ WELL-GDT 24/TS	B102-2.5			CH			1/4" Teflon Tubing (typical)  Dry granular bentonite (typical)  Sand pack (#3 Sand - typical)  Seal (hydrated bentonite chips)  Dry granular bentonite (typical)  1/4" Soil-gas implant (typical)	1.7	Silty Clay, dark brown, moist to very moist, stiff, moderate plasticity, no odor, no staining (likely fill)  Silty Fat Clay, dark brown, very moist, high plasticity, stiff, no odor, no staining (likely fill)  Boring terminated at 6'9" bgs due to refusal.  Moved boring 3 feet to the northwest and redrilled, same obstruction encountered at 6'9". Set 6"- diameter well box at the surface.  No groundwater encountered.		

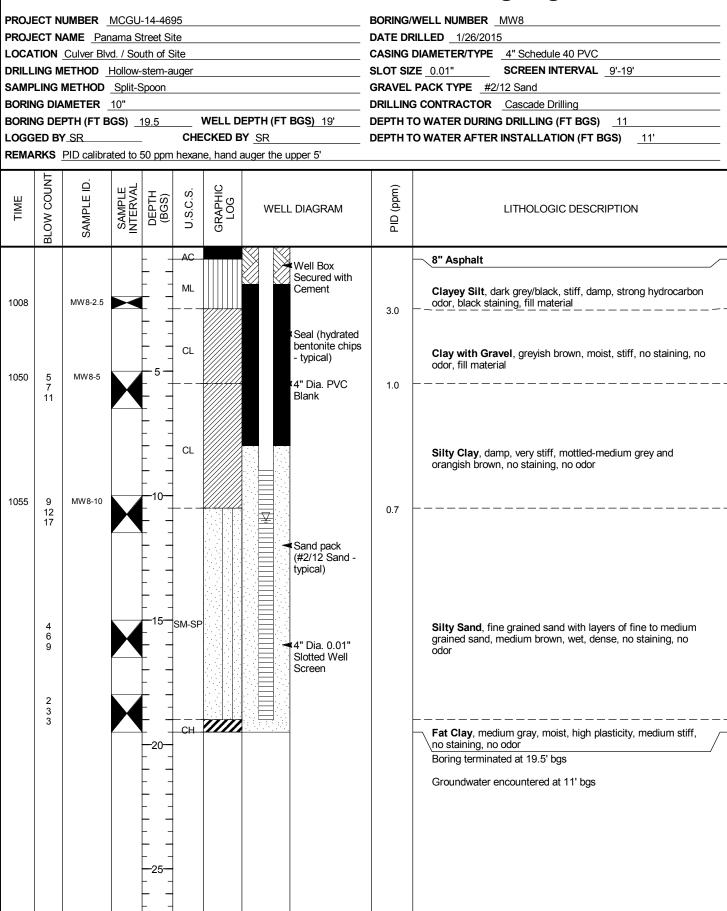
DRILL SAMF BORII BORII LOGG	PROJECT NAME Panama Street site  LOCATION Panama Street. Los Angeles, California  DRILLING METHOD Hand-auger  SAMPLING METHOD Hand-auger  BORING DIAMETER 4"  BORING DEPTH (FT BGS) 6.5 WELL DEPTH (FT BGS)3' & 6.5  LOGGED BYSR CHECKED BY SR  REMARKS PID calibrated to 50 ppm hexane, hand augered borings to tot.  WELL DIAGRAM  WELL DIAGRAM									CASING DIAMETER/TYPE N/A  SLOT SIZE NA SCREEN INTERVAL NA  GRAVEL PACK TYPE #3 Sand  DRILLING CONTRACTOR Interphase Environmental  DEPTH TO WATER DURING DRILLING (FT BGS) NA  DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA			
1355	5 B103-2.5  CH  Dry grabentonic (typical Sand - Seal (h bentonic chips - Dry grabentonic (typical Sand - Seal (h bentonic chips - Dry grabentonic (typical Sand - Seal (h bentonic chips - Seal (h b					1/4" Teflon Tubing (typical)  Dry granular bentonite (typical)  Sand pack (#3 Sand - typical)  Seal (hydrated bentonite chips - typical)  Dry granular bentonite (typical)  1/4" Soil-Gas Implant (typical)	#3 0.0 ed al) 0.0	Silty Fat Clay, dark brown, high plasticity, moist to very moist, stiff, scattered coarse sand, no odor, no staining (likely fill)  Boring terminated at 6.75' bgs due to refusal.					
WELL-MODIFIED MCGU-14-4695 PANAMA STREET.GPJ WELL.GDT 2/4/15										Set 6" diameter well box at surface.  No groundwater encountered.			

DRILLING MET SAMPLING ME BORING DIAM BORING DEPT LOGGED BYSI REMARKS PID	E Panama : nama Street. HOD Hand- THOD Hand ETER 4" H (FT BGS)	Street s Los Ar auger I-auger 10.5 - 5 50 pp	site ngeles, Calif	DEPTH (FT BGS)4' & 8' BY SR and augered borings to total	DATE DRILLED 1/15/2015  CASING DIAMETER/TYPE N/A  SLOT SIZE NA SCREEN INTERVAL NA  GRAVEL PACK TYPE #3 Sand  DRILLING CONTRACTOR Interphase Environmental  DEPTH TO WATER DURING DRILLING (FT BGS) 9  DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA			
1330 B1	04-2.5	5	AC CL	1/4" Teflon Tubing (typical)  Dry granular bentonite (typical)  Sand pack (#3 Sand - typical)  Seal (hydrated bentonite chips - typical)  Dry granular bentonite (typical)  1/4" Soil-Gas Implant (typical)	0.0	Silty Clay, dark brown, moist to very moist, stiff, mottled, becoming sandy at approx. 5' bgs, no staining, no odor (likely fill)  Sandy Fat Clay medium brown, medium stiff, high plasticity, mottled, scattered well-rounded coarse sand and gravel, becoming more wet with depth, no staining, no odor  Boring terminated at 10.5' bgs.  Set 6" well box at surface.  Groundwater encountered at 9' bgs.		

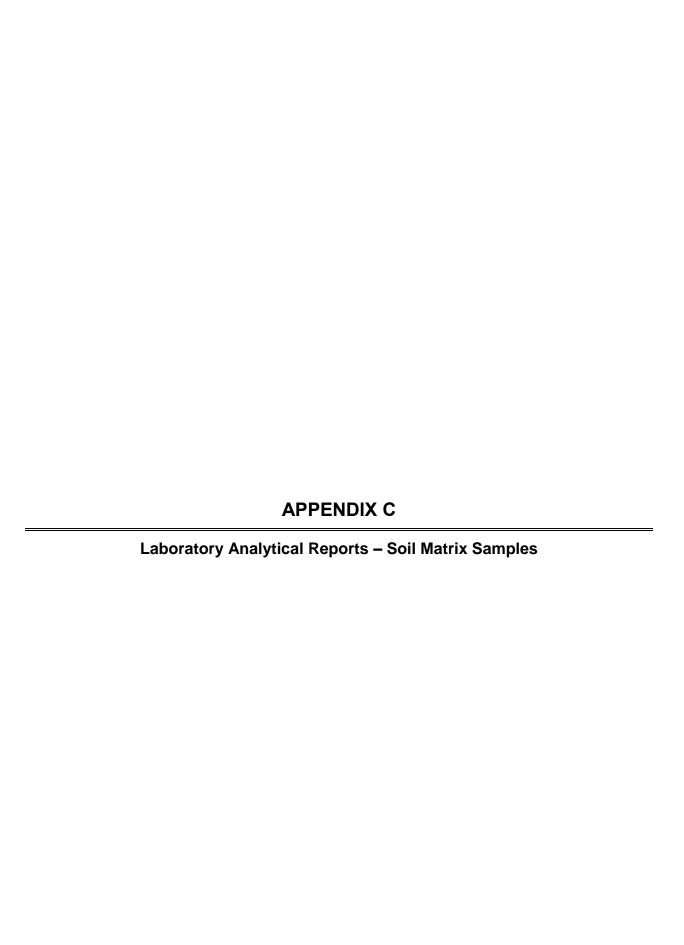
PROJ LOCA DRILL SAMP BORIN BORIN	ECT I TION ING I LING NG DI NG DI	METHOD METHOD AMETER EPTH (FT YSR	nama S Street. Hand-a ) Hand 4" BGS)	Street s Los Ar auger -auger 10.5	ngeles CHE	, Californ	EPTH (F1 3Y SR d augered	Г BGS)4' & 8'	DATE DRILLED _1/15/2015  CASING DIAMETER/TYPE N/A  SLOT SIZE NA SCREEN INTERVAL NA  GRAVEL PACK TYPE #3 Sand  DRILLING CONTRACTOR Interphase Environmental  DEPTH TO WATER DURING DRILLING (FT BGS) 10  DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA		
1035		B105-2.5			CL			1/4" Teflon Tubing (typical)  Dry granular bentonite (typical)  Sand pack (#3 Sand - typical)  Seal (hydrated bentonite chips - typical)	#3 al)	7" Concrete  Silty Clay, medium to dark brown, mottled, moist, stiff, no staining, no odor (likely fill)	
WELL-MODIFIED MICGU-14-4695 PANAMA STREET.GPJ WELL.GDT 2/4/15 T G		B105-10			СН			Dry granular bentonite (typical) 1/4" Soil-Gas Implant (typical)	0.0	Silty Fat Clay, medium brown, very moist, stiff, sticky, no staining, no odor  Boring terminated at 10.5' bgs.  Set 6" well box at surface.  Groundwater encountered at 10' bgs.	

PROJECT NUMBER MCGU-14-4695 **BORING/WELL NUMBER** MW7 PROJECT NAME Panama Street Site **DATE DRILLED** 1/26/2015 CASING DIAMETER/TYPE 4" Schedule 40 PVC LOCATION Culver Blvd. / South of Site DRILLING METHOD Hollow-stem-auger SLOT SIZE 0.01" SCREEN INTERVAL 9'-19' SAMPLING METHOD Split-Spoon GRAVEL PACK TYPE #2/12 Sand **BORING DIAMETER** 10" **DRILLING CONTRACTOR** Cascade Drilling BORING DEPTH (FT BGS) 19.5 WELL DEPTH (FT BGS) 19' **DEPTH TO WATER DURING DRILLING (FT BGS)** LOGGED BY SR **CHECKED BY SR DEPTH TO WATER AFTER INSTALLATION (FT BGS)** 11' REMARKS PID calibrated to 50 ppm hexane, hand auger the upper 5' **BLOW COUNT** SAMPLE ID. SAMPLE INTERVAL GRAPHIC LOG PID (ppm) U.S.C.S. DEPTH (BGS) WELL DIAGRAM LITHOLOGIC DESCRIPTION 6" Asphalt Well Box Well Graded Sand with Gravel, medium brown, fine to SW Secured with coarse sand, damp, medium dense, (fill, subbase material), Cement no odor, no staining 1250 MW7-2.5 Clayey Silt, medium grey, damp, stiff, no odor, no staining 2.9 ML Seal (hydrated bentonite chips Silty Clay, medium grey to medium brown, mottled with - typical) orange brown, moist, stiff, no odor, no staining 1320 MW7-5 4" Dia PVC 1.8 10 10 Blank CI Silty Sand, fine grained sand with interbeds of fine to medium grained sand, medium brown, dense, wet, no odor, 1325 MW7-10 no staining 0.5 11 Sand pack (#2/12 Sand typical) 5 4" Dia. 0.01" 10 SM-SP Slotted Well Screen 6 7 Fat Clay, medium grey, stiff, high plasticity, moist, no odor, СН no staining Boring terminated at 19.5' bgs Groundwater encountered at 10' bgs

WELL-MODIFIED MCGU-14-4695 CULVERT ST MWS.GPJ WELL.GDT 2/11/15



WELL-MODIFIED MCGU-14-4695 CULVERT ST MWS.GPJ WELL.GDT





# Calscience

Supplemental Report 1

The original report has been revised/corrected.



# WORK ORDER NUMBER: 15-01-0764

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For** 

Client: Alta Environmental

Client Project Name: Maguire - Woods

Attention: Steve Ridenour

3777 Long Beach Blvd., Annex Building

Long Beach, CA 90802-3335

Vikas Patel

Approved for release on 02/03/2015 by: Vikas Patel

Project Manager



ResultLink > Email your PM >

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



# **Contents**

Client Project Name: Maguire - Woods Work Order Number: 15-01-0764

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4	Quality Control Sample Data.4.1 MS/MSD.4.2 LCS/LCSD.	22 22 24
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6	Glossary of Terms and Qualifiers	28
7	Chain-of-Custody/Sample Receipt Form	29



#### **Work Order Narrative**

Work Order: 15-01-0764 Page 1 of 1

#### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 01/14/15. They were assigned to Work Order 15-01-0764.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

#### **Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

#### **Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

#### **Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New\_York.pdf

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

#### **Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



Client: Alta Environmental

Work Order:

15-01-0764

3777 Long Beach Blvd., Annex Building

Project Name:

Maguire - Woods

Long Beach, CA 90802-3335

Received: 01/14/15

Attn: Steve Ridenour Page 1 of 2

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<b>Extraction</b>
B102-2.5 (15-01-0764-1)						
Arsenic	13.1		0.746	mg/kg	EPA 6010B	EPA 3050B
Barium	158		0.498	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.729		0.249	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.161	J	0.135*	mg/kg	EPA 6010B	EPA 3050B
Chromium	42.0	Ü	0.249	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.8		0.249	mg/kg	EPA 6010B	EPA 3050B
Copper	31.9		0.498	mg/kg	EPA 6010B	EPA 3050B
Lead	4.25		0.498	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.532		0.249	mg/kg	EPA 6010B	EPA 3050B
Nickel	35.3		0.249	mg/kg	EPA 6010B	EPA 3050B
Vanadium	65.8		0.249	mg/kg	EPA 6010B	EPA 3050B
Zinc	81.2		0.995	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0199	J	0.00597*	mg/kg	EPA 7471A	EPA 7471A Total
Acetone	7.8	J	5.5*	ug/kg	EPA 8260B	EPA 5035
B102-5.0 (15-01-0764-2)	7.0	Ü	0.0	ug/kg	217(02008	21 77 0000
Arsenic	13.2		0.746	mg/kg	EPA 6010B	EPA 3050B
Barium	132		0.498	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.730		0.430	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.750	J	0.135*	mg/kg	EPA 6010B	EPA 3050B
Chromium	43.6	J	0.133	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.4		0.249	mg/kg	EPA 6010B	EPA 3050B
Copper	28.4		0.498	mg/kg	EPA 6010B	EPA 3050B
Lead	4.54		0.498	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.562		0.490	mg/kg	EPA 6010B	EPA 3050B
Nickel	35.0		0.249	mg/kg	EPA 6010B	EPA 3050B
Vanadium	64.4		0.249	mg/kg	EPA 6010B	EPA 3050B
Zinc	87.6		0.249	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0220	J	0.995		EPA 7471A	EPA 3030B EPA 7471A Total
Acetone	8.2	J	4.9*	mg/kg ug/kg	EPA 7471A EPA 8260B	EPA 747 TA TOTAL EPA 5035
	0.2 0.13	J	4.9 0.10*		EPA 8260B	EPA 5035 EPA 5035
Benzene	0.13	J	0.10	ug/kg	EFA 020UD	EFA 3033

<sup>\*</sup> MDL is shown

Page 2 of 2

**EPA 3050B** 

EPA 5035

EPA 7471A Total



#### **Detections Summary**

Client: Alta Environmental

Steve Ridenour

Attn:

Client SampleID

Arsenic

Barium

Beryllium

Cadmium

Chromium

Molybdenum

Cobalt

Copper

Lead

Nickel

Zinc

Vanadium

Mercury

Acetone

Work Order:

15-01-0764

3777 Long Beach Blvd., Annex Building

Project Name:

Maguire - Woods

**EPA 6010B** 

EPA 6010B

EPA 6010B

EPA 6010B

EPA 6010B

EPA 6010B

**EPA 6010B** 

EPA 6010B

EPA 6010B

**EPA 6010B** 

EPA 6010B

**EPA 6010B** 

**EPA 7471A** 

EPA 8260B

Long Beach, CA 90802-3335

Received: 01/14/15

<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
B103-2.5 (15-01-0764-3)						
Arsenic	11.8		0.761	mg/kg	EPA 6010B	EPA 3050B
Barium	229		0.508	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.628		0.254	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.569		0.508	mg/kg	EPA 6010B	EPA 3050B
Chromium	39.6		0.254	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.9		0.254	mg/kg	EPA 6010B	EPA 3050B
Copper	28.1		0.508	mg/kg	EPA 6010B	EPA 3050B
Lead	3.79		0.508	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.423		0.254	mg/kg	EPA 6010B	EPA 3050B
Nickel	32.2		0.254	mg/kg	EPA 6010B	EPA 3050B
Vanadium	56.5		0.254	mg/kg	EPA 6010B	EPA 3050B
Zinc	78.5		1.02	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0186	J	0.00597*	mg/kg	EPA 7471A	EPA 7471A Total
Acetone	27	J	5.4*	ug/kg	EPA 8260B	EPA 5035
B103-5.0 (15-01-0764-4)						

0.721

0.481

0.240

0.130\*

0.240

0.240

0.481

0.481

0.240

0.240

0.240

0.962

4.7\*

0.00587\*

mg/kg

ug/kg

Subcontracted analyses, if any, are not included in this summary.

12.7

122

0.610

0.288

39.9

11.1

28.9

3.53

0.771

33.0

58.2

80.2

18

0.0267

J

J

J

<sup>\*</sup> MDL is shown

01/14/15

15-01-0764 EPA 3050B



Zinc

## **Analytical Report**

Alta Environmental Date Received:

3777 Long Beach Blvd., Annex Building Work Order:

Long Beach, CA 90802-3335 Preparation:

81.2

Method: EPA 6010B Units: mg/kg

0.995

0.177

Project: Maguire - Woods Page 1 of 5

Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B102-2.5		15-01-0764-1-A	01/14/15 10:20	Solid	ICP 7300	01/15/15	01/16/15 20:53	150115L02A
Comment(s):	- Results were eva	luated to the MDL (DL), con	centrations >=	to the MDL (	DL) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		Resi	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Antimony		ND		0.746	0.148	0.995		
Arsenic		13.1		0.746	0.258	0.995		
Barium		158		0.498	0.154	0.995		
Beryllium		0.72	9	0.249	0.136	0.995		
Cadmium		0.16	1	0.498	0.135	0.995	J	
Chromium		42.0		0.249	0.142	0.995		
Cobalt		11.8		0.249	0.147	0.995		
Copper		31.9		0.498	0.134	0.995		
Lead		4.25		0.498	0.131	0.995		
Molybdenum		0.53	2	0.249	0.131	0.995		
Nickel		35.3		0.249	0.144	0.995		
Selenium		ND		0.746	0.298	0.995		
Silver		ND		0.249	0.0853	0.995		
Thallium		ND		0.746	0.151	0.995		
Vanadium		65.8		0.249	0.141	0.995		

0.995



Zinc

## **Analytical Report**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: 01/14/15
Work Order: 15-01-0764
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

0.995

Project: Maguire - Woods Page 2 of 5

Client Sample I	Client Sample Number		Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B102-5.0		15-01-0764-2-A	01/14/15 10:52	Solid	ICP 7300	01/15/15	01/16/15 20:55	150115L02A
Comment(s):	- Results were evaluated	to the MDL (DL), con	centrations >=	to the MDL (	DL) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		Resu	<u>ult</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Antimony		ND		0.746	0.148	0.995		
Arsenic		13.2		0.746	0.258	0.995		
Barium		132		0.498	0.154	0.995		
Beryllium		0.73	0	0.249	0.136	0.995		
Cadmium		0.26	9	0.498	0.135	0.995	J	l
Chromium		43.6		0.249	0.142	0.995		
Cobalt		12.4		0.249	0.147	0.995		
Copper		28.4		0.498	0.134	0.995		
Lead		4.54		0.498	0.131	0.995		
Molybdenum		0.56	2	0.249	0.131	0.995		
Nickel		35.0		0.249	0.144	0.995		
Selenium		ND		0.746	0.298	0.995		
Silver		ND		0.249	0.0853	0.995		
Thallium		ND		0.746	0.151	0.995		
Vanadium		64.4		0.249	0.141	0.995		

0.995

0.177

87.6



Vanadium

Zinc

## **Analytical Report**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method: 01/14/15 15-01-0764 EPA 3050B EPA 6010B

Units: mg/kg
Page 3 of 5

1.02

1.02

Project: Mag	Project: Maguire - Woods Page 3 of 5											
Client Sample I	Client Sample Number		Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID				
B103-2.5		15-01-0764-3-A	01/14/15 13:55	Solid	ICP 7300	01/15/15	01/16/15 20:57	150115L02A				
Comment(s):	- Results were evaluated t	o the MDL (DL), cond	centrations >=	to the MDL (	DL) but < RL (LO	Q), if found, are	qualified with a	"J" flag.				
<u>Parameter</u>		Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>				
Antimony		ND		0.761	0.151	1.02						
Arsenic		11.8		0.761	0.263	1.02						
Barium		229		0.508	0.157	1.02						
Beryllium		0.628	3	0.254	0.139	1.02						
Cadmium		0.569	)	0.508	0.137	1.02						
Chromium		39.6		0.254	0.144	1.02						
Cobalt		10.9		0.254	0.150	1.02						
Copper		28.1		0.508	0.137	1.02						
Lead		3.79		0.508	0.134	1.02						
Molybdenum		0.423	3	0.254	0.134	1.02						
Nickel		32.2		0.254	0.147	1.02						
Selenium		ND		0.761	0.304	1.02						
Silver		ND		0.254	0.0870	1.02						
Thallium		ND		0.761	0.154	1.02						

0.254

1.02

0.143

0.180

56.5

78.5

01/14/15

15-01-0764 EPA 3050B



Zinc

## **Analytical Report**

Alta Environmental Date Received:

3777 Long Beach Blvd., Annex Building Work Order:

Long Beach, CA 90802-3335 Preparation:

Method:

80.2

Method: EPA 6010B Units: mg/kg

0.962

Project: Maguire - Woods Page 4 of 5

Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B103-5.0		15-01-0764-4-A	01/14/15 14:15	Solid	ICP 7300	01/15/15	01/16/15 21:05	150115L02A
Comment(s):	- Results were eval	luated to the MDL (DL), con	centrations >=	to the MDL (	DL) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		Resi	<u>ult</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Antimony		ND		0.721	0.143	0.962		
Arsenic		12.7		0.721	0.249	0.962		
Barium		122		0.481	0.148	0.962		
Beryllium		0.61	0	0.240	0.132	0.962		
Cadmium		0.28	8	0.481	0.130	0.962	J	
Chromium		39.9		0.240	0.137	0.962		
Cobalt		11.1		0.240	0.142	0.962		
Copper		28.9		0.481	0.130	0.962		
Lead		3.53		0.481	0.127	0.962		
Molybdenum		0.77	1	0.240	0.127	0.962		
Nickel		33.0		0.240	0.139	0.962		
Selenium		ND		0.721	0.288	0.962		
Silver		ND		0.240	0.0824	0.962		
Thallium		ND		0.721	0.146	0.962		
Vanadium		58,2		0.240	0.136	0.962		

0.962

0.171



Units:

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

15-01-0764 EPA 3050B EPA 6010B

01/14/15

mg/kg

Project: Maguire - Woods

Page 5 of 5

Client Sample N	Client Sample Number		Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank		097-01-002-20172	N/A	Solid	ICP 7300	01/15/15	01/16/15 16:53	150115L02A
Comment(s):	- Results were evaluated t	o the MDL (DL), conc	entrations >=	to the MDL (	(DL) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		Resul	<u>t</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>(</u>	Qualifiers
Antimony		ND		0.750	0.149	1.00		
Arsenic		ND		0.750	0.259	1.00		
Barium		ND		0.500	0.154	1.00		
Beryllium		ND		0.250	0.137	1.00		
Cadmium		ND		0.500	0.135	1.00		
Chromium		ND		0.250	0.142	1.00		
Cobalt		ND		0.250	0.148	1.00		
Copper		ND		0.500	0.135	1.00		
Lead		ND		0.500	0.132	1.00		
Molybdenum		ND		0.250	0.132	1.00		
Nickel		ND		0.250	0.145	1.00		
Selenium		ND		0.750	0.300	1.00		
Silver		ND		0.250	0.0857	1.00		
Thallium		ND		0.750	0.152	1.00		
Vanadium		ND		0.250	0.141	1.00		
Zinc		ND		1.00	0.178	1.00		

Page 1 of 1

J



Project: Maguire - Woods

Mercury

## **Analytical Report**

Alta Environmental Date Received: 01/14/15
3777 Long Beach Blvd., Annex Building Work Order: 15-01-0764
Long Beach, CA 90802-3335 Preparation: EPA 7471A Total
Method: EPA 7471A

Units: mg/kg

1.00

Client Sample Number		Lab Sample Date/Time M Number Collected		Matrix	Matrix Instrument		Date/Time Analyzed	QC Batch ID
B102-2.5		15-01-0764-1-A	01/14/15 10:20	Solid	Mercury 05	01/15/15	01/15/15 14:58	150115L01
Comment(s):	- Results were evaluated	to the MDL (DL), con-	centrations >= t	to the MDL (	DL) but < RL (LO	Q), if found, are	e qualified with a	"J" flag.
<u>Parameter</u>		Resu	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	9	<u>Qualifiers</u>

0.0199

0.0847

0.00597

B102-5.0	15-01-0764-2-A	01/14/15 10:52	Solid	Mercury 05	01/15/15	01/15/15 15:01	150115L01
Comment(s):	- Results were evaluated to the MDL (DL), cond	centrations >=	to the MDL (	(DL) but < RL (LOC	), if found, are	qualified with a ".	J" flag.
<u>Parameter</u>	Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qu</u>	<u>alifiers</u>
Mercury	0.022	20	0.0794	0.00559	1.00	J	

B103-2.5	15-01-0764-3-A	01/14/15 13:55	Solid Mercury	05 01/15/15	01/15/15 15 15:03	50115L01
Comment(s):	- Results were evaluated to the MDL (DL), con	centrations >= to t	he MDL (DL) but < RL	(LOQ), if found, are	e qualified with a "J" f	ilag.
<u>Parameter</u>	Resu	<u>lt RL</u>	MDL	<u>DF</u>	<u>Quali</u>	<u>fiers</u>

B103-5.0	15-01-0764-4-A	01/14/15	Solid	Mercury 05	01/15/15	01/15/15	150115L01
Mercury	0.018	36	0.0847	0.00597	1.00	J	
·		_	_		_	_	

Comment(s):	- Results were evaluated to the MDL (DL), concer	trations >= to the MDL	(DL) but < RL (LOQ),	if found, are qualit	fied with a "J" flag.
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<b>Qualifiers</b>
Mercury	0.0267	0.0833	0.00587	1.00	J

|--|

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter

Mercury

Result

ND

0.0833

0.00587

1.00



Units:

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

EPA 5035 EPA 8260B ug/kg

01/14/15

15-01-0764

Project: Maguire - Woods

Page 1 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B102-2.5	15-01-0764-1-D	01/14/15 10:20	Solid	GC/MS O	01/14/15	01/15/15 19:55	150115L043
Comment(s): - Results were evaluated t	o the MDL (DL), con	centrations >=	to the MDL (	(DL) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	<u>Resu</u>	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Acetone	7.8		44	5.5	1.00	J	
Benzene	ND		0.89	0.12	1.00		
Bromobenzene	ND		0.89	0.19	1.00		
Bromochloromethane	ND		1.8	0.61	1.00		
Bromodichloromethane	ND		0.89	0.21	1.00		
Bromoform	ND		4.4	0.71	1.00		
Bromomethane	ND		18	8.4	1.00		
2-Butanone	ND		18	3.3	1.00		
n-Butylbenzene	ND		0.89	0.14	1.00		
sec-Butylbenzene	ND		0.89	0.51	1.00		
tert-Butylbenzene	ND		0.89	0.13	1.00		
Carbon Disulfide	ND		8.9	0.27	1.00		
Carbon Tetrachloride	ND		0.89	0.25	1.00		
Chlorobenzene	ND		0.89	0.20	1.00		
Chloroethane	ND		1.8	1.3	1.00		
Chloroform	ND		0.89	0.21	1.00		
Chloromethane	ND		18	0.27	1.00		
2-Chlorotoluene	ND		0.89	0.21	1.00		
4-Chlorotoluene	ND		0.89	0.19	1.00		
Dibromochloromethane	ND		1.8	0.51	1.00		
1,2-Dibromo-3-Chloropropane	ND		4.4	1.5	1.00		
1,2-Dibromoethane	ND		0.89	0.23	1.00		
Dibromomethane	ND		0.89	0.69	1.00		
1,2-Dichlorobenzene	ND		0.89	0.20	1.00		
1,3-Dichlorobenzene	ND		0.89	0.16	1.00		
1,4-Dichlorobenzene	ND		0.89	0.20	1.00		
Dichlorodifluoromethane	ND		1.8	0.39	1.00		
1,1-Dichloroethane	ND		0.89	0.19	1.00		
1,2-Dichloroethane	ND		0.89	0.28	1.00		
1,1-Dichloroethene	ND		0.89	0.31	1.00		
c-1,2-Dichloroethene	ND		0.89	0.25	1.00		
t-1,2-Dichloroethene	ND		0.89	0.45	1.00		
1,2-Dichloropropane	ND		0.89	0.39	1.00		
1,3-Dichloropropane	ND		0.89	0.22	1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Alta Environmental
 Date Received:
 01/14/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-01-0764

 Long Beach, CA 90802-3335
 Preparation:
 EPA 5035

 Method:
 EPA 8260B

 Units:
 ug/kg

 Project: Maguire - Woods
 Page 2 of 10

<u>,                                     </u>					<u> </u>
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qualifiers
2,2-Dichloropropane	ND	4.4	0.29	1.00	
1,1-Dichloropropene	ND	1.8	0.29	1.00	
c-1,3-Dichloropropene	ND	0.89	0.23	1.00	
t-1,3-Dichloropropene	ND	1.8	0.54	1.00	
Ethylbenzene	ND	0.89	0.13	1.00	
2-Hexanone	ND	18	1.6	1.00	
Isopropylbenzene	ND	0.89	0.49	1.00	
p-Isopropyltoluene	ND	0.89	0.56	1.00	
Methylene Chloride	ND	8.9	1.2	1.00	
4-Methyl-2-Pentanone	ND	18	3.8	1.00	
Naphthalene	ND	8.9	0.72	1.00	
n-Propylbenzene	ND	1.8	0.45	1.00	
Styrene	ND	0.89	0.54	1.00	
1,1,1,2-Tetrachloroethane	ND	0.89	0.21	1.00	
1,1,2,2-Tetrachloroethane	ND	1.8	0.31	1.00	
Tetrachloroethene	ND	0.89	0.19	1.00	
Toluene	ND	0.89	0.46	1.00	
1,2,3-Trichlorobenzene	ND	1.8	0.81	1.00	
1,2,4-Trichlorobenzene	ND	1.8	0.28	1.00	
1,1,1-Trichloroethane	ND	0.89	0.20	1.00	
1,1,2-Trichloroethane	ND	0.89	0.31	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.9	0.31	1.00	
Trichloroethene	ND	1.8	0.27	1.00	
Trichlorofluoromethane	ND	8.9	0.33	1.00	
1,2,3-Trichloropropane	ND	1.8	0.74	1.00	
1,2,4-Trimethylbenzene	ND	1.8	0.52	1.00	
1,3,5-Trimethylbenzene	ND	1.8	0.49	1.00	
Vinyl Acetate	ND	8.9	4.2	1.00	
Vinyl Chloride	ND	0.89	0.45	1.00	
p/m-Xylene	ND	1.8	0.24	1.00	
o-Xylene	ND	0.89	0.49	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.26	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
1,4-Bromofluorobenzene	99	80-120	Qualificia		
Dibromofluoromethane	109	79-133			
1,2-Dichloroethane-d4	119	79-133			
Toluene-d8	102	80-120			
I OluGIIG-UO	102	00-120			



Units:

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

15-01-0764 EPA 5035 EPA 8260B

01/14/15

ug/kg

Project: Maguire - Woods

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B102-5.0	15-01-0764-2-D	01/14/15 10:52	Solid	GC/MS O	01/14/15	01/15/15 20:23	150115L043
Comment(s): - Results were evaluated to	o the MDL (DL), cond	entrations >=	to the MDL	(DL) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Q	<u>ualifiers</u>
Acetone	8.2		39	4.9	1.00	J	
Benzene	0.13		0.78	0.10	1.00	J	
Bromobenzene	ND		0.78	0.16	1.00		
Bromochloromethane	ND		1.6	0.54	1.00		
Bromodichloromethane	ND		0.78	0.18	1.00		
Bromoform	ND		3.9	0.62	1.00		
Bromomethane	ND		16	7.4	1.00		
2-Butanone	ND		16	2.9	1.00		
n-Butylbenzene	ND		0.78	0.12	1.00		
sec-Butylbenzene	ND		0.78	0.45	1.00		
tert-Butylbenzene	ND		0.78	0.12	1.00		
Carbon Disulfide	ND		7.8	0.24	1.00		
Carbon Tetrachloride	ND		0.78	0.22	1.00		
Chlorobenzene	ND		0.78	0.18	1.00		
Chloroethane	ND		1.6	1.2	1.00		
Chloroform	ND		0.78	0.19	1.00		
Chloromethane	ND		16	0.24	1.00		
2-Chlorotoluene	ND		0.78	0.18	1.00		
4-Chlorotoluene	ND		0.78	0.17	1.00		
Dibromochloromethane	ND		1.6	0.45	1.00		
1,2-Dibromo-3-Chloropropane	ND		3.9	1.4	1.00		
1,2-Dibromoethane	ND		0.78	0.20	1.00		
Dibromomethane	ND		0.78	0.61	1.00		
1,2-Dichlorobenzene	ND		0.78	0.18	1.00		
1,3-Dichlorobenzene	ND		0.78	0.14	1.00		
1,4-Dichlorobenzene	ND		0.78	0.17	1.00		
Dichlorodifluoromethane	ND		1.6	0.35	1.00		
1,1-Dichloroethane	ND		0.78	0.17	1.00		
1,2-Dichloroethane	ND		0.78	0.25	1.00		
1,1-Dichloroethene	ND		0.78	0.27	1.00		
c-1,2-Dichloroethene	ND		0.78	0.22	1.00		
t-1,2-Dichloroethene	ND		0.78	0.40	1.00		
1,2-Dichloropropane	ND		0.78	0.34	1.00		
1,3-Dichloropropane	ND		0.78	0.20	1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Alta Environmental
 Date Received:
 01/14/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-01-0764

 Long Beach, CA 90802-3335
 Preparation:
 EPA 5035

 Method:
 EPA 8260B

 Units:
 ug/kg

 Project: Maguire - Woods
 Page 4 of 10

Troject: Magaire Woods					1 age 4 of 10
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	3.9	0.26	1.00	
1,1-Dichloropropene	ND	1.6	0.26	1.00	
c-1,3-Dichloropropene	ND	0.78	0.20	1.00	
t-1,3-Dichloropropene	ND	1.6	0.47	1.00	
Ethylbenzene	ND	0.78	0.12	1.00	
2-Hexanone	ND	16	1.4	1.00	
Isopropylbenzene	ND	0.78	0.43	1.00	
p-Isopropyltoluene	ND	0.78	0.49	1.00	
Methylene Chloride	ND	7.8	1.0	1.00	
4-Methyl-2-Pentanone	ND	16	3.4	1.00	
Naphthalene	ND	7.8	0.64	1.00	
n-Propylbenzene	ND	1.6	0.39	1.00	
Styrene	ND	0.78	0.47	1.00	
1,1,1,2-Tetrachloroethane	ND	0.78	0.19	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	0.27	1.00	
Tetrachloroethene	ND	0.78	0.16	1.00	
Toluene	ND	0.78	0.40	1.00	
1,2,3-Trichlorobenzene	ND	1.6	0.71	1.00	
1,2,4-Trichlorobenzene	ND	1.6	0.24	1.00	
1,1,1-Trichloroethane	ND	0.78	0.18	1.00	
1,1,2-Trichloroethane	ND	0.78	0.28	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.8	0.27	1.00	
Trichloroethene	ND	1.6	0.23	1.00	
Trichlorofluoromethane	ND	7.8	0.29	1.00	
1,2,3-Trichloropropane	ND	1.6	0.65	1.00	
1,2,4-Trimethylbenzene	ND	1.6	0.46	1.00	
1,3,5-Trimethylbenzene	ND	1.6	0.43	1.00	
Vinyl Acetate	ND	7.8	3.7	1.00	
Vinyl Chloride	ND	0.78	0.39	1.00	
p/m-Xylene	ND	1.6	0.21	1.00	
o-Xylene	ND	0.78	0.43	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	0.23	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	96	80-120			
Dibromofluoromethane	106	79-133			
1,2-Dichloroethane-d4	116	71-155			
Toluene-d8	101	80-120			



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

15-01-0764 EPA 5035 EPA 8260B

01/14/15

ug/kg

Units:

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Project: Maguire - Woods

Date/Time Collected QC Batch ID Client Sample Number Lab Sample Matrix Instrument Date Date/Time Prepared Number Analyzed 01/14/15 13:55 01/15/15 20:51 B103-2.5 15-01-0764-3-D Solid GC/MS O 01/14/15 150115L043 Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. MDL **Parameter** Result RL <u>DF</u> J Acetone 27 43 5.4 1.00 ND Benzene 0.87 0.11 1.00 ND 0.87 0.18 1.00 Bromobenzene ND 0.60 1.00 Bromochloromethane 1.7 Bromodichloromethane ND 0.87 0.20 1.00 **Bromoform** ND 4.3 0.69 1.00 **Bromomethane** ND 17 8.2 1.00 2-Butanone ND 17 3.3 1.00 n-Butylbenzene ND 0.87 0.14 1.00 sec-Butylbenzene ND 0.87 0.50 1.00 tert-Butylbenzene ND 0.87 0.13 1.00 Carbon Disulfide ND 8.7 0.26 1.00 Carbon Tetrachloride ND 0.24 0.87 1.00 Chlorobenzene ND 0.87 0.19 1.00 Chloroethane ND 1.3 1.00 1.7 0.87 Chloroform ND 0.21 1.00 0.26 Chloromethane ND 17 1.00 2-Chlorotoluene ND 0.87 0.20 1.00 4-Chlorotoluene ND 0.87 0.18 1.00 Dibromochloromethane ND 0.49 1.00 1.7 1,2-Dibromo-3-Chloropropane ND 4.3 1.5 1.00 1,2-Dibromoethane ND 0.87 0.22 1.00 Dibromomethane ND 0.67 1.00 0.87 1,2-Dichlorobenzene ND 0.87 0.20 1.00 1,3-Dichlorobenzene ND 0.87 0.15 1.00 1,4-Dichlorobenzene ND 0.87 0.19 1.00 Dichlorodifluoromethane ND 1.7 0.38 1.00 ND 1,1-Dichloroethane 0.87 0.18 1.00 1,2-Dichloroethane ND 0.87 0.27 1.00 1,1-Dichloroethene ND 0.87 0.30 1.00 ND 0.87 0.24 1.00 c-1,2-Dichloroethene ND 0.87 0.44 1.00 t-1,2-Dichloroethene

RL: Reporting Limit.

1,2-Dichloropropane

1,3-Dichloropropane

DF: Dilution Factor.

MDL: Method Detection Limit.

0.87

0.87

0.38

0.22

1.00

1.00

ND

ND



 Alta Environmental
 Date Received:
 01/14/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-01-0764

 Long Beach, CA 90802-3335
 Preparation:
 EPA 5035

 Method:
 EPA 8260B

 Units:
 ug/kg

 Project: Maguire - Woods
 Page 6 of 10

				rage 6 01 10
Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qualifiers
ND	4.3	0.29	1.00	
ND	1.7	0.28	1.00	
ND	0.87	0.22	1.00	
ND	1.7	0.52	1.00	
ND	0.87	0.13	1.00	
ND	17	1.5	1.00	
ND	0.87	0.47	1.00	
ND	0.87	0.54	1.00	
ND	8.7	1.2	1.00	
ND	17	3.7	1.00	
ND	8.7	0.70	1.00	
ND	1.7	0.43	1.00	
ND	0.87	0.52	1.00	
ND	0.87	0.21	1.00	
ND	1.7	0.30	1.00	
ND	0.87	0.18	1.00	
ND	0.87	0.45	1.00	
ND	1.7	0.79	1.00	
ND	1.7	0.27	1.00	
ND	0.87	0.19	1.00	
ND	0.87	0.31	1.00	
ND	8.7	0.30	1.00	
ND	1.7	0.26	1.00	
ND	8.7	0.32	1.00	
ND	1.7	0.72	1.00	
ND	1.7	0.51	1.00	
ND	1.7	0.47	1.00	
ND	8.7	4.1	1.00	
ND	0.87	0.44	1.00	
ND	1.7	0.23	1.00	
ND	0.87	0.48	1.00	
ND	1.7	0.26	1.00	
Rec. (%)	Control Limits	<u>Qualifiers</u>		
96	80-120			
107	79-133			
120	71-155			
101	80-120			
	ND N	ND 4.3 ND 1.7 ND 0.87 ND 0.87 ND 17 ND 0.87 ND 17 ND 0.87 ND 0.87 ND 17 ND 8.7 ND 17 ND 8.7 ND 1.7 ND 0.87 ND 0.87 ND 0.87 ND 0.87 ND 0.87 ND 1.7 ND 1.7 ND 0.87 ND 1.7 ND 1.7 ND 1.7 ND 0.87 ND 1.7 ND 0.87 ND 1.7 ND 1.7 ND 1.7 ND 1.7 ND 1.7 ND 0.87 ND 1.7 ND 0.87 ND 1.7	ND 4.3 0.29  ND 1.7 0.28  ND 0.87 0.22  ND 1.7 0.52  ND 0.87 0.13  ND 0.87 0.13  ND 17 1.5  ND 0.87 0.47  ND 0.87 0.54  ND 0.87 0.54  ND 17 3.7  ND 17 3.7  ND 17 3.7  ND 8.7 0.70  ND 1.7 0.43  ND 0.87 0.52  ND 0.87 0.21  ND 1.7 0.30  ND 0.87 0.18  ND 0.87 0.18  ND 0.87 0.18  ND 0.87 0.19  ND 1.7 0.27  ND 0.87 0.19  ND 0.87 0.31  ND 0.87 0.31  ND 0.87 0.31  ND 0.87 0.32  ND 1.7 0.26  ND 1.7 0.72  ND 1.7 0.72  ND 1.7 0.72  ND 1.7 0.72  ND 1.7 0.51  ND 1.7 0.47  ND 1.7 0.47  ND 1.7 0.47  ND 1.7 0.26  Rec. (%) Control Limits Qualifiers  96 80-120  107 79-133  120 71-155	ND



Units:

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

EPA 5035 EPA 8260B ug/kg

15-01-0764

01/14/15

Project: Maguire - Woods

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B103-5.0	15-01-0764-4-D	01/14/15 14:15	Solid	GC/MS O	01/14/15	01/15/15 21:19	150115L043
Comment(s): - Results were evaluated to	the MDL (DL), cond	centrations >= 1	to the MDL	(DL) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Q</u>	ualifiers
Acetone	18		38	4.7	1.00	J	
Benzene	ND		0.75	0.098	1.00		
Bromobenzene	ND		0.75	0.16	1.00		
Bromochloromethane	ND		1.5	0.52	1.00		
Bromodichloromethane	ND		0.75	0.18	1.00		
Bromoform	ND		3.8	0.60	1.00		
Bromomethane	ND		15	7.1	1.00		
2-Butanone	ND		15	2.8	1.00		
n-Butylbenzene	ND		0.75	0.12	1.00		
sec-Butylbenzene	ND		0.75	0.44	1.00		
tert-Butylbenzene	ND		0.75	0.11	1.00		
Carbon Disulfide	ND		7.5	0.23	1.00		
Carbon Tetrachloride	ND		0.75	0.21	1.00		
Chlorobenzene	ND		0.75	0.17	1.00		
Chloroethane	ND		1.5	1.1	1.00		
Chloroform	ND		0.75	0.18	1.00		
Chloromethane	ND		15	0.23	1.00		
2-Chlorotoluene	ND		0.75	0.17	1.00		
4-Chlorotoluene	ND		0.75	0.16	1.00		
Dibromochloromethane	ND		1.5	0.43	1.00		
1,2-Dibromo-3-Chloropropane	ND		3.8	1.3	1.00		
1,2-Dibromoethane	ND		0.75	0.19	1.00		
Dibromomethane	ND		0.75	0.58	1.00		
1,2-Dichlorobenzene	ND		0.75	0.17	1.00		
1,3-Dichlorobenzene	ND		0.75	0.13	1.00		
1,4-Dichlorobenzene	ND		0.75	0.17	1.00		
Dichlorodifluoromethane	ND		1.5	0.33	1.00		
1,1-Dichloroethane	ND		0.75	0.16	1.00		
1,2-Dichloroethane	ND		0.75	0.24	1.00		
1,1-Dichloroethene	ND		0.75	0.26	1.00		
c-1,2-Dichloroethene	ND		0.75	0.21	1.00		
t-1,2-Dichloroethene	ND		0.75	0.38	1.00		
1,2-Dichloropropane	ND		0.75	0.33	1.00		
1,3-Dichloropropane	ND		0.75	0.19	1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Alta Environmental
 Date Received:
 01/14/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-01-0764

 Long Beach, CA 90802-3335
 Preparation:
 EPA 5035

 Method:
 EPA 8260B

 Units:
 ug/kg

 Project: Maguire - Woods
 Page 8 of 10

Troject: Magaire Woods					1 age 6 61 16
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	3.8	0.25	1.00	
1,1-Dichloropropene	ND	1.5	0.25	1.00	
c-1,3-Dichloropropene	ND	0.75	0.19	1.00	
t-1,3-Dichloropropene	ND	1.5	0.46	1.00	
Ethylbenzene	ND	0.75	0.11	1.00	
2-Hexanone	ND	15	1.3	1.00	
Isopropylbenzene	ND	0.75	0.41	1.00	
p-Isopropyltoluene	ND	0.75	0.47	1.00	
Methylene Chloride	ND	7.5	1.0	1.00	
4-Methyl-2-Pentanone	ND	15	3.3	1.00	
Naphthalene	ND	7.5	0.61	1.00	
n-Propylbenzene	ND	1.5	0.38	1.00	
Styrene	ND	0.75	0.46	1.00	
1,1,1,2-Tetrachloroethane	ND	0.75	0.18	1.00	
1,1,2,2-Tetrachloroethane	ND	1.5	0.26	1.00	
Tetrachloroethene	ND	0.75	0.16	1.00	
Toluene	ND	0.75	0.39	1.00	
1,2,3-Trichlorobenzene	ND	1.5	0.69	1.00	
1,2,4-Trichlorobenzene	ND	1.5	0.23	1.00	
1,1,1-Trichloroethane	ND	0.75	0.17	1.00	
1,1,2-Trichloroethane	ND	0.75	0.27	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.5	0.27	1.00	
Trichloroethene	ND	1.5	0.23	1.00	
Trichlorofluoromethane	ND	7.5	0.28	1.00	
1,2,3-Trichloropropane	ND	1.5	0.63	1.00	
1,2,4-Trimethylbenzene	ND	1.5	0.44	1.00	
1,3,5-Trimethylbenzene	ND	1.5	0.41	1.00	
Vinyl Acetate	ND	7.5	3.6	1.00	
Vinyl Chloride	ND	0.75	0.38	1.00	
p/m-Xylene	ND	1.5	0.20	1.00	
o-Xylene	ND	0.75	0.42	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.5	0.22	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	96	80-120			
Dibromofluoromethane	105	79-133			
1,2-Dichloroethane-d4	121	71-155			
Toluene-d8	103	80-120			



Units:

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

EPA 5035 EPA 8260B ug/kg

01/14/15

15-01-0764

Project: Maguire - Woods

Page 9 of 10

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	095-01-025-25942	N/A	Solid	GC/MS O	01/15/15	01/15/15 17:35	150115L043
Comment(s): - Results were evaluated to	o the MDL (DL), conc	entrations >= to	the MDL	(DL) but < RL (LOC	Q), if found, are	qualified with	a "J" flag.
<u>Parameter</u>	Resul	<u>t                                    </u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>		<u>Qualifiers</u>
Acetone	ND	5	60	6.2	1.00		
Benzene	ND	1	.0	0.13	1.00		
Bromobenzene	ND	1	.0	0.21	1.00		
Bromochloromethane	ND	2	2.0	0.69	1.00		
Bromodichloromethane	ND	1	.0	0.23	1.00		
Bromoform	ND	5	5.0	0.79	1.00		
Bromomethane	ND	2	20	9.4	1.00		
2-Butanone	ND	2	20	3.8	1.00		
n-Butylbenzene	ND	1	.0	0.16	1.00		
sec-Butylbenzene	ND	1	.0	0.58	1.00		
tert-Butylbenzene	ND	1	.0	0.15	1.00		
Carbon Disulfide	ND	1	0	0.31	1.00		
Carbon Tetrachloride	ND	1	.0	0.28	1.00		
Chlorobenzene	ND	1	.0	0.22	1.00		
Chloroethane	ND	2	2.0	1.5	1.00		
Chloroform	ND	1	.0	0.24	1.00		
Chloromethane	ND	2	20	0.30	1.00		
2-Chlorotoluene	ND	1	.0	0.23	1.00		
4-Chlorotoluene	ND	1	.0	0.21	1.00		
Dibromochloromethane	ND	2	2.0	0.57	1.00		
1,2-Dibromo-3-Chloropropane	ND	5	5.0	1.7	1.00		
1,2-Dibromoethane	ND	1	.0	0.26	1.00		
Dibromomethane	ND	1	.0	0.77	1.00		
1,2-Dichlorobenzene	ND	1	.0	0.23	1.00		
1,3-Dichlorobenzene	ND	1	.0	0.18	1.00		
1,4-Dichlorobenzene	ND	1	.0	0.22	1.00		
Dichlorodifluoromethane	ND	2	2.0	0.44	1.00		
1,1-Dichloroethane	ND	1	.0	0.21	1.00		
1,2-Dichloroethane	ND	1	.0	0.31	1.00		
1,1-Dichloroethene	ND	1	.0	0.35	1.00		
c-1,2-Dichloroethene	ND	1	.0	0.28	1.00		
t-1,2-Dichloroethene	ND	1	.0	0.51	1.00		
1,2-Dichloropropane	ND	1	.0	0.44	1.00		
1,3-Dichloropropane	ND	1	.0	0.25	1.00		

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



 Alta Environmental
 Date Received:
 01/14/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-01-0764

 Long Beach, CA 90802-3335
 Preparation:
 EPA 5035

 Method:
 EPA 8260B

 Units:
 ug/kg

 Project: Maguire - Woods
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	5.0	0.33	1.00	
1,1-Dichloropropene	ND	2.0	0.33	1.00	
c-1,3-Dichloropropene	ND	1.0	0.25	1.00	
t-1,3-Dichloropropene	ND	2.0	0.61	1.00	
Ethylbenzene	ND	1.0	0.15	1.00	
2-Hexanone	ND	20	1.8	1.00	
Isopropylbenzene	ND	1.0	0.55	1.00	
p-Isopropyltoluene	ND	1.0	0.63	1.00	
Methylene Chloride	ND	10	1.3	1.00	
4-Methyl-2-Pentanone	ND	20	4.3	1.00	
Naphthalene	ND	10	0.81	1.00	
n-Propylbenzene	ND	2.0	0.50	1.00	
Styrene	ND	1.0	0.60	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1.00	
Tetrachloroethene	ND	1.0	0.21	1.00	
Toluene	ND	1.0	0.52	1.00	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1.00	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1.00	
1,1,1-Trichloroethane	ND	1.0	0.23	1.00	
1,1,2-Trichloroethane	ND	1.0	0.35	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1.00	
Trichloroethene	ND	2.0	0.30	1.00	
Trichlorofluoromethane	ND	10	0.38	1.00	
1,2,3-Trichloropropane	ND	2.0	0.83	1.00	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1.00	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1.00	
Vinyl Acetate	ND	10	4.7	1.00	
Vinyl Chloride	ND	1.0	0.50	1.00	
p/m-Xylene	ND	2.0	0.27	1.00	
o-Xylene	ND	1.0	0.56	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	96	80-120			
Dibromofluoromethane	103	79-133			
1,2-Dichloroethane-d4	106	71-155			
Toluene-d8	101	80-120			



# **Quality Control - Spike/Spike Duplicate**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

01/14/15 15-01-0764 EPA 3050B

EPA 6010B

Project: Maguire - Woods Page 1 of 2

Quality Control Sample ID	Туре		Matrix	Inst	rument	Date Prepared	d Date Ana	llyzed	MS/MSD Ba	tch Number
15-01-0795-1	Sample		Solid	ICP	7300	01/15/15	01/15/15	19:38	150115S02	
15-01-0795-1	Matrix Spike		Solid	ICP	7300	01/15/15	01/15/15	19:39	150115S02	
15-01-0795-1	Matrix Spike	Duplicate	Solid	ICP	7300	01/15/15	01/15/15	19:40	150115S02	
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	6.569	26	6.395	26	50-115	3	0-20	3
Arsenic	7.584	25.00	33.50	104	33.29	103	75-125	1	0-20	
Barium	118.5	25.00	139.1	4X	142.0	4X	75-125	4X	0-20	Q
Beryllium	0.3598	25.00	28.13	111	28.34	112	75-125	1	0-20	
Cadmium	ND	25.00	27.48	110	27.40	110	75-125	0	0-20	
Chromium	16.27	25.00	45.67	118	44.64	113	75-125	2	0-20	
Cobalt	11.87	25.00	41.00	117	40.58	115	75-125	1	0-20	
Copper	21.35	25.00	48.36	108	47.55	105	75-125	2	0-20	
Lead	19.01	25.00	49.57	122	51.02	128	75-125	3	0-20	3
Molybdenum	ND	25.00	26.08	104	25.85	103	75-125	1	0-20	
Nickel	14.15	25.00	42.33	113	41.60	110	75-125	2	0-20	
Selenium	ND	25.00	23.91	96	23.50	94	75-125	2	0-20	
Silver	ND	12.50	10.26	82	11.59	93	75-125	12	0-20	
Thallium	ND	25.00	7.466	30	7.260	29	75-125	3	0-20	3
Vanadium	34.37	25.00	60.47	104	59.97	102	75-125	1	0-20	
Zinc	62.01	25.00	87.93	104	87.64	103	75-125	0	0-20	



# **Quality Control - Spike/Spike Duplicate**

Alta Environmental Date Received: 01/14/15
3777 Long Beach Blvd., Annex Building Work Order: 15-01-0764
Long Beach, CA 90802-3335 Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Maguire - Woods Page 2 of 2

Quality Control Sample ID	Туре		Matrix	Inst	rument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
15-01-0757-1	Sample		Solid	Mer	cury 05	01/15/15	01/15/15	14:47	150115S01	
15-01-0757-1	Matrix Spike		Solid	Mer	cury 05	01/15/15	01/15/15	14:49	150115S01	
15-01-0757-1	Matrix Spike	Duplicate	Solid	Mer	cury 05	01/15/15	01/15/15	14:52	150115S01	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.9837	118	0.9552	114	71-137	3	0-14	





## **Quality Control - LCS**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

01/14/15 15-01-0764 EPA 3050B EPA 6010B

Project: Maguire - Woods Page 1 of 3

Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepar	ed Date Analyze	ed LCS Batch No	umber
097-01-002-20172	LCS	Solid	ICP 7300	01/15/15	01/15/15 18:	21 150115L02A	
Parameter	<u>Sp</u>	oike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25	5.00	23.05	92	80-120	73-127	
Arsenic	25	5.00	25.08	100	80-120	73-127	
Barium	25	5.00	24.12	96	80-120	73-127	
Beryllium	25	5.00	23.06	92	80-120	73-127	
Cadmium	25	5.00	25.17	101	80-120	73-127	
Chromium	25	5.00	24.37	97	80-120	73-127	
Cobalt	25	5.00	24.35	97	80-120	73-127	
Copper	25	5.00	24.31	97	80-120	73-127	
Lead	25	5.00	25.04	100	80-120	73-127	
Molybdenum	25	5.00	23.34	93	80-120	73-127	
Nickel	25	5.00	24.12	96	80-120	73-127	
Selenium	25	5.00	22.11	88	80-120	73-127	
Silver	12	2.50	11.06	88	80-120	73-127	
Thallium	25	5.00	24.11	96	80-120	73-127	
Vanadium	25	5.00	23.79	95	80-120	73-127	
Zinc	25	5.00	23.96	96	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass



# **Quality Control - LCS**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335

Date Received: Work Order: Preparation: Method:

15-01-0764 EPA 7471A Total EPA 7471A

01/14/15

Project: Maguire - Woods

Page 2 of 3

Quality Control Sample ID	Type	Matrix	Instrument I	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-883	LCS	Solid	Mercury 05	01/15/15	01/15/15 14:45	150115L01
<u>Parameter</u>		Spike Added	Conc. Recovere	ed LCS %Re	ec. %Rec	. CL Qualifiers
Mercury		0.8350	0.9828	118	85-12 <sup>2</sup>	1

RPD: Relative Percent Difference. CL: Control Limits





## **Quality Control - LCS/LCSD**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method: 01/14/15 15-01-0764 EPA 5035 EPA 8260B

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Project: Maguire - Woods

Quality Control Sample ID	Туре		Matrix	Inst	rument	Date Prepare	ed Date A	nalyzed	LCS/LCSD Ba	tch Number
095-01-025-25942	LCS		Solid	GC/	MS O	01/15/15	01/15/1	15 14:47	150115L043	
095-01-025-25942	LCSD		Solid	GC/	MS O	01/15/15	01/15/1	15 15:15	150115L043	
Parameter	<u>Spike</u> <u>Added</u>	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	50.00	47.63	95	48.46	97	80-120	73-127	2	0-20	
Carbon Tetrachloride	50.00	50.87	102	50.54	101	65-137	53-149	1	0-20	
Chlorobenzene	50.00	50.01	100	48.86	98	80-120	73-127	2	0-20	
1,2-Dibromoethane	50.00	50.40	101	49.28	99	80-120	73-127	2	0-20	
1,2-Dichlorobenzene	50.00	48.83	98	49.15	98	80-120	73-127	1	0-20	
1,2-Dichloroethane	50.00	49.93	100	50.34	101	80-120	73-127	1	0-20	
1,1-Dichloroethene	50.00	46.96	94	48.71	97	68-128	58-138	4	0-20	
Ethylbenzene	50.00	50.39	101	50.23	100	80-120	73-127	0	0-20	
Toluene	50.00	49.30	99	50.36	101	80-120	73-127	2	0-20	
Trichloroethene	50.00	48.97	98	48.79	98	80-120	73-127	0	0-20	
Vinyl Chloride	50.00	58.26	117	61.74	123	67-127	57-137	6	0-20	
p/m-Xylene	100.0	103.2	103	101.9	102	75-125	67-133	1	0-25	
o-Xylene	50.00	51.61	103	50.84	102	75-125	67-133	2	0-25	
Methyl-t-Butyl Ether (MTBE)	50.00	49.87	100	47.39	95	70-124	61-133	5	0-20	

Total number of LCS compounds: 14
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass





# **Sample Analysis Summary Report**

Work Order: 15-01-0764	Page 1 of 1			
Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3050B	771	ICP 7300	1
EPA 7471A	EPA 7471A Total	915	Mercury 05	1
EPA 8260B	EPA 5035	867	GC/MS O	2

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841 Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



#### **Glossary of Terms and Qualifiers**

Work Order: 15-01-0764 Page 1 of 1

<b>Qualifiers</b>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike

- Q Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
- SG The sample extract was subjected to Silica Gel treatment prior to analysis.
- X % Recovery and/or RPD out-of-range.
- Z Analyte presence was not confirmed by second column or GC/MS analysis.

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

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.





# **Calscience**

WORK ORDER #: 15-01- □ □ □ □ □

Simple Street Street	
LE RE	
Same Same of the Same '	

DATE: 01/14/15

CLIENT:ACTA = DVIRONMENTAL	DATE:	01/14	/ 15
TEMPERATURE: Thermometer ID: SC4 (Criteria: 0.0 °C – 6.0 °C, not frozen	en except s	ediment/tiss	ue)
Temperature°C + 0.2°C (CF) =°C	<b>☑</b> Blank	☐ Samp	ole
☐ Sample(s) outside temperature criteria (PM/APM contacted by:)		-	
☐ Sample(s) outside temperature criteria but received on ice/chilled on same	dav of samp	olina.	
☐ Received at ambient temperature, placed on ice for transport by C			
Ambient Temperature: □ Air □ Filter		Checked	by: <u><i>S</i>03</u>
CUSTODY SEALS INTACT:			
□ Cooler □ □ No (Not Intact) ☑ Not Present			
☐ Sample ☐ ☐ ☐ No (Not Intact) ☐ Not Present	•	Checked l	by: <u>681</u>
SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples			
COC document(s) received complete			
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels	S.		
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	🗷		
Sample container label(s) consistent with COC	. 🗆		
Sample container(s) intact and good condition	. <b>Z</b>		
Proper containers and sufficient volume for analyses requested	. 🗹		
Analyses received within holding time	. 🛮		
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	🗆		
Proper preservation noted on COC or sample container	🗹		
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace			Z
Tedlar bag(s) free of condensation  CONTAINER TYPE:			Ø
Solid: □4ozCGJ □8ozCGJ □16ozCGJ ☑Sleeve ( P ) □EnCore	es <sup>®</sup>	aCores® 🗷	202 PJ.
Aqueous: □VOA □VOAh □VOAna₂ □125AGB □125AGBh □125AGB	o □1AGB	□1AGB <b>na</b> ₂	□1AGB <b>s</b>
□500AGB □500AGJ □500AGJ <b>s</b> □250AGB □250CGB □250CGB	s □1PB	□1PB <b>na</b> [	⊒500PB
□250PB □250PBn □125PB □125PB <b>znna</b> □100PJ □100PJ <b>na₂</b> □_		·	
Air: □Tedlar <sup>®</sup> □Canister <b>Other:</b> □ <b>Trip Blank Lot#:</b>			_
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: E  Preservative: h: HCL n: HNO <sub>3</sub> na <sub>2</sub> :Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> na: NaOH p: H <sub>3</sub> PO <sub>4</sub> s: H <sub>2</sub> SO <sub>4</sub> u: Ultra-pure znna: ZnAc <sub>2</sub> +N	,	Reviewed by	



# Calscience

Supplemental Report 1

The original report has been revised/corrected.



# **WORK ORDER NUMBER: 15-01-0875**

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For** 

Client: Alta Environmental

Client Project Name: Maguire - Woods

Attention: Steve Ridenour

3777 Long Beach Blvd., Annex Building

Long Beach, CA 90802-3335

Vikas Patel

Approved for release on 02/03/2015 by:

Vikas Patel Project Manager



ResultLink >

Email your PM >

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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#### **Work Order Narrative**

Work Order: 15-01-0875 Page 1 of 1

#### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 01/15/15. They were assigned to Work Order 15-01-0875.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

#### **Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

#### **Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

#### **Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New\_York.pdf

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

#### **Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



Client: Alta Environmental

Work Order:

15-01-0875

3777 Long Beach Blvd., Annex Building

Project Name:

Maguire - Woods

Long Beach, CA 90802-3335

Received: 01/15/15

-	Client C	I-ID		
	Attn:	Steve Ridenour	Pa	ge 1 of 4

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<b>Extraction</b>
B104-2.5 (15-01-0875-1)						
Arsenic	25.9		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	144		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.763		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.867		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	49.0		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	23.3		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	38.1	В	0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	5.74		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	2.64		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	49.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	76.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	98.0	В	1.00	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0269	J	0.00587*	mg/kg	EPA 7471A	EPA 7471A Total
Benzene	0.11	J	0.10*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.78	J	0.24*	ug/kg	EPA 8260B	EPA 5035
B104-5.0 (15-01-0875-2)						
Arsenic	11.0		0.754	mg/kg	EPA 6010B	EPA 3050B
Barium	118		0.503	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.539		0.251	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.304	J	0.136*	mg/kg	EPA 6010B	EPA 3050B
Chromium	34.9		0.251	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.5		0.251	mg/kg	EPA 6010B	EPA 3050B
Copper	26.0	В	0.503	mg/kg	EPA 6010B	EPA 3050B
Lead	3.89		0.503	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.863		0.251	mg/kg	EPA 6010B	EPA 3050B
Nickel	29.8		0.251	mg/kg	EPA 6010B	EPA 3050B
Vanadium	52.3		0.251	mg/kg	EPA 6010B	EPA 3050B
Zinc	69.0	В	1.01	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0207	J	0.00597*	mg/kg	EPA 7471A	EPA 7471A Total
Acetone	12	J	5.1*	ug/kg	EPA 8260B	EPA 5035

<sup>\*</sup> MDL is shown



Client: Alta Environmental

Work Order:

15-01-0875

3777 Long Beach Blvd., Annex Building

Project Name:

Maguire - Woods

Long Beach, CA 90802-3335

Received: 01/15/15

Attn: Steve Ridenour						Page 2 of 4
Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
B104-10 (15-01-0875-3)						
Arsenic	12.4		0.754	mg/kg	EPA 6010B	EPA 3050B
Barium	99.1		0.503	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.504		0.251	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.469	J	0.136*	mg/kg	EPA 6010B	EPA 3050B
Chromium	33.3		0.251	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.0		0.251	mg/kg	EPA 6010B	EPA 3050B
Copper	24.3	В	0.503	mg/kg	EPA 6010B	EPA 3050B
Lead	3.85		0.503	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.832		0.251	mg/kg	EPA 6010B	EPA 3050B
Nickel	29.7		0.251	mg/kg	EPA 6010B	EPA 3050B
Vanadium	52.8		0.251	mg/kg	EPA 6010B	EPA 3050B
Zinc	64.8	В	1.01	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0233	J	0.00597*	mg/kg	EPA 7471A	EPA 7471A Total
Acetone	7.5	J	3.6*	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	0.18	J	0.12*	ug/kg	EPA 8260B	EPA 5035
B105-2.5 (15-01-0875-4)						
Arsenic	9.84		0.739	mg/kg	EPA 6010B	EPA 3050B
Barium	157		0.493	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.784		0.246	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.525		0.493	mg/kg	EPA 6010B	EPA 3050B
Chromium	48.8		0.246	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.7		0.246	mg/kg	EPA 6010B	EPA 3050B
Copper	37.7	В	0.493	mg/kg	EPA 6010B	EPA 3050B
Lead	6.84		0.493	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.976		0.246	mg/kg	EPA 6010B	EPA 3050B
Nickel	41.3		0.246	mg/kg	EPA 6010B	EPA 3050B
Vanadium	76.9		0.246	mg/kg	EPA 6010B	EPA 3050B
Zinc	90.7	В	0.985	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.000240	J	0.0000559*	mg/kg	EPA 7471A	EPA 7471A Total
Acetone	7.6	J	4.7*	ug/kg	EPA 8260B	EPA 5035

<sup>\*</sup> MDL is shown



Client: Alta Environmental

nvironmental Work Or

Long Beach, CA 90802-3335

3777 Long Beach Blvd., Annex Building

Work Order: 15-01-0875

Project Name: Maguire - Woods

Received: 01/15/15

Attn: Steve Ridenour Page 3 of 4

Client SampleID									
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<b>Extraction</b>			
B105-5.0 (15-01-0875-5)									
Arsenic	9.11		0.739	mg/kg	EPA 6010B	EPA 3050B			
Barium	92.4		0.493	mg/kg	EPA 6010B	EPA 3050B			
Beryllium	0.469		0.246	mg/kg	EPA 6010B	EPA 3050B			
Cadmium	0.355	J	0.133*	mg/kg	EPA 6010B	EPA 3050B			
Chromium	32.4		0.246	mg/kg	EPA 6010B	EPA 3050B			
Cobalt	9.37		0.246	mg/kg	EPA 6010B	EPA 3050B			
Copper	23.1	В	0.493	mg/kg	EPA 6010B	EPA 3050B			
Lead	5.11		0.493	mg/kg	EPA 6010B	EPA 3050B			
Molybdenum	0.746		0.246	mg/kg	EPA 6010B	EPA 3050B			
Nickel	26.3		0.246	mg/kg	EPA 6010B	EPA 3050B			
Vanadium	47.8		0.246	mg/kg	EPA 6010B	EPA 3050B			
Zinc	61.3	В	0.985	mg/kg	EPA 6010B	EPA 3050B			
Mercury	0.0254	J	0.00587*	mg/kg	EPA 7471A	EPA 7471A Total			
Acetone	10	J	5.1*	ug/kg	EPA 8260B	EPA 5035			
Benzene	0.33	J	0.11*	ug/kg	EPA 8260B	EPA 5035			
1,4-Dichlorobenzene	0.21	J	0.18*	ug/kg	EPA 8260B	EPA 5035			
B105-10 (15-01-0875-6)									
Arsenic	10.8		0.714	mg/kg	EPA 6010B	EPA 3050B			
Barium	128		0.476	mg/kg	EPA 6010B	EPA 3050B			
Beryllium	0.587		0.238	mg/kg	EPA 6010B	EPA 3050B			
Cadmium	0.336	J	0.129*	mg/kg	EPA 6010B	EPA 3050B			
Chromium	39.6		0.238	mg/kg	EPA 6010B	EPA 3050B			
Cobalt	11.6		0.238	mg/kg	EPA 6010B	EPA 3050B			
Copper	27.7	В	0.476	mg/kg	EPA 6010B	EPA 3050B			
Lead	4.35		0.476	mg/kg	EPA 6010B	EPA 3050B			
Molybdenum	0.859		0.238	mg/kg	EPA 6010B	EPA 3050B			
Nickel	32.2		0.238	mg/kg	EPA 6010B	EPA 3050B			
Vanadium	59.0		0.238	mg/kg	EPA 6010B	EPA 3050B			
Zinc	74.6	В	0.952	mg/kg	EPA 6010B	EPA 3050B			
Mercury	0.0195	J	0.00559*	mg/kg	EPA 7471A	EPA 7471A Total			
Acetone	13	J	4.8*	ug/kg	EPA 8260B	EPA 5035			

<sup>\*</sup> MDL is shown



Client: Alta Environmental

Work Order:

15-01-0875

3777 Long Beach Blvd., Annex Building

Project Name:

Maguire - Woods

Long Beach, CA 90802-3335

Received: 01/15/15

Attn: Steve Ridenour Page 4 of 4

Client SampleID									
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<b>Extraction</b>			
B105-5.0-DUP (15-01-0875-7)									
Arsenic	14.3		0.728	mg/kg	EPA 6010B	EPA 3050B			
Barium	139		0.485	mg/kg	EPA 6010B	EPA 3050B			
Beryllium	0.729		0.403	mg/kg	EPA 6010B	EPA 3050B			
Cadmium	0.729		0.243		EPA 6010B	EPA 3050B			
		J		mg/kg					
Chromium	44.7		0.243	mg/kg	EPA 6010B	EPA 3050B			
Cobalt	13.2		0.243	mg/kg	EPA 6010B	EPA 3050B			
Copper	33.0	В	0.485	mg/kg	EPA 6010B	EPA 3050B			
Lead	4.57		0.485	mg/kg	EPA 6010B	EPA 3050B			
Molybdenum	1.36		0.243	mg/kg	EPA 6010B	EPA 3050B			
Nickel	37.3		0.243	mg/kg	EPA 6010B	EPA 3050B			
Vanadium	66.8		0.243	mg/kg	EPA 6010B	EPA 3050B			
Zinc	82.4	В	0.971	mg/kg	EPA 6010B	EPA 3050B			
Mercury	0.0251	J	0.00568*	mg/kg	EPA 7471A	EPA 7471A Total			
Acetone	13	J	4.7*	ug/kg	EPA 8260B	EPA 5035			
Benzene	0.21	J	0.098*	ug/kg	EPA 8260B	EPA 5035			
Chlorobenzene	0.21	J	0.17*	ug/kg	EPA 8260B	EPA 5035			

Subcontracted analyses, if any, are not included in this summary.

<sup>\*</sup> MDL is shown



Project: Maguire - Woods

Thallium

Zinc

Vanadium

#### **Analytical Report**

Alta Environmental Date Received: 01/15/15
3777 Long Beach Blvd., Annex Building Work Order: 15-01-0875
Long Beach, CA 90802-3335 Preparation: EPA 3050B
Method: EPA 6010B

Units: mg/kg
Page 1 of 8

Client Sample N	Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B104-2.5		15-01-0875-1-A	01/15/15 13:30	Solid	ICP 7300	01/16/15	01/19/15 21:19	150116L01
Comment(s):	- Results were evaluated	to the MDL (DL), con	centrations >=	to the MDL (	DL) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		Resu	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Antimony		ND		0.750	0.149	1.00		
Arsenic		25.9		0.750	0.259	1.00		
Barium		144		0.500	0.154	1.00		
Beryllium		0.76	3	0.250	0.137	1.00		
Cadmium		0.86	7	0.500	0.135	1.00		
Chromium		49.0		0.250	0.142	1.00		
Cobalt		23.3		0.250	0.148	1.00		
Copper		38.1		0.500	0.135	1.00	E	3
Lead		5.74		0.500	0.132	1.00		
Molybdenum		2.64		0.250	0.132	1.00		
Nickel		49.7		0.250	0.145	1.00		
Selenium		ND		0.750	0.300	1.00		
Silver		ND		0.250	0.0857	1.00		

0.750

0.250

1.00

0.152

0.141

0.178

1.00

1.00

1.00

В

ND

76.6

98.0

Page 2 of 8



Project: Maguire - Woods

Zinc

#### **Analytical Report**

Alta Environmental Date Received: 01/15/15
3777 Long Beach Blvd., Annex Building Work Order: 15-01-0875
Long Beach, CA 90802-3335 Preparation: EPA 3050B
Method: EPA 6010B

Units: mg/kg

Client Sample I	Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B104-5.0		15-01-0875-2-A	01/15/15 13:35	Solid	ICP 7300	01/16/15	01/19/15 21:22	150116L01
Comment(s):	- Results were evaluated t	to the MDL (DL), cond	centrations >=	to the MDL (	DL) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		<u>Resu</u>	ı <u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>ualifiers</u>
Antimony		ND		0.754	0.150	1.01		
Arsenic		11.0		0.754	0.260	1.01		
Barium		118		0.503	0.155	1.01		
Beryllium		0.539	9	0.251	0.138	1.01		
Cadmium		0.304	1	0.503	0.136	1.01	J	
Chromium		34.9		0.251	0.143	1.01		
Cobalt		10.5		0.251	0.149	1.01		
Copper		26.0		0.503	0.135	1.01	В	
Lead		3.89		0.503	0.132	1.01		
Molybdenum		0.863	3	0.251	0.133	1.01		
Nickel		29.8		0.251	0.145	1.01		
Selenium		ND		0.754	0.301	1.01		
Silver		ND		0.251	0.0861	1.01		
Thallium		ND		0.754	0.152	1.01		
Vanadium		52.3		0.251	0.142	1.01		

1.01

0.178

1.01

В

69.0

Page 3 of 8



Project: Maguire - Woods

Nickel

Silver

Zinc

Selenium

Thallium

Vanadium

#### **Analytical Report**

Alta Environmental Date Received: 01/15/15
3777 Long Beach Blvd., Annex Building Work Order: 15-01-0875
Long Beach, CA 90802-3335 Preparation: EPA 3050B
Method: EPA 6010B

Units: mg/kg

1.01

1.01

1.01

1.01

1.01

1.01

В

Client Sample N	Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B104-10		15-01-0875-3-A	01/15/15 14:00	Solid	ICP 7300	01/16/15	01/19/15 21:24	150116L01
Comment(s):	- Results were evaluated t	o the MDL (DL), cond	entrations >=	to the MDL (I	DL) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Antimony		ND		0.754	0.150	1.01		
Arsenic		12.4		0.754	0.260	1.01		
Barium		99.1		0.503	0.155	1.01		
Beryllium		0.504		0.251	0.138	1.01		
Cadmium		0.469	)	0.503	0.136	1.01	J	
Chromium		33.3		0.251	0.143	1.01		
Cobalt		10.0		0.251	0.149	1.01		
Copper		24.3		0.503	0.135	1.01	E	3
Lead		3.85		0.503	0.132	1.01		
Molybdenum		0.832	2	0.251	0.133	1.01		

0.251

0.754

0.251

0.754

0.251

1.01

0.145

0.301

0.0861

0.152

0.142

0.178

29.7

ND

ND

ND

52.8

64.8



#### **Analytical Report**

Alta Environmental Date Received: 01/15/15
3777 Long Beach Blvd., Annex Building Work Order: 15-01-0875
Long Beach, CA 90802-3335 Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Units: mg/kg
Project: Maguire - Woods
Page 4 of 8

Client Sample N	lumber	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B105-2.5		15-01-0875-4-A	01/15/15 10:35	Solid	ICP 7300	01/16/15	01/19/15 21:26	150116L01
Comment(s):	- Results were evaluated t	o the MDL (DL), cond	centrations >=	to the MDL (	DL) but < RL (LO	Q), if found, are	qualified with a	a "J" flag.
<u>Parameter</u>		<u>Resu</u>	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>.</u>	<u>Qualifiers</u>
Antimony		ND		0.739	0.147	0.985		
Arsenic		9.84		0.739	0.255	0.985		
Barium		157		0.493	0.152	0.985		
Beryllium		0.784	4	0.246	0.135	0.985		
Cadmium		0.525	5	0.493	0.133	0.985		
Chromium		48.8		0.246	0.140	0.985		
Cobalt		12.7		0.246	0.146	0.985		
Copper		37.7		0.493	0.133	0.985	1	3
Lead		6.84		0.493	0.130	0.985		
Molybdenum		0.976	3	0.246	0.130	0.985		
Nickel		41.3		0.246	0.143	0.985		
Selenium		ND		0.739	0.295	0.985		
Silver		ND		0.246	0.0844	0.985		
Thallium		ND		0.739	0.149	0.985		
Vanadium		76.9		0.246	0.139	0.985		

0.985

0.175

0.985

В

90.7



#### **Analytical Report**

Alta Environmental Date Received: 01/15/15
3777 Long Beach Blvd., Annex Building Work Order: 15-01-0875
Long Beach, CA 90802-3335 Preparation: EPA 3050B
Method: EPA 6010B

Units: mg/kg

Project: Maguire - Woods Page 5 of 8

Client Sample N	umber	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B105-5.0		15-01-0875-5-A	01/15/15 10:40	Solid	ICP 7300	01/16/15	01/19/15 21:28	150116L01
Comment(s):	- Results were evaluated t	to the MDL (DL), cond	centrations >=	to the MDL (	DL) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		<u>Resu</u>	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Antimony		ND		0.739	0.147	0.985		
Arsenic		9.11		0.739	0.255	0.985		
Barium		92.4		0.493	0.152	0.985		
Beryllium		0.469	9	0.246	0.135	0.985		
Cadmium		0.35	5	0.493	0.133	0.985		l
Chromium		32.4		0.246	0.140	0.985		
Cobalt		9.37		0.246	0.146	0.985		
Copper		23.1		0.493	0.133	0.985	E	3
Lead		5.11		0.493	0.130	0.985		
Molybdenum		0.746	3	0.246	0.130	0.985		
Nickel		26.3		0.246	0.143	0.985		
Selenium		ND		0.739	0.295	0.985		
Silver		ND		0.246	0.0844	0.985		
Thallium		ND		0.739	0.149	0.985		
Vanadium		47.8		0.246	0.139	0.985		

0.985

0.175

0.985

В

61.3





#### **Analytical Report**

Alta Environmental Date Received: 01/15/15
3777 Long Beach Blvd., Annex Building Work Order: 15-01-0875
Long Beach, CA 90802-3335 Preparation: EPA 3050B
Method: EPA 6010B

Units: mg/kg

Project: Maguire - Woods Page 6 of 8

Client Sample N	lumber	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B105-10		15-01-0875-6-A	01/15/15 11:15	Solid	ICP 7300	01/16/15	01/19/15 21:31	150116L01
Comment(s):	- Results were evaluated t	o the MDL (DL), cond	entrations >=	to the MDL (I	DL) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Antimony		ND		0.714	0.142	0.952		
Arsenic		10.8		0.714	0.247	0.952		
Barium		128		0.476	0.147	0.952		
Beryllium		0.587	,	0.238	0.130	0.952		
Cadmium		0.336	6	0.476	0.129	0.952	J	I
Chromium		39.6		0.238	0.136	0.952		
Cobalt		11.6		0.238	0.141	0.952		
Copper		27.7		0.476	0.128	0.952	E	3
Lead		4.35		0.476	0.125	0.952		
Molybdenum		0.859	)	0.238	0.126	0.952		
Nickel		32.2		0.238	0.138	0.952		
Selenium		ND		0.714	0.285	0.952		
Silver		ND		0.238	0.0816	0.952		
Thallium		ND		0.714	0.144	0.952		
Vanadium		59.0		0.238	0.135	0.952		

0.952

0.169

0.952

В

74.6

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Project: Maguire - Woods

Zinc

#### **Analytical Report**

Alta Environmental Date Received: 01/15/15
3777 Long Beach Blvd., Annex Building Work Order: 15-01-0875
Long Beach, CA 90802-3335 Preparation: EPA 3050B
Method: EPA 6010B

Units: mg/kg

Client Sample N	Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B105-5.0-DUP		15-01-0875-7-A	01/15/15 10:40	Solid	ICP 7300	01/16/15	01/20/15 13:10	150116L01
Comment(s):	- Results were evaluated	to the MDL (DL), con	centrations >=	to the MDL (	DL) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		Resi	<u>ult</u>	<u>RL</u>	MDL	<u>DF</u>	<u>C</u>	Qualifiers
Antimony		ND		0.728	0.145	0.971		
Arsenic		14.3		0.728	0.252	0.971		
Barium		139		0.485	0.150	0.971		
Beryllium		0.72	9	0.243	0.133	0.971		
Cadmium		0.32	0	0.485	0.131	0.971	J	J
Chromium		44.7		0.243	0.138	0.971		
Cobalt		13.2		0.243	0.144	0.971		
Copper		33.0		0.485	0.131	0.971	E	3
Lead		4.57		0.485	0.128	0.971		
Molybdenum		1.36		0.243	0.128	0.971		
Nickel		37.3		0.243	0.141	0.971		
Selenium		ND		0.728	0.291	0.971		
Silver		ND		0.243	0.0832	0.971		
Thallium		ND		0.728	0.147	0.971		
Vanadium		66.8		0.243	0.137	0.971		

0.971

0.172

0.971

В

82.4



#### **Analytical Report**

Alta Environmental Date Received: 01/15/15
3777 Long Beach Blvd., Annex Building Work Order: 15-01-0875
Long Beach, CA 90802-3335 Preparation: EPA 3050B
Method: EPA 6010B

Units: mg/kg

Project: Maguire - Woods Page 8 of 8

Client Sample N	umber	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank		097-01-002-20171	N/A	Solid	ICP 7300	01/16/15	01/16/15 16:57	150116L01
Comment(s):	- Results were evaluated to	o the MDL (DL), conc	entrations >=	to the MDL (I	DL) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		<u>Resul</u>	<u>t</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Antimony		ND		0.750	0.149	1.00		
Arsenic		ND		0.750	0.259	1.00		
Barium		ND		0.500	0.154	1.00		
Beryllium		ND		0.250	0.137	1.00		
Cadmium		ND		0.500	0.135	1.00		
Chromium		ND		0.250	0.142	1.00		
Cobalt		ND		0.250	0.148	1.00		
Copper		0.155		0.500	0.135	1.00	J	
Lead		ND		0.500	0.132	1.00		
Molybdenum		ND		0.250	0.132	1.00		
Nickel		ND		0.250	0.145	1.00		
Selenium		0.571		0.750	0.300	1.00	J	
Silver		ND		0.250	0.0857	1.00		
Thallium		ND		0.750	0.152	1.00		
Vanadium		ND		0.250	0.141	1.00		

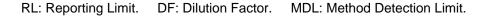
1.00

0.178

1.00

J

0.783





Alta Environmental Date Received: 01/15/15
3777 Long Beach Blvd., Annex Building Work Order: 15-01-0875
Long Beach, CA 90802-3335 Preparation: EPA 7471A Total
Method: EPA 7471A

				Units:				mg/kg
Project: Mag	guire - Woods						Р	age 1 of 2
Client Sample N	Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B104-2.5		15-01-0875-1-A	01/15/15 13:30	Solid	Mercury 05	01/19/15	01/19/15 13:44	150119L01
Comment(s):	- Results were evaluated to	the MDL (DL), co	ncentrations >:	= to the MDL	(DL) but < RL (LO	Q), if found, are	qualified with	a "J" flag.
<u>Parameter</u>		Res	<u>sult</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>		<u>Qualifiers</u>
Mercury		0.02	269	0.0833	0.00587	1.00		J
B104-5.0		15-01-0875-2-A	01/15/15 13:35	Solid	Mercury 05	01/19/15	01/19/15 13:51	150119L01
Comment(s):	- Results were evaluated to	the MDL (DL), co	ncentrations >:	to the MDL	(DL) but < RL (LO	Q), if found, are	qualified with	a "J" flag.
<u>Parameter</u>		Res	sult	<u>RL</u>	<u>MDL</u>	<u>DF</u>		<u>Qualifiers</u>
Mercury		0.02	207	0.0847	0.00597	1.00		J
B104-10		15-01-0875-3-A	01/15/15 14:00	Solid	Mercury 05	01/19/15	01/19/15 13:53	150119L01
Comment(s):	- Results were evaluated to	the MDL (DL), co	ncentrations >:	= to the MDL	(DL) but < RL (LO	Q), if found, are	qualified with	a "J" flag.
<u>Parameter</u>		Res	<u>sult</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>		<u>Qualifiers</u>
Mercury		0.02	233	0.0847	0.00597	1.00		J
B105-2.5		15-01-0875-4-A	01/15/15 10:35	Solid	Mercury 05	01/19/15	01/19/15 13:55	150119L01
Comment(s):	- Results were evaluated to	the MDL (DL), con	ncentrations >:	to the MDL	(DL) but < RL (LO	Q), if found, are	qualified with	a "J" flag.
<u>Parameter</u>		Res	sult	<u>RL</u>	<u>MDL</u>	<u>DF</u>		<u>Qualifiers</u>

 Parameter
 Result
 RL
 MDL
 DF
 Qualifiers

 Mercury
 0.000240
 0.000794
 0.0000559
 1.00
 J

B105-5.0	1	15-01-0875-5-A	01/15/15 10:40	Solid	Mercury 05	01/19/15	01/19/15 13:58	150119L01
0 1(-)	Describe commence of the description	· · MDL (DL)		te the MDL (DL	\	) '( (		III (I

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter

Mercury

Result

Result

No.0254

No.0833

No.00587

No.00587

No.00587

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter

Mercury

Result

Result

No.00959



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335

Date Received: Work Order: Preparation: Method:

15-01-0875 EPA 7471A Total **EPA 7471A** 

01/15/15

Units:

Matrix

mg/kg Page 2 of 2

Project: Maguire - Woods

Lab Sample Number Date/Time Collected Date Prepared Date/Time Analyzed Client Sample Number QC Batch ID Instrument 01/15/15 10:40 01/19/15 14:07 B105-5.0-DUP 01/19/15 150119L01 15-01-0875-7-A Solid Mercury 05

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. <u>Parameter</u> Result **MDL** <u>DF</u> 0.0251 0.0806 1.00 J 0.00568 Mercury

Method Blank	099-16-272-88	7 N/A	Solid	Mercury 05	01/19/15	01/19/15 13:40	150119L01
Comment(s):	- Results were evaluated to the MDL (DL), of	concentrations >=	to the MDL (DL)	but < RL (LOC	), if found, are	qualified with a "	J" flag.
<u>Parameter</u>	<u>R</u>	<u>esult</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qu</u>	<u>alifiers</u>
Mercury	N	D	0.0833	0.00587	1.00		



RL: Reporting Limit. MDL: Method Detection Limit. DF: Dilution Factor.



Units:

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

EPA 5035 EPA 8260B ug/kg

15-01-0875

01/15/15

Project: Maguire - Woods

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID			
B104-2.5	15-01-0875-1-D	01/15/15 13:30	Solid	GC/MS BB	01/15/15	01/16/15 16:41	150116L017			
Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.										
<u>Parameter</u>	Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>			
Acetone	ND		40	5.0	1.00					
Benzene	0.11		0.80	0.10	1.00	J	l			
Bromobenzene	ND		0.80	0.17	1.00					
Bromochloromethane	ND		1.6	0.55	1.00					
Bromodichloromethane	ND		0.80	0.19	1.00					
Bromoform	ND		4.0	0.64	1.00					
Bromomethane	ND		16	7.6	1.00					
2-Butanone	ND		16	3.0	1.00					
n-Butylbenzene	ND		0.80	0.13	1.00					
sec-Butylbenzene	ND		0.80	0.46	1.00					
tert-Butylbenzene	ND		0.80	0.12	1.00					
Carbon Disulfide	0.78		8.0	0.24	1.00	J				
Carbon Tetrachloride	ND		0.80	0.23	1.00					
Chlorobenzene	ND		0.80	0.18	1.00					
Chloroethane	ND		1.6	1.2	1.00					
Chloroform	ND		0.80	0.19	1.00					
Chloromethane	ND		16	0.24	1.00					
2-Chlorotoluene	ND		0.80	0.19	1.00					
4-Chlorotoluene	ND		0.80	0.17	1.00					
Dibromochloromethane	ND		1.6	0.46	1.00					
1,2-Dibromo-3-Chloropropane	ND		4.0	1.4	1.00					
1,2-Dibromoethane	ND		0.80	0.20	1.00					
Dibromomethane	ND		0.80	0.62	1.00					
1,2-Dichlorobenzene	ND		0.80	0.18	1.00					
1,3-Dichlorobenzene	ND		0.80	0.14	1.00					
1,4-Dichlorobenzene	ND		0.80	0.18	1.00					
Dichlorodifluoromethane	ND		1.6	0.36	1.00					
1,1-Dichloroethane	ND		0.80	0.17	1.00					
1,2-Dichloroethane	ND		0.80	0.25	1.00					
1,1-Dichloroethene	ND		0.80	0.28	1.00					
c-1,2-Dichloroethene	ND		0.80	0.22	1.00					
t-1,2-Dichloroethene	ND		0.80	0.41	1.00					
1,2-Dichloropropane	ND		0.80	0.35	1.00					
1,3-Dichloropropane	ND		0.80	0.20	1.00					

RL: Reporting Limit.

DF: Dilution Factor.



 Alta Environmental
 Date Received:
 01/15/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-01-0875

 Long Beach, CA 90802-3335
 Preparation:
 EPA 5035

 Method:
 EPA 8260B

 Units:
 ug/kg

 Project: Maguire - Woods
 Page 2 of 18

					1 3.90 = 31 13
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	4.0	0.27	1.00	
1,1-Dichloropropene	ND	1.6	0.26	1.00	
c-1,3-Dichloropropene	ND	0.80	0.20	1.00	
t-1,3-Dichloropropene	ND	1.6	0.49	1.00	
Ethylbenzene	ND	0.80	0.12	1.00	
2-Hexanone	ND	16	1.4	1.00	
Isopropylbenzene	ND	0.80	0.44	1.00	
p-Isopropyltoluene	ND	0.80	0.50	1.00	
Methylene Chloride	ND	8.0	1.1	1.00	
4-Methyl-2-Pentanone	ND	16	3.5	1.00	
Naphthalene	ND	8.0	0.65	1.00	
n-Propylbenzene	ND	1.6	0.40	1.00	
Styrene	ND	0.80	0.48	1.00	
1,1,1,2-Tetrachloroethane	ND	0.80	0.19	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	0.28	1.00	
Tetrachloroethene	ND	0.80	0.17	1.00	
Toluene	ND	0.80	0.41	1.00	
1,2,3-Trichlorobenzene	ND	1.6	0.73	1.00	
1,2,4-Trichlorobenzene	ND	1.6	0.25	1.00	
1,1,1-Trichloroethane	ND	0.80	0.18	1.00	
1,1,2-Trichloroethane	ND	0.80	0.28	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.0	0.28	1.00	
Trichloroethene	ND	1.6	0.24	1.00	
Trichlorofluoromethane	ND	8.0	0.30	1.00	
1,2,3-Trichloropropane	ND	1.6	0.67	1.00	
1,2,4-Trimethylbenzene	ND	1.6	0.47	1.00	
1,3,5-Trimethylbenzene	ND	1.6	0.44	1.00	
Vinyl Acetate	ND	8.0	3.8	1.00	
Vinyl Chloride	ND	0.80	0.40	1.00	
p/m-Xylene	ND	1.6	0.21	1.00	
o-Xylene	ND	0.80	0.45	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	0.24	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
1,4-Bromofluorobenzene	91	80-120			
Dibromofluoromethane	98	79-133			
1,2-Dichloroethane-d4	95	71-155			
Toluene-d8	99	80-120			



Project: Maguire - Woods

## **Analytical Report**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335

Date Received: Work Order: Preparation: Method:

EPA 5035 **EPA 8260B** 

01/15/15

15-01-0875

Units:

ug/kg Page 3 of 18

Troject: Magaire Woods							9000110
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B104-5.0	15-01-0875-2-D	01/15/15 13:35	Solid	GC/MS BB	01/15/15	01/16/15 17:08	150116L017
Comment(s): - Results were evalu	uated to the MDL (DL), cond	centrations >=	to the MDL (	DL) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	Qualifiers
Acetone	12		41	5.1	1.00	J	l
Benzene	ND		0.83	0.11	1.00		
Bromobenzene	ND		0.83	0.17	1.00		
Bromochloromethane	ND		1.7	0.57	1.00		
Bromodichloromethane	ND		0.83	0.19	1.00		
Bromoform	ND		4.1	0.66	1.00		
Bromomethane	ND		17	7.8	1.00		
2-Butanone	ND		17	3.1	1.00		
n-Butylbenzene	ND		0.83	0.13	1.00		
sec-Butylbenzene	ND		0.83	0.48	1.00		
tert-Butylbenzene	ND		0.83	0.12	1.00		
Carbon Disulfide	ND		8.3	0.25	1.00		
Carbon Tetrachloride	ND		0.83	0.23	1.00		
Chlorobenzene	ND		0.83	0.18	1.00		
Chloroethane	ND		1.7	1.2	1.00		
Chloroform	ND		0.83	0.20	1.00		
Chloromethane	ND		17	0.25	1.00		
2-Chlorotoluene	ND		0.83	0.19	1.00		
4-Chlorotoluene	ND		0.83	0.18	1.00		
Dibromochloromethane	ND		1.7	0.47	1.00		
1,2-Dibromo-3-Chloropropane	ND		4.1	1.4	1.00		
1,2-Dibromoethane	ND		0.83	0.21	1.00		
Dibromomethane	ND		0.83	0.64	1.00		
1,2-Dichlorobenzene	ND		0.83	0.19	1.00		
1,3-Dichlorobenzene	ND		0.83	0.15	1.00		
1,4-Dichlorobenzene	ND		0.83	0.18	1.00		
Dichlorodifluoromethane	ND		1.7	0.37	1.00		
1,1-Dichloroethane	ND		0.83	0.17	1.00		
1,2-Dichloroethane	ND		0.83	0.26	1.00		
1,1-Dichloroethene	ND		0.83	0.29	1.00		
c-1,2-Dichloroethene	ND		0.83	0.23	1.00		
t-1,2-Dichloroethene	ND		0.83	0.42	1.00		
1,2-Dichloropropane	ND		0.83	0.36	1.00		
1,3-Dichloropropane	ND		0.83	0.21	1.00		
,	,,,,			J.= .			

RL: Reporting Limit.

DF: Dilution Factor.



 Alta Environmental
 Date Received:
 01/15/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-01-0875

 Long Beach, CA 90802-3335
 Preparation:
 EPA 5035

 Method:
 EPA 8260B

 Units:
 ug/kg

 Project: Maguire - Woods
 Page 4 of 18

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	4.1	0.27	1.00	
1,1-Dichloropropene	ND	1.7	0.27	1.00	
c-1,3-Dichloropropene	ND	0.83	0.21	1.00	
t-1,3-Dichloropropene	ND	1.7	0.50	1.00	
Ethylbenzene	ND	0.83	0.13	1.00	
2-Hexanone	ND	17	1.5	1.00	
Isopropylbenzene	ND	0.83	0.45	1.00	
p-Isopropyltoluene	ND	0.83	0.52	1.00	
Methylene Chloride	ND	8.3	1.1	1.00	
4-Methyl-2-Pentanone	ND	17	3.6	1.00	
Naphthalene	ND	8.3	0.67	1.00	
n-Propylbenzene	ND	1.7	0.41	1.00	
Styrene	ND	0.83	0.50	1.00	
1,1,1,2-Tetrachloroethane	ND	0.83	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	1.7	0.29	1.00	
Tetrachloroethene	ND	0.83	0.17	1.00	
Toluene	ND	0.83	0.43	1.00	
1,2,3-Trichlorobenzene	ND	1.7	0.75	1.00	
1,2,4-Trichlorobenzene	ND	1.7	0.26	1.00	
1,1,1-Trichloroethane	ND	0.83	0.19	1.00	
1,1,2-Trichloroethane	ND	0.83	0.29	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.3	0.29	1.00	
Trichloroethene	ND	1.7	0.25	1.00	
Trichlorofluoromethane	ND	8.3	0.31	1.00	
1,2,3-Trichloropropane	ND	1.7	0.69	1.00	
1,2,4-Trimethylbenzene	ND	1.7	0.48	1.00	
1,3,5-Trimethylbenzene	ND	1.7	0.45	1.00	
Vinyl Acetate	ND	8.3	3.9	1.00	
Vinyl Chloride	ND	0.83	0.42	1.00	
p/m-Xylene	ND	1.7	0.22	1.00	
o-Xylene	ND	0.83	0.46	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	0.24	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	86	80-120			
Dibromofluoromethane	93	79-133			
1,2-Dichloroethane-d4	91	71-155			
Toluene-d8	97	80-120			



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

Units:

15-01-0875 EPA 5035 EPA 8260B ug/kg

01/15/15

Project: Maguire - Woods

Page 5 of 18

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID		
B104-10	15-01-0875-3-D	01/15/15 14:00	Solid	GC/MS BB	01/15/15	01/16/15 18:02	150116L017		
Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.									
<u>Parameter</u>	<u>Resu</u>	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>lualifiers</u>		
Acetone	7.5		29	3.6	1.00	J			
Benzene	ND		0.58	0.076	1.00				
Bromobenzene	ND		0.58	0.12	1.00				
Bromochloromethane	ND		1.2	0.40	1.00				
Bromodichloromethane	ND		0.58	0.14	1.00				
Bromoform	ND		2.9	0.46	1.00				
Bromomethane	ND		12	5.5	1.00				
2-Butanone	ND		12	2.2	1.00				
n-Butylbenzene	ND		0.58	0.091	1.00				
sec-Butylbenzene	ND		0.58	0.34	1.00				
tert-Butylbenzene	ND		0.58	0.088	1.00				
Carbon Disulfide	ND		5.8	0.18	1.00				
Carbon Tetrachloride	ND		0.58	0.16	1.00				
Chlorobenzene	ND		0.58	0.13	1.00				
Chloroethane	ND		1.2	0.87	1.00				
Chloroform	ND		0.58	0.14	1.00				
Chloromethane	ND		12	0.18	1.00				
2-Chlorotoluene	ND		0.58	0.13	1.00				
4-Chlorotoluene	ND		0.58	0.12	1.00				
Dibromochloromethane	ND		1.2	0.33	1.00				
1,2-Dibromo-3-Chloropropane	ND		2.9	1.0	1.00				
1,2-Dibromoethane	ND		0.58	0.15	1.00				
Dibromomethane	ND		0.58	0.45	1.00				
1,2-Dichlorobenzene	ND		0.58	0.13	1.00				
1,3-Dichlorobenzene	ND		0.58	0.10	1.00				
1,4-Dichlorobenzene	ND		0.58	0.13	1.00				
Dichlorodifluoromethane	ND		1.2	0.26	1.00				
1,1-Dichloroethane	ND		0.58	0.12	1.00				
1,2-Dichloroethane	ND		0.58	0.18	1.00				
1,1-Dichloroethene	ND		0.58	0.20	1.00				
c-1,2-Dichloroethene	ND		0.58	0.16	1.00				
t-1,2-Dichloroethene	ND		0.58	0.30	1.00				
1,2-Dichloropropane	ND		0.58	0.26	1.00				
1,3-Dichloropropane	ND		0.58	0.15	1.00				

RL: Reporting Limit.

DF: Dilution Factor.



 Alta Environmental
 Date Received:
 01/15/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-01-0875

 Long Beach, CA 90802-3335
 Preparation:
 EPA 5035

 Method:
 EPA 8260B

 Units:
 ug/kg

 Project: Maguire - Woods
 Page 6 of 18

Froject. Maguire - Woods					rage 0 01 10
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	2.9	0.19	1.00	
1,1-Dichloropropene	ND	1.2	0.19	1.00	
c-1,3-Dichloropropene	ND	0.58	0.15	1.00	
t-1,3-Dichloropropene	ND	1.2	0.35	1.00	
Ethylbenzene	ND	0.58	0.088	1.00	
2-Hexanone	ND	12	1.0	1.00	
Isopropylbenzene	ND	0.58	0.32	1.00	
p-Isopropyltoluene	ND	0.58	0.37	1.00	
Methylene Chloride	ND	5.8	0.78	1.00	
4-Methyl-2-Pentanone	ND	12	2.5	1.00	
Naphthalene	ND	5.8	0.47	1.00	
n-Propylbenzene	ND	1.2	0.29	1.00	
Styrene	ND	0.58	0.35	1.00	
1,1,1,2-Tetrachloroethane	ND	0.58	0.14	1.00	
1,1,2,2-Tetrachloroethane	ND	1.2	0.20	1.00	
Tetrachloroethene	0.18	0.58	0.12	1.00	J
Toluene	ND	0.58	0.30	1.00	
1,2,3-Trichlorobenzene	ND	1.2	0.53	1.00	
1,2,4-Trichlorobenzene	ND	1.2	0.18	1.00	
1,1,1-Trichloroethane	ND	0.58	0.13	1.00	
1,1,2-Trichloroethane	ND	0.58	0.21	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	5.8	0.21	1.00	
Trichloroethene	ND	1.2	0.18	1.00	
Trichlorofluoromethane	ND	5.8	0.22	1.00	
1,2,3-Trichloropropane	ND	1.2	0.48	1.00	
1,2,4-Trimethylbenzene	ND	1.2	0.34	1.00	
1,3,5-Trimethylbenzene	ND	1.2	0.32	1.00	
Vinyl Acetate	ND	5.8	2.8	1.00	
Vinyl Chloride	ND	0.58	0.29	1.00	
p/m-Xylene	ND	1.2	0.16	1.00	
o-Xylene	ND	0.58	0.32	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.2	0.17	1.00	
0	D (0/)	Operatoral Library	Over110 and		
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	91	80-120			
Dibromofluoromethane	96	79-133			
1,2-Dichloroethane-d4	98	71-155			
Toluene-d8	99	80-120			



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

Units:

15-01-0875 EPA 5035 EPA 8260B ug/kg

01/15/15

Project: Maguire - Woods

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID		
B105-2.5	15-01-0875-4-D	01/15/15 10:35	Solid	GC/MS BB	01/15/15	01/16/15 18:29	150116L017		
Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.									
<u>Parameter</u>	Resu	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	Qualifiers		
Acetone	7.6		38	4.7	1.00	J			
Benzene	ND		0.76	0.099	1.00				
Bromobenzene	ND		0.76	0.16	1.00				
Bromochloromethane	ND		1.5	0.52	1.00				
Bromodichloromethane	ND		0.76	0.18	1.00				
Bromoform	ND		3.8	0.60	1.00				
Bromomethane	ND		15	7.2	1.00				
2-Butanone	ND		15	2.9	1.00				
n-Butylbenzene	ND		0.76	0.12	1.00				
sec-Butylbenzene	ND		0.76	0.44	1.00				
tert-Butylbenzene	ND		0.76	0.11	1.00				
Carbon Disulfide	ND		7.6	0.23	1.00				
Carbon Tetrachloride	ND		0.76	0.21	1.00				
Chlorobenzene	ND		0.76	0.17	1.00				
Chloroethane	ND		1.5	1.1	1.00				
Chloroform	ND		0.76	0.18	1.00				
Chloromethane	ND		15	0.23	1.00				
2-Chlorotoluene	ND		0.76	0.18	1.00				
4-Chlorotoluene	ND		0.76	0.16	1.00				
Dibromochloromethane	ND		1.5	0.43	1.00				
1,2-Dibromo-3-Chloropropane	ND		3.8	1.3	1.00				
1,2-Dibromoethane	ND		0.76	0.19	1.00				
Dibromomethane	ND		0.76	0.59	1.00				
1,2-Dichlorobenzene	ND		0.76	0.17	1.00				
1,3-Dichlorobenzene	ND		0.76	0.13	1.00				
1,4-Dichlorobenzene	ND		0.76	0.17	1.00				
Dichlorodifluoromethane	ND		1.5	0.34	1.00				
1,1-Dichloroethane	ND		0.76	0.16	1.00				
1,2-Dichloroethane	ND		0.76	0.24	1.00				
1,1-Dichloroethene	ND		0.76	0.26	1.00				
c-1,2-Dichloroethene	ND		0.76	0.21	1.00				
t-1,2-Dichloroethene	ND		0.76	0.38	1.00				
1,2-Dichloropropane	ND		0.76	0.33	1.00				
1,3-Dichloropropane	ND		0.76	0.19	1.00				

RL: Reporting Limit.

DF: Dilution Factor.



 Alta Environmental
 Date Received:
 01/15/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-01-0875

 Long Beach, CA 90802-3335
 Preparation:
 EPA 5035

 Method:
 EPA 8260B

 Units:
 ug/kg

 Project: Maguire - Woods
 Page 8 of 18

Troject: Magaire Woods					1 age 6 61 16
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	3.8	0.25	1.00	
1,1-Dichloropropene	ND	1.5	0.25	1.00	
c-1,3-Dichloropropene	ND	0.76	0.19	1.00	
t-1,3-Dichloropropene	ND	1.5	0.46	1.00	
Ethylbenzene	ND	0.76	0.12	1.00	
2-Hexanone	ND	15	1.3	1.00	
Isopropylbenzene	ND	0.76	0.42	1.00	
p-Isopropyltoluene	ND	0.76	0.48	1.00	
Methylene Chloride	ND	7.6	1.0	1.00	
4-Methyl-2-Pentanone	ND	15	3.3	1.00	
Naphthalene	ND	7.6	0.62	1.00	
n-Propylbenzene	ND	1.5	0.38	1.00	
Styrene	ND	0.76	0.46	1.00	
1,1,1,2-Tetrachloroethane	ND	0.76	0.18	1.00	
1,1,2,2-Tetrachloroethane	ND	1.5	0.26	1.00	
Tetrachloroethene	ND	0.76	0.16	1.00	
Toluene	ND	0.76	0.39	1.00	
1,2,3-Trichlorobenzene	ND	1.5	0.69	1.00	
1,2,4-Trichlorobenzene	ND	1.5	0.24	1.00	
1,1,1-Trichloroethane	ND	0.76	0.17	1.00	
1,1,2-Trichloroethane	ND	0.76	0.27	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.6	0.27	1.00	
Trichloroethene	ND	1.5	0.23	1.00	
Trichlorofluoromethane	ND	7.6	0.29	1.00	
1,2,3-Trichloropropane	ND	1.5	0.63	1.00	
1,2,4-Trimethylbenzene	ND	1.5	0.45	1.00	
1,3,5-Trimethylbenzene	ND	1.5	0.42	1.00	
Vinyl Acetate	ND	7.6	3.6	1.00	
Vinyl Chloride	ND	0.76	0.38	1.00	
p/m-Xylene	ND	1.5	0.20	1.00	
o-Xylene	ND	0.76	0.42	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.5	0.22	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
1,4-Bromofluorobenzene	94	80-120			
Dibromofluoromethane	98	79-133			
1,2-Dichloroethane-d4	101	71-155			
Toluene-d8	101	80-120			



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

Units:

15-01-0875 EPA 5035 EPA 8260B ug/kg

01/15/15

Project: Maguire - Woods

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID		
B105-5.0	15-01-0875-5-D	01/15/15 10:40	Solid	GC/MS BB	01/15/15	01/16/15 18:56	150116L017		
Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.									
<u>Parameter</u>	Resu	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Q</u>	<u>ualifiers</u>		
Acetone	10		41	5.1	1.00	J			
Benzene	0.33		0.82	0.11	1.00	J			
Bromobenzene	ND		0.82	0.17	1.00				
Bromochloromethane	ND		1.6	0.57	1.00				
Bromodichloromethane	ND		0.82	0.19	1.00				
Bromoform	ND		4.1	0.65	1.00				
Bromomethane	ND		16	7.7	1.00				
2-Butanone	ND		16	3.1	1.00				
n-Butylbenzene	ND		0.82	0.13	1.00				
sec-Butylbenzene	ND		0.82	0.47	1.00				
tert-Butylbenzene	ND		0.82	0.12	1.00				
Carbon Disulfide	ND		8.2	0.25	1.00				
Carbon Tetrachloride	ND		0.82	0.23	1.00				
Chlorobenzene	ND		0.82	0.18	1.00				
Chloroethane	ND		1.6	1.2	1.00				
Chloroform	ND		0.82	0.20	1.00				
Chloromethane	ND		16	0.25	1.00				
2-Chlorotoluene	ND		0.82	0.19	1.00				
4-Chlorotoluene	ND		0.82	0.17	1.00				
Dibromochloromethane	ND		1.6	0.47	1.00				
1,2-Dibromo-3-Chloropropane	ND		4.1	1.4	1.00				
1,2-Dibromoethane	ND		0.82	0.21	1.00				
Dibromomethane	ND		0.82	0.63	1.00				
1,2-Dichlorobenzene	ND		0.82	0.19	1.00				
1,3-Dichlorobenzene	ND		0.82	0.14	1.00				
1,4-Dichlorobenzene	0.21		0.82	0.18	1.00	J			
Dichlorodifluoromethane	ND		1.6	0.36	1.00				
1,1-Dichloroethane	ND		0.82	0.17	1.00				
1,2-Dichloroethane	ND		0.82	0.26	1.00				
1,1-Dichloroethene	ND		0.82	0.28	1.00				
c-1,2-Dichloroethene	ND		0.82	0.23	1.00				
t-1,2-Dichloroethene	ND		0.82	0.41	1.00				
1,2-Dichloropropane	ND		0.82	0.36	1.00				
1,3-Dichloropropane	ND		0.82	0.21	1.00				

RL: Reporting Limit.

DF: Dilution Factor.



 Alta Environmental
 Date Received:
 01/15/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-01-0875

 Long Beach, CA 90802-3335
 Preparation:
 EPA 5035

 Method:
 EPA 8260B

 Units:
 ug/kg

Project: Maguire - Woods Page 10 of 18

Troject: Magaire Weeds					1 age 10 01 10
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qualifiers
2,2-Dichloropropane	ND	4.1	0.27	1.00	
1,1-Dichloropropene	ND	1.6	0.27	1.00	
c-1,3-Dichloropropene	ND	0.82	0.21	1.00	
t-1,3-Dichloropropene	ND	1.6	0.50	1.00	
Ethylbenzene	ND	0.82	0.12	1.00	
2-Hexanone	ND	16	1.4	1.00	
Isopropylbenzene	ND	0.82	0.45	1.00	
p-Isopropyltoluene	ND	0.82	0.52	1.00	
Methylene Chloride	ND	8.2	1.1	1.00	
4-Methyl-2-Pentanone	ND	16	3.5	1.00	
Naphthalene	ND	8.2	0.67	1.00	
n-Propylbenzene	ND	1.6	0.41	1.00	
Styrene	ND	0.82	0.50	1.00	
1,1,1,2-Tetrachloroethane	ND	0.82	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	0.28	1.00	
Tetrachloroethene	ND	0.82	0.17	1.00	
Toluene	ND	0.82	0.42	1.00	
1,2,3-Trichlorobenzene	ND	1.6	0.75	1.00	
1,2,4-Trichlorobenzene	ND	1.6	0.25	1.00	
1,1,1-Trichloroethane	ND	0.82	0.18	1.00	
1,1,2-Trichloroethane	ND	0.82	0.29	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.2	0.29	1.00	
Trichloroethene	ND	1.6	0.25	1.00	
Trichlorofluoromethane	ND	8.2	0.31	1.00	
1,2,3-Trichloropropane	ND	1.6	0.68	1.00	
1,2,4-Trimethylbenzene	ND	1.6	0.48	1.00	
1,3,5-Trimethylbenzene	ND	1.6	0.45	1.00	
Vinyl Acetate	ND	8.2	3.9	1.00	
Vinyl Chloride	ND	0.82	0.41	1.00	
p/m-Xylene	ND	1.6	0.22	1.00	
o-Xylene	ND	0.82	0.46	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	0.24	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
1,4-Bromofluorobenzene	92	80-120			
Dibromofluoromethane	95	79-133			
1,2-Dichloroethane-d4	96	71-155			
Toluene-d8	99	80-120			



Units:

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

15-01-0875 EPA 5035 EPA 8260B ug/kg

01/15/15

Project: Maguire - Woods

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID		
B105-10	15-01-0875-6-D	01/15/15 11:15	Solid	GC/MS BB	01/15/15	01/16/15 19:23	150116L017		
Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.									
<u>Parameter</u>	Resu	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>		
Acetone	13		39	4.8	1.00	J			
Benzene	ND		0.78	0.10	1.00				
Bromobenzene	ND		0.78	0.16	1.00				
Bromochloromethane	ND		1.6	0.54	1.00				
Bromodichloromethane	ND		0.78	0.18	1.00				
Bromoform	ND		3.9	0.62	1.00				
Bromomethane	ND		16	7.3	1.00				
2-Butanone	ND		16	2.9	1.00				
n-Butylbenzene	ND		0.78	0.12	1.00				
sec-Butylbenzene	ND		0.78	0.45	1.00				
tert-Butylbenzene	ND		0.78	0.12	1.00				
Carbon Disulfide	ND		7.8	0.24	1.00				
Carbon Tetrachloride	ND		0.78	0.22	1.00				
Chlorobenzene	ND		0.78	0.17	1.00				
Chloroethane	ND		1.6	1.2	1.00				
Chloroform	ND		0.78	0.19	1.00				
Chloromethane	ND		16	0.24	1.00				
2-Chlorotoluene	ND		0.78	0.18	1.00				
4-Chlorotoluene	ND		0.78	0.17	1.00				
Dibromochloromethane	ND		1.6	0.44	1.00				
1,2-Dibromo-3-Chloropropane	ND		3.9	1.4	1.00				
1,2-Dibromoethane	ND		0.78	0.20	1.00				
Dibromomethane	ND		0.78	0.60	1.00				
1,2-Dichlorobenzene	ND		0.78	0.18	1.00				
1,3-Dichlorobenzene	ND		0.78	0.14	1.00				
1,4-Dichlorobenzene	ND		0.78	0.17	1.00				
Dichlorodifluoromethane	ND		1.6	0.34	1.00				
1,1-Dichloroethane	ND		0.78	0.16	1.00				
1,2-Dichloroethane	ND		0.78	0.24	1.00				
1,1-Dichloroethene	ND		0.78	0.27	1.00				
c-1,2-Dichloroethene	ND		0.78	0.22	1.00				
t-1,2-Dichloroethene	ND		0.78	0.39	1.00				
1,2-Dichloropropane	ND		0.78	0.34	1.00				
1,3-Dichloropropane	ND		0.78	0.20	1.00				



 Alta Environmental
 Date Received:
 01/15/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-01-0875

 Long Beach, CA 90802-3335
 Preparation:
 EPA 5035

 Method:
 EPA 8260B

 Units:
 ug/kg

Project: Maguire - Woods Page 12 of 18

Froject. Maguire - Woods					rage 12 01 10
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qualifiers
2,2-Dichloropropane	ND	3.9	0.26	1.00	
1,1-Dichloropropene	ND	1.6	0.25	1.00	
c-1,3-Dichloropropene	ND	0.78	0.20	1.00	
t-1,3-Dichloropropene	ND	1.6	0.47	1.00	
Ethylbenzene	ND	0.78	0.12	1.00	
2-Hexanone	ND	16	1.4	1.00	
Isopropylbenzene	ND	0.78	0.42	1.00	
p-Isopropyltoluene	ND	0.78	0.49	1.00	
Methylene Chloride	ND	7.8	1.0	1.00	
4-Methyl-2-Pentanone	ND	16	3.4	1.00	
Naphthalene	ND	7.8	0.63	1.00	
n-Propylbenzene	ND	1.6	0.39	1.00	
Styrene	ND	0.78	0.47	1.00	
1,1,1,2-Tetrachloroethane	ND	0.78	0.19	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	0.27	1.00	
Tetrachloroethene	ND	0.78	0.16	1.00	
Toluene	ND	0.78	0.40	1.00	
1,2,3-Trichlorobenzene	ND	1.6	0.71	1.00	
1,2,4-Trichlorobenzene	ND	1.6	0.24	1.00	
1,1,1-Trichloroethane	ND	0.78	0.17	1.00	
1,1,2-Trichloroethane	ND	0.78	0.27	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.8	0.27	1.00	
Trichloroethene	ND	1.6	0.23	1.00	
Trichlorofluoromethane	ND	7.8	0.29	1.00	
1,2,3-Trichloropropane	ND	1.6	0.64	1.00	
1,2,4-Trimethylbenzene	ND	1.6	0.46	1.00	
1,3,5-Trimethylbenzene	ND	1.6	0.43	1.00	
Vinyl Acetate	ND	7.8	3.7	1.00	
Vinyl Chloride	ND	0.78	0.39	1.00	
p/m-Xylene	ND	1.6	0.21	1.00	
o-Xylene	ND	0.78	0.43	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	0.23	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
1,4-Bromofluorobenzene	94	80-120			
Dibromofluoromethane	94	79-133			
1,2-Dichloroethane-d4	101	71-155			
Toluene-d8	98	80-120			



Units:

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

15-01-0875 EPA 5035 EPA 8260B ug/kg

01/15/15

Project: Maguire - Woods

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B105-5.0-DUP	15-01-0875-7-D	01/15/15 10:40	Solid	GC/MS Q	01/15/15	01/17/15 13:03	150117L001
Comment(s): - Results were evaluated to	the MDL (DL), cond	centrations >= 1	to the MDL	(DL) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>llt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Q</u>	<u>ualifiers</u>
Acetone	13		38	4.7	1.00	J	
Benzene	0.21		0.75	0.098	1.00	J	
Bromobenzene	ND		0.75	0.16	1.00		
Bromochloromethane	ND		1.5	0.52	1.00		
Bromodichloromethane	ND		0.75	0.17	1.00		
Bromoform	ND		3.8	0.60	1.00		
Bromomethane	ND		15	7.1	1.00		
2-Butanone	ND		15	2.8	1.00		
n-Butylbenzene	ND		0.75	0.12	1.00		
sec-Butylbenzene	ND		0.75	0.43	1.00		
tert-Butylbenzene	ND		0.75	0.11	1.00		
Carbon Disulfide	ND		7.5	0.23	1.00		
Carbon Tetrachloride	ND		0.75	0.21	1.00		
Chlorobenzene	0.21		0.75	0.17	1.00	J	
Chloroethane	ND		1.5	1.1	1.00		
Chloroform	ND		0.75	0.18	1.00		
Chloromethane	ND		15	0.23	1.00		
2-Chlorotoluene	ND		0.75	0.17	1.00		
4-Chlorotoluene	ND		0.75	0.16	1.00		
Dibromochloromethane	ND		1.5	0.43	1.00		
1,2-Dibromo-3-Chloropropane	ND		3.8	1.3	1.00		
1,2-Dibromoethane	ND		0.75	0.19	1.00		
Dibromomethane	ND		0.75	0.58	1.00		
1,2-Dichlorobenzene	ND		0.75	0.17	1.00		
1,3-Dichlorobenzene	ND		0.75	0.13	1.00		
1,4-Dichlorobenzene	ND		0.75	0.17	1.00		
Dichlorodifluoromethane	ND		1.5	0.33	1.00		
1,1-Dichloroethane	ND		0.75	0.16	1.00		
1,2-Dichloroethane	ND		0.75	0.24	1.00		
1,1-Dichloroethene	ND		0.75	0.26	1.00		
c-1,2-Dichloroethene	ND		0.75	0.21	1.00		
t-1,2-Dichloroethene	ND		0.75	0.38	1.00		
1,2-Dichloropropane	ND		0.75	0.33	1.00		
1,3-Dichloropropane	ND		0.75	0.19	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



Alta Environmental Date Received: 01/15/15 3777 Long Beach Blvd., Annex Building Work Order: 15-01-0875 Long Beach, CA 90802-3335 EPA 5035 Preparation: Method: EPA 8260B Units: ug/kg Page 14 of 18

Project: Maguire - Woods

Troject: Magaire Woods					1 age 14 61 16
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qualifiers
2,2-Dichloropropane	ND	3.8	0.25	1.00	
1,1-Dichloropropene	ND	1.5	0.25	1.00	
c-1,3-Dichloropropene	ND	0.75	0.19	1.00	
t-1,3-Dichloropropene	ND	1.5	0.46	1.00	
Ethylbenzene	ND	0.75	0.11	1.00	
2-Hexanone	ND	15	1.3	1.00	
Isopropylbenzene	ND	0.75	0.41	1.00	
p-Isopropyltoluene	ND	0.75	0.47	1.00	
Methylene Chloride	ND	7.5	1.0	1.00	
4-Methyl-2-Pentanone	ND	15	3.2	1.00	
Naphthalene	ND	7.5	0.61	1.00	
n-Propylbenzene	ND	1.5	0.38	1.00	
Styrene	ND	0.75	0.45	1.00	
1,1,1,2-Tetrachloroethane	ND	0.75	0.18	1.00	
1,1,2,2-Tetrachloroethane	ND	1.5	0.26	1.00	
Tetrachloroethene	ND	0.75	0.16	1.00	
Toluene	ND	0.75	0.39	1.00	
1,2,3-Trichlorobenzene	ND	1.5	0.69	1.00	
1,2,4-Trichlorobenzene	ND	1.5	0.23	1.00	
1,1,1-Trichloroethane	ND	0.75	0.17	1.00	
1,1,2-Trichloroethane	ND	0.75	0.27	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.5	0.26	1.00	
Trichloroethene	ND	1.5	0.23	1.00	
Trichlorofluoromethane	ND	7.5	0.28	1.00	
1,2,3-Trichloropropane	ND	1.5	0.62	1.00	
1,2,4-Trimethylbenzene	ND	1.5	0.44	1.00	
1,3,5-Trimethylbenzene	ND	1.5	0.41	1.00	
Vinyl Acetate	ND	7.5	3.6	1.00	
Vinyl Chloride	ND	0.75	0.38	1.00	
p/m-Xylene	ND	1.5	0.20	1.00	
o-Xylene	ND	0.75	0.42	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.5	0.22	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	99	80-120			
Dibromofluoromethane	95	79-133			
1,2-Dichloroethane-d4	108	71-155			
Toluene-d8	100	80-120			

01/15/15

15-01-0875 EPA 5035

EPA 8260B



Project: Maguire - Woods

#### **Analytical Report**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

Units: ug/kg
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	095-01-025-25943	N/A	Solid	GC/MS BB	01/16/15	01/16/15 15:41	150116L017
Comment(s): - Results were evaluate	ed to the MDL (DL), conc	entrations >= to	the MDL (	DL) but < RL (LO	Q), if found, are	qualified with a	a "J" flag.
<u>Parameter</u>	Resul	t RI	=	MDL	<u>DF</u>	<u>(</u>	Qualifiers
Acetone	ND	50	)	6.2	1.00		
Benzene	ND	1.0	)	0.13	1.00		
Bromobenzene	ND	1.0	)	0.21	1.00		
Bromochloromethane	ND	2.0	)	0.69	1.00		
Bromodichloromethane	ND	1.0	)	0.23	1.00		
Bromoform	ND	5.0	)	0.79	1.00		
Bromomethane	ND	20	)	9.4	1.00		
2-Butanone	ND	20	)	3.8	1.00		
n-Butylbenzene	ND	1.0	)	0.16	1.00		
sec-Butylbenzene	ND	1.0	)	0.58	1.00		
tert-Butylbenzene	ND	1.0	)	0.15	1.00		
Carbon Disulfide	ND	10	)	0.31	1.00		
Carbon Tetrachloride	ND	1.0	)	0.28	1.00		
Chlorobenzene	ND	1.0	)	0.22	1.00		
Chloroethane	ND	2.0	)	1.5	1.00		
Chloroform	ND	1.0	)	0.24	1.00		
Chloromethane	ND	20	)	0.30	1.00		
2-Chlorotoluene	ND	1.0	)	0.23	1.00		
4-Chlorotoluene	ND	1.0	)	0.21	1.00		
Dibromochloromethane	ND	2.0	)	0.57	1.00		
1,2-Dibromo-3-Chloropropane	ND	5.0	)	1.7	1.00		
1,2-Dibromoethane	ND	1.0	)	0.26	1.00		
Dibromomethane	ND	1.0	)	0.77	1.00		
1,2-Dichlorobenzene	ND	1.0	)	0.23	1.00		
1,3-Dichlorobenzene	ND	1.0	)	0.18	1.00		
1,4-Dichlorobenzene	ND	1.0	)	0.22	1.00		
Dichlorodifluoromethane	ND	2.0	)	0.44	1.00		
1,1-Dichloroethane	ND	1.0	)	0.21	1.00		
1,2-Dichloroethane	ND	1.0	)	0.31	1.00		
1,1-Dichloroethene	ND	1.0	)	0.35	1.00		
c-1,2-Dichloroethene	ND	1.0	)	0.28	1.00		
t-1,2-Dichloroethene	ND	1.0	)	0.51	1.00		
1,2-Dichloropropane	ND	1.0	)	0.44	1.00		
1,3-Dichloropropane	ND	1.0	)	0.25	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Alta Environmental
 Date Received:
 01/15/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-01-0875

 Long Beach, CA 90802-3335
 Preparation:
 EPA 5035

 Method:
 EPA 8260B

 Units:
 ug/kg

 Project: Maguire - Woods
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					<u> </u>
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	5.0	0.33	1.00	
1,1-Dichloropropene	ND	2.0	0.33	1.00	
c-1,3-Dichloropropene	ND	1.0	0.25	1.00	
t-1,3-Dichloropropene	ND	2.0	0.61	1.00	
Ethylbenzene	ND	1.0	0.15	1.00	
2-Hexanone	ND	20	1.8	1.00	
Isopropylbenzene	ND	1.0	0.55	1.00	
p-Isopropyltoluene	ND	1.0	0.63	1.00	
Methylene Chloride	ND	10	1.3	1.00	
4-Methyl-2-Pentanone	ND	20	4.3	1.00	
Naphthalene	ND	10	0.81	1.00	
n-Propylbenzene	ND	2.0	0.50	1.00	
Styrene	ND	1.0	0.60	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1.00	
Tetrachloroethene	ND	1.0	0.21	1.00	
Toluene	ND	1.0	0.52	1.00	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1.00	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1.00	
1,1,1-Trichloroethane	ND	1.0	0.23	1.00	
1,1,2-Trichloroethane	ND	1.0	0.35	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1.00	
Trichloroethene	ND	2.0	0.30	1.00	
Trichlorofluoromethane	ND	10	0.38	1.00	
1,2,3-Trichloropropane	ND	2.0	0.83	1.00	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1.00	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1.00	
Vinyl Acetate	ND	10	4.7	1.00	
Vinyl Chloride	ND	1.0	0.50	1.00	
p/m-Xylene	ND	2.0	0.27	1.00	
o-Xylene	ND	1.0	0.56	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
1,4-Bromofluorobenzene	92	80-120			
Dibromofluoromethane	94	79-133			
1,2-Dichloroethane-d4	87	71-155			
Toluene-d8	98	80-120			



Date Received:

Units:

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335

Work Order:
Preparation:
Method:

EPA 5035 EPA 8260B ug/kg

15-01-0875

01/15/15

Project: Maguire - Woods

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	095-01-025-25946	N/A	Solid	GC/MS Q	01/17/15	01/17/15 11:46	150117L001
Comment(s): - Results were evaluated	to the MDL (DL), cond	entrations >= to	the MDL	(DL) but < RL (LO	Q), if found, are	qualified with a	a "J" flag.
<u>Parameter</u>	Resul	<u>t</u> <u>R</u>	<u>L</u>	<u>MDL</u>	<u>DF</u>	<u> </u>	<u>Qualifiers</u>
Acetone	ND	50	)	6.2	1.00		
Benzene	ND	1.	0	0.13	1.00		
Bromobenzene	ND	1.	0	0.21	1.00		
Bromochloromethane	ND	2.	0	0.69	1.00		
Bromodichloromethane	ND	1.	0	0.23	1.00		
Bromoform	ND	5.	0	0.79	1.00		
Bromomethane	ND	20	)	9.4	1.00		
2-Butanone	ND	20	)	3.8	1.00		
n-Butylbenzene	ND	1.	0	0.16	1.00		
sec-Butylbenzene	ND	1.	0	0.58	1.00		
tert-Butylbenzene	ND	1.	0	0.15	1.00		
Carbon Disulfide	ND	10	)	0.31	1.00		
Carbon Tetrachloride	ND	1.	0	0.28	1.00		
Chlorobenzene	ND	1.	0	0.22	1.00		
Chloroethane	ND	2.	0	1.5	1.00		
Chloroform	ND	1.	0	0.24	1.00		
Chloromethane	0.33	20	)	0.30	1.00	,	J
2-Chlorotoluene	ND	1.	0	0.23	1.00		
4-Chlorotoluene	ND	1.	0	0.21	1.00		
Dibromochloromethane	ND	2.	0	0.57	1.00		
1,2-Dibromo-3-Chloropropane	ND	5.	0	1.7	1.00		
1,2-Dibromoethane	ND	1.	0	0.26	1.00		
Dibromomethane	ND	1.	0	0.77	1.00		
1,2-Dichlorobenzene	ND	1.	0	0.23	1.00		
1,3-Dichlorobenzene	ND	1.	0	0.18	1.00		
1,4-Dichlorobenzene	ND	1.	0	0.22	1.00		
Dichlorodifluoromethane	ND	2.	0	0.44	1.00		
1,1-Dichloroethane	ND	1.	0	0.21	1.00		
1,2-Dichloroethane	ND	1.	0	0.31	1.00		
1,1-Dichloroethene	ND	1.	0	0.35	1.00		
c-1,2-Dichloroethene	ND	1.	0	0.28	1.00		
t-1,2-Dichloroethene	ND	1.		0.51	1.00		
1,2-Dichloropropane	ND	1.		0.44	1.00		
1,3-Dichloropropane	ND	1.	0	0.25	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Alta Environmental
 Date Received:
 01/15/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-01-0875

 Long Beach, CA 90802-3335
 Preparation:
 EPA 5035

 Method:
 EPA 8260B

 Units:
 ug/kg

 Project: Maguire - Woods
 Page 18 of 18

<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	1.00	
1,1-Dichloropropene	ND	2.0	0.33	1.00	
c-1,3-Dichloropropene	ND	1.0	0.25	1.00	
t-1,3-Dichloropropene	ND	2.0	0.61	1.00	
Ethylbenzene	ND	1.0	0.15	1.00	
2-Hexanone	ND	20	1.8	1.00	
Isopropylbenzene	ND	1.0	0.55	1.00	
p-Isopropyltoluene	ND	1.0	0.63	1.00	
Methylene Chloride	ND	10	1.3	1.00	
4-Methyl-2-Pentanone	ND	20	4.3	1.00	
Naphthalene	ND	10	0.81	1.00	
n-Propylbenzene	ND	2.0	0.50	1.00	
Styrene	ND	1.0	0.60	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1.00	
Tetrachloroethene	ND	1.0	0.21	1.00	
Toluene	ND	1.0	0.52	1.00	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1.00	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1.00	
1,1,1-Trichloroethane	ND	1.0	0.23	1.00	
1,1,2-Trichloroethane	ND	1.0	0.35	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1.00	
Trichloroethene	ND	2.0	0.30	1.00	
Trichlorofluoromethane	ND	10	0.38	1.00	
1,2,3-Trichloropropane	ND	2.0	0.83	1.00	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1.00	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1.00	
Vinyl Acetate	ND	10	4.7	1.00	
Vinyl Chloride	ND	1.0	0.50	1.00	
p/m-Xylene	ND	2.0	0.27	1.00	
o-Xylene	ND	1.0	0.56	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1.00	
_					
<u>Surrogate</u>	Rec. (%)	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	98	80-120			
Dibromofluoromethane	93	79-133			
1,2-Dichloroethane-d4	100	71-155			
Toluene-d8	102	80-120			



# **Quality Control - Spike/Spike Duplicate**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

01/15/15 15-01-0875 EPA 3050B

EPA 6010B

Project: Maguire - Woods Page 1 of 2

Quality Control Sample ID	Туре		Matrix	Inst	rument	Date Prepare	d Date Ana	lyzed	MS/MSD Ba	tch Number		
15-01-0905-1	Sample		Solid	ICP	7300	01/16/15	01/16/15 01/16/15 17:03		150116S01			
15-01-0905-1	Matrix Spike		Solid	ICP 7300		01/16/15	01/16/15 01/16/15 17:05		150116S01			
15-01-0905-1	Matrix Spike	Duplicate	Solid	ICP	7300	01/16/15	01/16/15 01/16/15 17:06			150116S01		
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers		
Antimony	ND	25.00	1.748	7	0.7251	3	50-115	83	0-20	3,4		
Arsenic	8.092	25.00	36.97	116	34.96	107	75-125	6	0-20			
Barium	513.9	25.00	473.8	4X	385.6	4X	75-125	4X	0-20	Q		
Beryllium	0.6905	25.00	29.30	114	27.88	109	75-125	5	0-20			
Cadmium	ND	25.00	27.32	109	26.02	104	75-125	5	0-20			
Chromium	94.35	25.00	125.7	125	134.4	160	75-125	7	0-20	3		
Cobalt	15.96	25.00	52.79	147	42.56	106	75-125	21	0-20	3,4		
Copper	40.52	25.00	68.03	110	58.82	73	75-125	15	0-20	3		
Lead	20.31	25.00	45.66	101	36.61	65	75-125	22	0-20	3,4		
Molybdenum	ND	25.00	23.67	95	22.17	89	75-125	7	0-20			
Nickel	109.4	25.00	155.2	4X	147.8	4X	75-125	4X	0-20	Q		
Selenium	ND	25.00	25.94	104	23.90	96	75-125	8	0-20			
Silver	ND	12.50	12.71	102	11.97	96	75-125	6	0-20			
Thallium	ND	25.00	17.25	69	15.59	62	75-125	10	0-20	3		
Vanadium	55.00	25.00	86.61	126	86.97	128	75-125	0	0-20	3		
Zinc	62.35	25.00	92.09	119	87.81	102	75-125	5	0-20			

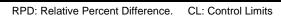


# **Quality Control - Spike/Spike Duplicate**

Alta Environmental Date Received: 01/15/15
3777 Long Beach Blvd., Annex Building Work Order: 15-01-0875
Long Beach, CA 90802-3335 Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Maguire - Woods Page 2 of 2

Quality Control Sample ID	Type	Туре		Matrix Instrument		Date Prepared Date Analyzed		lyzed	MS/MSD Batch Number	
B104-2.5	Sample		Solid	olid Mercury 05		01/19/15 01/19/15 13:		13:44	150119S01	
B104-2.5	Matrix Spike	Matrix Spike		Solid Mercury 05		01/19/15 01/19/15 13:46		13:46	:46 150119S01	
B104-2.5	Matrix Spike	Matrix Spike Duplicate		Solid Mercury 05		01/19/15	01/19/15	13:49	150119S01	
Parameter	Sample Conc.	<u>Spike</u> Added	MS Conc.	<u>MS</u> %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.9414	113	0.9307	111	71-137	1	0-14	







# **Quality Control - LCS**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

15-01-0875 EPA 3050B EPA 6010B

01/15/15

Project: Maguire - Woods

Page 1 of 4

Quality Control Sample ID	Туре	Matrix	Instrumen	t Date Prepa	ared Date Analy	zed LCS Batch I	Number
097-01-002-20171	LCS	Solid	ICP 7300	01/16/15	01/16/15 10	6:58 150116L01	
Parameter		Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony		25.00	25.74	103	80-120	73-127	
Arsenic		25.00	26.96	108	80-120	73-127	
Barium		25.00	21.03	84	80-120	73-127	
Beryllium		25.00	25.13	101	80-120	73-127	
Cadmium		25.00	26.22	105	80-120	73-127	
Chromium		25.00	21.67	87	80-120	73-127	
Cobalt		25.00	23.74	95	80-120	73-127	
Copper		25.00	26.05	104	80-120	73-127	
Lead		25.00	24.93	100	80-120	73-127	
Molybdenum		25.00	24.66	99	80-120	73-127	
Nickel		25.00	24.42	98	80-120	73-127	
Selenium		25.00	26.85	107	80-120	73-127	
Silver		12.50	10.97	88	80-120	73-127	
Thallium		25.00	25.03	100	80-120	73-127	
Vanadium		25.00	23.38	94	80-120	73-127	
Zinc		25.00	26.77	107	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass



# **Quality Control - LCS**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

15-01-0875 EPA 7471A Total EPA 7471A

01/15/15

Project: Maguire - Woods

Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument I	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-887	LCS	Solid	Mercury 05	01/19/15	01/19/15 15:26	150119L01
<u>Parameter</u>		Spike Added	Conc. Recovere	ed LCS %Re	ec. %Rec	. CL Qualifiers
Mercury		0.8350	0.8019	96	85-12 <sup>2</sup>	1





## **Quality Control - LCS/LCSD**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method: 01/15/15 15-01-0875 EPA 5035 EPA 8260B

Project: Maguire - Woods

Page 3 of 4

Quality Control Sample ID	Type		Matrix	Inst	trument	Date Prepare	d Date A	nalyzed	LCS/LCSD Ba	tch Number
095-01-025-25946	LCS		Solid	GC	/MS Q	01/17/15	01/17/	15 10:28	150117L001	
095-01-025-25946	LCSD		Solid	GC	/MS Q	01/17/15	01/17/1	15 10:54	150117L001	
Parameter	<u>Spike</u> <u>Added</u>	LCS Conc	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	50.00	50.99	102	50.68	101	80-120	73-127	1	0-20	
Carbon Tetrachloride	50.00	49.78	100	49.09	98	65-137	53-149	1	0-20	
Chlorobenzene	50.00	51.20	102	50.39	101	80-120	73-127	2	0-20	
1,2-Dibromoethane	50.00	48.55	97	49.19	98	80-120	73-127	1	0-20	
1,2-Dichlorobenzene	50.00	51.10	102	50.46	101	80-120	73-127	1	0-20	
1,2-Dichloroethane	50.00	51.01	102	51.18	102	80-120	73-127	0	0-20	
1,1-Dichloroethene	50.00	48.81	98	48.19	96	68-128	58-138	1	0-20	
Ethylbenzene	50.00	51.96	104	51.28	103	80-120	73-127	1	0-20	
Toluene	50.00	51.86	104	51.62	103	80-120	73-127	0	0-20	
Trichloroethene	50.00	49.82	100	49.24	98	80-120	73-127	1	0-20	
Vinyl Chloride	50.00	47.65	95	46.58	93	67-127	57-137	2	0-20	
p/m-Xylene	100.0	105.9	106	104.9	105	75-125	67-133	1	0-25	
o-Xylene	50.00	53.04	106	51.99	104	75-125	67-133	2	0-25	
Methyl-t-Butyl Ether (MTBE)	50.00	45.02	90	45.57	91	70-124	61-133	1	0-20	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass





## **Quality Control - LCS/LCSD**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method: 01/15/15 15-01-0875 EPA 5035 EPA 8260B

Project: Maguire - Woods Page 4 of 4

Quality Control Sample ID	Туре		Matrix	Inst	rument	Date Prepare	ed Date A	nalyzed	LCS/LCSD Ba	tch Number
095-01-025-25943	LCS		Solid	GC	MS BB	01/16/15	01/16/1	15 13:56	150116L017	
095-01-025-25943	LCSD		Solid	GC	MS BB	01/16/15	01/16/1	15 14:23	150116L017	
Parameter	<u>Spike</u> <u>Added</u>	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	50.00	57.79	116	57.41	115	80-120	73-127	1	0-20	
Carbon Tetrachloride	50.00	45.38	91	46.43	93	65-137	53-149	2	0-20	
Chlorobenzene	50.00	51.49	103	52.59	105	80-120	73-127	2	0-20	
1,2-Dibromoethane	50.00	52.38	105	53.57	107	80-120	73-127	2	0-20	
1,2-Dichlorobenzene	50.00	51.43	103	52.07	104	80-120	73-127	1	0-20	
1,2-Dichloroethane	50.00	51.96	104	52.36	105	80-120	73-127	1	0-20	
1,1-Dichloroethene	50.00	48.80	98	48.24	96	68-128	58-138	1	0-20	
Ethylbenzene	50.00	55.63	111	56.40	113	80-120	73-127	1	0-20	
Toluene	50.00	57.05	114	58.05	116	80-120	73-127	2	0-20	
Trichloroethene	50.00	56.65	113	56.25	113	80-120	73-127	1	0-20	
Vinyl Chloride	50.00	47.48	95	47.55	95	67-127	57-137	0	0-20	
p/m-Xylene	100.0	114.0	114	114.7	115	75-125	67-133	1	0-25	
o-Xylene	50.00	52.95	106	53.24	106	75-125	67-133	1	0-25	
Methyl-t-Butyl Ether (MTBE)	50.00	54.02	108	53.88	108	70-124	61-133	0	0-20	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass



# **Sample Analysis Summary Report**

Work Order: 15-01-0875				Page 1 of 1
<u>Method</u>	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3050B	771	ICP 7300	1
EPA 7471A	EPA 7471A Total	915	Mercury 05	1
EPA 8260B	EPA 5035	905	GC/MS Q	2
EPA 8260B	EPA 5035	905	GC/MS BB	2

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841 Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



#### **Glossary of Terms and Qualifiers**

Work Order: 15-01-0875 Page 1 of 1

<b>Qualifiers</b>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike

- concentration by a factor of four or greater.

  SG The sample extract was subjected to Silica
- The sample extract was subjected to Silica Gel treatment prior to analysis.
- X % Recovery and/or RPD out-of-range.
- Z Analyte presence was not confirmed by second column or GC/MS analysis.

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

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

2014-07-01 Revision

ontents



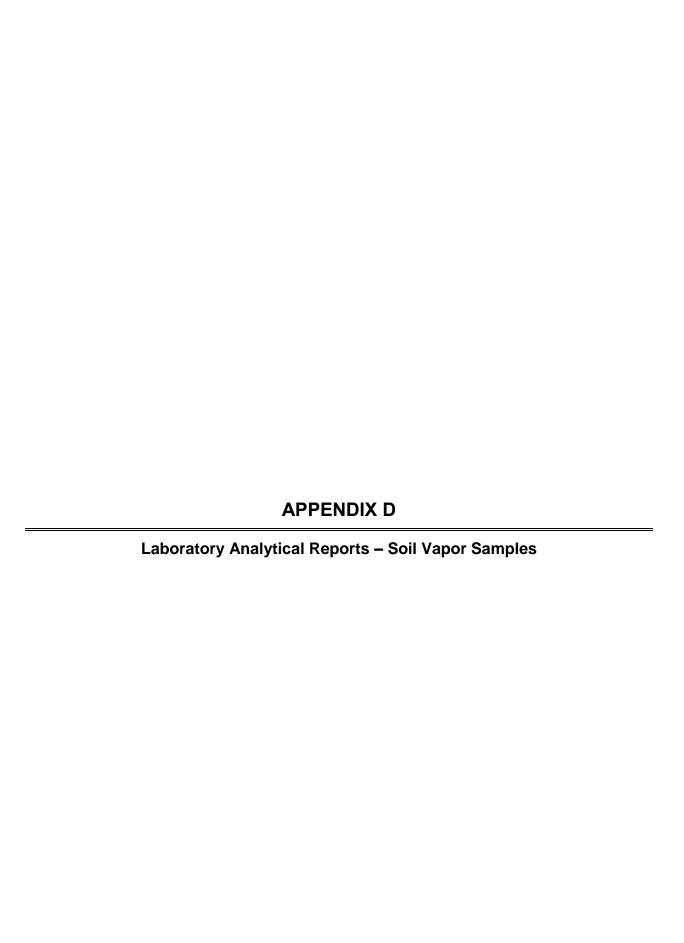
#### Calscience

**WORK ORDER #: 15-01-** □ □ □ □

#### SAMPLE RECEIPT FORM

Cooler \_\_\_ of \_\_

CLIENT: ALTA	DATE:	01/1	5/15
TEMPERATURE: Thermometer ID: SC4 (Criteria: 0.0 °C – 6.0 °C, not froze	en except s	ediment/tis	sue)
Temperature 4 • 4 °C + 0.2 °C (CF) = 4 • 6 °C	Blank	☐ San	nple
☐ Sample(s) outside temperature criteria (PM/APM contacted by:)			
☐ Sample(s) outside temperature criteria but received on ice/chilled on same	day of samp	ling.	
$\square$ Received at ambient temperature, placed on ice for transport by C	ourier.		<i>a</i> .
Ambient Temperature:   Air   Filter		Checked	d by: <u>404</u>
CUSTODY SEALS INTACT:			804
□ Cooler □ □ No (Not Intact) □ Not Present			d by: <u>80'7</u>
□ Sample □ □ No (Not Intact) □ Not Present		Checked	l by: <u>68 l</u>
SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	. Z		
COC document(s) received complete	<b>/</b>		
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	. 🗹		
Sample container label(s) consistent with COC	. 🗆	ø	
Sample container(s) intact and good condition	. Ø		
Proper containers and sufficient volume for analyses requested	. Ø		
Analyses received within holding time	. 1		
Aqueous samples received within 15-minute holding time	ï		
□ pH □ Residual Chlorine □ Dissolved Sulfides □ Dissolved Oxygen	🗆		Ø
Proper preservation noted on COC or sample container	. 🗷		
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	🗆		$\mathbf{z}'$
Tedlar bag(s) free of condensation  CONTAINER TYPE:	2		A
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve (ヤ ) □EnCore	es® ⊿ferra	ير °Cores	ZUZIJ
Aqueous: □VOA □VOAh □VOAna₂ □125AGB □125AGBh □125AGBp			
□500AGB □500AGJ □500AGJs □250AGB □250CGB □250CGB	s □1PB	□1PB <b>na</b>	□500PB
□250PB □250PB <b>n</b> □125PB □125PB <b>znna</b> □100PJ □100PJ <b>na</b> ₂ □			
Air: □Tedlar® □Canister Other: □ Trip Blank Lot#: Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: E		I/Checked Reviewed I	
Proconcition in HCL in HNO in the S.O. in NoOH in H. BO. of H. SO. will like ours minor 75.0 c.t.	OU fr Eiltorad	Seanned	hu: 1:01





Report date:

JEL Ref. No.:

1/19/2015

ST-7946

### JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Alta Environmental, Inc.

Client Address: 3777 Long Beach Blvd.

Long Beach, CA 90807

Attn: Steve Ridenour Date Sampled: 1/19/2015

Project: Panama Site Date Received: 1/19/2015

Panama Site Date Analyzed: 1/19/2015

Project Address: 12964 Panama Street Physical State: Soil Gas

Los Angeles, CA

#### ANALYSES REQUESTED

1. EPA TO-15 - Volatile Organics by GC/MS

Sampling – Soil Gas samples were collected in 1-Liter SUMMA Canisters. Tubing placed in the ground for soil gas sampling was purged three different times as recommended by DTSC/RWQCB regulations. This purge test determined how many purges of the soil gas tubing were needed throughout the project. One, three and ten purge volumes were analyzed to make this determination.

A tracer gas mixture of n-propanol and n-pentane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the TO-15 analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No n-propanol or n-pentane were found in any of the samples reported herein.

The sampling rate was approximately 200 cc/min except when noted differently on the chain of custody record. 1 purge volumes were used since this purging level gave the highest results for the compound(s) of greatest interest.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for some length of time. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

Analytical – Soil Gas samples were analyzed using EPA Method TO-15. Instrument Continuing Calibration Verification, QC Reference Standards, and Instrument Blanks were analyzed every 24 hours as prescribed by the method. In addition, Matrix Spike (MS) and Matrix Spike Duplicates (MSD) were analyzed with each batch of Soil Gas samples. A duplicate sample was analyzed each day of the sampling activity.

Approval:

Steve Jones, Ph.D. Laboratory Manager

P.O. BOX 5387 | FULLERTON, CA 92838 (714) 449-9937 | FAX (714) 449-9685

#### JONES ENVIRONMENTAL LABORATORY RESULTS

Client:Alta Environmental, Inc.Report date:1/19/2015Client Address:3777 Long Beach Blvd.JEL Ref. No.:ST-7946

Long Beach, CA 90807

**Attn:** Steve Ridenour

Project: Panama Site Date Received: 1/19/2015
Project Address: 12964 Panama Street Date Analyzed: 1/19/2015
Los Angeles, CA Physical State: Soil Gas

#### EPA TO-15-Volatile Organics by GC/MS in Air/ Summa Canister

Sample ID: B103-3' B103-3' B103-3' B103-3' B103-3' B103-3'

JEL ID:	ST-7946-01	ST-7946-02	ST-7946-03	<u>Practical</u>	
<u> </u>	51 // 10 01	51 // 10 02	51 // 10 02	<b>Quantitation</b>	<u>Units</u>
Analytes:				<u>Limit</u>	
Acetone	ND	ND	ND	0.001	μg/L
Acrolein	ND	ND	ND	0.003	μg/L
Benzene	ND	ND	ND	0.002	μg/L
Benzyl chloride	ND	ND	ND	0.003	μg/L
Bromodichloromethane	0.011	ND	ND	0.004	μg/L
Bromoform	ND	ND	ND	0.006	μg/L
Bromomethane	ND	ND	ND	0.002	μg/L
1,3-Butadiene	ND	ND	ND	0.001	μg/L
2-Butanone (MEK)	0.043	0.043	ND	0.002	μg/L
Carbon disulfide	ND	ND	ND	0.002	μg/L
Carbon tetrachloride	ND	ND	ND	0.003	μg/L
Chlorobenzene	ND	ND	ND	0.003	μg/L
Chloroform	0.008	0.005	0.004	0.002	μg/L
Cyclohexane	ND	ND	ND	0.002	μg/L
Dibromochloromethane	ND	ND	ND	0.005	μg/L
1,2-Dibromoethane	ND	ND	ND	0.005	μg/L
1,2-Dichlorobenzene	ND	ND	ND	0.004	μg/L
1,3-Dichlorobenzene	ND	ND	ND	0.004	μg/L
1,4-Dichlorobenzene	ND	ND	ND	0.004	μg/L
1,1-Dichloroethane	ND	ND	ND	0.002	μg/L
1,2-Dichloroethane	ND	ND	ND	0.002	μg/L
1,1-Dichloroethene	ND	ND	ND	0.002	μg/L
Cis-1,2-Dichloroethene	ND	ND	ND	0.002	μg/L
Trans-1,2-Dichloroethene	ND	ND	ND	0.002	μg/L
1,2-Dichloropropane	ND	ND	ND	0.003	μg/L
Cis-1,3-Dichloropropene	ND	ND	ND	0.003	μg/L
Trans-1,3-Dichloropropene	ND	ND	ND	0.003	μg/L
1,4-Dioxane	ND	ND	ND	0.002	μg/L
Ethanol	ND	ND	ND	0.001	$\mu \text{g}/L$

Sample ID:	B103-3' 1P	B103-3' 3P	B103-3' 10P	
	ST-7946-01	ST-7946-02	ST-7946-03	<u>Practical</u> Ouantitation <u>Units</u>
JEL ID: Analytes:				<u>Quantitation</u> <u>Units</u> <u>Limit</u>
Ethyl acetate	ND	ND	ND	0.002 μg/L
Ethyl benzene	0.059	0.040	0.031	0.003 µg/L
4-Ethyltoluene	ND	ND	ND	0.003 µg/L
Freon 11	ND	ND	ND	0.003 μg/L
Freon 12	ND	ND	ND	0.003 μg/L
Freon 113	0.012	0.010	0.010	0.005 μg/L
Freon 114	ND	ND	ND	0.004 μg/L
Heptane	ND	ND	ND	0.002 μg/L
Hexachloro-1,3-butadiene	ND	ND	ND	0.006 µg/L
Hexane	ND	ND	ND	$0.002$ $\mu$ g/L
2-Hexanone (MBK)	ND	ND	ND	$0.002$ $\mu$ g/L
Isopropyl Alcohol	ND	ND	ND	0.002 µg/L
4-Methyl-2-pentanone (MIBK)	ND	ND	ND	$0.002$ $\mu g/L$
Methylene chloride	0.021	0.013	0.010	$0.002$ $\mu$ g/L
MTBE	ND	ND	ND	$0.002$ $\mu$ g/L
Methylmethacrylate	ND	ND	ND	$0.002$ $\mu$ g/L
Naphthalene	ND	ND	ND	0.005 µg/L
Propylene	ND	ND	ND	$0.001$ $\mu$ g/L
Styrene	ND	ND	ND	0.003 µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	0.004 µg/L
Tetrachloroethene	0.020	0.018	0.018	$0.002$ $\mu$ g/L
Tetrahydrofuran	ND	ND	ND	$0.002$ $\mu$ g/L
Toluene	0.157	0.101	0.075	$0.002$ $\mu g/L$
1,2,4-Trichlorobenzene	ND	ND	ND	0.003 µg/L
1,1,1-Trichloroethane	ND	ND	ND	0.003 µg/L
1,1,2-Trichloroethane	ND	ND	ND	0.003 µg/L
Trichloroethene	ND	ND	ND	0.003 µg/L
1,2,4-Trimethylbenzene	0.042	0.021	0.024	0.003 µg/L
1,3,5-Trimethylbenzene	0.005	ND	0.008	0.003 µg/L
Vinyl Acetate	ND	ND	ND	$0.004$ $\mu$ g/L
Vinyl chloride	ND	ND	ND	$0.002$ $\mu g/L$
o-Xylene	0.038	0.025	0.019	0.003 µg/L
p/m-Xylene	0.285	0.195	0.144	0.003 μg/L
TIC:				
n-propanol	ND	ND	ND	0.060 μg/L
n-pentane	ND	ND	ND	0.003 μg/L
<u>Dilution Factor</u>	1	1	1	
Surrogate Recovery: 4-Bromofluorobenzene	83%	83%	92%	<u>QC Limits</u> 60-140

TO-011915- TO-011915- TO-011915- CHECKS CHECKS

ND= Not Detected

Client:Alta Environmental, Inc.Report date:1/19/2015Client Address:3777 Long Beach Blvd.JEL Ref. No.:ST-7946

Long Beach, CA 90807

**Attn:** Steve Ridenour

Sample ID:

Project: Panama Site Date Received: 1/19/2015
Project Address: 12964 Panama Street Date Analyzed: 1/19/2015
Los Angeles, CA Physical State: Soil Gas

#### EPA TO-15-Volatile Organics by GC/MS in Air/ Summa Canister

METHOD BLANK

JEL ID:	ST-7946-04	<u>Practical</u>	
JEL ID.	51-77-0-0-	<b>Quantitation</b>	<u>Units</u>
Analytes:		<u>Limit</u>	
Acetone	ND	0.001	μg/L
Acrolein	ND	0.003	μg/L
Benzene	ND	0.002	μg/L
Benzyl chloride	ND	0.003	μg/L
Bromodichloromethane	ND	0.004	μg/L
Bromoform	ND	0.006	μg/L
Bromomethane	ND	0.002	μg/L
1,3-Butadiene	ND	0.001	μg/L
2-Butanone (MEK)	ND	0.002	μg/L
Carbon disulfide	ND	0.002	μg/L
Carbon tetrachloride	ND	0.003	μg/L
Chlorobenzene	ND	0.003	μg/L
Chloroform	ND	0.002	μg/L
Cyclohexane	ND	0.002	μg/L
Dibromochloromethane	ND	0.005	μg/L
1,2-Dibromoethane	ND	0.005	μg/L
1,2-Dichlorobenzene	ND	0.004	μg/L
1,3-Dichlorobenzene	ND	0.004	μg/L
1,4-Dichlorobenzene	ND	0.004	μg/L
1,1-Dichloroethane	ND	0.002	μg/L
1,2-Dichloroethane	ND	0.002	μg/L
1,1-Dichloroethene	ND	0.002	μg/L
Cis-1,2-Dichloroethene	ND	0.002	μg/L
Trans-1,2-Dichloroethene	ND	0.002	μg/L
1,2-Dichloropropane	ND	0.003	μg/L
Cis-1,3-Dichloropropene	ND	0.003	μg/L
Trans-1,3-Dichloropropene	ND	0.003	$\mu$ g/L
1,4-Dioxane	ND	0.002	$\mu$ g/L
Ethanol	ND	0.001	$\mu g/L$

#### EPA TO-15-Volatile Organics by GC/MS in Air/ Summa Canister

#### METHOD BLANK

	MILITIO
Sample ID:	BLANK

Sample 1D1		Dog of and	
TELL ID	ST-7946-04	Practical Order	Ilmita
JEL ID:		Quantitation_	<u>Units</u>
Analytes:	ND	<u>Limit</u>	/=
Ethyl acetate	ND	0.002	μg/L
Ethyl benzene	ND	0.003	μg/L
4-Ethyltoluene	ND	0.003	μg/L
Freon 11	ND	0.003	μg/L
Freon 12	ND	0.003	μg/L
Freon 113	ND	0.005	μg/L
Freon 114	ND	0.004	μg/L
Heptane	ND	0.002	μg/L
Hexachloro-1,3-butadiene	ND	0.006	μg/L
Hexane	ND	0.002	μg/L
2-Hexanone (MBK)	ND	0.002	μg/L
Isopropyl Alcohol	ND	0.002	μg/L
4-Methyl-2-pentanone (MIBK)	ND	0.002	μg/L
Methylene chloride	ND	0.002	μg/L
MTBE	ND	0.002	μg/L
Methylmethacrylate	ND	0.002	μg/L
Naphthalene	ND	0.005	$\mu g/L$
Propylene	ND	0.001	μg/L
Styrene	ND	0.003	μg/L
1,1,2,2-Tetrachloroethane	ND	0.004	μg/L
Tetrachloroethene	ND	0.002	μg/L
Tetrahydrofuran	ND	0.002	μg/L
Toluene	ND	0.002	μg/L
1,2,4-Trichlorobenzene	ND	0.003	μg/L
1,1,1-Trichloroethane	ND	0.003	μg/L
1,1,2-Trichloroethane	ND	0.003	μg/L
Trichloroethene	ND	0.003	μg/L
1,2,4-Trimethylbenzene	ND	0.003	μg/L
1,3,5-Trimethylbenzene	ND	0.003	μg/L
Vinyl Acetate	ND	0.004	μg/L
Vinyl chloride	ND	0.002	μg/L
o-Xylene	ND	0.003	μg/L
p/m-Xylene	ND	0.003	μg/L
p/m-Aylene	T (D	0.005	MB/ E
TIC:			
n-propanol	ND	0.060	μg/L
n-pentane	ND	0.003	μg/L
<b>Dilution Factor</b>	1		

Surrogate Recovery:QC Limits4-Bromofluorobenzene60-140

TO-011915-CHECKS

ND= Not Detected



### JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:Alta Environmental, Inc.Report date:1/19/2015Client Address:3777 Long Beach Blvd.JEL Ref. No.:ST-7946

Long Beach, CA 90807 Client Ref. No.:

**Attn:** Steve Ridenour

Project: Panama Site Date Received: 1/19/2015
Project Address: 12964 Panama Street Date Analyzed: 1/19/2015

Los Angeles, CA Physical State: Soil Gas

#### EPA TO-15-Volatile Organics by GC/MS in Air/ Summa Canister

Sample Spiked:	Ambient Air		GC#:	GC#: TO-011915-CHECKS				
JEL ID:	ST-7946-06	ST-7946-07			ST-7946-05			
Parameter	MS Recovery (%)	MSD Recovery (%)	<u>RPD</u>	Acceptability Range (%)	<u>CCV</u>	Acceptability Range (%)		
<u>r drameter</u>	1000 (10)	recovery (70)	<u>ICI D</u>	runge (70)	<u>cc ;</u>	runge (70)		
Vinyl Chloride	99%	88%	10.9%	60-140	87%	70-130		
1,1-Dichloroethylene	95%	93%	2.1%	60-140	88%	70-130		
Cis-1,2-Dichloroethene	105%	99%	6.1%	70-130	92%	70-130		
1,1,1-Trichloroethane	87%	88%	1.1%	70-130	82%	70-130		
Benzene	100%	98%	1.9%	70-130	94%	70-130		
Trichloroethylene	89%	84%	6.0%	70-130	84%	70-130		
Toluene	89%	87%	2.3%	70-130	86%	70-130		
Tetrachloroethene	91%	92%	0.6%	70-130	90%	70-130		
Chlorobenzene	63%	62%	1.1%	70-130	66%	70-130		
Ethylbenzene	80%	82%	2.3%	70-130	77%	70-130		
1,2,4 Trimethylbenzene	99%	78%	18.0%	70-130	103%	70-130		
Surrogate Recovery:								
4-Bromofluorobenzene	103%	98%		75-125	96%	75-125		

Method Blank = Not Detected

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%



# Air Chain-of-Custody Record

P.O. 80x 5387
Fullerton, CA 92838
[7.4, 449-9937
Fx (7.14) 49-9685
www.jonesenvironmentallab.com

Ser Project# Ser Project # US	of Lab Use Only Sample Condition as	Children ( Ves   no	e.	Remarks & Special Instructions	UMMA			<b>)</b>							The delivery of samples and the signature on this Chain of Custody form constitutes authorization to	perform the analyses specificied above under the Terms and Conditions set forth	
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Tier III - (Data Validation Package) 10% Surcharge. Tier IV - (Client specified) 10% Surcharge EDF - 10% Surcharge				Sample Analysis Date													
Tier III - (I Tier IV - (6 EDF - 10%	Shut In Test	Z	U 10P	Sampling End Time	901	1032	1129										
tt	Sh.	Purge	& □ -	Sampling Start Time	1101	1027	1124										
eport Options Tier I - (Results/Default) Tier II - (Results + QC) EDD	Tracer:	1,1-0FA		Flow Rate (cc/min)	000	200	200						1	1	1,2		
Report Options Tier II - (Result Tier III - (Result	Tracer:			Cannister End Pressure	Q	D	×							Signature	S	Signature):	
	aquested: Attention Hours	Hours		Cannister Start Pressure	-30	30	-30					H		Recieved-By (Signature)	John John	Recieved By (Signature):	Company
Date 1/9/1/6 Client Project#	Turn Around Requested:   Inmediate Attention   Rush 24-48 Hours	Rush 72-96 Hours	☐ Mobile Lab	Cannister ID	1583		55428								9	, , , , , , , , , , , , , , , , , , ,	
			Johes	Laboratory Sample ID	1628 ST-7946-01	484 ST-741602 BZ453	16278 ST-1941/03 B2458							Date: 1/19/15	Time:	Date:	Time:
Inc.		4	/ / /	Purge Volume	1028	488H	16278										
al	4		dinole	Purge Number	_	3	0										
Men	25			Date Collected N	61/4	1/19	1/19							X	tal		
ight, ta Christonmental, Inc.	Modest Advisor Street Delivior Street	hone	Steve Gidenour	Sample ID	B1033' 1P		3103-31 109							Morth Follows:	41ta Environmental	g	ompany



Client: Alta Environmental, Inc. **Client Address:** 

3777 Long Beach Blvd.

Long Beach, CA 90807

Steve Ridenour Attn:

Panama Site **Project:** 

12964 Panama Street **Project Address:** 

Los Angeles, CA

Report date: 1/22/2015 JEL Ref. No.:

ST-7948

**Date Sampled:** Date Received:

1/20/2015 1/20-21/2015

1/20/2015

**Date Analyzed: Physical State:** 

Soil Gas

#### ANALYSES REQUESTED

EPA TO-15 - Volatile Organics by GC/MS

Sampling - Soil Gas samples were collected in 1-Liter SUMMA Canisters. Tubing placed in the ground for soil gas sampling was purged three different times as recommended by DTSC/RWQCB regulations. This purge test determined how many purges of the soil gas tubing were needed throughout the project. One, three and ten purge volumes were analyzed to make this determination.

A tracer gas mixture of n-propanol and n-pentane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the TO-15 analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No n-propanol or n-pentane were found in any of the samples reported herein.

The sampling rate was approximately 200 cc/min except when noted differently on the chain of custody record. 1 purge volumes were used since this purging level gave the highest results for the compound(s) of greatest interest.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for some length of time. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

Analytical - Soil Gas samples were analyzed using EPA Method TO-15. Instrument Continuing Calibration Verification, QC Reference Standards, and Instrument Blanks were analyzed every 24 hours as prescribed by the method. In addition, Matrix Spike (MS) and Matrix Spike Duplicates (MSD) were analyzed with each batch of Soil Gas samples. A duplicate sample was analyzed each day of the sampling activity.

Approval:

Steve Jones, Ph.D. Laboratory Manager

P.O. BOX 5387 | FULLERTON, CA 92838 (714) 449-9937 | FAX (714) 449-9685

B105-8'

B105-4'

#### JONES ENVIRONMENTAL LABORATORY RESULTS

Client:Alta Environmental, Inc.Report date:1/22/2015Client Address:3777 Long Beach Blvd.JEL Ref. No.:ST-7948

Long Beach, CA 90807

B103-6.5'

B104-4'

Attn: Steve Ridenour Date Sampled: 1/20/2015

**Date Received:** 1/20/2015

Project:Panama SiteDate Analyzed:1/20-21/2015Project Address:12964 Panama StreetPhysical State:Soil Gas

Los Angeles, CA

B104-8'

#### EPA TO-15-Volatile Organics by GC/MS in Air/ Summa Canister

JEL ID:	ST-7948-01	ST-7948-02	ST-7948-03	ST-7948-04	ST-7948-05	Practical Quantitation	<u>Units</u>
Analytes:						<u>Limit</u>	
Acetone	ND	ND	ND	ND	ND	0.001	μg/L
Acrolein	ND	ND	ND	ND	ND	0.003	μg/L
Benzene	0.024	0.030	0.018	0.025	0.008	0.002	μg/L
Benzyl chloride	ND	ND	ND	ND	ND	0.003	μg/L
Bromodichloromethane	ND	ND	ND	ND	0.023	0.004	μg/L
Bromoform	ND	ND	ND	ND	ND	0.006	μg/L
Bromomethane	ND	ND	ND	ND	ND	0.002	μg/L
1,3-Butadiene	ND	ND	ND	ND	ND	0.001	μg/L
2-Butanone (MEK)	0.061	0.039	0.040	ND	0.029	0.002	μg/L
Carbon disulfide	ND	ND	ND	ND	ND	0.002	μg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.003	μg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.003	μg/L
Chloroform	ND	0.016	ND	0.010	0.017	0.002	μg/L
Cyclohexane	ND	0.016	ND	ND	ND	0.002	μg/L
Dibromochloromethane	ND	ND	ND	0.014	ND	0.005	μg/L
1,2-Dibromoethane	ND	ND	ND	ND	ND	0.005	μg/L
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	0.004	μg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.004	μg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.004	μg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.002	μg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.002	μg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.002	μg/L
Cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.002	μg/L
Trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.002	$\mu g/L$
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.003	μg/L
Cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.003	$\mu g/L$
Trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.003	μg/L
1,4-Dioxane	ND	ND	ND	ND	ND	0.002	μg/L
Ethanol	ND	ND	ND	ND	ND	0.001	μg/L

Sample ID:

Sample ID:	B103-6.5'	B104-4'	B104-8'	B105-4'	B105-8'		
JEL ID: Analytes:	ST-7948-01	ST-7948-02	ST-7948-03	ST-7948-04	ST-7948-05	<u>Practical</u> <u>Quantitation</u> Limit	<u>Units</u>
	ND	ND	ND	ND	ND	0.002	ua/I
Ethyl acetate	0.107	0.238	ND ND	0.076	ND ND	0.002	μg/L
Ethyl benzene	0.107	0.238	0.024	0.070	ND ND	0.003	μg/L
4-Ethyltoluene	0.027 ND	0.022 ND	0.02 <b>4</b> ND	0.042 ND	ND ND	0.003	μg/L
Freon 11	ND ND	ND ND	ND ND	ND ND	ND ND	0.003	μg/L
Freon 12							μg/L
Freon 113	ND	0.065	0.101	0.722	0.837	0.005	μg/L
Freon 114	ND	ND	ND	ND	ND	0.004	μg/L
Heptane	ND	0.267	0.030	0.033	ND	0.002	μg/L
Hexachloro-1,3-butadiene	ND	ND	ND	ND	ND	0.006	μg/L
Hexane	ND	0.061	0.043	ND	ND	0.002	μg/L
2-Hexanone (MBK)	ND	ND	ND	0.006	ND	0.002	μg/L
Isopropyl Alcohol	ND	0.018	ND	ND	ND	0.002	μg/L
4-Methyl-2-pentanone (MIBK)	ND	ND	ND	ND	ND	0.002	μg/L
Methylene chloride	ND	ND	ND	ND	ND	0.002	μg/L
MTBE	ND	ND	ND	ND	ND	0.002	μg/L
Methylmethacrylate	ND	ND	ND	ND	ND	0.002	μg/L
Naphthalene	ND	ND	ND	ND	ND	0.005	μg/L
Propylene	ND	ND	ND	ND	ND	0.001	μg/L
Styrene	ND	ND	ND	ND	ND	0.003	μg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.004	μg/L
Tetrachloroethene	0.026	0.077	0.120	0.060	0.285	0.002	μg/L
Tetrahydrofuran	ND	ND	ND	ND	ND	0.002	μg/L
Toluene	0.186	0.158	0.056	0.186	0.043	0.002	μg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.003	μg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.003	μg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.003	μg/L
Trichloroethene	ND	ND	ND	ND	0.019	0.003	μg/L
1,2,4-Trimethylbenzene	0.043	0.009	0.010	0.056	0.013	0.003	μg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.003	μg/L μg/L
Vinyl Acetate	ND	ND	ND	ND	ND	0.003	μg/L μg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.004	μg/L μg/L
2	0.065	0.036	0.015	0.049	0.007	0.002	μg/L μg/L
o-Xylene	0.816	0.561	0.013	0.748	0.007	0.003	
p/m-Xylene	0.010	0.501	0.175	0.740	0.095	0.003	μg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.060	μg/L
n-pentane	ND	ND	ND	ND	ND	0.003	μg/L
<b>Dilution Factor</b>	1	1	1	1	1		
Surrogate Recovery: 4-Bromofluorobenzene	76%	79%	80%	93%	86%	<b>QC Limit</b> 60-140	<u>s</u>
	TO-012015- CHECKS_1	TO-012015- CHECKS_1	TO-012015- CHECKS_1	TO-012015- CHECKS_1	TO-012015- CHECKS_1		

ND= Not Detected

P.O. BOX 5387 | FULLERTON, CA 92838 (714) 449-9937 | FAX (714) 449-9685

#### JONES ENVIRONMENTAL LABORATORY RESULTS

Client:Alta Environmental, Inc.Report date:1/22/2015Client Address:3777 Long Beach Blvd.JEL Ref. No.:ST-7948

Long Beach, CA 90807

Attn: Steve Ridenour Date Sampled: 1/20/2015

**Date Received:** 1/20/2015

Project: Panama Site Date Analyzed: 1/20-21/2015

Project Address: 12964 Panama Street Physical State: Soil Gas

Los Angeles, CA

B102-6.5'

B102-3'

#### EPA TO-15-Volatile Organics by GC/MS in Air/ Summa Canister

B102-6.5'

Sample ID:	B102-3'	B102-6.5'	DUP		
JEL ID:	ST-7948-06	ST-7948-07	ST-7948-08	<u>Practical</u> <u>Quantitation</u>	<u>Units</u>
Analytes:				<u>Limit</u>	
Acetone	ND	ND	ND	0.001	μg/L
Acrolein	ND	ND	ND	0.003	μg/L
Benzene	0.013	0.011	0.012	0.002	μg/L
Benzyl chloride	ND	ND	ND	0.003	μg/L
Bromodichloromethane	ND	ND	ND	0.004	μg/L
Bromoform	ND	ND	ND	0.006	μg/L
Bromomethane	ND	ND	ND	0.002	μg/L
1,3-Butadiene	ND	ND	ND	0.001	μg/L
2-Butanone (MEK)	0.060	0.027	0.026	0.002	μg/L
Carbon disulfide	ND	ND	ND	0.002	μg/L
Carbon tetrachloride	ND	ND	ND	0.003	μg/L
Chlorobenzene	ND	ND	ND	0.003	μg/L
Chloroform	ND	ND	ND	0.002	μg/L
Cyclohexane	ND	ND	ND	0.002	μg/L
Dibromochloromethane	ND	ND	ND	0.005	μg/L
1,2-Dibromoethane	ND	ND	ND	0.005	μg/L
1,2-Dichlorobenzene	ND	ND	ND	0.004	μg/L
1,3-Dichlorobenzene	ND	ND	ND	0.004	$\mu$ g/L
1,4-Dichlorobenzene	ND	ND	ND	0.004	μg/L
1,1-Dichloroethane	ND	ND	ND	0.002	μg/L
1,2-Dichloroethane	ND	ND	ND	0.002	μg/L
1,1-Dichloroethene	ND	ND	ND	0.002	μg/L
Cis-1,2-Dichloroethene	ND	ND	ND	0.002	μg/L
Trans-1,2-Dichloroethene	ND	ND	ND	0.002	μg/L
1,2-Dichloropropane	ND	ND	ND	0.003	μg/L
Cis-1,3-Dichloropropene	ND	ND	ND	0.003	μg/L
Trans-1,3-Dichloropropene	ND	ND	ND	0.003	$\mu$ g/L
1,4-Dioxane	ND	ND	ND	0.002	$\mu g/L$
Ethanol	0.009	0.011	0.007	0.001	$\mu$ g/L

Sample ID:

EPA TO-15-Volatile	Organics by	' GC/MS in Aiı	·/ Summa Canister
--------------------	-------------	----------------	-------------------

Sample ID:	B102-3'	B102-6.5'	B102-6.5' DUP	
JEL ID:	ST-7948-06	ST-7948-07	ST-7948-08	<u>Practical</u> <u>Quantitation</u> <u>Units</u>
Analytes:				<u>Limit</u>
Ethyl acetate	ND	ND	ND	$\overline{0.002}$ µg/L
Ethyl benzene	0.034	ND	ND	$0.003$ $\mu$ g/L
4-Ethyltoluene	0.013	ND	ND	$0.003$ $\mu$ g/L
Freon 11	ND	ND	ND	$0.003$ $\mu$ g/L
Freon 12	ND	ND	ND	$0.003$ $\mu$ g/L
Freon 113	ND	ND	ND	0.005 μg/L
Freon 114	ND	ND	ND	0.004 µg/L
Heptane	ND	ND	ND	0.002 μg/L
Hexachloro-1,3-butadiene	ND	ND	ND	0.006 μg/L
Hexane	ND	ND	ND	0.002 μg/L
2-Hexanone (MBK)	ND	ND	ND	0.002 μg/L
Isopropyl Alcohol	ND	ND	ND	0.002 μg/L
4-Methyl-2-pentanone (MIBK)	ND	ND	ND	0.002 μg/L
Methylene chloride	ND	ND	ND	0.002 μg/L
MTBE	ND	ND	ND	0.002 μg/L
Methylmethacrylate	ND	ND	ND	0.002 μg/L
Naphthalene	ND	ND	ND	0.005 μg/L
Propylene	ND	ND	ND	0.001 μg/L
Styrene	ND	ND	ND	0.003 μg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	0.004 μg/L
Tetrachloroethene	0.154	0.194	0.211	0.002 μg/L
Tetrahydrofuran	ND	ND	ND	0.002 μg/L
Toluene	0.074	0.026	0.027	0.002 μg/L
1,2,4-Trichlorobenzene	ND	ND	ND	0.003 μg/L
1,1,1-Trichloroethane	ND	ND	ND	0.003 μg/L
1,1,2-Trichloroethane	ND	ND	ND	0.003 μg/L
Trichloroethene	ND	ND	ND	0.003 μg/L
1,2,4-Trimethylbenzene	0.029	0.010	0.010	0.003 µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	0.003 μg/L
Vinyl Acetate	ND	ND	ND	0.004 μg/L
Vinyl chloride	ND	ND	ND	0.002 μg/L
o-Xylene	0.020	0.006	0.006	0.003 µg/L
p/m-Xylene	0.321	0.138	0.156	0.003 µg/L
p/III Atyletic	V.C_1	0,120	01200	V., V.5
TIC:				
n-propanol	ND	ND	ND	$0.060$ $\mu$ g/L
n-pentane	ND	ND	ND	$0.003$ $\mu$ g/L
<b>Dilution Factor</b>	1	1	1	
Surrogate Recovery: 4-Bromofluorobenzene	88%	86%		<u>QC Limits</u> 60-140
	TO 012015	TO-012015-	TO-012015-	
		CHECKS 1		
	CHECKS_I	CHECKS_I	CHECKS_I	

ND= Not Detected

P.O. BOX 5387 | FULLERTON, CA 92838 (714) 449-9937 | FAX (714) 449-9685

#### JONES ENVIRONMENTAL LABORATORY RESULTS

Client:Alta Environmental, Inc.Report date:1/22/2015Client Address:3777 Long Beach Blvd.JEL Ref. No.:ST-7948

Long Beach, CA 90807

Attn: Steve Ridenour Date Sampled: 1/20/2015

**Date Received:** 1/20/2015

Project:Panama SiteDate Analyzed:1/20-21/2015Project Address:12964 Panama StreetPhysical State:Soil Gas

Los Angeles, CA

#### EPA TO-15-Volatile Organics by GC/MS in Air/ Summa Canister

METHOD BLANK

JEL ID:	ST-7948-09		<u>Practical</u>	
<del>GEE ID.</del>	51 // 10 0/		<b>Quantitation</b>	<u>Units</u>
Analytes:			<u>Limit</u>	
Acetone	ND		0.001	μg/L
Acrolein	ND		0.003	μg/L
Benzene	ND		0.002	μg/L
Benzyl chloride	ND		0.003	μg/L
Bromodichloromethane	ND		0.004	μg/L
Bromoform	ND		0.006	μg/L
Bromomethane	ND		0.002	μg/L
1,3-Butadiene	ND		0.001	μg/L
2-Butanone (MEK)	ND		0.002	μg/L
Carbon disulfide	ND	ND	0.002	μg/L
Carbon tetrachloride	ND		0.003	μg/L
Chlorobenzene	ND		0.003	μg/L
Chloroform	ND		0.002	μg/L
Cyclohexane	ND		0.002	μg/L
Dibromochloromethane	ND		0.005	μg/L
1,2-Dibromoethane	ND		0.005	μg/L
1,2-Dichlorobenzene	ND		0.004	μg/L
1,3-Dichlorobenzene	ND		0.004	μg/L
1,4-Dichlorobenzene	ND		0.004	μg/L
1,1-Dichloroethane	ND		0.002	μg/L
1,2-Dichloroethane	ND		0.002	μg/L
1,1-Dichloroethene	ND		0.002	μg/L
Cis-1,2-Dichloroethene	ND		0.002	μg/L
Trans-1,2-Dichloroethene	ND		0.002	μg/L
1,2-Dichloropropane	ND		0.003	μg/L
Cis-1,3-Dichloropropene	ND		0.003	μg/L
Trans-1,3-Dichloropropene	ND		0.003	μg/L
1,4-Dioxane	ND		0.002	μg/L
Ethanol	ND		0.001	μg/L

Sample ID:

#### EPA TO-15-Volatile Organics by GC/MS in Air/ Summa Canister

#### **METHOD** BLANK

Sample ID:	BLANK		
	ST-7948-09	<u>Practical</u>	<b>T</b> T •4
JEL ID:			<u>Units</u>
Analytes:		<u>Limit</u>	
Ethyl acetate	ND		μg/L
Ethyl benzene	ND		μg/L
4-Ethyltoluene	ND		μg/L
Freon 11	ND		μg/L
Freon 12	ND		μg/L
Freon 113	ND	0.005	$\mu g/L$
Freon 114	ND		μg/L
Heptane	ND		μg/L
Hexachloro-1,3-butadiene	ND		μg/L
Hexane	ND	0.002	$\mu$ g/L
2-Hexanone (MBK)	ND	0.002	$\mu$ g/L
Isopropyl Alcohol	ND	0.002	μg/L
4-Methyl-2-pentanone (MIBK)	ND	0.002	μg/L
Methylene chloride	ND	0.002	$\mu$ g/L
MTBE	ND	0.002	$\mu$ g/L
Methylmethacrylate	ND	0.002	$\mu$ g/L
Naphthalene	ND		$\mu g/L$
Propylene	ND		$\mu g/L$
Styrene	ND		μg/L
1,1,2,2-Tetrachloroethane	ND		μg/L
Tetrachloroethene	ND		μg/L
Tetrahydrofuran	ND		μg/L
Toluene	ND		μg/L
1,2,4-Trichlorobenzene	ND		μg/L
1,1,1-Trichloroethane	ND		μg/L
1,1,2-Trichloroethane	ND		μg/L
Trichloroethene	ND		μg/L
1,2,4-Trimethylbenzene	ND		μg/L
1,3,5-Trimethylbenzene	ND		μg/L
Vinyl Acetate	ND		μg/L
Vinyl chloride	ND		μg/L
o-Xylene	ND		μg/L
p/m-Xylene	ND		μg/L
p, 1291 <b>0</b> 110			1.0
TIC:			
n-propanol	ND	0.060	μg/L
n-pentane	ND		μg/L
ii pentane			1.0
<b>Dilution Factor</b>	1		
Surrogate Recovery:		QC Limits	
4-Bromofluorobenzene	89%	60-140	
	TO-012015-		
	CHECKS 1		

CHECKS\_1

ND= Not Detected



### JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:Alta Environmental, Inc.ST-79481/22/2015Client Address:3777 Long Beach Blvd.JEL Ref. No.:ST-7946

Long Beach, CA 90807

Attn: Steve Ridenour Date Sampled: 1/20/2015

 Project:
 Panama Site
 Date Received:
 1/20/2015

 Date Analyzed:
 1/20-21/2015

Project Address: 12964 Panama Street Physical State: Soil Gas

Los Angeles, CA

#### EPA TO-15-Volatile Organics by GC/MS in Air/ Summa Canister

Sample Spiked:	le Spiked: Ambient Air GO		GC#:	TO-012015-CH		
JEL ID:	ST-7948-11	ST-7948-12			ST-7948-10	
Parameter	MS Recovery (%)	MSD Recovery (%)	<u>RPD</u>	Acceptability Range (%)	<u>CCV</u>	Acceptability Range (%)
<u>r tirameter</u>	recovery (70)	recovery (70)	<u>ICLD</u>	runge (70)	<u>cc r</u>	runge (70)
Vinyl Chloride	94%	87%	8.5%	60-140	73%	70-130
1,1-Dichloroethylene	98%	90%	8.7%	60-140	85%	70-130
Cis-1,2-Dichloroethene	102%	96%	6.2%	70-130	93%	70-130
1,1,1-Trichloroethane	86%	81%	5.6%	70-130	76%	70-130
Benzene	99%	94%	5.1%	70-130	91%	70-130
Trichloroethylene	88%	85%	4.4%	70-130	79%	70-130
Toluene	88%	86%	3.0%	70-130	82%	70-130
Tetrachloroethene	92%	89%	2.3%	70-130	81%	70-130
Chlorobenzene	63%	61%	2.4%	70-130	72%	70-130
Ethylbenzene	78%	78%	0.4%	70-130	62%	70-130
1,2,4 Trimethylbenzene	68%	66%	3.1%	70-130	58%	70-130
Surrogate Recovery:	0=0/	0.407			000/	10-
4-Bromofluorobenzene	97%	94%		75-125	90%	75-125

Method Blank = Not Detected

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

# O ZIWNONIAN WILLIAM ON THE PROPERTY OF THE PRO

# Air Chain-of-Custody Record

207	838	937	685	:om
7.C. DUX DD07	Fullerton, CA 92838	(714) 449-9937	Fax (714) 449-9685	entallab.c
L.	Fullert	(7	Fax (7	ww.jonesenvironmentallab.com
				ww.jones

ST-7948	Page	Lab Use Only	Recieved: Chilled Ves no	State of the state			Remarks & Special Instructions
10% Surcharge		Analysis Requested	(0	o <sub>s</sub> H\ni)	gnibsə? Reading	oile	Magneh
Tier III - (Data Validation Package) 10% Surcharge. Tier IV - (Client specified) 10% Surcharge	ircharge	٨					Sample Sample Analysis Analysis Date Time
Tier III - (Dat	ED1 - 10% on	Shut in lest	Purge Number	P 039	U 7P U 10P		Sampling End Time
eport Options Ter I - (Results/Default)	Tracer:	n-propanol	n-pentane				Flow Rate Sampling (cc/min) Start Time
Report Options Tier! - (Result			re L				ster Cannister rt End ure Pressure
Date 1/20/15 Client Project #	Turn Around Requested:	Immediate Attention	Rush 24-48 Hours	Normal	Mobile Lab		Cannister ID Start Pressure
					Jones		Laboratory Sample ID
ن	+				nide		Purge Volume
1	The	*			Sampler		Purge
ironnental	MA	35, (					Date Purge Collected Number
3	Project Address And	Jos Angli	mail	hone	Steve Ridenbur		Sample ID

8103-6,5' 1/20   1647 57-79418-01 B2412 3 B104-4' 1/20   1683 -02 B2446 -3 B105-4' 1/20   1685 -03 B2458 -3 B105-4' 1/20   1685 -03 B2458 -3 B105-8' 1/20   1685 -05 B2419 -3 B102-3' 1/20   1647 -05 B2419 -3 B102-6,5' 1/20   1647 -05 B2419 -3 B102-6,5' 1/20   1647 -05 B2415 -3	412 30 8 413 30 8 413 30 8 419 30 8 410 8 4		1059 1059 1117 1117 1118 1118 1118 1118 1118 111	XXXXXX	2322	SUMMA
4' 1/20   1633 -07 B2446 -8'   1/20   1655 -07 B2446 -8'   1/20   1655 -08 B2418 -8'   1/20   1655 -08 B2418 -8'   1/20	32 32 32 6			XXXXX	377	
4. 1/20   1655 -01   1915 -4   12458 -4   120   1655 -05   12458 -4   120   1655 -05   12419 -4   1609   16	30000		2 2 - 2 3	XXXX	223	
4' 170 ( 1633 - 4 62458 4' 170 ( 1655 - 05 62419 - 56 62458 3' 120 ( 1647 - 05 62419 - 56 62477 - 59 62419 - 56 62477 - 59 62415 - 56 62419 - 58 62415 -	1 1	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	~ - = :	XXX	2	
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100 1 1028 -06 82477 1 09/1 1	8 05 Ch	1000000	= ;	>		
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80- LH91 1 cd/1		500	1/11//	X	7	
	Ø 08-51K	200 1137	19116	×	177	
						103
Reimonished By (Signature):	Recieved By (Signature	N		Date: 20/15		
0 0	Commany CM 05	8		Time: 1220	The deliver Chain of Cu	The delivery of samples and the signature on this Chain of Custody form constitutes authorization to
ed By (Signature): Date:	Recieved By (Signature):	:4:		Date:	perform the	perform the analyses specificied above under the Terms and Conditions set forth
Сомралу Тіме:	Сотрапу			Time:		

# **APPENDIX E Well Development Records**

T.O.C. - Top of Casing VOLUME: GAL. PER LIN./FT.

2 IN.=0.17

6 IN.=1.5 8 IN.=2.51

3 IN.=0.38 8 I 4 IN.=0.66

### CASCADE DRILLING

			Develo	pment / 1	Purge Reco	ord			
Date   - 2	9-12	Project #	105-15	1593	Site	anama	57,		
Well I.D. #	Mw- 8	Wat	er Level T.O	.c	00	Ft. Tota	al Depth 19	.30 Ft	
Set Up	Wel	1 Dia <u> </u>	_In. Wate	r Column I	leight	_Ft. Cas	ing Volume	Gal.	
TIME	GAL. PURGED	TEMP	COND.	pН	TURB.	T.D.5	DTW	OTHER DO	on
0955-	1005	Surgial					10.60		1
1015	10	bailed	dry				18,75		
1040			/				15.00	Recharge	Real
1100							13.55	Reachange	read
100-11			and t				11.65	80.00 S	Grain
1127	15	20.95	2.09	7.10	7,000	1,34	15.65	50.00	35
1134	21	bailed	dry				18.80		
1150							13.10		1
1151	23	27.27		6.9/	7/1000	1,16	15.78	2.68	265
1156	30	balled	,				18.90		1
	O Surge				*	-	12.68		١.,
1220	350	22.89	1.74	6.92	7/,000	1.12	16.91	8.06	260
Set	back c	nit							1
1545		/		2			11.00		
1550	38	21.66		6.43	613	1,09	12.20		339
1555	40	21.53	1.76	6.48	7/1000	1.13	15.55	5.28	328
1600	48	Barled		10	700		19,10	-	
1605	50	21.64	1175	6.42	795	1.12	18.12	5.91	334
									1
		/							
									-
									-

Data Collected By: 6. Bolton

T.O.C. - Top of Casing VOLUME: GAL. PER LIN./FT.

2 IN.=0.17

6 IN.=1.5 8 IN.=2.51

3 IN.=0.38 4 IN.=0.66

### **CASCADE DRILLING**

			Develo	pment / P	urge Rec	ord			
Date 1- 7	9-15	Project #	105.15	-1593	Site	Panamo	5+		
Well I.D. #	Mw-7	Wate	er Level T.O.	c. 11.0	5	Ft. Tota	Depth_/9	6Ft	
Set Up	Well	Dia. <u>4</u>	In. Water	r Column H	eight	_ Ft. Casi	ng Volume _	Gal.	
TIME	GAL. PURGED	TEMP	COND.	рН	TURB.	T.D. S	DTW	OTHER DO	ORI
1245-13	ob Surg	ed					10.75		]
1308	8	Bailed	dry				18.95		]
1328			1				14.75	Recharge	Rend
1330 a	dded	59115	of water				11.75		]
1330 -1		rand o	hd time				11.00		]
1357	20	Balled					19.10		
1420			/				13.00	Rechange	ed no
1423	99	15.66	1,54	7.00	877	-982	14,71	Rectorge	279
	27	builed o	YV				18.95		
1445			1					Rechange	cod m
1445	30	20.00	1.57	6.6	489	1-01		50.00	39
1452	35	Bailed	Lus				19,40		1
1505	35	21.81	1:57	6.45	404	1.01	18.21	50.00	330
10 0				,	-			, ,	1
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						Data Coll	ected By: _(	5. Be 17	1

# **APPENDIX F Well and Boring Survey Report**

#### MONITORING WELL SURVEY REPORT

<u>CLIENT:</u> ALTA ENVIRONMENTAL

SITE ADDRESS: 12964 Panama St., Los Angeles, CA 90066

DATE OF SURVEY(s): 6-14-2013, Updated 02-04-2015

**DATE OF REPORT:** 2-17-2015

#### **HORIZONTAL AND VERTICAL CONTROL**

Horizontal Datum: State Plane, NAD83

Horizontal Zone: California 5

Horizontal Units: U.S. Survey Feet

Vertical Datum: CITY OF LOS ANGELES BM# 11028

Elev. = 19.445 FT (NGVD 29) ADJ. 1985

**Vertical Units: U.S. Survey Feet** 

#### (CALIFORNIA STATE PLANE COORDINATES-NAD83)

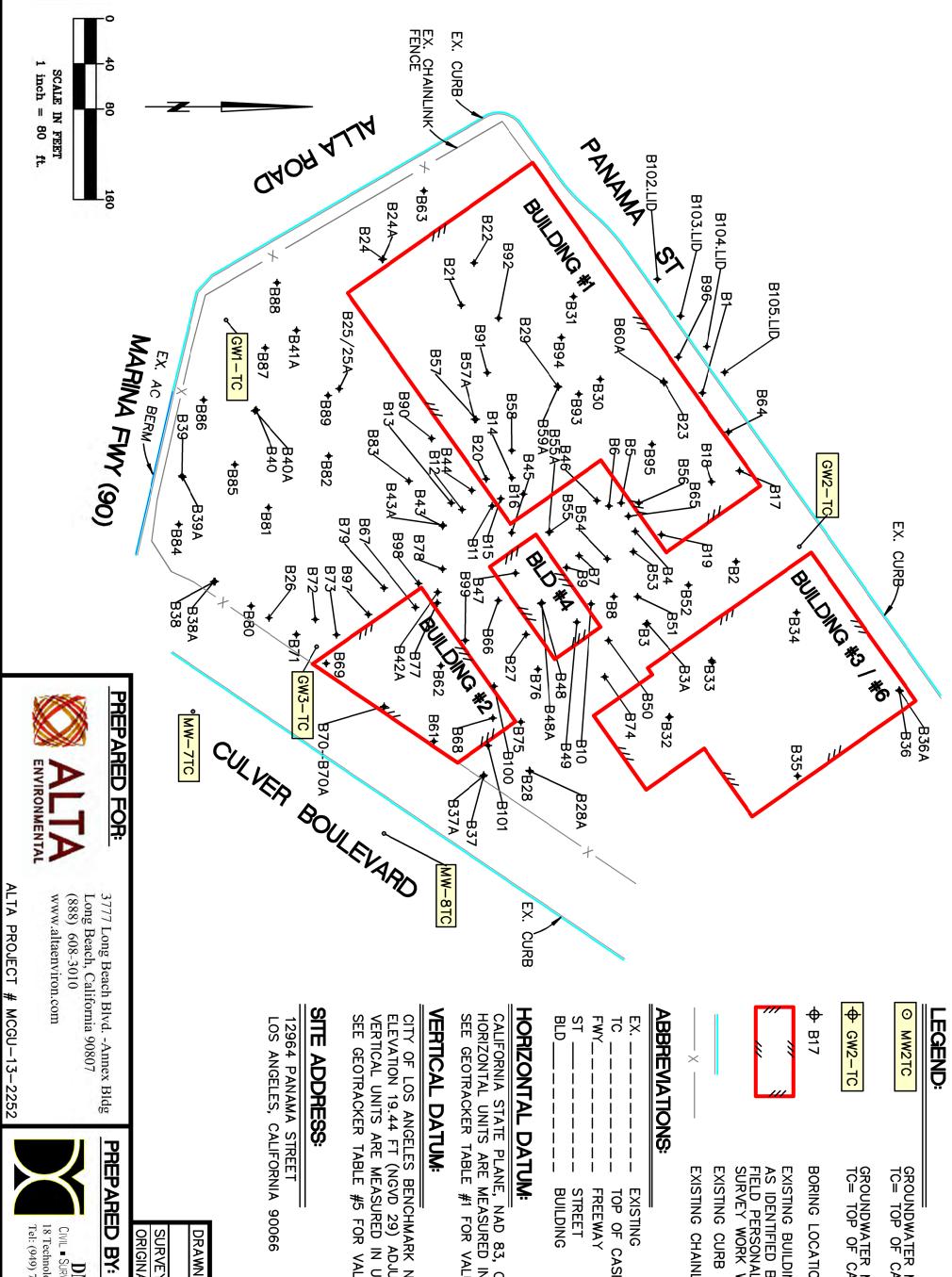
<b>NORTHING</b>	<b>EASTING</b>	TC ELEV.	LID ELEV.	<u>WELL</u>
1816243.753	6431595.558	12.326	12.571	GW- 1
1816751.008	6431795.959	11.864	12.129	GW- 2
1816324.071	6431884.320	11.529	12.571	GW- 3
1816215.044	6431941.478	11.667	12.096	MW-7
1816383.309	6432049.411	12.236	12.662	MW-8

#### (LATITUDE AND LONGITUDE FORMAT= DECIMAL-DEGREES)

<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>WELL</u>
33.982369828	118.429045031	GW-1
33.983766025	118.428391139	GW-2
33.982593911	118.428093677	GW-3
33.982294993	118.427903609	MW-7
33.982758620	118.427549953	MW-8

#### NOTE:

TC = Top of Casing LID = Top of Lid



GROUNDWATER MONITORING WELL SURVEYED TC= TOP OF CASING (FEB. 4, 2015 SURVEY)

GROUNDWATER MONITORING WELL SURVEYED TC= TOP OF CASING (JUNE 14, 2013)

BORING LOCATION / IDENTIFICATION

AS IDENTIFIED BY ALTA ENVIRONMENTAL FIELD PERSONAL AT THE TIME THE FIELD SURVEY WORK WAS PERFORMED BY DMC. EXISTING BUILDING FOOTPRINT AND NUMBER

**EXISTING CURB** 

EXISTING CHAINLINK FENCE

BLD	ST	FWY	TC	EX.
BUILDING	STREET	FREEWAY	TOP OF CASING	EXISTING

CALIFORNIA STATE PLANE, NAD 83, CALIFORNIA ZONE HORIZONTAL UNITS ARE MEASURED IN U.S. FEET SEE GEOTRACKER TABLE #1 FOR VALUES. ഗ

ELEVATION 19.44 FT (NGVD 29) ADJUSTMENT YEAR 1985 VERTICAL UNITS ARE MEASURED IN U.S. FEET. SEE GEOTRACKER TABLE #5 FOR VALUES. ANGELES BENCHMARK NO. 11028

PLOT DATE: 2-17-2015

ORIGINAL	SURVEY		DRAWN: MR
ORIGINAL SURVEY:	SURVEY UPDATED:	SURVEY DATE(S):	
06-14-2013	02-04-2015	ATE(S):	APPRV.: JM



DMC ENGINEERING
CIVIL - SURVEYING - PLANNING - CONSTRUCTION 18 Technology Drive, Suite 100, Irvine, CA 92618 Tel: (949) 753-9393 E-Mail: dmc@dmceng.com

# DNC RYNE

## PANAMA ST., LA

17 February 2015

Geographic, NAD83 OUTPUT

INPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

**B102 LID** 

1/121

Northing/Y: 1816625.205

Easting/X: 6431559.562

Latitude: 33.983417569

Longitude: 118.429169136

Convergence: -0 14 40.67345 Scale Factor: 1.000011191

**B103 LID** 

2/121

Northing/Y: 1816645.914

Easting/X: 6431592.159

Longitude: 118.429061905 Latitude: 33.983474856

Convergence: -0 14 40.45340

Scale Factor: 1.000011178

**B104 LID** 

Northing/Y: 1816669.119

3/121

Easting/X: 6431619.076

Longitude: 118,428973445 Latitude: 33.983538935

Convergence: -0 14 40.27188

Scale Factor: 1.000011163

**B105.LID** 

4/121

Northing/Y: 1816684.881

Latitude: 33.983582514

Easting/X: 6431641.859

Longitude: 118.428898516

Convergence: -0 14 40.11812

# DNC-RYNE

## PANAMA ST. LA

## 13 February 2015

INPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

OUTPUT

Geographic, NAD83

<u>~</u>

Northing/Y: 1816665.151

Easting/X: 6431660.003

33.983528512 5/121

Longitude: 118.428838389 Latitude:

Convergence: -0 14 39.99474

Scale Factor: 1.000011165

**8**64

6/121

Northing/Y: 1816688.142

Easting/X: 6431694.601

Latitude: 33.983592093

Convergence: -0 14 39.76122

Scale Factor: 1.000011151

Longitude: 118.428724590

7/121

Latitude: 33.983469656

Longitude: 118.428942370

Convergence: -0 14 40.20811

**B96** 

Northing/Y: 1816643.867

Easting/X: 6431628.389

Scale Factor: 1.000011179

Northing/Y: 1816278.543

B87

Easting/X: 6431620.259

8/121

Longitude: 118.428964044

Convergence: -0 14 40.25259

Latitude:

33.982465715

Scale Factor: 1.000011412

Remark:

# DMC-RVINE

## PANAMA ST. LA

13 February 2015

INPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

OUTPUT

Geographic, NAD83

00 00 00

9/121

Northing/Y: 1816224.281 Easting/X: 6431666.261

Longitude: 118.428811543 Latitude: 33.982317152

Convergence: -0 14 39.93965

Scale Factor: 1.000011446

现 4 0

10/121

Northing/Y: 1816270.593

Easting/X: 6431675.024

Longitude: 118.428783290 Latitude: 33.982444512

Convergence: -0 14 39.88167

Scale Factor: 1.000011417

B40A

Northing/Y: 1816269.346

Easting/X: 6431675.827

11/121

Latitude: 33.982441095

Longitude: 118.428780624

Convergence: -0 14 39.87620

Scale Factor: 1.000011418

**B85** 

12/121

Northing/Y: 1816251.805

Easting/X: 6431723.417

Latitude: 33.982393453

Longitude: 118.428623401

Convergence: -0 14 39.55358

# DNC-RYNE

## PANAMA ST. LA

13 February 2015

## NPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

## OUTPUT

Geographic, NAD83

B39

13/121

Northing/Y: 1816204.963 Easting/X: 6431733.336 Longitude: 118.428590024 Latitude: 33.982264855

Convergence: -0 14 39.48509

Scale Factor: 1.000011458

Northing/Y: 181\2016291.299 Easting/X: 6431/1₹3.698

5

Longitude: 118.42/588863 Latitude: 33.982 1279

Convergence: -0 1 39.48270 Scale Factor: 1.000011457

Northing/Y: 1816202.201

Easting/X: 6431776.314

B84

15/121

Longitude: 118.428448223 Latitude: 33.982257769

Convergence: -0 14 39.19410

Scale Factor: 1.000011460

**B38A** 

16/121

Northing/Y: 1816233.197

Easting/X: 6431826.92

Latitude: 33.982343534

Longitude: 118.428281735

Convergence: -0 14 38.85246 Scale Factor: 1.000011440

# DMC-RYNE

# PANAMA ST. LA

13 February 2015

INPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

OUTPUT

Geographic, NAD83

Northing/Y: 1816 Easting/X: 6431 *\$*26.189 35.71

Convergence: -0 14 ູ້ 38,85748

Scale Factor: 1.000011439

Longitude: 118.428284181 Latitude: 33.98;350430

18/121

B80

Longitude: 118.428211352 Latitude: 33.982434276

Convergence: -0 14 38.70803

Northing/Y: 1816266.129

Easting/X: 6431848.398

Scale Factor: 1.000011419

Northing/Y: 1816281.939 Easting/X: 6431858.843 **B26** Longitude: 118.428177121 Latitude: 33.982477842 19/121

Convergence: -0 14 38.63779

Scale Factor: 1.000011409

Northing/Y: 1816322.91 **B72** Latitude: 33.982590439 20/121

Convergence: -0 14 38.62982

Easting/X: 6431860.195

Longitude: 118.428173238

# DNC-RYN

# PANAMA ST. LA

13 February 2015

**INPUT** 

State Plane, NAD83 0405 - California 5, U.S. Feet

OUTPUT

Geographic, NAD83

B73

Northing/Y: 1816341.543

21/121

Easting/X: 6431873.82

Longitude: 118.428128557 Latitude: 33.982641798

Convergence: -0 14 38.53813

Scale Factor: 1.000011371

<u>%</u>

22/121

Northing/Y: 1816281.511

Easting/X: 6431761.356

Longitude: 118.428498677 Latitude: 33.982475524

Convergence: -0 14 39.29764

Scale Factor: 1.000011410

B82

23/121

Latitude: 33.982621309

Longitude: 118.428649851

Convergence: -0 14 39.60785

Northing/Y: 1816334.76

Easting/X: 6431715.752

Scale Factor: 1.000011376

Northing/Y: 181\3\60.048 Easting/X: 6431/76.024

Convergence: -0 13 59.20120 Scale Factor: 1.000(N1347

B-NO D

Latitude: 24/121

Longitude: 118.426751680 33.982746458

# DWC-RYNE

## PANAMA ST. LA

13 February 2015

## INPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

## OUTPUT

Geographic, NAD83

Northing/Y: 1816414.072 **B**98 Latitude: 33.982840565

25/121

Easting/X: 6431828.489 Longitude: 118.428279101

Convergence: -0 14 38.84706

Scale Factor: 1.000011325

**B**78 26/121

Northing/Y: 1816435.479

Easting/X: 6431815.621

Longitude: 118.428321848

Latitude:

33.982899237

Convergence: -0 14 38.93477

Scale Factor: 1.000011311

Northing/Y: 1816431.228 Easting/X: 6431836.159 **B42A** Longitude: 118.428254043 Latitude: 33.982887796 27/121

Convergence: -0 14 38.79564

Scale Factor: 1.000011314

Northing/Y: 1816496.609 W 45 5 Latitude: 33.983066837 28/121

Convergence: -0 14 39.15295

Easting/X: 6431783.649

Longitude: 118.428428167

# 

## PANAMA ST. LA

13 February 2015

## NPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

## OUTPUT

Geographic, NAD83

Northing/Y: 1816461.218 00 44 44 Latitude: 33.982969150 29/121

Longitude: 118.428551285

Easting/X: 6431746.173

Convergence: -0 14 39.40559 Scale Factor: 1.000011295

Northing/Y: 1816452.379 **B12** Latitude: 33.982945060 30/121

Convergence: -0 14 39.29078

Easting/X: 6431763.098

Longitude: 118.428495334

Scale Factor: 1.000011301

Northing/Y: 1816443.035 Easting/X: 6431757.285 **B13** Longitude: 118.428514376 Latitude: 33.982919316 31/121

Convergence: -0 14 39.32985

Scale Factor: 1.000011307

Northing/Y: 1816479.138 Latitude: 33.983018552 32/121

Longitude: 118.428506080

Convergence: -0 14 39.31283

Easting/X: 6431759,954

# DMC-IRVINE

## PANAMA ST. LA

13 February 2015

## NPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

## OUTPUT

Geographic, NAD83

Northing/Y: 1816435.8 **B43**A Latitude: 33.982899665 33/121

Longitude: 118.428449634

Easting/X: 6431776.882

Convergence: -0 14 39.19700

Scale Factor: 1.000011311

Northing/Y: 1816405.633 B83 Longitude: 118.428577525 Latitude: 33.982816316 34/121

Convergence: -0 14 39.45944

Easting/X: 6431737.981

Scale Factor: 1.000011330

Northing/Y: 1816425.832 Easting/X: 6431700.335 B90 Longitude: 118.428701985 Latitude: 33.982871378 35/121

Convergence: -0 14 39.71483

Scale Factor: 1.000011318

Northing/Y: 1816334.199 B89 Latitude: 33.982619141 36/121

Longitude: 118.428826102

Convergence: -0 14 39.96953

Easting/X: 6431662.316

# DWC-IRVINE

## PANAMA ST. LA

13 February 2015

## NPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

## OUTPUT

Geographic, NAD83

Northing/Y: 1816306.112 **B41**A Latitude: 33.982541288 37/121

Easting/X: 6431604.766 Longitude: 118.429015536

Convergence: -0 14 40.35825

Scale Factor: 1.000011394

Northing/Y: 1816289.23 B88 Latitude: 33.982494405 38/121

Easting/X: 6431562.675

Longitude: 118.429154136

Convergence: -0 14 40.64267 Scale Factor: 1.000011405

Northing/Y: 1816205.553 Easting/X: 6431734.537 **B39A** Longitude: 118.428586071 Latitude: 33.982266491 39/121

Convergence: -0 14 39.47697

Scale Factor: 1.000011458

Northing/Y: 1816234.154 အ (၁ Latitude: 33.982346160 40/121

Longitude: 118.428282566

Convergence: -0 14 38.85417

Easting/X: 6431826.672

# DNC-RYNE

#### PANAMA ST. LA

13 February 2015

INPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

OUTPUT

Geographic, NAD83

B 63

33,982849521 41/121

Easting/X: 6431481.51

Northing/Y: 1816418.812

Longitude: 118.429423685 Latitude:

Convergence: -0 14 41.19579

Scale Factor: 1.000011323

B27

42/121

Northing/Y: 1816509,137

Easting/X: 6431873.542

Longitude: 118.428131829 Latitude: 33.983102314

Convergence: -0 14 38.54485

Scale Factor: 1.000011264

**B**79

43/121

Northing/Y: 1816383.404 Easting/X: 6431832.441

Longitude: 118.428265635 Latitude: 33.982756341

Convergence: -0 14 38.81942

Scale Factor: 1.000011344

**B97** 

44/121

Northing/Y: 1816369.783

Easting/X: 6431855.849

Latitude: 33.982719187

Longitude: 118.428188231

Convergence: -0 14 38.66059

Scale Factor: 1.000011353

### DMC-RYNE

#### PANAMA ST. LA

13 February 2015

INPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

OUTPUT

Geographic, NAD83

**0**43 3

Northing/Y: 1816435.546

Easting/X: 6431777.642

45/121

Longitude: 118.428447123 Latitude: 33.982898976

Convergence: -0 14 39.19185

Scale Factor: 1.000011311

B28

Northing/Y: 1816511.964

Easting/X: 6431993.751

Longitude: 118.427735355 Latitude: 33.983111488

Convergence: -0 14 37.73127

46/121

Scale Factor: 1.000011262

47/121

Latitude: 33.983113431

Convergence: -0 14 37.72629

**B28A** 

Northing/Y: 1816512.668

Easting/X: 6431994.489

Longitude: 118.427732931

Scale Factor: 1.000011262

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48/121

Northing/Y: 1816471.787 Easting/X: 6431997.832

33.983001137

Longitude: 118.427721330 Latitude:

Convergence: -0 14 37.70249

Scale Factor: 1.000011288

# DMC-RYNE

#### PANAMA ST. LA

OUTPUT

13 February 2015

Geographic, NAD83

INPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

B37A

49/121

Northing/Y: 1816471.303

Easting/X: 6431998.884

Longitude: 118.427717853 Latitude: 33.982999819

Convergence: -0 14 37.69535

Scale Factor: 1.000011288

**B**75

50/121

Northing/Y: 1816504.692

Easting/X: 6431950.875

Longitude: 118.427876681 Latitude: 33.983091005

Convergence: -0 14 38.02127

Scale Factor: 1.000011267

**B**100

51/121

Northing/Y: 1816480.78

Easting/X: 6431919.301

Longitude: 118.427980493 Latitude: 33.983024929

Convergence: -0 14 38.23430

Scale Factor: 1.000011282

Northing/Y: 1815/55.132 Easting/X: 6431/88.795

Convergence: -0 | 4 | 38.50773 Scale Factor: 1.000 11299

52/1/21

Latitude: 33.98/953979 Longitude: 118.4/89(13743

# DMC-RVINE

#### PANAMA ST. LA

13 February 2015

#### **INPUT**

State Plane, NAD83 0405 - California 5, U.S. Feet

#### OUTPUT

Geographic, NAD83

B99 Latitude: 33.982953613

53/121

Northing/Y: 1816454.999 Easting/X: 6431878.71 Longitude: 118.428114021

Convergence: -0 14 38.50831

Scale Factor: 1.000011299

**B**77 Latitude: 33.982886896 54/121

Northing/Y: 1816430.86

Easting/X: 6431845.65

Longitude: 118.428222731

Convergence: -0 14 38,73138

Scale Factor: 1.000011314

Northing/Y: 1816475.655 Easting/X: 6431971,728 <u>8</u> Longitude: 118.427807489 Latitude: 33.983011460 55/121

Convergence: -0 14 37.87929

Scale Factor: 1.000011285

Northing/Y: 1816582.204 **8**50 Latitude: 33.983303152 56/121

Longitude: 118.428115175

Convergence: -0 14 38.51067

Easting/X: 6431878.902

# DNC-RYINE

#### PANAMA ST. LA

13 February 2015

INPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

OUTPUT

Geographic, NAD83

**B74** 

57/121

Northing/Y: 1816578.928

Easting/X: 6431910.991

Longitude: 118.428009282 Latitude: 33.983294526

Convergence: -0 14 38.29338

Scale Factor: 1.000011220

**B**37

58/121

Northing/Y: 1816615.343

Easting/X: 6431864.378

Latitude: 33.983394042

Convergence: -0 14 38.60994

Longitude: 118.428163549

Scale Factor: 1.000011197

Northing/Y: 1816616.28

Easting/X: 6431863.836

Longitude: 118.428165350 Latitude: 33.983396611

Scale Factor: 1.000011196

B3A

Convergence: -0 14 38.61363

59/121

S S

Northing/Y: 1816607.747

Easting/X: 6431840.179

Longitude: 118.428243263

Latitude:

33.983372886

60/121

Convergence: -0 14 38.77352 Scale Factor: 1.000011201

# DMC-RVINE

#### PANAMA ST. LA

13 February 2015

State Plane, NAD83 0405 - California 5, U.S. Feet

TUPUT

OUTPUT

Geographic, NAD83

**B**52

61/121

Northing/Y: 1816652.937

Easting/X: 6431829.897

Longitude: 118.428277814 Latitude: 33.983496940

Convergence: -0 14 38.84442

Scale Factor: 1.000011173

**М** 

62/121

Northing/Y: 1816694.826

Easting/X: 6431809.251

Longitude: 118.428346505 Latitude: 33.983611802

Convergence: -0 14 38.98537

Scale Factor: 1.000011146

**B**53

63/121

Northing/Y: 1816604.05

Longitude: 118.428374533 Latitude: 33,983362262

Easting/X: 6431800.367

Convergence: -0 14 39.04289

Scale Factor: 1.000011204

64/121

Northing/Y: 1816605.686

33.983366546

**8** 

Easting/X: 6431782.349

Longitude: 118.428433989 Latitude:

Convergence: -0 14 39.16489

### DWC-RYINE

#### PANAMA ST. LA

13 February 2015

State Plane, NAD83 0405 - California 5, U.S. Feet

INPUT

OUTPUT

Geographic, NAD83

**B**65

33.983350052 65/121

Northing/Y: 1816599.74 Easting/X: 6431769.05

> Longitude: 118.428477773 Latitude:

Convergence: -0 14 39.25474

Scale Factor: 1.000011207

Ω Ω

66/121

Northing/Y: 1816593.291

Easting/X: 6431757.306

Longitude: 118.428516420 Latitude: 33.983332193

Convergence: -0 14 39.33405

Scale Factor: 1.000011211

<u>В</u>

67/121

Northing/Y: 1816582.614 Easting/X: 6431759.982

Longitude: 118.428507443 Latitude: 33.983302886

Convergence: -0 14 39.31562

Scale Factor: 1.000011218

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68/121

Northing/Y: 1816572.029

Latitude: 33.983273746

Easting/X: .6431755.298

Longitude: 118.428522745

Convergence: -0 14 39.34702

Scale Factor: 1.000011224

# DMC-RYINE

PANAMA ST. LA

13 February 2015

OUTPUT

MPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

Geographic, NAD83

B54

Northing/Y: 1816581.147

Longitude: 118.428353071 Latitude: 33.983299403

69/121

Easting/X: 6431806.776

Convergence: -0 14 38.99885

Scale Factor: 1.000011219

**B**55

70/121

Northing/Y: 1816530.189

Easting/X: 6431782.61

Longitude: 118.428432067 Latitude: 33.983159097

Convergence: -0 14 39.16095

Scale Factor: 1.000011251

B55A

71/121

Northing/Y: 1816529.111 Easting/X: 6431783.232

Latitude: 33.983156142

Longitude: 118.428430000

Convergence: -0 14 39.15671

Scale Factor: 1.000011252

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72/121

Northing/Y: 1816555.907

Latitude: 33.983230015

Easting/X: 6431803.947

Longitude: 118.428362047

Convergence: -0 14 39.01727

Scale Factor: 1.000011235

# DMC-RYNE

# PANAMA ST. LA

13 February 2015

OUTPUT

Geographic, NAD83

INPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

8

73/121

Longitude: 118.428327575 Latitude: 33.983199968

Northing/Y: 1816544.928 Easting/X: 6431814.351

Convergence: -0 14 38.94653

Scale Factor: 1.000011242

<u>ш</u>

74/121

Northing/Y: 1816586.954

Easting/X: 6431840.107

Longitude: 118.428243209 Latitude: 33.983315750

Convergence: -0 14 38.77340

Scale Factor: 1.000011215

75/121

<u>0</u>

Northing/Y: 1816566.906

Easting/X: 6431846.564

Longitude: 118.428221628 Latitude: 33.983260737

Convergence: -0 14 38.72912

Scale Factor: 1.000011227

76/121

Northing/Y: 1816553.964

B49

Easting/X: 6431862.683

Longitude: 118.428168277 Latitude: 33.983225364

Convergence: -0 14 38.61964

# DNC-RYNT

#### PANAMA ST. LA

13 February 2015

OUTPUT

State Plane, NAD83 0405 - California 5, U.S. Feet **INPUT** 

Geographic, NAD83

**B48A** 

Northing/Y: 1816522.875

Latitude: 33.983139736

77/121

Easting/X: 6431845.517

Convergence: -0 14 38,73494

Longitude: 118.428224463

Scale Factor: 1,000011256

00 42 80

78/121

Northing/Y: 1816522.265

Easting/X: 6431846.27

Longitude: 118.428221971 Latitude: 33.983138068

Scale Factor: 1.000011256

Convergence: -0 14 38.72982

B47

79/121

Northing/Y: 1816500.051

Latitude: 33.983076712

Easting/X: 6431819.312

Longitude: 118.428310580

Convergence: -0 14 38.91165

Scale Factor: 1.000011270

**B**67

80/121

Northing/Y: 1816411.324

33,982833261

Easting/X: 6431849.584

Latitude:

Convergence: -0 14 38.70419

Longitude: 118.428209480

Scale Factor: 1.000011327

# DNC-RYINE

#### PANAMA ST. LA

13 February 2015

#### OUTPUT

State Plane, NAD83 0405 - California 5, U.S. Feet INPUT

Geographic, NAD83

**B**68

81/121

Northing/Y: 1816479.817 Easting/X: 6431947.413

Longitude: 118.427887751 Latitude: 33.983022612

Convergence: -0 14 38.04399

Scale Factor: 1.000011283

B70-B70A

82/121

Northing/Y: 1816383.453 Easting/X: 6431937.149

Longitude: 118.427920254 Latitude: 33.982757701

Convergence: -0 14 38.11069

Scale Factor: 1.000011344

83/121

Northing/Y: 1816434.013

B62

Longitude: 118.428039609 Latitude: 33.982896210

Easting/X: 6431901.18

Convergence: -0 14 38.35561

Scale Factor: 1.000011312

**B**69

84/121

Northing/Y: 1816332.56

Latitude: 33.982617410

Easting/X: 6431899.098

Longitude: 118.428045051

Convergence: -0 14 38.36678

# DNC-RYNE

### PANAMA ST. LA

13 February 2015

OUTPUT

INPUT

Geographic, NAD83

State Plane, NAD83 0405 - California 5, U.S. Feet

85/121

Northing/Y: 1816427.921 Easting/X: 6431967.998

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Longitude: 118.427819122 Latitude: 33.982880252

Convergence: -0 14 37.90316

Scale Factor: 1.000011316

Northing/Y: 1816748.637

Easting/X: 6431854.182

Latitude: 33.983760191

Convergence: -0 14 38.68280

B34

86/121

Longitude: 118.428199054

Scale Factor: 1.000011112

B36

87/121

Latitude: 33.984009249

Convergence: -0 14 38.22130 Scale Factor: 1.000011054

Northing/Y: 1816838.983

Easting/X: 6431922.747

Longitude: 118.427974157

**B**36A

88/121

Northing/Y: 1816839.57

33.984010872

Easting/X: 6431923.594

Longitude: 118.427971371 Latitude:

Convergence: -0 14 38.21558

Scale Factor: 1.000011054

### DISCIRVING

#### PANAMA ST. LA

13 February 2015

OUTPUT

State Plane, NAD83 0405 - California 5, U.S. Feet INPUT

Geographic, NAD83

D 35

Northing/Y: 1816749.535

Latitude: 33.983764349 89/121

Easting/X: 6431998.646

Longitude: 118.427722543

Scale Factor: 1.000011111

Convergence: -0 14 37,70498

B33

90/121

Northing/Y: 1816673.535

Easting/X: 6431896.529

Longitude: 118.428058315 Latitude: 33.983554320

Convergence: -0 14 38.39399

Scale Factor: 1.000011159

53 22

91/121

Latitude: 33.983450023

Convergence: -0 14 38.05270

Northing/Y: 1816635.365

Easting/X: 6431946.788

Longitude: 118.427891997

Scale Factor: 1.000011184

0 2 9

92/121

Northing/Y: 1816628.609

Latitude: 33.983429570

Easting/X: 6431785.385

Longitude: 118.428424297

Convergence: -0 14 39.14501

Scale Factor: 1.000011188

# DNC-RYNE

#### PANAMA ST. LA

13 February 2015

OUTPUT

Geographic, NAD83

INPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

B56

93/121

Northing/Y: 1816608.935 Easting/X: 6431757.321

Longitude: 118.428516591 Latitude: 33.983375180

Convergence: -0 14 39.33440 Scale Factor: 1.000011201

94/121

Northing/Y: 1816620.426

Easting/X: 6431705.551

Longitude: 118.428687518 Latitude: 33,983406149

Convergence: -0 14 39.68515

Scale Factor: 1.000011194

Latitude:

Easting/X: 6431738.554

Northing/Y: 1816673.464

33.983552275

Convergence: -0 14 39.46329

95/121

Longitude: 118.428579402

Scale Factor: 1.000011160

Northing/Y: 1816697.832 Easting/X: 6431728.918

96/121

817

Longitude: 118.428611529 Latitude: 33.983619121

Convergence: -0 14 39.52921

# 

#### PANAMA ST. LA

13 February 2015

INPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

OUTPUT

Geographic, NAD83

<u>თ</u> გ

97/121

Northing/Y: 1816506.885 Easting/X: 6431749.467

Longitude: 118.428541062 Latitude: 33.983094673

Convergence: -0 14 39.38461

Scale Factor: 1.000011266

**B**24

98/121

Northing/Y: 1816496.745

Easting/X: 6431735.084

Longitude: 118.428588362 Latitude: 33.983066642

Convergence: -0 14 39.48167

Scale Factor: 1.000011272

<u>0</u>58

99/121

Northing/Y: 1816496.739 Easting/X: 6431710.897

> Longitude: 118.428668144 Latitude: 33.983066342

Convergence: -0 14 39.64539

Scale Factor: 1.000011273

W 200

100/121

Northing/Y: 1816473.841

Latitude: 33.983003717

Easting/X: 6431736.103

Longitude: 118.428584679

Convergence: -0 14 39.47412

# DNC-RYNT

#### PANAMA ST. LA

13 February 2015

INPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

OUTPUT

Geographic, NAD83

<u>5</u>

101/121

Northing/Y: 1816486.782

Easting/X: 6431753.526

Longitude: 118.428527391 Latitude: 33.983039481

Scale Factor: 1.000011279

Convergence: -0 14 39.35656

**B**57

102/121

Northing/Y: 1816464.995

Easting/X: 6431683,386

Longitude: 118.428758443 Latitude: 33.982978792

Convergence: -0 14 39.83069

Scale Factor: 1.000011293

**B**57A

103/121

Northing/Y: 1816463.786 Easting/X: 6431683.405

> Latitude: 33.982975470

Longitude: 118.428758363

Convergence: -0 14 39.83052

Scale Factor: 1.000011294

B29

104/121

Northing/Y: 1816537.015

Latitude: 33.983176347

Longitude: 118.428856275

Easting/X: 6431654.034

Convergence: -0 14 40.03144 Scale Factor: 1.000011247

# DNC-RYINE

#### PANAMA ST. LA

13 February 2015

NPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

OUTPUT

Geographic, NAD83

**B59A** 

Latitude: 33.983178224

105/121

Northing/Y: 1816537.695 Easting/X: 6431654.774

Longitude: 118.428853844

Convergence: -0 14 40.02645

Scale Factor: 1.000011247

B93

106/121

Northing/Y: 1816555.677

Easting/X: 6431661.09

Longitude: 118.428833263 Latitude: 33.983227709

Convergence: -0 14 39.98422

Scale Factor: 1.000011235

830

107/121

Northing/Y: 1816575.023 Easting/X: 6431647.974

Latitude: 33.983280715

Convergence: -0 14 40.07356

Longitude: 118.428876799

Scale Factor: 1.000011223

B 23

108/121

Northing/Y: 1816630.57

33.983433370

Easting/X: 6431649.812

Longitude: 118.428871518 Latitude:

Convergence: -0 14 40.06272

Scale Factor: 1.000011187

### 

#### PANAMA ST. LA

13 February 2015

INPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

OUTPUT

Geographic, NAD83

B60A

Northing/Y: 1816631.054

Easting/X: 6431650.974

109/121

Longitude: 118.428867692 Latitude: 33.983434713

Convergence: -0 14 40.05487

Scale Factor: 1.000011187

9

110/121

Northing/Y: 1816474.889

Easting/X: 6431642.174

Longitude: 118.428894521 Latitude: 33.983005496

Convergence: -0 14 40.10993

Scale Factor: 1.000011287

<u>0</u>2

111/121

Longitude: 118.429091186 Latitude: 33.982940994

Northing/Y: 1816451.67

Easting/X: 6431582.453

Convergence: -0 14 40.51349

Scale Factor: 1.000011302

B22

112/121

Northing/Y: 1816463.242 Easting/X: 6431545.11

Latitude: 33.982972354

Longitude: 118.429214525

Convergence: -0 14 40.76659

Scale Factor: 1.000011294

### DNC-RYNT

#### PANAMA ST. LA

13 February 2015

#### INPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

#### OUTPUT

Geographic, NAD83

B92

113/121

Northing/Y: 1816484.801

Easting/X: 6431593.886

Longitude: 118.429053940 Latitude: 33.983032166

Convergence: -0 14 40.43706

Scale Factor: 1.000011280

<del>В</del>3

114/121

Northing/Y: 1816551.077

Easting/X: 6431574.959

Longitude: 118.429117305 Latitude: 33.983214059

Convergence: -0 14 40.56709

Scale Factor: 1.000011238

B94

115/121

Northing/Y: 1816540.404

Easting/X: 6431611.057

Longitude: 118.428998084 Latitude: 33.983185155

Convergence: -0 14 40.32244

Scale Factor: 1.000011245

B25/25A

116/121

Northing/Y: 1816343.954

Latitude: 33.982645876

Easting/X: 6431656.335

Longitude: 118.428845968

Convergence: -0 14 40.01029

Scale Factor: 1.000011370

# DNC-RYINE

#### PANAMA ST. LA

13 February 2015

OUTPUT

State Plane, NAD83 0405 - California 5, U.S. Feet

INPUT

Geographic, NAD83

**B**66

Northing/Y: 1816484.559

33.983034427 117/121

Easting/X: 6431843.539

Longitude: 118.428230449 Latitude:

Convergence: -0 14 38.74722 Scale Factor: 1.000011280

**B**76

118/121

Northing/Y: 1816519.523

Easting/X: 6431904.363

Longitude: 118.428030311 Latitude: 33.983131214

Convergence: -0 14 38.33653

Scale Factor: 1.000011257

119/121

**8**7

Northing/Y: 1816306.095

Easting/X: 6431873.588

Latitude: 33.982544391

Longitude: 118.428128824

Scale Factor: 1.000011394

Convergence: -0 14 38.53868

B24

120/121

Northing/Y: 1816382.434

33.982750268

Easting/X: 6431541.747

Longitude: 118.429224480 Latitude:

Convergence: -0 14 40.78702

# 

#### PANAMA ST. LA

13 February 2015

INPUT
State Plane, NAD83
0405 - California 5, U.S. Feet

OUTPUT

Geographic, NAD83

B24A

121/121

Northing/Y: 1816381.832 Easting/X: 6431542.112

Latitude: 33.982748618 Longitude: 118.429223268

Convergence: -0 14 40.78453 Scale Factor: 1.000011346

#### GEO\_XY FORMAT- NORTHING AND EASTING NAD83 DATUM-UNITS= US FEET

GLOBAL_ID FIELD_PT_NAME F	FIELD_PT_CLASS	XY_SURVEY_DATE	NORTHING	EASTING	XY_METHOD	XY_DATUM >	(Y_ACC_VAL	XY_SURVEY_	_(GPS_EQUIP_TYPE
GW-1	MW	6/14/2013	1816243.7530	6431595.5580	CGPS	NAD83	40	DMc	Lieca Smart Rover
GW-2	MW	6/14/2013	1816751.0080	6431795.9590	CGPS	NAD83	40	DMc	Lieca Smart Rover
GW-3	MW	6/14/2013	1816324.0710	6431884.3200	CGPS	NAD83	40	DMc	Lieca Smart Rover
MW-7	MW	2/4/2015	1816215.0441	6431941.4782	CGPS	NAD83	40	DMc	Lieca Smart Rover
MW-8	MW	2/4/2015	1816383.3098	6432049.4112	CGPS	NAD83	40	DMc	Lieca Smart Rover

TABLE 1: GEO\_XY FORMAT- Latitude and Longitude in DECIMAL DEGREES Format

GLOBAL_ID FIELD_PT_NAME FI	ELD_PT_CLASS	XY_SURVEY_DATE	LATITUDE	LONGTITUDE	XY_METHOD	XY_DATUM >	(Y_ACC_VAL	. XY_SURVEY_	_(GPS_EQUIP_TYPE
GW-1	MW	6/14/2013	33.9823698	118.4290450	CGPS	NAD83	40	DMc	Lieca Smart Rover
GW-2	MW	6/14/2013	33.9837660	118.4283911	CGPS	NAD83	40	DMc	Lieca Smart Rover
GW-3	MW	6/14/2013	33.9825939	118.4280937	CGPS	NAD83	40	DMc	Lieca Smart Rover
MW-7	MW	2/4/2015	33.9822950	118.4279036	CGPS	NAD83	40	DMc	Lieca Smart Rover
MW-8	MW	2/4/2015	33.9827586	118.4275500	CGPS	NAD83	40	DMc	Lieca Smart Rover

#### TABLE 5 GEO\_Z FORMAT:\_ NOTE: ELEVATION TAKEN FROM NOTCH AT TOP OF EACH CASINGS

GLOBAL_ID	FIELD_PT_NAME	ELEV_SURVEY_DATE	ELEVATION	ELEV_METHOD	ELEV_DATUM	ELEV_ACC_VAL	ELEV_SURVEY_ORG	RISER_HT	ELEV_DESC
	GW-1	6/14/2013	12.3260	DIG	NGVD 88	0.1	DMc Eng.		CITY OF LA BM# 11028
	GW-2	6/14/2013	11.8640	DIG	NGVD 88	0.1	DMc Eng.		CITY OF LA BM# 11028
	GW-3	6/14/2013	11.5290	DIG	NGVD 88	0.1	DMc Eng.		CITY OF LA BM# 11028
	MW-7	2/4/2015	11.6679	DIG	NGVD 88	0.1	DMc Eng.		CITY OF LA BM# 11028
	MW-8	2/4/2015	12.2368	DIG	NGVD 88	0.1	DMc Ena.		CITY OF LA BM# 11028

# **APPENDIX G Well Purging Records**

#### Groundwater Monitoring & Product Recovery Records

ALTA
ENVIRONMENTAL

Project Name & No. MCGU-14	-4695
Water Level Instrument Salins	
Measured by JK + RS	
DO Meter Calibrated by Pine Env	Elevation

Data	Mell N-	Time	DTM	DAG	A	200	DDC	DTD	DID	DT	Volume B	ailed (gal.)	Post-b	ailing
Date	Well No.	Time	DTW	PM	Δ	DO	PDO	DTB	DTP	PT	Water	Product	DTW	DTP
12/15	Cul	0845	12.20					20.15						
1	662	0830	9.85		4			1979						
	643	0900	10.71					19.77						
		0945	11.12					19.33			-			
V	MW8	930	11.08				-	19.08						
		1												
									-					
_														
											1			
		-												
						1	1							
				- 1		- 1								

DTW = Depth to water (in feet) from top of casing

Previous DTW measurement (in feet) PM

= Difference between previous & current measurement (in feet)

Dissolved oxygen (in mg/l)

PDO Previous DO measurement (in mg/l)

DTB Depth to bottom (in feet)

= Depth to free product (in feet) from top of casing DTP

Product thickness (in feet)

DO

Project: Culter 1	Bld GMM				Proj	ect No.:	NIC64-14-465
Date: 2/2/14	Weather:	5.	unn)				
Sample Team: JB	rRS		Well Meas	ured By:		JB	
Well No.: (SW)	Well Condition:	6000	P				
Does this wellhead require r	epair? 🛘 yes 🖾 no	Ехр	lanation:				
Does this well require bolts a	and/or well locking	Ехр	lanation:				
caps?	yes ⊿ no	-					
Static depth to water from to	p of casing	A:	12.20	ft.	Time:	84	
Top of casing to bottom of c	asing	B:	20.15	ft.			
Feet of water in well		H:		ft.	H = 1	B - A	
Diameter		D:		in.			
Volume of water in well	**************************************	V:		_gal.	V = 1	T D <sup>2</sup> H / 7	7.01
Three well volumes		Vx3:		_gal.			
Purge time begin:	1330		Purge time	finish:		14	05
Purging/bailing technique:	Low Flor		Purging/bail	ling equ	ipment:	1200	Hand Raifer
Average pumping rate:	< 200m/m	_	Volume of v	vater rer	moved:	~2	sall
Depth to water from top of a	acina (at time of com	nling):	11.70		Compline	time	1405

Time	рН	Cond. (µs/cm)	Temp.	Turb. (NTU)	DO (mg/L)	ORP (mV)	TDS (ppm)	Observations
1330	7.14	1.14	21.89	0.0	1.05	155		12.22
1335	7.10	1.13	21.68	0.0	0.70	159		12.23
1340	7.09	1.10	21.88	0.0	0.25	159		12.23
1345	7.05	1.10	2220	0.0	0.11	147		1800 17.23
1350	7.09	1.10	22.40	0.0	0.05	145		12.23
1355	7.05	1.10	22.53	0.0	0.00	145		12.23
1400	7.06	1.10	22.79	0.0	0.00	142		12.27
1408	7.05	1.10	22.81	0.0	0.00	141		12.23



Project:	Shal CARA	CWI	И		Proje	ct No.:	146601-14-489
Date: 3/3/15	Weather:	Su	nny				
Sample Team:	rps		Well Measu	red By:		JB	
Well No.: Mat 22	Well Condition:	6,	cal				
Does this wellhead require re	epair? 🛘 yes 🖾 no	Ехр	lanation:				
Does this well require bolts a	and/or well locking	Exp	lanation:				
caps?	yes 🖾 no						
Static depth to water from to	p of casing	A:	9.85	ft.	Time: _	830	i
Top of casing to bottom of ca	asing	B:	19.79	ft.			
Feet of water in well		H:		ft.	H = B	- A	
Diameter		D:		in.			
Volume of water in well		V:		_gal.	V = π	D <sup>2</sup> H / 7	7.01
Three well volumes		Vx3:		_gal.			
Purge time begin:	1140		Purge time f	inish:		13	15
Purging/bailing technique:	Ler Flow		Purging/baili	ng equi	pment:	1 lan	& Raifer
Average pumping rate:	< 200ml/min		Volume of w	ater ren	noved:	~2.	sub
Donth to water from ten of a	acing (at time of came	nlina):	905		Compline	ima	1315

Time	рН	Cond. (µs/cm)	Temp. (°C)	Turb. (NTU)	DO (mg/L)	ORP (mV)	TDS (ppm)	Observations
1240	7.45	1.10	21,53	1.3	1.40	152		9.85
145	7.00	1.10	2463	0.5	0.98	158		9.90
1250	7.14	1.09	21.45	0.0	040	154		9.90
1255	7.02	1.10	20.99	0.0	0.18	153		9.90
1300	701	1-11	2095	0.0	0.06	152		9.90
1305	7,00	1.0	20,95	0.0	0.02	151		9.90
1300	6.99	1.11	21.07	0.0	0.00	151		9.90
1315	7.01	1.11	20.95	0.0	0.00	148		9.89



Project:	G	elecr	Blut	(	WM			_ Project No.:	MCGC1-14-489
Date:	2/2/1	15		Weather:	Sunne	1			
Sample T	eam:	RS/	JB		v	Vell Measur	ed By:	JA	1
Well No.:	64	13	Well Cor	ndition:	6000	1			
Does this	wellhea	d require re	pair? 🛘 y	es 🗷 no	Explana	ation:			
Does this	well req	uire bolts ar	nd/or well	locking	Explana	ation:			
caps?			y	es 🖳 no					
Static dep	oth to wa	ter from top	of casing		A:	1071	_ft.	Time:900	)
Top of ca	sing to b	ottom of ca	sing		B:	19.77	_ ft.		
Feet of w	ater in w	ell			H:		_ ft.	H = B - A	
Diameter					D:	West of the second	_in.		
Volume o	of water in	n well			V:		gal.	$V = \pi D^2 H /$	77.01
Three we	ll volume	es			Vx3:		gal.		
Purge tim	ne begin:		1420	>	P	urge time fir	nish:		155
Purging/b	ailing te	chnique:	Car F	low	P	urging/bailin	ng equipm	nent: Man	A Kailer
Average	pumping	rate:	< 200	1/mh	V	olume of wa	ater remov	ved: ~2	Sal
Depth to	water fro	m top of ca	sing (at tir	ne of sam	pling):	10.71	Sa	mpling time:	1500/1510
Time	рН	Cond. (µs/cm)	Temp.	Turb. (NTU)	DO (mg/L)	ORP (mV)	TDS (ppm	OF	servations
					20 3000				

Time	рН	Cond. (µs/cm)	Temp. (°C)	Turb. (NTU)	DO (mg/L)	ORP (mV)	TDS (ppm)	Observations
1420	7.58	0.701	21.38	0.0	4.48	148		10.84
1425	7.37	0.697	70.34	0.0	4.101	155		10.82
1430	226	0.703	20.34	0,0	3.87	162		10.57
1435	214	0.706	71.73	6.0	3.13	184		10.79
1440	7.01	0.707	2098	6.0	3.70	178		14.79
1445	7.10	6.710	20.48	0.0	3.71	171		10.80
1450	7.00	0.711	20.48	0.0	3.70	172		10.79
1455	7.11	0.711	20.46	0.0	3.74	B4174		10.80
1500								
					]= 3			
	1							



Project: Lulu Bly	Project No.: MC64-14-469		
Date: 2/2/15	Weather:S	unus	
Sample Team: JBMS		Well Measured By:	JB
Well No .: Make MW7 Well Con	dition: 611		
Does this wellhead require repair? ☐ ye	es 🖾 no Expl	anation:	
Does this well require bolts and/or well le	ocking Expl	anation:	
caps?	es 🖳 no		
Static depth to water from top of casing.	A:	ft.	Time: 995
Top of casing to bottom of casing	B:	ft.	
Feet of water in well	H:	ft.	H = B - A
Diameter	D:	in.	
Volume of water in well	V:	gal.	$V = \pi D^2 H / 77.01$
Three well volumes	Vx3:	gal.	
Purge time begin: /vvv		Purge time finish:	1040
Purging/bailing technique: Law FI.	on	Purging/bailing equi	pment: Nord Railer
Average pumping rate: <pre>_<pre>_<pre>_<pre>_<pre>_<pre>_<pre>_<pre>_<pre>_<pre>_</pre></pre></pre></pre></pre></pre></pre></pre></pre></pre>	w/m/a	Volume of water rer	moved: ~ 7 gal
Depth to water from top of casing (at tim		11.12	Sampling time: /v75

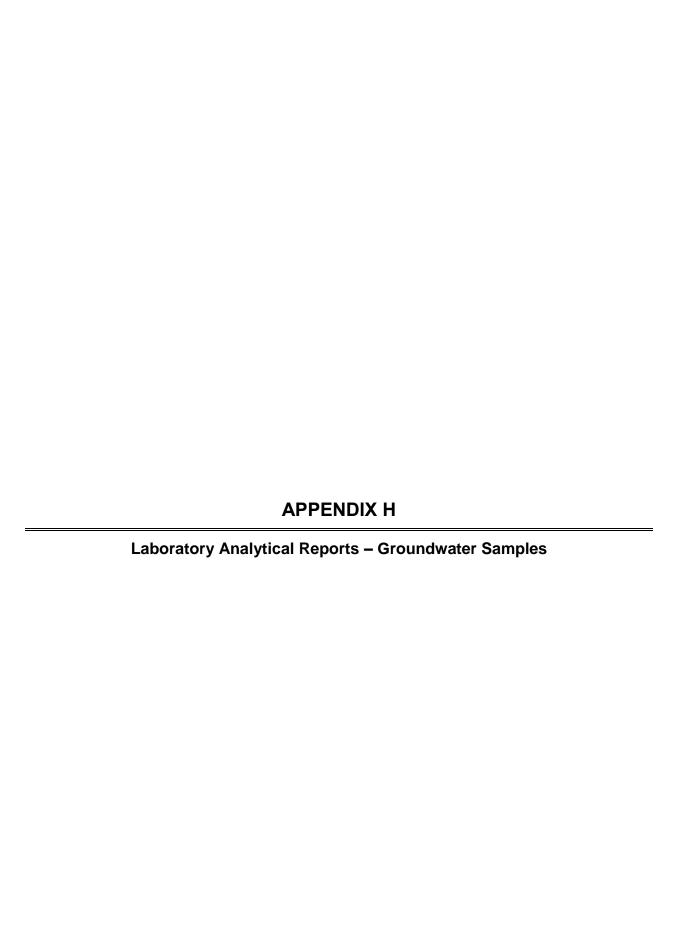
Time	рН	Cond. (µs/cm)	Temp. (°C)	Turb. (NTU)	DO (mg/L)	ORP (mV)	TDS (ppm)	Observations
1000	7.29	1.09	20.72	11.1	2000	93		11.41
1005	7.05	1.08	21.01	15.3	3.44	121		11.38
1010	7.09	1.08	21.02	16.6	3.76	126		11.40
1015	7.19	1.07	2/33	20.0	391	129		11.47
1000	7.02	1.08	21.26	19.8	3.27	140		11.37
1025	7.18	1.17	7133	17.9	3.24	141		11.35
1030	7.18	1.07	21.60	17.0	310	141		11.34
1135	7.19	1.07	71.72	16.0	3.12	142		11.33
1040	7.17	1.07	21.77	16-0	3,20	142		11.33
								12-2



Project: 14-4695	Culu	- Blud	Cum Pro	oject No.:
Date: 1/2//5 Weather	:	unm)		
Sample Team: JB o RS		Well Measure	d By:	RS
Well No.: MW Well Condition:	6714	1		
Does this wellhead require repair? ☐ yes ☐ no	э Ехр	lanation:		
Does this well require bolts and/or well locking	Ехр	lanation:		
caps?				
Static depth to water from top of casing	A:	11.03	ft. Time:	930
Top of casing to bottom of casing	B:	19.08	ft.	
Feet of water in well	H:		ft. H=	B - A
Diameter	D:		in.	
Volume of water in well	V:	g	jal. V =	π D <sup>2</sup> H / 77.01
Three well volumes	Vx3:	9	ıal.	
Purge time begin: //o 0		Purge time finis	sh:	1145
Purging/bailing technique:		Purging/bailing	equipment:	Hand Bale
Average pumping rate:		Volume of water	er removed:	~ 2.33 zall
Depth to water from top of casing (at time of sam	npling):		Samplin	a time: 1/45

Time	рН	Cond. (µs/cm)	Temp. (°C)	Turb. (NTU)	DO (mg/L)	ORP (mV)	TDS (ppm)	Observations
1100	7.45	1.07	21.71	13.47	1.68	151		11.16
1105	7.27	1.06	21.90	13.5	0.62	153		11.16
1110	7.21	1.05	27.16	14.1	0.39	177		11.10
1115	7.09	1-06	22.45	15.9	0.18	142		11.09
1120	7.12	1.05	KRP	15.4	0.15	136		11.09
1125	7.12	1.05	22.79	14.6	0.12	132		11.09
1130	7.11	1.06	2290	13.7	0.09	132		11.10
1135	7.10	1.05	22.80	127	0.05	133		11.12
110	7.11	1.05	22.86	12.9	0.05	129		11.1/
1145	7.11	1.05	72.43	12.9	0.05	130		1110







#### Calscience



#### WORK ORDER NUMBER: 15-02-0071

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For** 

Client: Alta Environmental

Client Project Name: MCGU-14-4695:4

Attention: Jonathan Barkman

3777 Long Beach Blvd., Annex Building

Long Beach, CA 90802-3335

Vikas Patel

Approved for release on 02/12/2015 by:

Vikas Patel Project Manager



ResultLink >

Email your PM >

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	3.8 SM 4500 S2 - D Sulfide (Aqueous)	25
	3.9 SM 5310 D Total Organic Carbon (Aqueous)	27
	3.10 EPA 200.7 ICP Metals (Aqueous)	29
	3.11 EPA 6010B/7470A CAC Title 22 Metals (Aqueous)	31
	3.12 EPA 6010B ICP Metals (Aqueous)	38
	3.13 EPA 7470A Mercury (Aqueous)	40
	3.14 1,4-Dioxane by EPA 8270C (M) Isotope Dilution (Aqueous)	42
	3.15 EPA 8260B Volatile Organics (Aqueous)	44
4	Quality Control Sample Data	62
	4.1 MS/MSD	62
	4.2 PDS/PDSD	70
	4.3 Sample Duplicate	71
	4.4 LCS/LCSD	76
5	Glossary of Terms and Qualifiers	90
6	Chain-of-Custody/Sample Receipt Form	91



#### **Work Order Narrative**

Work Order: 15-02-0071 Page 1 of 1

#### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 02/02/15. They were assigned to Work Order 15-02-0071.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

#### **Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

#### **Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

#### **Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

#### **Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

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



#### **Detections Summary**

Client: Alta Environmental

Work Order:

15-02-0071

3777 Long Beach Blvd., Annex Building

Project Name:

MCGU-14-4695:4

Long Beach, CA 90802-3335

Received: 02/02/15

Attn: Jonathan Barkman Page 1 of 6

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	Extraction
GW1 (15-02-0071-1)						
Boron	0.482		0.0200	mg/L	EPA 200.7	N/A
Chloride	120	E	1.0	mg/L	EPA 300.0	N/A
Chloride	93		5.0	mg/L	EPA 300.0	N/A
Nitrate (as N)	3.3		0.10	mg/L	EPA 300.0	N/A
Sulfate	430	E	1.0	mg/L	EPA 300.0	N/A
Sulfate	330		5.0	mg/L	EPA 300.0	N/A
Manganese	0.452		0.00500	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0317		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0413		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Selenium	0.0151		0.0150	mg/L	EPA 6010B	EPA 3010A Total
Thallium	0.00488	J	0.00291*	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.00459	J	0.00244*	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.0170		0.0100	mg/L	EPA 6010B	EPA 3010A Total
c-1,2-Dichloroethene	23		1.0	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	21		1.0	ug/L	EPA 8260B	EPA 5030C
1,1,2-Trichloro-1,2,2-Trifluoroethane	120		10	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	8.4		1.0	ug/L	EPA 8260B	EPA 5030C
Carbon Dioxide	37900		17.0	ug/L	RSK-175M	N/A
Methane	0.321	J	0.0400*	ug/L	RSK-175M	N/A
Alkalinity, Total (as CaCO3)	407		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	407		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	985		1.00	mg/L	SM 2540 C	N/A
Carbon, Total Organic	43		2.5	mg/L	SM 5310 D	N/A

<sup>\*</sup> MDL is shown



Client: Alta Environmental

Work Order:

15-02-0071

3777 Long Beach Blvd., Annex Building

Project Name:

MCGU-14-4695:4

Long Beach, CA 90802-3335

Received: 02/02/15

Attn:	Jonathan Barkman	Page 2 of 6
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Client SampleID						
<u>Analyte</u>	<u>Result</u>	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<b>Extraction</b>
OWO (45 00 0074 0)						
GW2 (15-02-0071-2)						
Boron	0.443		0.0200	mg/L	EPA 200.7	N/A
Chloride	110	E	1.0	mg/L	EPA 300.0	N/A
Chloride	88		5.0	mg/L	EPA 300.0	N/A
Nitrate (as N)	2.7		0.10	mg/L	EPA 300.0	N/A
Sulfate	450	E	1.0	mg/L	EPA 300.0	N/A
Sulfate	350		5.0	mg/L	EPA 300.0	N/A
Manganese	0.0482		0.00500	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0194		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0151		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Selenium	0.0109	J	0.00699*	mg/L	EPA 6010B	EPA 3010A Total
Thallium	0.00325	J	0.00291*	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.00363	J	0.00244*	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.0937		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Trichloroethene	0.66	J	0.37*	ug/L	EPA 8260B	EPA 5030C
Carbon Dioxide	34300		17.0	ug/L	RSK-175M	N/A
Methane	0.0470	J	0.0400*	ug/L	RSK-175M	N/A
Alkalinity, Total (as CaCO3)	413		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	413		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	995		1.00	mg/L	SM 2540 C	N/A
Carbon, Total Organic	42		2.5	mg/L	SM 5310 D	N/A

<sup>\*</sup> MDL is shown



Client: Alta Environmental

Work Order:

15-02-0071

3777 Long Beach Blvd., Annex Building

Project Name:

MCGU-14-4695:4

Long Beach, CA 90802-3335

Received: 02/02/15

Attn: Jonathan Barkman Page 3 of 6

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<b>Extraction</b>
GW3 (15-02-0071-3)						
Boron	0.427		0.0200	mg/L	EPA 200.7	N/A
Chloride	40		1.0	mg/L	EPA 300.0	N/A
Nitrate (as N)	10	E	0.10	mg/L	EPA 300.0	N/A
Nitrate (as N)	8.9		0.50	mg/L	EPA 300.0	N/A
Sulfate	240	E	1.0	mg/L	EPA 300.0	N/A
Sulfate	180		5.0	mg/L	EPA 300.0	N/A
Barium	0.0507		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0225		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Selenium	0.0116	J	0.00699*	mg/L	EPA 6010B	EPA 3010A Total
Thallium	0.00486	J	0.00291*	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.00400	J	0.00244*	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.0100		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Tetrachloroethene	140		1.0	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	3.6		1.0	ug/L	EPA 8260B	EPA 5030C
Carbon Dioxide	22100		17.0	ug/L	RSK-175M	N/A
Alkalinity, Total (as CaCO3)	285		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	285		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	605		1.00	mg/L	SM 2540 C	N/A
Carbon, Total Organic	30		2.5	mg/L	SM 5310 D	N/A

<sup>\*</sup> MDL is shown



Client: Alta Environmental

ntal Work Order:

3777 Long Beach Blvd., Annex Building

Long Beach, CA 90802-3335 Recei

Work Order: 15-02-0071
Project Name: MCGU-14-4695:4

Received: 02/02/15

Attn: Jonathan Barkman Page 4 of 6

Client SampleID						
<u>Analyte</u>	Result	<b>Qualifiers</b>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<b>Extraction</b>
MW7 (15-02-0071-4)						
Boron	0.652		0.0200	mg/L	EPA 200.7	N/A
Chloride	110	E	1.0	mg/L	EPA 300.0	N/A
Chloride	93		5.0	mg/L	EPA 300.0	N/A
Nitrate (as N)	10	Е	0.10	mg/L	EPA 300.0	N/A
Nitrate (as N)	9.4		0.50	mg/L	EPA 300.0	N/A
Sulfate	350	Е	1.0	mg/L	EPA 300.0	N/A
Sulfate	280		5.0	mg/L	EPA 300.0	N/A
Manganese	0.0551		0.00500	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0391		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0162		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Selenium	0.0152		0.0150	mg/L	EPA 6010B	EPA 3010A Total
Thallium	0.00502	J	0.00291*	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.00427	J	0.00244*	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.0304		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Bromodichloromethane	0.22	J	0.21*	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.61	J	0.46*	ug/L	EPA 8260B	EPA 5030C
Dibromochloromethane	0.32	J	0.25*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	4.5		1.0	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	0.69	J	0.37*	ug/L	EPA 8260B	EPA 5030C
Carbon Dioxide	30500		17.0	ug/L	RSK-175M	N/A
Methane	0.0470	J	0.0400*	ug/L	RSK-175M	N/A
Alkalinity, Total (as CaCO3)	427		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	427		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	980		1.00	mg/L	SM 2540 C	N/A
Carbon, Total Organic	44		2.5	mg/L	SM 5310 D	N/A

<sup>\*</sup> MDL is shown



Client: Alta Environmental

Work Order:

15-02-0071

3777 Long Beach Blvd., Annex Building

Project Name: Mo

MCGU-14-4695:4

Long Beach, CA 90802-3335

Received: 02/02/15

Attn: Jonathan Barkman Page 5	of 6
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Client SampleID						
<u>Analyte</u>	Result	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
MW8 (15-02-0071-5)						
Boron	0.575		0.0200	mg/L	EPA 200.7	N/A
Chloride	95		1.0	mg/L	EPA 300.0	N/A
Nitrate (as N)	8.0		0.10	mg/L	EPA 300.0	N/A
Sulfate	370	E	1.0	mg/L	EPA 300.0	N/A
Sulfate	270		5.0	mg/L	EPA 300.0	N/A
Manganese	0.237		0.00500	mg/L	EPA 6010B	EPA 3005A Filt.
Barium	0.0263		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0239		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Selenium	0.0162		0.0150	mg/L	EPA 6010B	EPA 3010A Total
Thallium	0.00433	J	0.00291*	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.00468	J	0.00244*	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.00486	J	0.00352*	mg/L	EPA 6010B	EPA 3010A Total
Trichloroethene	1.2		1.0	ug/L	EPA 8260B	EPA 5030C
Carbon Dioxide	34700		17.0	ug/L	RSK-175M	N/A
Methane	0.161	J	0.0400*	ug/L	RSK-175M	N/A
Alkalinity, Total (as CaCO3)	432		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	432		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	925		1.00	mg/L	SM 2540 C	N/A
Carbon, Total Organic	46		2.5	mg/L	SM 5310 D	N/A
GW3 Dup (15-02-0071-6)						
Boron	0.419		0.0200	mg/L	EPA 200.7	N/A
Chloride	40		1.0	mg/L	EPA 300.0	N/A
Nitrate (as N)	10	E	0.10	mg/L	EPA 300.0	N/A
Nitrate (as N)	8.9		0.50	mg/L	EPA 300.0	N/A
Sulfate	240	E	1.0	mg/L	EPA 300.0	N/A
Sulfate	190		5.0	mg/L	EPA 300.0	N/A
Barium	0.0484		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Molybdenum	0.0205		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Selenium	0.0132	J	0.00699*	mg/L	EPA 6010B	EPA 3010A Total
Vanadium	0.00395	J	0.00244*	mg/L	EPA 6010B	EPA 3010A Total
Zinc	0.0130		0.0100	mg/L	EPA 6010B	EPA 3010A Total
Tetrachloroethene	140		1.0	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	3.4		1.0	ug/L	EPA 8260B	EPA 5030C
Carbon Dioxide	23600		17.0	ug/L	RSK-175M	N/A
Alkalinity, Total (as CaCO3)	301		5.00	mg/L	SM 2320B	N/A
Bicarbonate (as CaCO3)	301		5.00	mg/L	SM 2320B	N/A
Solids, Total Dissolved	645		1.00	mg/L	SM 2540 C	N/A
Carbon, Total Organic	30		2.5	mg/L	SM 5310 D	N/A

<sup>\*</sup> MDL is shown



Client: Alta Environmental

Work Order:

15-02-0071

3777 Long Beach Blvd., Annex Building

Project Name:

MCGU-14-4695:4

Long Beach, CA 90802-3335 Received:

ved: 02/02/15

Attn: Jonathan Barkman Page 6 of 6

Client SampleID  Analyte	Result	Qualifiers	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
EB (15-02-0071-8) 2-Butanone	13		10	ug/L	EPA 8260B	EPA 5030C

Subcontracted analyses, if any, are not included in this summary.



GW1

GW3

Carbon Dioxide

### **Analytical Report**

Alta Environmental Date Received: 02/02/15 Work Order: 15-02-0071 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Preparation: N/A Method: **RSK-175M** Units: ug/L Project: MCGU-14-4695:4 Page 1 of 2 Lab Sample Number Date/Time Collected Date Prepared Date/Time Analyzed Client Sample Number Matrix QC Batch ID Instrument

	14:05						11:28			
Comment(s):	- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.									
<u>Parameter</u>		<u>Resu</u>	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>		<u>Qualifiers</u>		
Carbon Dioxide		3790	0	17.0	0.0547	10.0				
GW2		15-02-0071-2-F	02/02/15 13:15	Aqueous	GC 14	N/A	02/03/15 11:47	150203L01		

Aqueous

Aqueous

GC 14

GC 14

0.0547

10.0

02/02/15

15-02-0071-1-F

15-02-0071-3-F

N/A

N/A

02/03/15

02/03/15

150203L01

150203L01

		13:15			11:	:47
Comment(s):	- Results were evaluated to the MDL (	DL), concentration	s >= to the MDL	(DL) but < RL (LOQ), if	found, are quali	fied with a "J" flag.
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<b>Qualifiers</b>
Carbon Dioxide		34300	17.0	0.0547	10.0	

		15:00		12:06					
Comment(s):	- Results were evaluated to the MDL (I	DL), concentration	ons >= to the MDL	(DL) but < RL (LOQ), i	f found, are qualif	ied with a "J" flag.			
<u>Parameter</u>		Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<b>Qualifiers</b>			
Carbon Dioxide		22100	17.0	0.0547	10.0				

02/02/15

MW7	15-02-0071-4-F	02/02/15 10:45	Aqueous	GC 14	N/A	02/03/15 12:25	150203L01
Comment(s):	- Results were evaluated to the MDL (DL), cond	centrations >= to	the MDL (DL)	but < RL (LOQ)	, if found, are	qualified with a ".	J" flag.
<u>Parameter</u>	Resu	<u>ılt</u> <u>R</u>	<u>L</u>	<u>MDL</u>	<u>DF</u>	<u>Qu</u>	<u>alifiers</u>
Carbon Dioxide	3050	0 1	7.0	0.0547	10.0		

MW8		15-02-0071-5-F	02/02/15 11:45	Aqueous	GC 14	N/A	02/03/15 12:43	150203L01
Comment(s):	- Results were evaluated to	the MDL (DL), cond	centrations >	= to the MDL (DL	_) but < RL (LC	Q), if found, are	qualified with	a "J" flag.
<u>Parameter</u>		<u>Resu</u>	<u>lt</u>	<u>RL</u>	MDL	<u>DF</u>		<u>Qualifiers</u>
Carbon Dioxide		3470	0	17.0	0.0547	10.0		
GW3 Dun		15-02-0071-6-F	02/02/15	Aqueous	GC 14	N/A	02/03/15	1502031 01

Ono Bup		10 02 007 1 0 1	15:10	Aqueeus			13:04	100200201
Comment(s):	- Results were evaluated to	the MDL (DL), cond	centrations >= to	the MDL (DL	) but < RL (LOQ	), if found, are q	ualified with a "J	" flag.
<u>Parameter</u>		Resul	<u>lt R</u>	<u>L</u>	<u>MDL</u>	<u>DF</u>	<u>Qua</u>	<u>alifiers</u>

17.0

23600



Date Received: Alta Environmental 02/02/15 3777 Long Beach Blvd., Annex Building Work Order: 15-02-0071 Long Beach, CA 90802-3335 Preparation: N/A **RSK-175M** Method: Units: ug/L

Project: MCGU-14-4695:4 Page 2 of 2

Client Sample Nu	umber	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank		099-12-659-771	N/A	Aqueous	GC 14	N/A	02/03/15 10:12	150203L01
Commont(a):	Populto wore evaluated	to the MDL (DL) con	controtions > - t	o the MDL (D	I \ but - DI /I C	O) if found or	a gualified with a	" I" floo

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. <u>RL</u> <u>MDL</u> <u>DF</u> <u>Parameter</u> Result Carbon Dioxide ND 1.70 0.00547 1.00





 Alta Environmental
 Date Received:
 02/02/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-02-0071

 Long Beach, CA 90802-3335
 Preparation:
 N/A

 Method:
 RSK-175M

 Units:
 ug/L

 Project: MCGU-14-4695:4
 Page 1 of 2

Client Sample N	lumber	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GW1		15-02-0071-1-D	02/02/15 14:05	Aqueous	GC 61	N/A	02/04/15 16:34	150204L01
Comment(s):	- Results were evaluated to	the MDL (DL), cond	centrations >= t	o the MDL (DL	_) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Ethane		ND		1.00	0.0800	1.00		
Ethylene		ND		1.00	0.100	1.00		
Methane		0.321		1.00	0.0400	1.00	J	

GW2	15-02-00/1		2/02/15 3:15	Aqueous (	3C 61	N/A	02/04/15 16:58	150204L01
Comment(s):	- Results were evaluated to the MDL (DI	_), concent	rations >= to th	ne MDL (DL)	but < RL (LOC	Q), if found, are	qualified with a "	J" flag.
<u>Parameter</u>		Result	<u>RL</u>		<u>MDL</u>	<u>DF</u>	<u>Qu</u>	<u>alifiers</u>
Ethane		ND	1.0	0	0.0800	1.00		
Ethylene		ND	1.0	0	0.100	1.00		
Methane		0.0470	1.0	0	0.0400	1.00	J	

GW3	15-02-0071-3-D	15:00	Aqueous GC 6	i N/A	17:24	150204L01
Comment(s):	- Results were evaluated to the MDL (DL), conce	entrations >= to th	ne MDL (DL) but <	RL (LOQ), if found, a	re qualified with a "J	l" flag.
<u>Parameter</u>	Result	<u>RL</u>	<u>M</u>	<u>IDL</u> <u>DF</u>	Qua	alifiers
Ethane	ND	1.00	0 0	.0800 1.0	0	
Ethylene	ND	1.00	0 0	.100 1.0	0	
Methane	ND	1.00	0 0	.0400 1.0	0	

MW7	15-02-0071-4-D	02/02/15 10:45	Aqueous	GC 61 N	I/A	02/04/15 17:46	150204L01
Comment(s):	- Results were evaluated to the MDL (DL), cond	centrations >= to	the MDL (DL)	but < RL (LOQ),	if found, are q	ualified with a ".	J" flag.
<u>Parameter</u>	Resu	<u>lt</u> <u>RL</u>	=	<u>MDL</u>	<u>DF</u>	<u>Qu</u>	<u>alifiers</u>
Ethane	ND	1.0	00	0.0800	1.00		
Ethylene	ND	1.0	00	0.100	1.00		
Methane	0.047	70 1.0	00	0.0400	1.00	J	

MW8	15-02-0071-5-D	02/02/15 11:45	Aqueous	GC 61	N/A	02/04/15 18:13	150204L01
Comment(s):	- Results were evaluated to the MDL (DL), con-	centrations >	= to the MDL (DL	.) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	2	<u>Qualifiers</u>
Ethane	ND		1.00	0.0800	1.00		
Ethylene	ND		1.00	0.100	1.00		
Methane	0.16	1	1.00	0.0400	1.00	J	



Alta Environmental Date Received: 02/02/15
3777 Long Beach Blvd., Annex Building Work Order: 15-02-0071
Long Beach, CA 90802-3335 Preparation: N/A
Method: RSK-175M

Units: ug/L

Project: MCGU-14-4695:4 Page 2 of 2

Client Sample N	Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GW3 Dup		15-02-0071-6-D	02/02/15 15:10	Aqueous	GC 61	N/A	02/04/15 18:36	150204L01
Comment(s):	- Results were evaluated to	the MDL (DL), cond	entrations >= t	o the MDL (DL	_) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Ethane		ND		1.00	0.0800	1.00		
Ethylene		ND		1.00	0.100	1.00		
Methane		ND		1.00	0.0400	1.00		

Method Blank	099-12-661-1135	N/A	Aqueous	GC 61	N/A	02/04/15 11:02	150204L01
Comment(s):	- Results were evaluated to the MDL (DL), cond	entration	s >= to the MDL (DL	_) but < RL (L0	Q), if found,	are qualified with	a "J" flag.
<u>Parameter</u>	Resul	<u>lt</u>	<u>RL</u>	<u>MDL</u>	DI	Ē	<b>Qualifiers</b>
Ethane	ND		1.00	0.0800	1.	00	
Ethylene	ND		1.00	0.100	1.	00	
Methane	ND		1.00	0.0400	1.	00	





Sulfate

## **Analytical Report**

 Alta Environmental
 Date Received:
 02/02/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-02-0071

 Long Beach, CA 90802-3335
 Preparation:
 N/A

 Method:
 EPA 300.0

 Units:
 mg/L

 Project: MCGU-14-4695:4
 Page 1 of 3

Client Sample N	lumber	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GW1		15-02-0071-1-I	02/02/15 14:05	Aqueous	IC 15	N/A	02/02/15 21:44	150202L02
Comment(s):	- Results were evaluated to	the MDL (DL), cond	entrations >=	to the MDL (DI	_) but < RL (LC	Q), if found, are	qualified with a	a "J" flag.
<u>Parameter</u>		Resu	<u> t</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>(</u>	<u>Qualifiers</u>
Chloride		120		1.0	0.12	1.00	I	E
Nitrate (as N)		3.3		0.10	0.025	1.00		
Sulfate		430		1.0	0.19	1.00	1	E
GW1		15-02-0071-1-I	02/02/15 14:05	Aqueous	IC 15	N/A	02/03/15 21:28	150203L02
Comment(s):	- Results were evaluated to	the MDL (DL), cond	entrations >=	to the MDL (DI	_) but < RL (LC	Q), if found, are	qualified with a	a "J" flag.
<u>Parameter</u>		Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>9</u>	Qualifiers
Chloride		93		5.0	0.61	5.00		

GW2	15-02-0071-2-I	02/02/15 A 13:15	Aqueous IC 15	N/A	02/02/15 150202L02 22:00
Comment(s):	- Results were evaluated to the MDL (DL), cond	centrations >= to the	e MDL (DL) but < RL	(LOQ), if found, are	qualified with a "J" flag.
<u>Parameter</u>	Resu	<u>llt</u> <u>RL</u>	MDL	<u>DF</u>	<u>Qualifiers</u>
Chloride	110	1.0	0.12	1.00	E
Nitrate (as N)	2.7	0.10	0.02	5 1.00	
Sulfate	450	1.0	0.19	1.00	E

5.0

0.94

5.00

330

GW2	15-02-0071-2-l	02/02/15 13:15	Aqueous	IC 15	N/A	02/03/15 21:45	150203L02
Comment(s):	- Results were evaluated to the MDL (DL), con	ncentrations >= to	the MDL (DL)	but < RL (LOQ	), if found, are o	qualified with a "	J" flag.
<u>Parameter</u>	Res	<u>sult</u> <u>F</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Q</u> ı	<u>ualifiers</u>
Chloride	88	5	5.0	0.61	5.00		
Sulfate	350	5	5.0	0.94	5.00		

GW3	15-02-0071-3-I	02/02/15 15:00	Aqueous	IC 15	N/A	02/02/15 22:17	150202L02
Comment(s):	- Results were evaluated to the MDL (DL), co	ncentrations >=	to the MDL (DL	) but < RL (L0	OQ), if found, are	e qualified with	a "J" flag.
<u>Parameter</u>	Res	<u>sult</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>		<u>Qualifiers</u>
Chloride	40		1.0	0.12	1.00		
Nitrate (as N)	10		0.10	0.025	1.00		E
Sulfate	240	)	1.0	0.19	1.00		E

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Project: MCGU-14-4695:4

### **Analytical Report**

 Alta Environmental
 Date Received:
 02/02/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-02-0071

 Long Beach, CA 90802-3335
 Preparation:
 N/A

 Method:
 EPA 300.0

 Units:
 mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GW3	15-02-0071-3-I	02/02/15 15:00	Aqueous	IC 15	N/A	02/03/15 22:02	150203L02
Comment(s): - Results were evaluated to	to the MDL (DL), cond	centrations >= t	o the MDL (DI	_) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	<u>Resu</u>	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Nitrate (as N)	8.9	(	0.50	0.13	5.00		
Sulfate	180	:	5.0	0.94	5.00		

MW7	15-02-0071-4-I	02/02/15 10:45	Aqueous	IC 15		02/02/15 150202L02 02:34
Comment(s):	- Results were evaluated to the MDL (DL), c	oncentrations >=	to the MDL (DL	) but < RL (LO	Q), if found, are qua	alified with a "J" flag.
<u>Parameter</u>	<u>Re</u>	<u>esult</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<b>Qualifiers</b>
Chloride	11	0	1.0	0.12	1.00	E
Nitrate (as N)	10	)	0.10	0.025	1.00	E
Sulfate	35	50	1.0	0.19	1.00	E

IVI VV /	15-02-00/1-4-1	02/02/15 10:45	Aqueous	IC 15	N/A	02/03/15 22:19	150203L0
Comment(s):	- Results were evaluated to the MDL (DL), co	oncentrations >= t	o the MDL (DL	_) but < RL (L0	OQ), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Re	sult <u>l</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	Qualifiers
Chloride	93	!	5.0	0.61	5.00		
Nitrate (as N)	9.4	ļ (	0.50	0.13	5.00		
Sulfate	28	0 !	5.0	0.94	5.00		

MW8	15-02-0071-5-	·I 02/02/15 11:45	Aqueous	IC 15		02/02/15 150202L02 22:51
Comment(s):	- Results were evaluated to the MDL (DL),	concentrations >	= to the MDL (DL	.) but < RL (LO	Q), if found, are qu	ualified with a "J" flag.
<u>Parameter</u>	<u>!</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<b>Qualifiers</b>
Chloride	9	95	1.0	0.12	1.00	
Nitrate (as N)	8	3.0	0.10	0.025	1.00	
Sulfate	•	370	1.0	0.19	1.00	E

MW8	15-02-0071-5-I	02/02/15 11:45	Aqueous	IC 15	N/A	02/03/15 22:36	150203L02
Comment(s):	- Results were evaluated to the MDL (DL), cor	ncentrations >= to	the MDL (DL	) but < RL (LOQ	), if found, are	qualified with a "	J" flag.
<u>Parameter</u>	Res	<u>ult R</u>	<u>:L</u>	<u>MDL</u>	<u>DF</u>	<u>Qu</u>	<u>ıalifiers</u>
Sulfate	270	5	.0	0.94	5.00		

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Project: MCGU-14-4695:4

## **Analytical Report**

Alta Environmental Date Received: 02/02/15 Work Order: 3777 Long Beach Blvd., Annex Building 15-02-0071 Preparation: Long Beach, CA 90802-3335 N/A Method: EPA 300.0 Units: mg/L

Client Sample Number	Lab Sample Number	Date/Time Matrix Collected	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GW3 Dup	15-02-0071-6-I	02/02/15 Aqued 15:10	ous IC 15	N/A	02/02/15 23:08	150202L02
Comment(s): - Results w	ere evaluated to the MDL (DL), cond	centrations >= to the MD	L (DL) but < RL (LO	Q), if found, are	qualified with a	ı "J" flag.
<u>Parameter</u>	Resu	<u>lt RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	Qualifiers
Chloride	40	1.0	0.12	1.00		
Nitrate (as N)	10	0.10	0.025	1.00	E	<u> </u>
Sulfate	240	1.0	0.19	1.00	E	<u> </u>

GW3 Dup	15-02-0071-6-I	02/02/15 A 15:10	queous IC 15	N/A	02/03/15 15 22:53	50203L02
Comment(s):	- Results were evaluated to the MDL (DL), con-	centrations >= to the	MDL (DL) but < Rl	(LOQ), if found, are	qualified with a "J" fl	lag.
<u>Parameter</u>	Resu	ılt RL	MDL	<u>DF</u>	<u>Qualifi</u>	<u>iers</u>
Nitrate (as N)	8.9	0.50	0.13	5.00		
Sulfate	190	5.0	0.94	5.00		

Method Blank	099-12-906-5388	N/A	Aqueous	IC 15	N/A	02/02/15 19:59	150202L02
Comment(s):	- Results were evaluated to the MDL (DL), cond	entrations >	= to the MDL (DL	.) but < RL (L	OQ), if found,	are qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>lt</u>	<u>RL</u>	MDL	<u>DF</u>	<u>Q</u>	<u>lualifiers</u>
Chloride	ND		1.0	0.12	1.0	00	
Nitrate (as N)	ND		0.10	0.025	1.0	00	
Sulfate	ND		1.0	0.19	1.0	00	

Method Blank	099-12-906-5398	N/A Ac	ueous IC 15	N/A	02/03/15 150203L02 20:38
Comment(s):	- Results were evaluated to the MDL (DL), cond	centrations >= to the	MDL (DL) but < RL	(LOQ), if found, are	e qualified with a "J" flag.
<u>Parameter</u>	Resul	<u>lt</u> <u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Chloride	ND	1.0	0.12	1.00	
Nitrate (as N)	ND	0.10	0.025	5 1.00	
Sulfate	ND	1.0	0.19	1.00	



Alkalinity, Total (as CaCO3)

RL: Reporting Limit.

#### **Analytical Report**

 Alta Environmental
 Date Received:
 02/02/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-02-0071

 Long Beach, CA 90802-3335
 Preparation:
 N/A

 Method:
 SM 2320B

 Units:
 mg/L

 Project: MCGU-14-4695:4
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QC Batch ID Client Sample Number Lab Sample Date/Time Matrix Instrument Date Date/Time Prepared Number Collected Analyzed 02/02/15 GW1 15-02-0071-1-M Aqueous PH1/BUR03 N/A 02/09/15 F0209ALKB1 14:05 14:10 Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. DF **Parameter** Result MDL 5.00 0.848 1.00 Alkalinity, Total (as CaCO3) 407

GW<sub>2</sub> 15-02-0071-2-M 02/02/15 PH1/BUR03 N/A 02/09/15 F0209ALKB1 Aqueous 13:15 14:10 - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. Comment(s): Result MDL <u>DF</u> Qualifiers **Parameter** <u>RL</u> Alkalinity, Total (as CaCO3) 413 5.00 0.848 1.00

GW<sub>3</sub> 15-02-0071-3-M 02/02/15 Aqueous PH1/BUR03 N/A 02/09/15 F0209ALKB1 - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. Comment(s): RL MDL <u>DF</u> Qualifiers **Parameter** Result 285 5.00 0.848 1.00 Alkalinity, Total (as CaCO3)

MW7 15-02-0071-4-M 02/02/15 Aqueous PH1/BUR03 N/A 02/09/15 F0209ALKB1 10:45 14:10 - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. Comment(s): <u>Parameter</u> Result <u>RL</u> **MDL** <u>DF</u> Qualifiers 427 5.00 0.848 1.00 Alkalinity, Total (as CaCO3)

MW8 15-02-0071-5-M 02/02/15 Aqueous PH1/BUR03 N/A 02/09/15 F0209ALKB1

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter Result RL MDL DF Qualifiers

Alkalinity, Total (as CaCO3) 432 5.00 0.848 1.00

301

02/02/15 15:10 02/09/15 14:10 **GW3 Dup** 15-02-0071-6-M Aqueous PH1/BUR03 N/A F0209ALKB1 Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. **Parameter** Result <u>RL</u> **MDL** <u>DF</u> Qualifiers

5.00

0.848

1.00

DF: Dilution Factor.

MDL: Method Detection Limit.



Alkalinity, Total (as CaCO3)

### **Analytical Report**

Alta Environmental Date Received: 02/02/15 3777 Long Beach Blvd., Annex Building Work Order: 15-02-0071 Long Beach, CA 90802-3335 Preparation: N/A

SM 2320B Method: Units: mg/L

1.00

Project: MCGU-14-4695:4 Page 2 of 2

Client Sample N	lumber	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank		099-15-859-582	N/A	Aqueous	PH1/BUR03	N/A	02/09/15 14:10	F0209ALKB1
Comment(s):	- Results were evaluated t	o the MDL (DL), con	centrations >= t	o the MDL (DI	L) but < RL (LO	Q), if found, are	e qualified with a	ı "J" flag.
Parameter		Resu	ılt	RL	MDL	DF	(	Qualifiers

1.0

0.85

ND



Qualifiers



Bicarbonate (as CaCO3)

#### **Analytical Report**

Date Received: 02/02/15 Alta Environmental Work Order: 15-02-0071 3777 Long Beach Blvd., Annex Building Preparation: N/A Long Beach, CA 90802-3335 Method: SM 2320B Units: mg/L Project: MCGU-14-4695:4 Page 1 of 2

QC Batch ID Client Sample Number Lab Sample Date/Time Matrix Instrument Date Date/Time Prepared Number Collected Analyzed GW1 15-02-0071-1-M 02/02/15 Aqueous PH1/BUR03 N/A 02/09/15 F0209HCOB1 14:05 14:10 Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. DF **Parameter** Result MDL 5.00 0.848 1.00 Bicarbonate (as CaCO3) 407

GW<sub>2</sub> 15-02-0071-2-M 02/02/15 PH1/BUR03 N/A 02/09/15 F0209HCOB1 Aqueous 13:15 14:10 - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. Comment(s): MDL <u>DF</u> Qualifiers **Parameter** Result <u>RL</u> Bicarbonate (as CaCO3) 413 5.00 0.848 1.00

GW<sub>3</sub> 15-02-0071-3-M 02/02/15 Aqueous PH1/BUR03 N/A 02/09/15 F0209HCOB1 - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. Comment(s): MDL <u>DF</u> Qualifiers **Parameter** Result <u>RL</u>

MW7 15-02-0071-4-M 02/02/15 Aqueous PH1/BUR03 N/A 02/09/15 F0209HCOB1 10:45 14:10

5.00

0.848

1.00

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. Comment(s): <u>Parameter</u> Result <u>RL</u> **MDL** <u>DF</u> Qualifiers

427 5.00 0.848 1.00 Bicarbonate (as CaCO3)

285

15-02-0071-5-M 02/09/15 MW8 02/02/15 PH1/BUR03 N/A F0209HCOB1 Aqueous

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. Comment(s):

**Parameter** Result **MDL** <u>DF</u> 432 5.00 0.848 1.00 Bicarbonate (as CaCO3)

02/02/15 15:10 02/09/15 14:10 **GW3 Dup** 15-02-0071-6-M **Aqueous** PH1/BUR03 N/A F0209HCOB1 Comment(s):

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. **Parameter** Result <u>RL</u> **MDL** <u>DF</u> Qualifiers

Bicarbonate (as CaCO3) 301 5.00 0.848 1.00



Bicarbonate (as CaCO3)

### **Analytical Report**

Alta Environmental Date Received: 02/02/15 3777 Long Beach Blvd., Annex Building Work Order: 15-02-0071 Long Beach, CA 90802-3335 Preparation:

> Method: SM 2320B Units: mg/L

> > 1.00

0.85

Page 2 of 2 Project: MCGU-14-4695:4

Client Sample N	umber	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank		099-15-861-436	N/A	Aqueous	PH1/BUR03	N/A	02/09/15 14:10	F0209HCOB1
Comment(s):	- Results were evaluated t	o the MDL (DL), cond	centrations >=	to the MDL (DI	_) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		Resu	<u>ılt</u>	<u>RL</u>	MDL	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>

1.0

ND



N/A



Carbonate (as CaCO3)

### **Analytical Report**

 Alta Environmental
 Date Received:
 02/02/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-02-0071

 Long Beach, CA 90802-3335
 Preparation:
 N/A

 Method:
 SM 2320B

 Units:
 mg/L

 Project: MCGU-14-4695:4
 Page 1 of 2

 Client Sample Number
 Lab Sample Date/Time Collected
 Matrix Instrument Date Prepared Analyzed
 Date/Time Analyzed
 QC Batch ID

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GW1	15-02-0071-1-M	02/02/15 14:05	Aqueous	PH1/BUR03	N/A	02/09/15 14:10	F0209CO3B1
Comment(s): - Results were evaluated	to the MDL (DL), con-	centrations >= 1	to the MDL (DI	L) but < RL (LO	Q), if found, are	e qualified with a	"J" flag.
<u>Parameter</u>	<u>Resu</u>	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Carbonate (as CaCO3)	ND		1.0	0.85	1.00		

GW2		15-02-0071-2-M	02/02/15 13:15	Aqueous	PH1/BUR03	N/A	02/09/15 14:10	F0209CO3B1
Comment(s):	- Results were evaluated to	the MDL (DL), cond	entrations >=	to the MDL (DL	_) but < RL (LOC	Q), if found, are	e qualified with a	a "J" flag.
<u>Parameter</u>		Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>(</u>	<u>Qualifiers</u>
Carbonate (as 0	CaCO3)	ND		1.0	0.85	1.00		

GW3	15-02-007 <sup>2</sup>		/02/15 Aqueo :00	ous PH1/BUR03	N/A	02/09/15 14:10	F0209CO3B1
Comment(s):	- Results were evaluated to the MDL (D	L), concentra	ations >= to the MDI	L (DL) but < RL (LOC	), if found, are	qualified with a ".	J" flag.
<u>Parameter</u>		Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qu</u>	<u>alifiers</u>
Carbonate (as C	CaCO3)	ND	1.0	0.85	1.00		

MW7	15-02-0071-4	I-M 02/02/15 10:45	Aqueous	PH1/BUR03	N/A	02/09/15 14:10	F0209CO3B1
Comment(s):	- Results were evaluated to the MDL (DL)	, concentrations >=	to the MDL (DL	_) but < RL (LOC	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Q</u>	<u>tualifiers</u>
Carbonate (as	CaCO3)	ND	1.0	0.85	1.00		

MW8		15-02-00/1-5-M	02/02/15 11:45	Aqueous	PH1/BUR03	N/A	02/09/15 I 14:10	F0209CO3B1
Comment(s):	- Results were evaluated to	the MDL (DL), cond	entrations >= to t	he MDL (DL	) but < RL (LOC	(i), if found, are	qualified with a "J"	flag.
<u>Parameter</u>		Resu	<u>t RL</u>		<u>MDL</u>	<u>DF</u>	<u>Qual</u>	<u>lifiers</u>
Carbonate (as C	CaCO3)	ND	1.0	)	0.85	1.00		

GW3 Dup	15-02-0071-6-M	02/02/15 15:10	Aqueous	PH1/BUR03	N/A	02/09/15 14:10	F0209CO3B1
Comment(s):	- Results were evaluated to the MDL (DL), cond	centrations >= to	the MDL (DL	.) but < RL (LOC	(a), if found, are o	qualified with a ".	J" flag.
<u>Parameter</u>	Resu	<u>ılt</u> <u>R</u>	<u>L</u>	<u>MDL</u>	<u>DF</u>	<u>Qu</u>	<u>alifiers</u>

1.0

0.85

1.00

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

ND

02/02/15



### **Analytical Report**

Date Received:

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335

Work Order: 15-02-0071 Preparation: N/A SM 2320B Method: Units: mg/L

Project: MCGU-14-4695:4 Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-863-368	N/A	Aqueous	PH1/BUR03	N/A	02/09/15 14:10	F0209CO3B1
Comment(s): - Results were evaluated t	to the MDL (DL), cond	centrations >= t	o the MDL (D	L) but < RL (LO	Q), if found, are	qualified with a	ı "J" flag.
<u>Parameter</u>	Resu	<u>ılt                                      </u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Carbonate (as CaCO3)	ND		1.0	0.85	1.00		





**GW3 Dup** 

Solids, Total Dissolved

### **Analytical Report**

Alta Environmental Date Received: 02/02/15 Work Order: 15-02-0071 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Preparation: N/A Method: SM 2540 C Units: mg/L Project: MCGU-14-4695:4 Page 1 of 2 Lab Sample Number Date/Time QC Batch ID Date/Time Date Prepared Client Sample Number Matrix Instrument Collected Analyzed 02/02/15 14:05 02/04/15 17:00 F0204TDSL3 GW1 15-02-0071-1-Q Aqueous SC<sub>5</sub> 02/04/15

Comment(s): - Results were evaluated to	the MDL (DL), concent	trations >= to the MDL (DL	) but < RL (LOQ	), if found, are o	ղualified with a "J" flag.
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Solids, Total Dissolved	985	1.00	0.820	1.00	
GW2		02/02/15 Aqueous 3:15	SC 5	02/04/15	02/04/15 F0204TDSL3 17:00

		13:15	5		17	7:00
Comment(s): -	Results were evaluated to the MI	DL (DL), concentration	ons >= to the MDL (I	DL) but < RL (LOQ	), if found, are qua	alified with a "J" flag.
<u>Parameter</u>		Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<b>Qualifiers</b>
Solids, Total Disso	olved	995	1.00	0.820	1.00	

02/04/15

1.00

02/04/15

F0204TDSL3

GW3	15-02-0071		02/02/15 15:00	Aqueous	SC 5	02/04/15	02/04/15 17:00	F0204TDSL3
Comment(s):	- Results were evaluated to the MDL (D	L), concer	ntrations >= to	the MDL (DL)	) but < RL	(LOQ), if found, are o	qualified with a "	'J" flag.
<u>Parameter</u>		Result	<u> </u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Q</u> ı	<u>ualifiers</u>
Solids, Total Dis	ssolved	605	1	.00	0.820	1.00		

15-02-0071-6-Q

645

MW7	15-02-0071-4-Q 02/0 10:4	)2/15 Aqueοι 45	ıs SC 5	02/04/15	02/04/15 17:00	F0204TDSL3
Comment(s): - Results were	evaluated to the MDL (DL), concentra	tions >= to the MDL	(DL) but < RL (LC	OQ), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Solids, Total Dissolved	980	1.00	0.820	1.00		

MW8	15-02-0071	-5-Q 02/02 11:45		SC 5	02/04/15	02/04/15 F0204TDSL3 17:00
Comment(s):	- Results were evaluated to the MDL (DL	_), concentration	ons >= to the MDL (D	DL) but < RL (LC	DQ), if found, are q	qualified with a "J" flag.
<u>Parameter</u>		Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<b>Qualifiers</b>
Solids, Total Dis	ssolved	925	1.00	0.820	1.00	

Aqueous

SC 5

0.820

	15:1	0		17:	00
Comment(s):	- Results were evaluated to the MDL (DL), concentration	ons >= to the MDL	(DL) but < RL (LOQ),	if found, are qualif	ied with a "J" flag.
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<b>Qualifiers</b>

1.00

02/02/15



Project: MCGU-14-4695:4

Solids, Total Dissolved

## **Analytical Report**

Alta Environmental Date Received: 02/02/15 3777 Long Beach Blvd., Annex Building Work Order: 15-02-0071 Long Beach, CA 90802-3335 Preparation: N/A Method: SM 2540 C

Units: mg/L Page 2 of 2

1.00

0.82

Client Sample N	lumber	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank		099-12-180-4412	N/A	Aqueous	SC 5	02/04/15	02/04/15 17:00	F0204TDSL3
Comment(s):	- Results were evaluated to	o the MDL (DL), cond	entrations >= t	o the MDL (D	L) but < RL (LO	Q), if found, are	e qualified with a	"J" flag.
<u>Parameter</u>		Resu	<u>lt </u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	9	<u>Qualifiers</u>

1.0

ND



Qualifiers



#### **Analytical Report**

 Alta Environmental
 Date Received:
 02/02/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-02-0071

 Long Beach, CA 90802-3335
 Preparation:
 N/A

 Method:
 SM 4500 S2 - D

 Units:
 mg/L

 Project: MCGU-14-4695:4
 Page 1 of 2

QC Batch ID Client Sample Number Lab Sample Date/Time Matrix Instrument Date Date/Time Prepared Number Collected Analyzed 02/02/15 02/04/15 19:05 GW1 15-02-0071-1-H Aqueous N/A 02/04/15 F0204SL2 14:05 Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. MDL DF **Parameter** Result Sulfide, Total ND 0.050 0.030 1.00

GW2 15-02-0071-2-H 02/02/15 N/A 02/04/15 02/04/15 F0204SL2 Aqueous 13:15 19:05 - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. Comment(s): **Parameter** Result MDL <u>DF</u> Qualifiers <u>RL</u> Sulfide, Total ND 0.050 0.030 1.00

GW<sub>3</sub> 15-02-0071-3-H 02/02/15 Aqueous N/A 02/04/15 02/04/15 F0204SL2 - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. Comment(s): **Parameter** RL MDL <u>DF</u> Qualifiers Result Sulfide, Total ND 0.050 0.030 1.00

02/04/15 19:05 MW7 15-02-0071-4-H 02/02/15 Aqueous N/A 02/04/15 F0204SL2 10:45 - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. Comment(s): <u>Parameter</u> Result <u>RL</u> <u>MDL</u> <u>DF</u> Qualifiers

 Sulfide, Total
 ND
 0.050
 0.030
 1.00

MW8 15-02-0071-5-H 02/02/15 11:45 Aqueous N/A 02/04/15 02/04/15 19:05 F0204SL2

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

 Parameter
 Result
 RL
 MDL
 DF

 Sulfide, Total
 ND
 0.050
 0.030
 1.00

GW3 Dup 15-02-0071-6-H 02/02/15 Aqueous N/A 02/04/15 02/04/15 F0204SL2 15:10

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter

Sulfide, Total

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Result

ND

0.050

0.030

1.00



Sulfide, Total

### **Analytical Report**

Alta Environmental Date Received: 02/02/15 3777 Long Beach Blvd., Annex Building Work Order: 15-02-0071 Long Beach, CA 90802-3335 Preparation: N/A Method: SM 4500 S2 - D

> Units: mg/L

> > 1.00

Project: MCGU-14-4695:4 Page 2 of 2

Client Sample N	lumber	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank		099-15-853-444	N/A	Aqueous	N/A	02/04/15	02/04/15 19:05	F0204SL2
Comment(s):	- Results were evaluated to	o the MDL (DL), cond	centrations >=	to the MDL (DI	L) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		Resu	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>

0.050

0.030

ND





Carbon, Total Organic

### **Analytical Report**

Alta Environmental Date Received: 02/02/15 3777 Long Beach Blvd., Annex Building Work Order: 15-02-0071 Long Beach, CA 90802-3335 Preparation: N/A Method: SM 5310 D Units: mg/L Project: MCGU-14-4695:4 Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GW1	15-02-0071-1-J	02/02/15 14:05	Aqueous	TOC 6	02/06/15	02/07/15 06:14	F0206TOCL2
Comment(s): - Results were evaluated to	the MDL (DL), cond	centrations >= t	o the MDL (DI	L) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	<u>Resu</u>	<u>lt                                      </u>	<u> </u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Carbon, Total Organic	43	2	2.5	0.13	5.00		

GW2	15-02-0071-2-J	02/02/15 13:15	Aqueous TOC	02/06/15	02/07/15 F0206TOCL2 06:14
Comment(s): - Results were evaluated	d to the MDL (DL), cond	entrations >= to t	he MDL (DL) but <	RL (LOQ), if found, a	re qualified with a "J" flag.
<u>Parameter</u>	Resul	<u>t RL</u>	<u>M</u>	<u>DL</u> <u>DF</u>	<u>Qualifiers</u>
Carbon, Total Organic	42	2.5	5 0.	13 5.00	0

5.00

GW3	15-02-0071-	3-J 02/02/15 15:00	5 Aqueous	TOC 6	02/06/15	02/07/15 06:14	F0206TOCL2
Comment(s):	- Results were evaluated to the MDL (DL	.), concentrations	>= to the MDL (D	L) but < RL (Lo	OQ), if found, are	qualified with a "	J" flag.
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qı</u>	<u>ıalifiers</u>
Carbon, Total C	Organic	30	2.5	0.13	5.00		

30

MW7	15-02-0071-4-	J 02/02/15 10:45	Aqueous	TOC 6	02/06/15	02/07/15 F02 06:14	06TOCL2
Comment(s):	- Results were evaluated to the MDL (DL),	concentrations >	= to the MDL (DL	) but < RL (L	OQ), if found, are	qualified with a "J" fla	g.
<u>Parameter</u>	<u>R</u>	<u>tesult</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifie</u>	<u>rs</u>
Carbon, Total C	Organic 4	4	2.5	0.13	5.00		

MW8	15-02-0071-	5-J 02/02/15 11:45	Aqueous	TOC 6	02/06/15	02/07/15 06:14	F0206TOCL2
Comment(s):	- Results were evaluated to the MDL (DL)	), concentrations >	= to the MDL (DI	L) but < RL (L	OQ), if found, are	qualified with a	a "J" flag.
<u>Parameter</u>		Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>(</u>	<u>Qualifiers</u>
Carbon, Total C	Organic	46	2.5	0.13	5.00		

0.13

GW3 Dup	15-02-0071-6-J	02/02/15 15:10	Aqueous	TOC 6	02/06/15	02/07/15 06:14	F0206TOCL2
Comment(s):	- Results were evaluated to the MDL (DL), cor	centrations >=	to the MDL (DI	_) but < RL (L	OQ), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Res	<u>ult</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	Qualifiers

2.5



Alta Environmental Date Received: 02/02/15
3777 Long Beach Blvd., Annex Building Work Order: 15-02-0071
Long Beach, CA 90802-3335 Preparation: N/A

Method: SM 5310 D Units: mg/L

Project: MCGU-14-4695:4 Page 2 of 2

Client Sample No	umber	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank		099-05-097-5507	N/A	Aqueous	TOC 6	02/06/15	02/07/15 06:14	F0206TOCL2
Comment(s):	- Paculte were evaluated t	o the MDL (DL) cond	contrations >= t	o the MDL (D	I ) but ~ PI /I C	O) if found are	a qualified with a	" I" flag

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter

Carbon, Total Organic

Result

ND

0.50

0.026

1.00

02/02/15

Qualifiers



Alta Environmental

Comment(s): Parameter

Boron

Boron

### **Analytical Report**

Date Received:

Work Order: 15-02-0071 3777 Long Beach Blvd., Annex Building Preparation: N/A Long Beach, CA 90802-3335 Method: EPA 200.7 Units: mg/L Project: MCGU-14-4695:4 Page 1 of 2 QC Batch ID Date/Time Client Sample Number Lab Sample Date/Time Matrix Instrument Date Prepared Number Collected Analyzed GW1 02/02/15 15-02-0071-1-L Aqueous **ICP 7300** 02/02/15 02/09/15 150202L11A 14:05 13:51 Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. DF **Parameter** Result MDL 0.482 0.0200 0.00476 Boron 1.00 GW<sub>2</sub> 15-02-0071-2-L 02/02/15 **ICP 7300** 02/02/15 02/09/15 150202L11A Aqueous 13:15 13:54 - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. Comment(s): Result MDL <u>DF</u> Qualifiers **Parameter** <u>RL</u> Boron 0.443 0.0200 0.00476 1.00 GW<sub>3</sub> 15-02-0071-3-L 02/02/15 Aqueous **ICP 7300** 02/02/15 02/09/15 150202L11A

MW7	15-02-0071-4-L	02/02/15	Aqueous	ICP 7300	02/02/15	02/09/15	150202L11A
		10:45				13:55	
Comment(s):	- Results were evaluated to the MDL (DL), cond	centrations >=	to the MDL (DI	_) but < RL (LC	DQ), if found, are	qualified with a	ı "J" flag.
<u>Parameter</u>	Resu	<u>ılt</u>	<u>RL</u>	MDL	<u>DF</u>	<u>C</u>	Qualifiers

- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

0.0200

0.0200

<u>RL</u>

MDL

0.00476

0.00476

<u>DF</u>

1.00

1.00

MW8	15-02-0071-5-L	02/02/15 11·45	Aqueous	ICP 7300	02/02/15	02/09/15 13:56	150202L11A

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter Result RL MDL DF Qualifiers

Boron 0.575 0.0200 0.00476 1.00

Result

0.427

0.652

GW3 Dup	15-02-0071-6-L	02/02/15 A 15:10	Aqueous ICP 73	00 02/02/15	02/09/15 13:57	150202L11A
Comment(s):	- Results were evaluated to the MDL (DL), cond	centrations >= to th	ne MDL (DL) but < F	RL (LOQ), if found, a	re qualified with a "J"	flag.
<u>Parameter</u>	Resu	<u>lt</u> <u>RL</u>	MD	<u>L</u> <u>DF</u>	Qua	<u>lifiers</u>

Boron 0.419 0.0200 0.00476 1.00



 Alta Environmental
 Date Received:
 02/02/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-02-0071

 Long Beach, CA 90802-3335
 Preparation:
 N/A

 Method:
 EPA 200.7

 Units:
 mg/L

Project: MCGU-14-4695:4 Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-012-6060	N/A	Aqueous	ICP 7300	02/02/15	02/09/15 12:31	150202L11A

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter

Boron

Result

ND

0.0200

0.00476

1.00



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

15-02-0071 EPA 3010A Total EPA 6010B

02/02/15

mg/L

Units:

Project: MCGU-14-4695:4

Page 1 of 7

Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GW1		15-02-0071-1-L	02/02/15 14:05	Aqueous	ICP 7300	02/03/15	02/04/15 20:54	150203LA2
Comment(s):	- Results were evaluated to	the MDL (DL), cond	entrations >=	to the MDL (DL	_) but < RL (LOC	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Antimony		ND		0.0150	0.00787	1.00		
Arsenic		ND		0.0100	0.00438	1.00		
Barium		0.031	7	0.0100	0.00296	1.00		
Beryllium		ND		0.0100	0.000561	1.00		
Cadmium		ND		0.0100	0.00269	1.00		
Chromium		ND		0.0100	0.00271	1.00		
Cobalt		ND		0.0100	0.00295	1.00		
Copper		ND		0.0100	0.00267	1.00		
Lead		ND		0.0100	0.00406	1.00		
Molybdenum		0.041	3	0.0100	0.00278	1.00		
Nickel		ND		0.0100	0.00298	1.00		
Selenium		0.015	51	0.0150	0.00699	1.00		
Silver		ND		0.00500	0.00139	1.00		
Thallium		0.004	88	0.0150	0.00291	1.00	J	
Vanadium		0.004	59	0.0100	0.00244	1.00	J	
Zinc		0.017	0	0.0100	0.00352	1.00		



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

15-02-0071 EPA 3010A Total EPA 6010B

02/02/15

mg/L

Units:

Project: MCGU-14-4695:4

Page 2 of 7

Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GW2		15-02-0071-2-L	02/02/15 13:15	Aqueous	ICP 7300	02/03/15	02/04/15 20:55	150203LA2
Comment(s):	- Results were evaluated to	the MDL (DL), cond	entrations >=	to the MDL (DI	_) but < RL (LOC	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		<u>Resu</u>	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Antimony		ND		0.0150	0.00787	1.00		
Arsenic		ND		0.0100	0.00438	1.00		
Barium		0.019	4	0.0100	0.00296	1.00		
Beryllium		ND		0.0100	0.000561	1.00		
Cadmium		ND		0.0100	0.00269	1.00		
Chromium		ND		0.0100	0.00271	1.00		
Cobalt		ND		0.0100	0.00295	1.00		
Copper		ND		0.0100	0.00267	1.00		
Lead		ND		0.0100	0.00406	1.00		
Molybdenum		0.015	1	0.0100	0.00278	1.00		
Nickel		ND		0.0100	0.00298	1.00		
Selenium		0.010	9	0.0150	0.00699	1.00	J	
Silver		ND		0.00500	0.00139	1.00		
Thallium		0.003	25	0.0150	0.00291	1.00	J	
Vanadium		0.003	63	0.0100	0.00244	1.00	J	
Zinc		0.093	7	0.0100	0.00352	1.00		



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

Units:

15-02-0071 EPA 3010A Total EPA 6010B

02/02/15

mg/L Page 3 of 7

Project: MCGU-14-4695:4

Cobalt

Copper

Molybdenum

Lead

Nickel

Silver

Zinc

Selenium

Thallium

Vanadium

Client Sample N	Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GW3		15-02-0071-3-L	02/02/15 15:00	Aqueous	ICP 7300	02/03/15	02/04/15 20:57	150203LA2
Comment(s):	- Results were evaluated t	o the MDL (DL), cond	centrations >=	to the MDL (DI	_) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		Resu	<u>llt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Antimony		ND		0.0150	0.00787	1.00		
Arsenic		ND		0.0100	0.00438	1.00		
Barium		0.050	07	0.0100	0.00296	1.00		
Beryllium		ND		0.0100	0.000561	1.00		
Cadmium		ND		0.0100	0.00269	1.00		
Chromium		ND		0.0100	0.00271	1.00		

0.0100

0.0100

0.0100

0.0100

0.0100

0.0150

0.00500

0.0150

0.0100

0.0100

0.00295

0.00267

0.00406

0.00278

0.00298

0.00699

0.00139

0.00291

0.00244

0.00352

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

J

J

J

ND

ND

ND

ND

ND

0.0225

0.0116

0.00486

0.00400

0.0100



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335

Work Order:
Preparation:
Method:

Date Received:

15-02-0071 EPA 3010A Total EPA 6010B

02/02/15

mg/L

Units:

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Project: MCGU-14-4695:4

Lab Sample Number Date/Time Collected Date Prepared Date/Time Analyzed QC Batch ID Client Sample Number Matrix Instrument 02/02/15 10:45 02/04/15 21:03 MW7 02/03/15 150203LA2 15-02-0071-4-L Aqueous **ICP 7300** Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. Qualifiers MDL <u>DF</u> <u>Parameter</u> Result ND 0.0150 0.00787 1.00 Antimony ND 0.0100 1.00 Arsenic 0.00438 Barium 0.0391 0.0100 0.00296 1.00 Beryllium ND 0.0100 0.000561 1.00 Cadmium ND 0.0100 0.00269 1.00 Chromium ND 0.0100 0.00271 1.00 Cobalt ND 0.00295 0.0100 1.00 Copper ND 0.0100 0.00267 1.00 Lead ND 0.0100 0.00406 1.00 Molybdenum 0.0162 0.0100 0.00278 1.00 Nickel ND 0.0100 0.00298 1.00 Selenium 0.0152 0.0150 0.00699 1.00 Silver ND 0.00500 0.00139 1.00 Thallium 0.00502 0.0150 0.00291 1.00 J 0.00427 J Vanadium 0.0100 0.00244 1.00 Zinc 0.0304 0.0100 0.00352 1.00

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

Units:

15-02-0071 EPA 3010A Total EPA 6010B

02/02/15

mg/L

Project: MCGU-14-4695:4

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Client Sample N	lumber	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8		15-02-0071-5-L	02/02/15 11:45	Aqueous	ICP 7300	02/03/15	02/04/15 21:05	150203LA2
Comment(s):	- Results were evaluated	to the MDL (DL), con	centrations >=	to the MDL (DL	_) but < RL (LOC	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		Resu	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Antimony		ND		0.0150	0.00787	1.00		
Arsenic		ND		0.0100	0.00438	1.00		
Barium		0.02	63	0.0100	0.00296	1.00		
Beryllium		ND		0.0100	0.000561	1.00		
Cadmium		ND		0.0100	0.00269	1.00		
Chromium		ND		0.0100	0.00271	1.00		
Cobalt		ND		0.0100	0.00295	1.00		
Copper		ND		0.0100	0.00267	1.00		
Lead		ND		0.0100	0.00406	1.00		
Molybdenum		0.02	39	0.0100	0.00278	1.00		
Nickel		ND		0.0100	0.00298	1.00		
Selenium		0.01	62	0.0150	0.00699	1.00		
Silver		ND		0.00500	0.00139	1.00		
Thallium		0.00	433	0.0150	0.00291	1.00	J	
Vanadium		0.00	468	0.0100	0.00244	1.00	J	
Zinc		0.00	486	0.0100	0.00352	1.00	J	



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

Units:

15-02-0071 EPA 3010A Total EPA 6010B

02/02/15

mg/L Page 6 of 7

Project: MCGU-14-4695:4

Selenium

Thallium

Vanadium

Silver

Zinc

Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GW3 Dup		15-02-0071-6-L	02/02/15 15:10	Aqueous	ICP 7300	02/03/15	02/04/15 21:06	150203LA2
Comment(s):	- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.							
<u>Parameter</u>		Resi	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>ualifiers</u>
Antimony		ND		0.0150	0.00787	1.00		
Arsenic		ND		0.0100	0.00438	1.00		
Barium		0.04	84	0.0100	0.00296	1.00		
Beryllium		ND		0.0100	0.000561	1.00		
Cadmium		ND		0.0100	0.00269	1.00		
Chromium		ND		0.0100	0.00271	1.00		
Cobalt		ND		0.0100	0.00295	1.00		
Copper		ND		0.0100	0.00267	1.00		
Lead		ND		0.0100	0.00406	1.00		
Molybdenum		0.02	05	0.0100	0.00278	1.00		
Nickel		ND		0.0100	0.00298	1.00		

0.0150

0.00500

0.0150

0.0100

0.0100

0.00699

0.00139

0.00291

0.00244

0.00352

1.00

1.00

1.00

1.00

1.00

J

J

0.0132

0.00395

0.0130

ND

ND



Project: MCGU-14-4695:4

## **Analytical Report**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

15-02-0071 EPA 3010A Total EPA 6010B

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02/02/15

mg/L

Units:

Client Sample N	lumber	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank		097-01-003-14837	N/A	Aqueous	ICP 7300	02/03/15	02/03/15 19:07	150203LA2
Comment(s):	- Results were evaluated t	o the MDL (DL), conc	entrations >=	to the MDL (DI	_) but < RL (LO	Q), if found, are	qualified with a	ı "J" flag.
<u>Parameter</u>		Resul	<u>t</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	Qualifiers
Antimony		ND		0.0150	0.00787	1.00		
Arsenic		ND		0.0100	0.00438	1.00		
Barium		ND		0.0100	0.00296	1.00		
Beryllium		ND		0.0100	0.000561	1.00		
Cadmium		ND		0.0100	0.00269	1.00		
Chromium		ND		0.0100	0.00271	1.00		
Cobalt		ND		0.0100	0.00295	1.00		
Copper		ND		0.0100	0.00267	1.00		
Lead		ND		0.0100	0.00406	1.00		
Molybdenum		ND		0.0100	0.00278	1.00		
Nickel		ND		0.0100	0.00298	1.00		
Selenium		ND		0.0150	0.00699	1.00		
Silver		ND		0.00500	0.00139	1.00		
Thallium		ND		0.0150	0.00291	1.00		
Vanadium		ND		0.0100	0.00244	1.00		
Zinc		ND		0.0100	0.00352	1.00		

150203LA3A

150203LA3A



MW7

MW8

Manganese

### **Analytical Report**

 Alta Environmental
 Date Received:
 02/02/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-02-0071

 Long Beach, CA 90802-3335
 Preparation:
 EPA 3005A Filt.

 Method:
 EPA 6010B

 Units:
 mg/L

 Project: MCGU-14-4695:4
 Page 1 of 2

Client Sample N	Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GW1		15-02-0071-1-K	02/02/15 14:05	Aqueous	ICP 7300	02/03/15	02/04/15 21:12	150203LA3A
Comment(s):	- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.							
<u>Parameter</u>		<u>Resu</u>	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>		<u>Qualifiers</u>
Iron		ND		0.100	0.0101	1.00		
Manganese		0.452	2	0.00500	0.00270	1.00		
GW2		15-02-0071-2-K	02/02/15 13:15	Aqueous	ICP 7300	02/03/15	02/04/15 21:14	150203LA3A
Comment(s):	- Results were evaluated t	o the MDL (DL), cond	centrations >=	to the MDL (DI	L) but < RL (LO	Q), if found, are	qualified with	a "J" flag.
<u>Parameter</u>		<u>Resu</u>	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>		<u>Qualifiers</u>
Iron		ND		0.100	0.0101	1.00		
Manganese		0.048	32	0.00500	0.00270	1.00		

GW3	15-02-00/1-3-K	15:00 Aqued	us ICP /300 02	/03/15 02/04/15 21:16	150203LA
Comment(s):	- Results were evaluated to the MDL (DL), cond	centrations >= to the MDI	L (DL) but < RL (LOQ), if	found, are qualified wi	th a "J" flag.
<u>Parameter</u>	Resu	<u>lt RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Iron	ND	0.100	0.0101	1.00	
Manganese	ND	0.00500	0.00270	1.00	

02/03/15

02/03/15

1.00

02/04/15

02/04/15

	10:45				21:17			
Comment(s):	- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.							
<u>Parameter</u>		Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<b>Qualifiers</b>		
Iron		ND	0.100	0.0101	1.00			
Manganese		0.0551	0.00500	0.00270	1.00			

Aqueous

Aqueous ICP 7300

**ICP 7300** 

0.00270

02/02/15

02/02/15

		11:45	·		21:24	
Comment(s):	- Results were evaluated to the MDL (DL)	, concentrations >	= to the MDL (DL) b	ut < RL (LOQ), if fou	nd, are qualified wit	th a "J" flag.
<u>Parameter</u>		Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Iron		ND	0.100	0.0101	1.00	

0.00500

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

15-02-0071-4-K

15-02-0071-5-K

0.237



Alta Environmental
3777 Long Beach Blvd., Annex Building
Long Beach, CA 90802-3335

Date Received:
Work Order:
Preparation:
Method:

EPA 3005A Filt. EPA 6010B mg/L

02/02/15

15-02-0071

Project: MCGU-14-4695:4

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Client Sample I	Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GW3 Dup		15-02-0071-6-K	02/02/15 15:10	Aqueous	ICP 7300	02/03/15	02/04/15 21:25	150203LA3A
Comment(s):	- Results were evaluated t	to the MDL (DL), con	centrations >=	to the MDL (DI	L) but < RL (LO	Q), if found, are	qualified with a	a "J" flag.
<u>Parameter</u>		Resu	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>(</u>	<u>Qualifiers</u>
Iron		ND		0.100	0.0101	1.00		
Manganese		ND		0.00500	0.00270	1.00		

Units:

Method Blank	099-15-683-1140	N/A Aqueo	ous ICP 7300	02/03/15	02/07/15 150203 12:42	3LA3A
Comment(s):	- Results were evaluated to the MDL (DL), conc	entrations >= to the MDI	L (DL) but < RL (LC	Q), if found, are	qualified with a "J" flag.	
<u>Parameter</u>	Resul	<u>lt RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>	
Iron	ND	0.100	0.0101	1.00		
Manganese	ND	0.00500	0.00270	1.00		

Qualifiers



### **Analytical Report**

Alta Environmental Date Received: 02/02/15 Work Order: 15-02-0071 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Preparation: EPA 7470A Total Method: **EPA 7470A** Units: mg/L Project: MCGU-14-4695:4 Page 1 of 2 Lab Sample Number Date/Time Collected Date Prepared Date/Time Analyzed QC Batch ID Client Sample Number Matrix Instrument 02/02/15 14:05 02/06/15 20:21 GW1 15-02-0071-1-L Aqueous Mercury 04 02/06/15 150206L05

Comment(s):	- Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.									
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>MDL</u>	<u>DF</u>		<u>Qualifiers</u>		
Mercury		ND		0.000500	0.0000453	1.00				
GW2		15-02-0071-2-L	02/02/15 13:15	Aqueous	Mercury 04	02/06/15	02/06/15 20:23	150206L05		
Comment(s):	- Results were evaluated to	the MDL (DL), cond	entrations >	= to the MDL (DI	_) but < RL (LOQ	), if found, are	qualified with	n a "J" flag.		
<u>Parameter</u>		Resul	<u> t</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>		<u>Qualifiers</u>		
Mercury		ND		0.000500	0.0000453	1.00				

GW3	15-02-0071-3-L	02/02/15 15:00	Aqueous	Mercury 04	02/06/15	02/06/15 20:25	150206L05
Comment(s):	- Results were evaluated to the MDL (DL), con	centrations >= to	the MDL (DL	.) but < RL (LOC	Q), if found, are o	ualified with a "	J" flag.
Parameter	Resu	ılt R	1	MDI	DF	Qu	alifiers

Mercury ND 0.000500 0.000453 1.00

IVIVV 7	15-02-00/1-4-L	10:45	Aqueous	Mercury 04	02/06/15	20:27	150206L05
Comment(s):	- Results were evaluated to the MDL (DL), con	centrations >= 1	to the MDL (DI	_) but < RL (LO	Q), if found, ar	e qualified with a	"J" flag.

 Parameter
 Result
 RL
 MDL
 DF

 Mercury
 ND
 0.00500
 0.000453
 1.00

Mercury	ND		0.000500	0.0000453	1.00		
MW8	15-02-0071-5-J	02/02/15 11:45	Aqueous	Mercury 04	02/06/15	02/06/15 20:29	150206L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter Result RL MDL DF Qualifiers

Mercury ND 0.000500 0.0000453 1.00

GW3 Dup		15-02-0071-6-L	02/02/15 15:10	Aqueous	Mercury 04	02/06/15	02/06/15 20:32	150206L05
• "	D 1/ 1 / 1/				\			

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter

Mercury

Result

RE

ND

0.000500

0.0000453

1.00



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

15-02-0071 EPA 7470A Total EPA 7470A

02/02/15

mg/L

Units:

Project: MCGU-14-4695:4

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Qualifiers

Client Sample N	lumber	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank		099-04-008-7306	N/A	Aqueous	Mercury 04	02/06/15	02/06/15 19:58	150206L05
Comment(s):	- Results were evaluated	to the MDL (DL), cond	centrations >= t	o the MDL (D	L) but < RL (LO	Q), if found, ar	e qualified with a	"J" flag.

 Parameter
 Result
 RL
 MDL
 DF

 Mercury
 ND
 0.000500
 0.0000453
 1.00



Alta Environmental Date Received: 02/02/15 3777 Long Beach Blvd., Annex Building Work Order: 15-02-0071

Long Beach, CA 90802-3335 Preparation: EPA 3510C

Method: EPA 8270C (M) Isotope Dilution
Units: ug/L

Project: MCGU-14-4695:4 Page 1 of 2

Client Sample N	lumber	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GW1		15-02-0071-1-N	02/02/15 14:05	Aqueous	GC/MS DDD	02/03/15	02/03/15 16:05	150203L08
Comment(s):	- Results were evaluated t	o the MDL (DL), cond	entrations >=	to the MDL (DL	.) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
1,4-Dioxane		ND		1.0	0.28	1.00		
<u>Surrogate</u>		Rec.	(%)	Control Limits	Qualifiers			
Nitrobenzene-d5	5	88		56-123				
1,4-Dioxane-d8(	IDS-IS)	51		30-120				

GW2		15-02-0071-2-N	02/02/15 13:15	Aqueous	GC/MS DDD	02/03/15	02/03/15 16:21	150203L08
Comment(s):	- Results were evaluated to	the MDL (DL), cond	entrations >=	to the MDL (DL	.) but < RL (LOC	), if found, are	qualified with	a "J" flag.
<u>Parameter</u>		<u>Resu</u>	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>		<u>Qualifiers</u>
1,4-Dioxane		ND		1.0	0.28	1.00		
Surrogate		Rec.	<u>(%)</u>	Control Limits	<u>Qualifiers</u>			
Nitrobenzene-d	5	85		56-123				
1,4-Dioxane-d8	(IDS-IS)	52		30-120				

GW3		15-02-0071-3-N	02/02/15 15:00	Aqueous	GC/MS DDD	02/03/15	02/03/15 16:38	150203L08
Comment(s):	- Results were evaluated to	the MDL (DL), cond	entrations >=	to the MDL (DL	.) but < RL (LOC	Q), if found, are	e qualified with	a "J" flag.
<u>Parameter</u>		Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>		<u>Qualifiers</u>
1,4-Dioxane		ND		1.0	0.28	1.00		
<u>Surrogate</u>		Rec.	<u>(%)</u>	Control Limits	Qualifiers			
Nitrobenzene-d5	i	87		56-123				
1,4-Dioxane-d8(l	IDS-IS)	53		30-120				

MW7	15-02-0071-4-N	02/02/15 10:45	Aqueous	GC/MS DDD	02/03/15	02/03/15 16:53	150203L08
Comment(s): - Results were evaluated to	the MDL (DL), cond	entrations >= t	o the MDL (DL	) but < RL (LOC	(), if found, are	qualified with	a "J" flag.
<u>Parameter</u>	Resul	<u>lt</u> <u></u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>		<u>Qualifiers</u>
1,4-Dioxane	ND		1.0	0.28	1.00		
<u>Surrogate</u>	Rec.	<u>(%)</u>	Control Limits	<u>Qualifiers</u>			
Nitrobenzene-d5	95		56-123				
1,4-Dioxane-d8(IDS-IS)	48	;	30-120				



Alta Environmental Date Received: 02/02/15 3777 Long Beach Blvd., Annex Building Work Order: 15-02-0071

Long Beach, CA 90802-3335 Preparation: EPA 3510C

Method: EPA 8270C (M) Isotope Dilution

Units: ug/L
Project: MCGU-14-4695:4
Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	15-02-0071-5-N	02/02/15 11:45	Aqueous	GC/MS DDD	02/03/15	02/03/15 17:10	150203L08
Comment(s): - Results were evaluated to	o the MDL (DL), cond	centrations >= t	o the MDL (DL	_) but < RL (LOC	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
1,4-Dioxane	ND		1.0	0.28	1.00		
Surrogate	Rec.	<u>(%)</u>	Control Limits	Qualifiers			
Nitrobenzene-d5	83		56-123				
1,4-Dioxane-d8(IDS-IS)	48	;	30-120				

GW3 Dup	15-02-0071	-6-N	02/02/15 15:10	Aqueous	GC/MS DDD	02/03/15	02/03/15 17:25	150203L08
Comment(s):	- Results were evaluated to the MDL (D	L), conce	entrations >=	to the MDL (DL	) but < RL (LOC	Q), if found, are	e qualified with	a "J" flag.
<u>Parameter</u>		Result	İ	<u>RL</u>	<u>MDL</u>	<u>DF</u>		<u>Qualifiers</u>
1,4-Dioxane		ND		1.0	0.28	1.00		
_								
<u>Surrogate</u>		<u>Rec. (</u> '	<u>%)</u>	Control Limits	<u>Qualifiers</u>			
Nitrobenzene-d5	5	90		56-123				
1,4-Dioxane-d8(	IDS-IS)	49		30-120				

Method Blank	099-16-216-359	N/A	Aqueous	GC/MS DDD	02/03/15	02/03/15 13:40	150203L08
Comment(s): - Re	sults were evaluated to the MDL (DL), conc	centrations >= to	the MDL (DL)	but < RL (LOQ	), if found, are o	qualified with a '	'J" flag.
<u>Parameter</u>	Resul	<u>lt</u> <u>Rl</u>	<u>L</u>	<u>MDL</u>	<u>DF</u>	<u>Q</u> ı	<u>ualifiers</u>
1,4-Dioxane	ND	1.0	0	0.28	1.00		
	_						
<u>Surrogate</u>	Rec. (	<u>(%)</u> <u>Co</u>	ontrol Limits	<u>Qualifiers</u>			
Nitrobenzene-d5	95	56	6-123				
1,4-Dioxane-d8(IDS-I	S) 56	30	0-120				



Project: MCGU-14-4695:4

## **Analytical Report**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

15-02-0071 EPA 5030C EPA 8260B

02/02/15

ug/L

Units:

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GW1	15-02-0071-1-A	02/02/15 14:05	Aqueous	GC/MS Z	02/03/15	02/04/15 07:31	150203L029
Comment(s): - Results were evalua-	ated to the MDL (DL), cond	centrations >= to	the MDL (DI	L) but < RL (LC	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	<u>Resu</u>	<u>lt</u> <u>F</u>	<u> </u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Acetone	ND	2	20	10	1.00		
Benzene	ND	(	).50	0.14	1.00		
Bromobenzene	ND	1	1.0	0.30	1.00		
Bromochloromethane	ND	1	1.0	0.48	1.00		
Bromodichloromethane	ND	1	1.0	0.21	1.00		
Bromoform	ND	1	1.0	0.50	1.00		
Bromomethane	ND	1	10	3.9	1.00		
2-Butanone	ND	1	10	2.2	1.00		
n-Butylbenzene	ND	1	1.0	0.23	1.00		
sec-Butylbenzene	ND	1	1.0	0.25	1.00		
tert-Butylbenzene	ND	1	1.0	0.28	1.00		
Carbon Disulfide	ND	1	10	0.41	1.00		
Carbon Tetrachloride	ND	(	).50	0.23	1.00		
Chlorobenzene	ND	1	1.0	0.17	1.00		
Chloroethane	ND	Ę	5.0	2.3	1.00		
Chloroform	ND	1	1.0	0.46	1.00		
Chloromethane	ND	1	10	1.8	1.00		
2-Chlorotoluene	ND	1	1.0	0.24	1.00		
4-Chlorotoluene	ND	1	1.0	0.13	1.00		
Dibromochloromethane	ND	1	1.0	0.25	1.00		
1,2-Dibromo-3-Chloropropane	ND	5	5.0	1.2	1.00		
1,2-Dibromoethane	ND	1	1.0	0.36	1.00		
Dibromomethane	ND	1	1.0	0.46	1.00		
1,2-Dichlorobenzene	ND	1	1.0	0.46	1.00		
1,3-Dichlorobenzene	ND	1	1.0	0.40	1.00		
1,4-Dichlorobenzene	ND	1	1.0	0.43	1.00		
Dichlorodifluoromethane	ND	1	1.0	0.46	1.00		
1,1-Dichloroethane	ND	1	1.0	0.28	1.00		
1,2-Dichloroethane	ND	(	).50	0.24	1.00		
1,1-Dichloroethene	ND	1	1.0	0.43	1.00		
c-1,2-Dichloroethene	23	1	1.0	0.48	1.00		
t-1,2-Dichloroethene	ND	1	1.0	0.37	1.00		
1,2-Dichloropropane	ND		1.0	0.42	1.00		
1,3-Dichloropropane	ND	1	1.0	0.30	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Alta Environmental
 Date Received:
 02/02/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-02-0071

 Long Beach, CA 90802-3335
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

Project: MCGU-14-4695:4 Page 2 of 18

Parameter 2,2-Dichloropropane 1,1-Dichloropropene	<u>Result</u> ND ND	<u>RL</u> 1.0	MDL	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene		1.0	0.00		
	ND		0.36	1.00	
a 1.2 Diablerantenana		1.0	0.46	1.00	
c-1,3-Dichloropropene	ND	0.50	0.25	1.00	
t-1,3-Dichloropropene	ND	0.50	0.25	1.00	
Ethylbenzene	ND	1.0	0.14	1.00	
2-Hexanone	ND	10	2.1	1.00	
Isopropylbenzene	ND	1.0	0.58	1.00	
p-Isopropyltoluene	ND	1.0	0.16	1.00	
Methylene Chloride	ND	10	0.64	1.00	
4-Methyl-2-Pentanone	ND	10	4.4	1.00	
Naphthalene	ND	10	2.5	1.00	
n-Propylbenzene	ND	1.0	0.17	1.00	
Styrene	ND	1.0	0.17	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1.00	
Tetrachloroethene	21	1.0	0.39	1.00	
Toluene	ND	1.0	0.24	1.00	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1.00	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1.00	
1,1,1-Trichloroethane	ND	1.0	0.30	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	120	10	0.78	1.00	
1,1,2-Trichloroethane	ND	1.0	0.38	1.00	
Trichloroethene	8.4	1.0	0.37	1.00	
Trichlorofluoromethane	ND	10	1.7	1.00	
1,2,3-Trichloropropane	ND	5.0	0.64	1.00	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1.00	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1.00	
Vinyl Acetate	ND	10	2.8	1.00	
Vinyl Chloride	ND	0.50	0.30	1.00	
p/m-Xylene	ND	1.0	0.30	1.00	
o-Xylene	ND	1.0	0.23	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	103	80-120			
Dibromofluoromethane	96	78-126			
1,2-Dichloroethane-d4	101	75-135			
Toluene-d8	101	80-120			



Units:

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

EPA 5030C EPA 8260B

02/02/15

ug/L

15-02-0071

Project: MCGU-14-4695:4

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GW2	15-02-0071-2-A	02/02/15 13:15	Aqueous	GC/MS Z	02/03/15	02/04/15 08:00	150203L029
Comment(s): - Results were evaluated to	the MDL (DL), cond	centrations >= t	to the MDL (DL	_) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>lt</u>	<u>RL</u>	MDL	<u>DF</u>	<u>C</u>	Qualifiers
Acetone	ND		20	10	1.00		
Benzene	ND		0.50	0.14	1.00		
Bromobenzene	ND		1.0	0.30	1.00		
Bromochloromethane	ND		1.0	0.48	1.00		
Bromodichloromethane	ND		1.0	0.21	1.00		
Bromoform	ND		1.0	0.50	1.00		
Bromomethane	ND		10	3.9	1.00		
2-Butanone	ND		10	2.2	1.00		
n-Butylbenzene	ND		1.0	0.23	1.00		
sec-Butylbenzene	ND		1.0	0.25	1.00		
tert-Butylbenzene	ND		1.0	0.28	1.00		
Carbon Disulfide	ND		10	0.41	1.00		
Carbon Tetrachloride	ND		0.50	0.23	1.00		
Chlorobenzene	ND		1.0	0.17	1.00		
Chloroethane	ND		5.0	2.3	1.00		
Chloroform	ND		1.0	0.46	1.00		
Chloromethane	ND		10	1.8	1.00		
2-Chlorotoluene	ND		1.0	0.24	1.00		
4-Chlorotoluene	ND		1.0	0.13	1.00		
Dibromochloromethane	ND		1.0	0.25	1.00		
1,2-Dibromo-3-Chloropropane	ND		5.0	1.2	1.00		
1,2-Dibromoethane	ND		1.0	0.36	1.00		
Dibromomethane	ND		1.0	0.46	1.00		
1,2-Dichlorobenzene	ND		1.0	0.46	1.00		
1,3-Dichlorobenzene	ND		1.0	0.40	1.00		
1,4-Dichlorobenzene	ND		1.0	0.43	1.00		
Dichlorodifluoromethane	ND		1.0	0.46	1.00		
1,1-Dichloroethane	ND		1.0	0.28	1.00		
1,2-Dichloroethane	ND		0.50	0.24	1.00		
1,1-Dichloroethene	ND		1.0	0.43	1.00		
c-1,2-Dichloroethene	ND		1.0	0.48	1.00		
t-1,2-Dichloroethene	ND		1.0	0.37	1.00		
1,2-Dichloropropane	ND		1.0	0.42	1.00		
1,3-Dichloropropane	ND		1.0	0.30	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Alta Environmental
 Date Received:
 02/02/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-02-0071

 Long Beach, CA 90802-3335
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

Project: MCGU-14-4695:4 Page 4 of 18

110,000: 10000 14 4000:4					1 age 4 61 16
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	1.0	0.36	1.00	
1,1-Dichloropropene	ND	1.0	0.46	1.00	
c-1,3-Dichloropropene	ND	0.50	0.25	1.00	
t-1,3-Dichloropropene	ND	0.50	0.25	1.00	
Ethylbenzene	ND	1.0	0.14	1.00	
2-Hexanone	ND	10	2.1	1.00	
Isopropylbenzene	ND	1.0	0.58	1.00	
p-Isopropyltoluene	ND	1.0	0.16	1.00	
Methylene Chloride	ND	10	0.64	1.00	
4-Methyl-2-Pentanone	ND	10	4.4	1.00	
Naphthalene	ND	10	2.5	1.00	
n-Propylbenzene	ND	1.0	0.17	1.00	
Styrene	ND	1.0	0.17	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1.00	
Tetrachloroethene	ND	1.0	0.39	1.00	
Toluene	ND	1.0	0.24	1.00	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1.00	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1.00	
1,1,1-Trichloroethane	ND	1.0	0.30	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1.00	
1,1,2-Trichloroethane	ND	1.0	0.38	1.00	
Trichloroethene	0.66	1.0	0.37	1.00	J
Trichlorofluoromethane	ND	10	1.7	1.00	
1,2,3-Trichloropropane	ND	5.0	0.64	1.00	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1.00	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1.00	
Vinyl Acetate	ND	10	2.8	1.00	
Vinyl Chloride	ND	0.50	0.30	1.00	
p/m-Xylene	ND	1.0	0.30	1.00	
o-Xylene	ND	1.0	0.23	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	101	80-120			
Dibromofluoromethane	100	78-126			
1,2-Dichloroethane-d4	99	75-135			
Toluene-d8	100	80-120			



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

15-02-0071 EPA 5030C EPA 8260B

02/02/15

ug/L

Units:

Project: MCGU-14-4695:4 Page 5 of 18

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GW3	15-02-0071-3-A	02/02/15 15:00	Aqueous	GC/MS Z	02/03/15	02/04/15 08:29	150203L029
Comment(s): - Results were evaluated t	o the MDL (DL), cond	centrations >=	to the MDL (DI	_) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Acetone	ND		20	10	1.00		
Benzene	ND		0.50	0.14	1.00		
Bromobenzene	ND		1.0	0.30	1.00		
Bromochloromethane	ND		1.0	0.48	1.00		
Bromodichloromethane	ND		1.0	0.21	1.00		
Bromoform	ND		1.0	0.50	1.00		
Bromomethane	ND		10	3.9	1.00		
2-Butanone	ND		10	2.2	1.00		
n-Butylbenzene	ND		1.0	0.23	1.00		
sec-Butylbenzene	ND		1.0	0.25	1.00		
tert-Butylbenzene	ND		1.0	0.28	1.00		
Carbon Disulfide	ND		10	0.41	1.00		
Carbon Tetrachloride	ND		0.50	0.23	1.00		
Chlorobenzene	ND		1.0	0.17	1.00		
Chloroethane	ND		5.0	2.3	1.00		
Chloroform	ND		1.0	0.46	1.00		
Chloromethane	ND		10	1.8	1.00		
2-Chlorotoluene	ND		1.0	0.24	1.00		
4-Chlorotoluene	ND		1.0	0.13	1.00		
Dibromochloromethane	ND		1.0	0.25	1.00		
1,2-Dibromo-3-Chloropropane	ND		5.0	1.2	1.00		
1,2-Dibromoethane	ND		1.0	0.36	1.00		
Dibromomethane	ND		1.0	0.46	1.00		
1,2-Dichlorobenzene	ND		1.0	0.46	1.00		
1,3-Dichlorobenzene	ND		1.0	0.40	1.00		
1,4-Dichlorobenzene	ND		1.0	0.43	1.00		
Dichlorodifluoromethane	ND		1.0	0.46	1.00		
1,1-Dichloroethane	ND		1.0	0.28	1.00		
1,2-Dichloroethane	ND		0.50	0.24	1.00		
1,1-Dichloroethene	ND		1.0	0.43	1.00		
c-1,2-Dichloroethene	ND		1.0	0.48	1.00		
t-1,2-Dichloroethene	ND		1.0	0.37	1.00		
1,2-Dichloropropane	ND		1.0	0.42	1.00		
1,3-Dichloropropane	ND		1.0	0.30	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Alta Environmental
 Date Received:
 02/02/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-02-0071

 Long Beach, CA 90802-3335
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: MCGU-14-4695:4
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	1.0	0.36	1.00	
1,1-Dichloropropene	ND	1.0	0.46	1.00	
c-1,3-Dichloropropene	ND	0.50	0.25	1.00	
t-1,3-Dichloropropene	ND	0.50	0.25	1.00	
Ethylbenzene	ND	1.0	0.14	1.00	
2-Hexanone	ND	10	2.1	1.00	
Isopropylbenzene	ND	1.0	0.58	1.00	
p-Isopropyltoluene	ND	1.0	0.16	1.00	
Methylene Chloride	ND	10	0.64	1.00	
4-Methyl-2-Pentanone	ND	10	4.4	1.00	
Naphthalene	ND	10	2.5	1.00	
n-Propylbenzene	ND	1.0	0.17	1.00	
Styrene	ND	1.0	0.17	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1.00	
Tetrachloroethene	140	1.0	0.39	1.00	
Toluene	ND	1.0	0.24	1.00	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1.00	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1.00	
1,1,1-Trichloroethane	ND	1.0	0.30	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1.00	
1,1,2-Trichloroethane	ND	1.0	0.38	1.00	
Trichloroethene	3.6	1.0	0.37	1.00	
Trichlorofluoromethane	ND	10	1.7	1.00	
1,2,3-Trichloropropane	ND	5.0	0.64	1.00	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1.00	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1.00	
Vinyl Acetate	ND	10	2.8	1.00	
Vinyl Chloride	ND	0.50	0.30	1.00	
p/m-Xylene	ND	1.0	0.30	1.00	
o-Xylene	ND	1.0	0.23	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	103	80-120			
Dibromofluoromethane	101	78-126			
1,2-Dichloroethane-d4	102	75-135			
Toluene-d8	100	80-120			



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335

Date Received: 02/02/15 Work Order: 15-02-0071 EPA 5030C Preparation: Method: EPA 8260B ug/L

Units:

Project: MCGU-14-4695:4 Page 7 of 18

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW7	15-02-0071-4-A	02/02/15 10:45	Aqueous	GC/MS Z	02/03/15	02/04/15 08:58	150203L029
Comment(s): - Results were evaluated to	the MDL (DL), cond	entrations >=	to the MDL (DI	L) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Q</u>	<u>ualifiers</u>
Acetone	ND		20	10	1.00		
Benzene	ND		0.50	0.14	1.00		
Bromobenzene	ND		1.0	0.30	1.00		
Bromochloromethane	ND		1.0	0.48	1.00		
Bromodichloromethane	0.22		1.0	0.21	1.00	J	
Bromoform	ND		1.0	0.50	1.00		
Bromomethane	ND		10	3.9	1.00		
2-Butanone	ND		10	2.2	1.00		
n-Butylbenzene	ND		1.0	0.23	1.00		
sec-Butylbenzene	ND		1.0	0.25	1.00		
tert-Butylbenzene	ND		1.0	0.28	1.00		
Carbon Disulfide	ND		10	0.41	1.00		
Carbon Tetrachloride	ND		0.50	0.23	1.00		
Chlorobenzene	ND		1.0	0.17	1.00		
Chloroethane	ND		5.0	2.3	1.00		
Chloroform	0.61		1.0	0.46	1.00	J	
Chloromethane	ND		10	1.8	1.00		
2-Chlorotoluene	ND		1.0	0.24	1.00		
4-Chlorotoluene	ND		1.0	0.13	1.00		
Dibromochloromethane	0.32		1.0	0.25	1.00	J	
1,2-Dibromo-3-Chloropropane	ND		5.0	1.2	1.00		
1,2-Dibromoethane	ND		1.0	0.36	1.00		
Dibromomethane	ND		1.0	0.46	1.00		
1,2-Dichlorobenzene	ND		1.0	0.46	1.00		
1,3-Dichlorobenzene	ND		1.0	0.40	1.00		
1,4-Dichlorobenzene	ND		1.0	0.43	1.00		
Dichlorodifluoromethane	ND		1.0	0.46	1.00		
1,1-Dichloroethane	ND		1.0	0.28	1.00		
1,2-Dichloroethane	ND		0.50	0.24	1.00		
1,1-Dichloroethene	ND		1.0	0.43	1.00		
c-1,2-Dichloroethene	ND		1.0	0.48	1.00		
t-1,2-Dichloroethene	ND		1.0	0.37	1.00		
1,2-Dichloropropane	ND		1.0	0.42	1.00		
1,3-Dichloropropane	ND		1.0	0.30	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Alta Environmental
 Date Received:
 02/02/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-02-0071

 Long Beach, CA 90802-3335
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: MCGU-14-4695:4
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1.00	
1,1-Dichloropropene	ND	1.0	0.46	1.00	
c-1,3-Dichloropropene	ND	0.50	0.25	1.00	
t-1,3-Dichloropropene	ND	0.50	0.25	1.00	
Ethylbenzene	ND	1.0	0.14	1.00	
2-Hexanone	ND	10	2.1	1.00	
Isopropylbenzene	ND	1.0	0.58	1.00	
p-Isopropyltoluene	ND	1.0	0.16	1.00	
Methylene Chloride	ND	10	0.64	1.00	
4-Methyl-2-Pentanone	ND	10	4.4	1.00	
Naphthalene	ND	10	2.5	1.00	
n-Propylbenzene	ND	1.0	0.17	1.00	
Styrene	ND	1.0	0.17	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1.00	
Tetrachloroethene	4.5	1.0	0.39	1.00	
Toluene	ND	1.0	0.24	1.00	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1.00	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1.00	
1,1,1-Trichloroethane	ND	1.0	0.30	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1.00	
1,1,2-Trichloroethane	ND	1.0	0.38	1.00	
Trichloroethene	0.69	1.0	0.37	1.00	J
Trichlorofluoromethane	ND	10	1.7	1.00	
1,2,3-Trichloropropane	ND	5.0	0.64	1.00	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1.00	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1.00	
Vinyl Acetate	ND	10	2.8	1.00	
Vinyl Chloride	ND	0.50	0.30	1.00	
p/m-Xylene	ND	1.0	0.30	1.00	
o-Xylene	ND	1.0	0.23	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1.00	
O man made	D (0()	Operational Liberties	O 1'6'		
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	103	80-120			
Dibromofluoromethane	99	78-126			
1,2-Dichloroethane-d4	102	75-135			
Toluene-d8	100	80-120			

02/02/15

15-02-0071

EPA 5030C

EPA 8260B



Project: MCGU-14-4695:4

## **Analytical Report**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335

Date Received: Work Order: Preparation: Method:

Units:

ug/L Page 9 of 18

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW8	15-02-0071-5-A	02/02/15 11:45	Aqueous	GC/MS Z	02/03/15	02/04/15 09:27	150203L029
Comment(s): - Results were evaluated to	the MDL (DL), cond	centrations >=	to the MDL (DI	L) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Acetone	ND		20	10	1.00		
Benzene	ND		0.50	0.14	1.00		
Bromobenzene	ND		1.0	0.30	1.00		
Bromochloromethane	ND		1.0	0.48	1.00		
Bromodichloromethane	ND		1.0	0.21	1.00		
Bromoform	ND		1.0	0.50	1.00		
Bromomethane	ND		10	3.9	1.00		
2-Butanone	ND		10	2.2	1.00		
n-Butylbenzene	ND		1.0	0.23	1.00		
sec-Butylbenzene	ND		1.0	0.25	1.00		
tert-Butylbenzene	ND		1.0	0.28	1.00		
Carbon Disulfide	ND		10	0.41	1.00		
Carbon Tetrachloride	ND		0.50	0.23	1.00		
Chlorobenzene	ND		1.0	0.17	1.00		
Chloroethane	ND		5.0	2.3	1.00		
Chloroform	ND		1.0	0.46	1.00		
Chloromethane	ND		10	1.8	1.00		
2-Chlorotoluene	ND		1.0	0.24	1.00		
4-Chlorotoluene	ND		1.0	0.13	1.00		
Dibromochloromethane	ND		1.0	0.25	1.00		
1,2-Dibromo-3-Chloropropane	ND		5.0	1.2	1.00		
1,2-Dibromoethane	ND		1.0	0.36	1.00		
Dibromomethane	ND		1.0	0.46	1.00		
1,2-Dichlorobenzene	ND		1.0	0.46	1.00		
1,3-Dichlorobenzene	ND		1.0	0.40	1.00		
1,4-Dichlorobenzene	ND		1.0	0.43	1.00		
Dichlorodifluoromethane	ND		1.0	0.46	1.00		
1,1-Dichloroethane	ND		1.0	0.28	1.00		
1,2-Dichloroethane	ND		0.50	0.24	1.00		
1,1-Dichloroethene	ND		1.0	0.43	1.00		
c-1,2-Dichloroethene	ND		1.0	0.48	1.00		
t-1,2-Dichloroethene	ND		1.0	0.37	1.00		
1,2-Dichloropropane	ND		1.0	0.42	1.00		
1,3-Dichloropropane	ND		1.0	0.30	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



Alta Environmental Date Received: 02/02/15
3777 Long Beach Blvd., Annex Building Work Order: 15-02-0071
Long Beach, CA 90802-3335 Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: MCGU-14-4695:4 Page 10 of 18

					1 19 1 1 1
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	1.0	0.36	1.00	
1,1-Dichloropropene	ND	1.0	0.46	1.00	
c-1,3-Dichloropropene	ND	0.50	0.25	1.00	
t-1,3-Dichloropropene	ND	0.50	0.25	1.00	
Ethylbenzene	ND	1.0	0.14	1.00	
2-Hexanone	ND	10	2.1	1.00	
Isopropylbenzene	ND	1.0	0.58	1.00	
p-Isopropyltoluene	ND	1.0	0.16	1.00	
Methylene Chloride	ND	10	0.64	1.00	
4-Methyl-2-Pentanone	ND	10	4.4	1.00	
Naphthalene	ND	10	2.5	1.00	
n-Propylbenzene	ND	1.0	0.17	1.00	
Styrene	ND	1.0	0.17	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1.00	
Tetrachloroethene	ND	1.0	0.39	1.00	
Toluene	ND	1.0	0.24	1.00	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1.00	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1.00	
1,1,1-Trichloroethane	ND	1.0	0.30	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1.00	
1,1,2-Trichloroethane	ND	1.0	0.38	1.00	
Trichloroethene	1.2	1.0	0.37	1.00	
Trichlorofluoromethane	ND	10	1.7	1.00	
1,2,3-Trichloropropane	ND	5.0	0.64	1.00	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1.00	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1.00	
Vinyl Acetate	ND	10	2.8	1.00	
Vinyl Chloride	ND	0.50	0.30	1.00	
p/m-Xylene	ND	1.0	0.30	1.00	
o-Xylene	ND	1.0	0.23	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
1,4-Bromofluorobenzene	100	80-120			
Dibromofluoromethane	102	78-126			
1,2-Dichloroethane-d4	103	75-135			
Toluene-d8	99	80-120			



Project: MCGU-14-4695:4

## **Analytical Report**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335

Work Order:
Preparation:
Method:

EPA 5030C EPA 8260B

15-02-0071

02/02/15

ug/L

Units:

Date Received:

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GW3 Dup	15-02-0071-6-A	02/02/15 15:10	Aqueous	GC/MS Z	02/03/15	02/04/15 09:58	150203L029
Comment(s): - Results were evalua-	ated to the MDL (DL), cond	centrations >= t	o the MDL (DI	L) but < RL (LC	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>lt </u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Acetone	ND	2	20	10	1.00		
Benzene	ND	(	0.50	0.14	1.00		
Bromobenzene	ND	•	1.0	0.30	1.00		
Bromochloromethane	ND	•	1.0	0.48	1.00		
Bromodichloromethane	ND		1.0	0.21	1.00		
Bromoform	ND		1.0	0.50	1.00		
Bromomethane	ND		10	3.9	1.00		
2-Butanone	ND		10	2.2	1.00		
n-Butylbenzene	ND		1.0	0.23	1.00		
sec-Butylbenzene	ND		1.0	0.25	1.00		
tert-Butylbenzene	ND		1.0	0.28	1.00		
Carbon Disulfide	ND		10	0.41	1.00		
Carbon Tetrachloride	ND	(	0.50	0.23	1.00		
Chlorobenzene	ND		1.0	0.17	1.00		
Chloroethane	ND		5.0	2.3	1.00		
Chloroform	ND		1.0	0.46	1.00		
Chloromethane	ND		10	1.8	1.00		
2-Chlorotoluene	ND		1.0	0.24	1.00		
4-Chlorotoluene	ND		1.0	0.13	1.00		
Dibromochloromethane	ND		1.0	0.25	1.00		
1,2-Dibromo-3-Chloropropane	ND		5.0	1.2	1.00		
1,2-Dibromoethane	ND		1.0	0.36	1.00		
Dibromomethane	ND		1.0	0.46	1.00		
1,2-Dichlorobenzene	ND		1.0	0.46	1.00		
1,3-Dichlorobenzene	ND		1.0	0.40	1.00		
1,4-Dichlorobenzene	ND		1.0	0.43	1.00		
Dichlorodifluoromethane	ND	,	1.0	0.46	1.00		
1,1-Dichloroethane	ND		1.0	0.28	1.00		
1,2-Dichloroethane	ND	(	0.50	0.24	1.00		
1,1-Dichloroethene	ND		1.0	0.43	1.00		
c-1,2-Dichloroethene	ND		1.0	0.48	1.00		
t-1,2-Dichloroethene	ND		1.0	0.37	1.00		
1,2-Dichloropropane	ND		1.0	0.42	1.00		
1,3-Dichloropropane	ND		1.0	0.30	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



Alta Environmental Date Received: 02/02/15
3777 Long Beach Blvd., Annex Building Work Order: 15-02-0071
Long Beach, CA 90802-3335 Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: MCGU-14-4695:4 Page 12 of 18

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	1.0	0.36	1.00	
1,1-Dichloropropene	ND	1.0	0.46	1.00	
c-1,3-Dichloropropene	ND	0.50	0.25	1.00	
t-1,3-Dichloropropene	ND	0.50	0.25	1.00	
Ethylbenzene	ND	1.0	0.14	1.00	
2-Hexanone	ND	10	2.1	1.00	
Isopropylbenzene	ND	1.0	0.58	1.00	
p-Isopropyltoluene	ND	1.0	0.16	1.00	
Methylene Chloride	ND	10	0.64	1.00	
4-Methyl-2-Pentanone	ND	10	4.4	1.00	
Naphthalene	ND	10	2.5	1.00	
n-Propylbenzene	ND	1.0	0.17	1.00	
Styrene	ND	1.0	0.17	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1.00	
Tetrachloroethene	140	1.0	0.39	1.00	
Toluene	ND	1.0	0.24	1.00	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1.00	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1.00	
1,1,1-Trichloroethane	ND	1.0	0.30	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1.00	
1,1,2-Trichloroethane	ND	1.0	0.38	1.00	
Trichloroethene	3.4	1.0	0.37	1.00	
Trichlorofluoromethane	ND	10	1.7	1.00	
1,2,3-Trichloropropane	ND	5.0	0.64	1.00	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1.00	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1.00	
Vinyl Acetate	ND	10	2.8	1.00	
Vinyl Chloride	ND	0.50	0.30	1.00	
p/m-Xylene	ND	1.0	0.30	1.00	
o-Xylene	ND	1.0	0.23	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	102	80-120			
Dibromofluoromethane	100	78-126			
1,2-Dichloroethane-d4	103	75-135			
Toluene-d8	101	80-120			



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

15-02-0071 EPA 5030C EPA 8260B

02/02/15

Units:

ug/L

Project: MCGU-14-4695:4

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID		
ТВ	15-02-0071-7-A	02/02/15 15:20	Aqueous	GC/MS Z	02/03/15	02/04/15 01:19	150203L029		
Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.									
<u>Parameter</u>	Resul	<u>t</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>(</u>	Qualifiers		
Acetone	ND		20	10	1.00				
Benzene	ND		0.50	0.14	1.00				
Bromobenzene	ND		1.0	0.30	1.00				
Bromochloromethane	ND		1.0	0.48	1.00				
Bromodichloromethane	ND		1.0	0.21	1.00				
Bromoform	ND		1.0	0.50	1.00				
Bromomethane	ND		10	3.9	1.00				
2-Butanone	ND		10	2.2	1.00				
n-Butylbenzene	ND		1.0	0.23	1.00				
sec-Butylbenzene	ND		1.0	0.25	1.00				
tert-Butylbenzene	ND		1.0	0.28	1.00				
Carbon Disulfide	ND		10	0.41	1.00				
Carbon Tetrachloride	ND		0.50	0.23	1.00				
Chlorobenzene	ND		1.0	0.17	1.00				
Chloroethane	ND		5.0	2.3	1.00				
Chloroform	ND		1.0	0.46	1.00				
Chloromethane	ND		10	1.8	1.00				
2-Chlorotoluene	ND		1.0	0.24	1.00				
4-Chlorotoluene	ND		1.0	0.13	1.00				
Dibromochloromethane	ND		1.0	0.25	1.00				
1,2-Dibromo-3-Chloropropane	ND		5.0	1.2	1.00				
1,2-Dibromoethane	ND		1.0	0.36	1.00				
Dibromomethane	ND		1.0	0.46	1.00				
1,2-Dichlorobenzene	ND		1.0	0.46	1.00				
1,3-Dichlorobenzene	ND		1.0	0.40	1.00				
1,4-Dichlorobenzene	ND		1.0	0.43	1.00				
Dichlorodifluoromethane	ND		1.0	0.46	1.00				
1,1-Dichloroethane	ND		1.0	0.28	1.00				
1,2-Dichloroethane	ND		0.50	0.24	1.00				
1,1-Dichloroethene	ND		1.0	0.43	1.00				
c-1,2-Dichloroethene	ND		1.0	0.48	1.00				
t-1,2-Dichloroethene	ND		1.0	0.37	1.00				
1,2-Dichloropropane	ND		1.0	0.42	1.00				
1,3-Dichloropropane	ND		1.0	0.30	1.00				

RL: Reporting Limit.

DF: Dilution Factor.



 Alta Environmental
 Date Received:
 02/02/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-02-0071

 Long Beach, CA 90802-3335
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

 Project: MCGU-14-4695:4
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					1 3.90 1 1 3 1 1
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1.00	
1,1-Dichloropropene	ND	1.0	0.46	1.00	
c-1,3-Dichloropropene	ND	0.50	0.25	1.00	
t-1,3-Dichloropropene	ND	0.50	0.25	1.00	
Ethylbenzene	ND	1.0	0.14	1.00	
2-Hexanone	ND	10	2.1	1.00	
Isopropylbenzene	ND	1.0	0.58	1.00	
p-Isopropyltoluene	ND	1.0	0.16	1.00	
Methylene Chloride	ND	10	0.64	1.00	
4-Methyl-2-Pentanone	ND	10	4.4	1.00	
Naphthalene	ND	10	2.5	1.00	
n-Propylbenzene	ND	1.0	0.17	1.00	
Styrene	ND	1.0	0.17	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1.00	
Tetrachloroethene	ND	1.0	0.39	1.00	
Toluene	ND	1.0	0.24	1.00	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1.00	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1.00	
1,1,1-Trichloroethane	ND	1.0	0.30	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1.00	
1,1,2-Trichloroethane	ND	1.0	0.38	1.00	
Trichloroethene	ND	1.0	0.37	1.00	
Trichlorofluoromethane	ND	10	1.7	1.00	
1,2,3-Trichloropropane	ND	5.0	0.64	1.00	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1.00	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1.00	
Vinyl Acetate	ND	10	2.8	1.00	
Vinyl Chloride	ND	0.50	0.30	1.00	
p/m-Xylene	ND	1.0	0.30	1.00	
o-Xylene	ND	1.0	0.23	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	101	80-120			
Dibromofluoromethane	103	78-126			
1,2-Dichloroethane-d4	102	75-135			
Toluene-d8	99	80-120			



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

Units:

15-02-0071 EPA 5030C EPA 8260B

02/02/15

ug/L

Project: MCGU-14-4695:4

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
ЕВ	15-02-0071-8-A	02/02/15 15:15	Aqueous	GC/MS Z	02/03/15	02/04/15 01:47	150203L029
Comment(s): - Results were evaluated to	the MDL (DL), cond	centrations >=	to the MDL (DI	_) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Acetone	ND		20	10	1.00		
Benzene	ND		0.50	0.14	1.00		
Bromobenzene	ND		1.0	0.30	1.00		
Bromochloromethane	ND		1.0	0.48	1.00		
Bromodichloromethane	ND		1.0	0.21	1.00		
Bromoform	ND		1.0	0.50	1.00		
Bromomethane	ND		10	3.9	1.00		
2-Butanone	13		10	2.2	1.00		
n-Butylbenzene	ND		1.0	0.23	1.00		
sec-Butylbenzene	ND		1.0	0.25	1.00		
tert-Butylbenzene	ND		1.0	0.28	1.00		
Carbon Disulfide	ND		10	0.41	1.00		
Carbon Tetrachloride	ND		0.50	0.23	1.00		
Chlorobenzene	ND		1.0	0.17	1.00		
Chloroethane	ND		5.0	2.3	1.00		
Chloroform	ND		1.0	0.46	1.00		
Chloromethane	ND		10	1.8	1.00		
2-Chlorotoluene	ND		1.0	0.24	1.00		
4-Chlorotoluene	ND		1.0	0.13	1.00		
Dibromochloromethane	ND		1.0	0.25	1.00		
1,2-Dibromo-3-Chloropropane	ND		5.0	1.2	1.00		
1,2-Dibromoethane	ND		1.0	0.36	1.00		
Dibromomethane	ND		1.0	0.46	1.00		
1,2-Dichlorobenzene	ND		1.0	0.46	1.00		
1,3-Dichlorobenzene	ND		1.0	0.40	1.00		
1,4-Dichlorobenzene	ND		1.0	0.43	1.00		
Dichlorodifluoromethane	ND		1.0	0.46	1.00		
1,1-Dichloroethane	ND		1.0	0.28	1.00		
1,2-Dichloroethane	ND		0.50	0.24	1.00		
1,1-Dichloroethene	ND		1.0	0.43	1.00		
c-1,2-Dichloroethene	ND		1.0	0.48	1.00		
t-1,2-Dichloroethene	ND		1.0	0.37	1.00		
1,2-Dichloropropane	ND		1.0	0.42	1.00		
1,3-Dichloropropane	ND		1.0	0.30	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



 Alta Environmental
 Date Received:
 02/02/15

 3777 Long Beach Blvd., Annex Building
 Work Order:
 15-02-0071

 Long Beach, CA 90802-3335
 Preparation:
 EPA 5030C

 Method:
 EPA 8260B

 Units:
 ug/L

Project: MCGU-14-4695:4 Page 16 of 18

					1 1.90 10 11
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	1.0	0.36	1.00	
1,1-Dichloropropene	ND	1.0	0.46	1.00	
c-1,3-Dichloropropene	ND	0.50	0.25	1.00	
t-1,3-Dichloropropene	ND	0.50	0.25	1.00	
Ethylbenzene	ND	1.0	0.14	1.00	
2-Hexanone	ND	10	2.1	1.00	
Isopropylbenzene	ND	1.0	0.58	1.00	
p-Isopropyltoluene	ND	1.0	0.16	1.00	
Methylene Chloride	ND	10	0.64	1.00	
4-Methyl-2-Pentanone	ND	10	4.4	1.00	
Naphthalene	ND	10	2.5	1.00	
n-Propylbenzene	ND	1.0	0.17	1.00	
Styrene	ND	1.0	0.17	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1.00	
Tetrachloroethene	ND	1.0	0.39	1.00	
Toluene	ND	1.0	0.24	1.00	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1.00	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1.00	
1,1,1-Trichloroethane	ND	1.0	0.30	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1.00	
1,1,2-Trichloroethane	ND	1.0	0.38	1.00	
Trichloroethene	ND	1.0	0.37	1.00	
Trichlorofluoromethane	ND	10	1.7	1.00	
1,2,3-Trichloropropane	ND	5.0	0.64	1.00	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1.00	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1.00	
Vinyl Acetate	ND	10	2.8	1.00	
Vinyl Chloride	ND	0.50	0.30	1.00	
p/m-Xylene	ND	1.0	0.30	1.00	
o-Xylene	ND	1.0	0.23	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	102	80-120			
Dibromofluoromethane	105	78-126			
1,2-Dichloroethane-d4	107	75-135			
Toluene-d8	99	80-120			



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

15-02-0071 EPA 5030C EPA 8260B

02/02/15

Units:

ug/L

Project: MCGU-14-4695:4

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-001-16318	N/A	Aqueous	GC/MS Z	02/03/15	02/04/15 00:50	150203L029
Comment(s): - Results were evaluated t	o the MDL (DL), conc	entrations >= 1	to the MDL (DI	_) but < RL (LO	Q), if found, are	qualified with a	a "J" flag.
<u>Parameter</u>	Resul	<u>t</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>(</u>	<u>Qualifiers</u>
Acetone	ND		20	10	1.00		
Benzene	ND		0.50	0.14	1.00		
Bromobenzene	ND		1.0	0.30	1.00		
Bromochloromethane	ND		1.0	0.48	1.00		
Bromodichloromethane	ND		1.0	0.21	1.00		
Bromoform	ND		1.0	0.50	1.00		
Bromomethane	ND		10	3.9	1.00		
2-Butanone	ND		10	2.2	1.00		
n-Butylbenzene	ND		1.0	0.23	1.00		
sec-Butylbenzene	ND		1.0	0.25	1.00		
tert-Butylbenzene	ND		1.0	0.28	1.00		
Carbon Disulfide	ND		10	0.41	1.00		
Carbon Tetrachloride	ND		0.50	0.23	1.00		
Chlorobenzene	ND		1.0	0.17	1.00		
Chloroethane	ND		5.0	2.3	1.00		
Chloroform	ND		1.0	0.46	1.00		
Chloromethane	ND		10	1.8	1.00		
2-Chlorotoluene	ND		1.0	0.24	1.00		
4-Chlorotoluene	ND		1.0	0.13	1.00		
Dibromochloromethane	ND		1.0	0.25	1.00		
1,2-Dibromo-3-Chloropropane	ND		5.0	1.2	1.00		
1,2-Dibromoethane	ND		1.0	0.36	1.00		
Dibromomethane	ND		1.0	0.46	1.00		
1,2-Dichlorobenzene	ND		1.0	0.46	1.00		
1,3-Dichlorobenzene	ND		1.0	0.40	1.00		
1,4-Dichlorobenzene	ND		1.0	0.43	1.00		
Dichlorodifluoromethane	ND		1.0	0.46	1.00		
1,1-Dichloroethane	ND		1.0	0.28	1.00		
1,2-Dichloroethane	ND		0.50	0.24	1.00		
1,1-Dichloroethene	ND		1.0	0.43	1.00		
c-1,2-Dichloroethene	ND		1.0	0.48	1.00		
t-1,2-Dichloroethene	ND		1.0	0.37	1.00		
1,2-Dichloropropane	ND		1.0	0.42	1.00		
1,3-Dichloropropane	ND		1.0	0.30	1.00		

RL: Reporting Limit.

DF: Dilution Factor.



Alta Environmental Date Received: 02/02/15
3777 Long Beach Blvd., Annex Building Work Order: 15-02-0071
Long Beach, CA 90802-3335 Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

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110,000: 10000 14 4000:4					1 age 10 01 10
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	1.0	0.36	1.00	
1,1-Dichloropropene	ND	1.0	0.46	1.00	
c-1,3-Dichloropropene	ND	0.50	0.25	1.00	
t-1,3-Dichloropropene	ND	0.50	0.25	1.00	
Ethylbenzene	ND	1.0	0.14	1.00	
2-Hexanone	ND	10	2.1	1.00	
Isopropylbenzene	ND	1.0	0.58	1.00	
p-Isopropyltoluene	ND	1.0	0.16	1.00	
Methylene Chloride	ND	10	0.64	1.00	
4-Methyl-2-Pentanone	ND	10	4.4	1.00	
Naphthalene	ND	10	2.5	1.00	
n-Propylbenzene	ND	1.0	0.17	1.00	
Styrene	ND	1.0	0.17	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1.00	
Tetrachloroethene	ND	1.0	0.39	1.00	
Toluene	ND	1.0	0.24	1.00	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1.00	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1.00	
1,1,1-Trichloroethane	ND	1.0	0.30	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1.00	
1,1,2-Trichloroethane	ND	1.0	0.38	1.00	
Trichloroethene	ND	1.0	0.37	1.00	
Trichlorofluoromethane	ND	10	1.7	1.00	
1,2,3-Trichloropropane	ND	5.0	0.64	1.00	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1.00	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1.00	
Vinyl Acetate	ND	10	2.8	1.00	
Vinyl Chloride	ND	0.50	0.30	1.00	
p/m-Xylene	ND	1.0	0.30	1.00	
o-Xylene	ND	1.0	0.23	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1.00	
Surrogate	Rec. (%)	Control Limits	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	101	80-120			
Dibromofluoromethane	101	78-126			
1,2-Dichloroethane-d4	100	75-135			
Toluene-d8	101	80-120			



Project: MCGU-14-4695:4

# **Quality Control - Spike/Spike Duplicate**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

15-02-0071 N/A

02/02/15

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Quality Control Sample ID	Туре		Matrix	Ins	strument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	atch Number
GW1	Sample		Aqueou	ıs IC	15	N/A	02/02/15	21:44	150202L02	В
GW1	Matrix Spike		Aqueou	ıs IC	15	N/A	02/03/15	01:06	150202L02	В
GW1	Matrix Spike	Duplicate	Aqueou	ıs IC	15	N/A	02/03/15	01:23	150202L02	В
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	<u>MS</u> %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chloride	117.6	5000	5325	104	5330	104	80-120	0	0-20	
Nitrate (as N)	3.326	500.0	519.9	103	520.0	103	80-120	0	0-20	
Sulfate	433.6	5000	5493	101	5497	101	80-120	0	0-20	

02/02/15

15-02-0071



# **Quality Control - Spike/Spike Duplicate**

Alta Environmental Date Received:

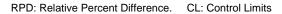
3777 Long Beach Blvd., Annex Building Work Order:

Long Beach, CA 90802-3335 Preparation:

Preparation: N/A Method: SM 5310 D

Project: MCGU-14-4695:4 Page 2 of 8

Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
GW1	Sample	Aqueous	TOC 6	02/06/15	02/07/15 06:14	F0206TOCS2
GW1	Matrix Spike	Aqueous	TOC 6	02/06/15	02/07/15 06:14	F0206TOCS2
GW1	Matrix Spike Duplica	te Aqueous	TOC 6	02/06/15	02/07/15 06:14	F0206TOCS2
Parameter	Sample Spike Conc. Adde	MS Conc.	MS         MSD           %Rec.         Conc.	MSD %Rec.	%Rec. CL RPD	RPD CL Qualifiers
Carbon, Total Organic	42.90 25.00	57.00	56 57.00	56	31-145 0	0-20



0-20



Project: MCGU-14-4695:4

0.4823

0.5000

1.030

Boron

## **Quality Control - Spike/Spike Duplicate**

Alta Environmental Date Received: 02/02/15 3777 Long Beach Blvd., Annex Building Work Order: 15-02-0071 Long Beach, CA 90802-3335 Preparation:

> Method: EPA 200.7 Page 3 of 8

> > 80-120

Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
GW1	Sample	Aqueous	ICP 7300	02/02/15	02/09/15 13:51	150202S11A
GW1	Matrix Spike	Aqueous	ICP 7300	02/02/15	02/09/15 13:52	150202S11A
GW1	Matrix Spike Duplicate	Aqueous	ICP 7300	02/02/15	02/09/15 13:53	150202S11A
Parameter	Sample Spike Conc. Added	MS MS Conc. %R	MSD Conc.	MSD %Rec.	%Rec. CL RPD	RPD CL Qualifiers

110

1.055

115



N/A



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

15-02-0071 EPA 3010A Total EPA 6010B

02/02/15

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Quality Control Sample ID	Туре		Matrix	Ins	strument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	atch Number
15-02-0004-1	Sample		Aqueous IC		ICP 7300 02/03/15 0		02/04/15 21:08 150203SA2B			:B
15-02-0004-1	Matrix Spike		Aqueou	s IC	P 7300	02/03/15	02/04/15	21:10	150203SA2	:В
15-02-0004-1	Matrix Spike	Duplicate	Aqueou	s IC	P 7300	02/03/15	02/04/15	21:11	150203SA2	:В
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.5000	0.6448	129	0.6749	135	72-132	5	0-10	3
Arsenic	ND	0.5000	0.5719	114	0.5938	119	80-140	4	0-11	
Barium	0.02745	0.5000	0.5928	113	0.6058	116	87-123	2	0-6	
Beryllium	ND	0.5000	0.5440	109	0.5572	111	89-119	2	0-8	
Cadmium	ND	0.5000	0.5544	111	0.5711	114	82-124	3	0-7	
Chromium	ND	0.5000	0.5747	115	0.5875	117	86-122	2	0-8	
Cobalt	ND	0.5000	0.5770	115	0.5866	117	83-125	2	0-7	
Copper	ND	0.5000	0.5497	110	0.5719	114	78-126	4	0-7	
Lead	ND	0.5000	0.5557	111	0.5630	113	84-120	1	0-7	
Molybdenum	ND	0.5000	0.5657	113	0.5785	116	78-126	2	0-7	
Nickel	ND	0.5000	0.5743	115	0.5827	117	84-120	1	0-7	
Selenium	ND	0.5000	0.5503	110	0.5573	111	79-127	1	0-9	
Silver	ND	0.2500	0.2602	104	0.2657	106	86-128	2	0-7	
Thallium	ND	0.5000	0.5772	115	0.5942	119	79-121	3	0-8	
Vanadium	ND	0.5000	0.5762	115	0.5891	118	88-118	2	0-7	
Zinc	0.1629	0.5000	0.7273	113	0.7484	117	89-131	3	0-8	

02/02/15

15-02-0071

EPA 3005A Filt.



Project: MCGU-14-4695:4

## **Quality Control - Spike/Spike Duplicate**

Alta Environmental Date Received:
3777 Long Beach Blvd., Annex Building Work Order:
Long Beach, CA 90802-3335 Preparation:

Method: EPA 6010B Page 5 of 8

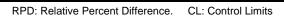
Quality Control Sample ID	Туре		Matrix	In	strument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	tch Number
15-01-1975-2	Sample		Aqueou	s IC	CP 7300	02/03/15	02/09/15	17:36	150203SA3	
15-01-1975-2	Matrix Spike		Aqueou	s IC	CP 7300	02/03/15	02/09/15	17:38	150203SA3	
15-01-1975-2	Matrix Spike	Duplicate	Aqueou	s IC	CP 7300	02/03/15	02/09/15	17:39	150203SA3	
Parameter	<u>Sample</u> <u>Conc.</u>	<u>Spike</u> Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Iron	ND	0.5000	0.1855	37	0.1678	34	75-125	10	0-20	3
Manganese	0.01079	0.5000	0.5131	100	0.5064	99	75-125	1	0-20	



Alta Environmental Date Received: 02/02/15
3777 Long Beach Blvd., Annex Building Work Order: 15-02-0071
Long Beach, CA 90802-3335 Preparation: EPA 7470A Filt.
Method: EPA 7470A

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Quality Control Sample ID	Type		Matrix	In	strument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	tch Number
15-01-2043-2	Sample		Aqueous	s M	ercury 04	02/06/15	02/06/15	20:02	150206S05	
15-01-2043-2	Matrix Spike		Aqueous	s M	ercury 04	02/06/15	02/06/15	20:05	150206S05	
15-01-2043-2	Matrix Spike	Duplicate	Aqueous	s M	ercury 04	02/06/15	02/06/15	20:07	150206S05	
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.01012	101	0.009899	99	57-141	2	0-10	





Alta Environmental Date Received: 02/02/15 3777 Long Beach Blvd., Annex Building Work Order: 15-02-0071 Long Beach, CA 90802-3335 Preparation: EPA 3510C

Method: EPA 8270C (M) Isotope Dilution

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Quality Control Sample ID	Type		Matrix	I	nstrument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	ch Number
15-02-0076-10	Sample		Aqueous	s (	GC/MS DDD	02/03/15	02/03/15	14:44	150203S08	
15-02-0076-10	Matrix Spike		Aqueous	s (	GC/MS DDD	02/03/15	02/03/15	14:12	150203S08	
15-02-0076-10	Matrix Spike Du	ıplicate	Aqueous	s (	GC/MS DDD	02/03/15	02/03/15	14:28	150203S08	
Parameter	Sample S Conc.	<u>Spike</u> Added	MS Conc.	MS %Rec	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,4-Dioxane	ND 2	20.00	20.50	102	20.17	101	50-130	2	0-20	





Alta Environmental Date Received: 02/02/15
3777 Long Beach Blvd., Annex Building Work Order: 15-02-0071
Long Beach, CA 90802-3335 Preparation: EPA 5030C
Method: EPA 8260B

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Quality Control Sample ID	Туре		Matrix		Instrument	Date Prepare	d Date Ana	llyzed	MS/MSD Ba	tch Number
15-02-0091-3	Sample		Aqueou	ıs	GC/MS Z	02/03/15	02/04/15	02:45	150203S017	7
15-02-0091-3	Matrix Spike		Aqueou	ıs	GC/MS Z	02/03/15	02/04/15	03:13	150203S017	7
15-02-0091-3	Matrix Spike	Duplicate	Aqueou	ıs	GC/MS Z	02/03/15	02/04/15	03:42	150203S017	7
Parameter	Sample Conc.	<u>Spike</u> <u>Added</u>	MS Conc.	<u>MS</u> %Re	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	50.00	47.33	95	46.78	94	74-122	1	0-21	
Carbon Tetrachloride	ND	50.00	46.48	93	46.43	93	60-144	0	0-21	
Chlorobenzene	ND	50.00	49.96	100	50.65	101	73-120	1	0-22	
1,2-Dibromoethane	ND	50.00	50.10	100	50.87	102	80-122	2	0-20	
1,2-Dichlorobenzene	ND	50.00	49.88	100	50.97	102	70-120	2	0-26	
1,2-Dichloroethane	ND	50.00	56.32	113	55.90	112	64-142	1	0-20	
1,1-Dichloroethene	51.75	50.00	96.83	90	94.62	86	52-136	2	0-21	
Ethylbenzene	ND	50.00	48.29	97	47.77	96	77-125	1	0-24	
Toluene	ND	50.00	49.50	99	49.58	99	72-126	0	0-23	
Trichloroethene	79.32	50.00	114.3	70	115.0	71	74-128	1	0-22	3
Vinyl Chloride	ND	50.00	50.30	101	52.14	104	67-133	4	0-20	
p/m-Xylene	ND	100.0	93.90	94	93.91	94	63-129	0	0-25	
o-Xylene	ND	50.00	49.72	99	48.43	97	62-128	3	0-24	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	43.98	88	44.22	88	68-134	1	0-21	



## **Quality Control - PDS**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

15-02-0071 EPA 3005A Filt. EPA 6010B

02/02/15

Project: MCGU-14-4695:4

d DDC/DDCD Datab

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Quality Control Sample ID	Туре	N	/latrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
15-01-1975-2	Sample	A	queous	ICP 7300	02/03/15 00:00	02/09/15 17:36	150203SA3
15-01-1975-2	PDS	A	queous	ICP 7300	02/03/15 00:00	02/09/15 17:41	150203SA3
<u>Parameter</u>		Sample Conc.	Spike Added	PDS Conc	PDS %Re	ec. %Rec. C	<u>Qualifiers</u>
Iron		ND	0.5000	0.1679	34	75-125	5
Manganese		0.01079	0.5000	0.4976	97	75-125	



Project: MCGU-14-4695:4

## **Quality Control - Sample Duplicate**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

15-02-0071 N/A

SM 2320B

02/02/15

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
GW1	Sample	Aqueous	PH1/BUR03	N/A	02/09/15 14:10	F0209ALKD1
GW1	Sample Duplicate	Aqueous	PH1/BUR03	N/A	02/09/15 14:10	F0209ALKD1
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)		407.0	407.0	0	0-25	



Alta Environmental

3777 Long Beach Blvd., Annex Building

Long Beach, CA 90802-3335

Date Received:
Work Order:
Preparation:
Method:

15-02-0071 N/A SM 2320B

02/02/15

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
GW1	Sample	Aqueous	PH1/BUR03	N/A	02/09/15 14:10	F0209HCOD1
GW1	Sample Duplicate	Aqueous	PH1/BUR03	N/A	02/09/15 14:10	F0209HCOD1
<u>Parameter</u>		Sample Conc.	DUP Conc.	<u>RPD</u>	RPD CL	Qualifiers
Bicarbonate (as CaCO3)		407.0	407.0	0	0-25	



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

15-02-0071 N/A

SM 2320B

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
GW1	Sample	Aqueous	PH1/BUR03	N/A	02/09/15 14:10	F0209CO3D1
GW1	Sample Duplicate	Aqueous	PH1/BUR03	N/A	02/09/15 14:10	F0209CO3D1
<u>Parameter</u>		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Carbonate (as CaCO3)		ND	ND	N/A	0-25	



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

15-02-0071 N/A SM 2540 C

02/02/15

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
15-02-0091-3	Sample	Aqueous	SC 5	02/04/15 00:00	02/04/15 17:00	F0204TDSD3
15-02-0091-3	Sample Duplicate	Aqueous	SC 5	02/04/15 00:00	02/04/15 17:00	F0204TDSD3
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Dissolved		1030	1015	1	0-20	



Alta Environmental Date Received: 02/02/15
3777 Long Beach Blvd., Annex Building Work Order: 15-02-0071
Long Beach, CA 90802-3335 Preparation: N/A

Method: SM 4500 S2 - D

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
GW3 Dup	Sample	Aqueous	N/A	02/04/15 00:00	02/04/15 19:05	F0204SD2
GW3 Dup	Sample Duplicate	Aqueous	N/A	02/04/15 00:00	02/04/15 19:05	F0204SD2
Parameter		Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Sulfide, Total		ND	ND	N/A	0-25	





## **Quality Control - LCS/LCSD**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

15-02-0071 N/A

02/02/15

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Quality Control Sample ID	Туре	Matrix		Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD Batch Number	
099-12-659-771	LCS	Aqı	ueous	GC 14	N/A	02/0	3/15 09:32	150203L01	
099-12-659-771	LCSD	Aqı	ueous	GC 14	N/A	02/03	3/15 09:53	150203L01	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	<u>RPD</u>	RPD CL	Qualifiers
Carbon Dioxide	104.0	94.64	91	92.40	89	80-120	2	0-20	



#### **Quality Control - LCS/LCSD**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method: 02/02/15 15-02-0071 N/A

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Project: MCGU-14-4695:4

Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pr	epared Da	te Analyzed	LCS/LCSD B	atch Number
099-12-661-1135	LCS	Aqı	leous	GC 61	N/A	02/	04/15 10:06	150204L01	
099-12-661-1135	LCSD	Aqı	ueous	GC 61	N/A	02/	04/15 10:32	150204L01	
Parameter	Spike Adde	d LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Ethane	99.40	91.49	92	91.36	92	80-120	0	0-20	
Ethylene	102.0	96.81	95	96.67	95	80-120	0	0-20	
Methane	102.0	95.99	94	95.67	94	80-120	0	0-20	



#### **Quality Control - LCS**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

15-02-0071 N/A

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prep	ared Date	Analyzed	LCS Batch I	Number
099-12-906-5388	LCS	Aqueous	IC 15	N/A	02/0	2/15 20:16	150202L02	
<u>Parameter</u>		Spike Added	Conc. Recov	ered LCS	8 %Rec.	%Rec.	<u>CL</u>	<u>Qualifiers</u>
Chloride		50.00	51.50	103		90-110		
Nitrate (as N)		5.000	5.106	102		90-110		
Sulfate		50.00	50.74	101		90-110		



#### **Quality Control - LCS/LCSD**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

15-02-0071 N/A

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pr	repared Date	Analyzed	LCS/LCSD B	atch Number
099-12-906-5398	LCS	Aqı	leous	IC 15	N/A	02/0	3/15 20:55	150203L02	
099-12-906-5398	LCSD	Aqı	ueous	IC 15	N/A	02/0	3/15 21:12	150203L02	
Parameter	Spike Adde	d LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	<u>Qualifiers</u>
Chloride	50.00	50.72	101	50.74	101	90-110	0	0-15	
Nitrate (as N)	5.000	5.076	102	5.074	101	90-110	0	0-15	
Sulfate	50.00	50.54	101	50.61	101	90-110	0	0-15	



#### **Quality Control - LCS/LCSD**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method: 02/02/15 15-02-0071 N/A

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Dat	te Analyzed	LCS/LCSD E	atch Number
099-15-859-582	LCS	Aqı	leous	PH1/BUR03	N/A	02/	09/15 14:10	F0209ALKB	1
099-15-859-582	LCSD	Aqı	ueous	PH1/BUR03	N/A	02/	09/15 14:10	F0209ALKB	1
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	<u>Qualifiers</u>
Alkalinity, Total (as CaCO3)	100.0	99.00	99	99.00	99	80-120	0	0-20	



#### **Quality Control - LCS/LCSD**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

15-02-0071 N/A SM 2540 C

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Dat	e Analyzed	LCS/LCSD Ba	atch Number
099-12-180-4412	LCS	Aqı	ieous	SC 5	02/04/15	02/0	04/15 17:00	F0204TDSL3	
099-12-180-4412	LCSD	Aqı	ieous	SC 5	02/04/15	02/0	04/15 17:00	F0204TDSL3	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Dissolved	100.0	115.0	115	110.0	110	80-120	4	0-20	



#### **Quality Control - LCS/LCSD**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation:

15-02-0071 N/A

02/02/15

Method:

SM 4500 S2 - D

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Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Pre	pared Date	Analyzed	LCS/LCSD B	atch Number
099-15-853-444	LCS	Aqı	ieous	N/A	02/04/15	02/04	4/15 19:05	F0204SL2	
099-15-853-444	LCSD	Aqı	ieous	N/A	02/04/15	02/04	4/15 19:05	F0204SL2	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Sulfide, Total	1.000	0.8500	85	0.8500	85	80-120	0	0-20	



#### **Quality Control - LCS/LCSD**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

15-02-0071 N/A

SM 5310 D

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Quality Control Sample ID	Туре	Mati	rix	Instrument	Date Pre	pared Date	e Analyzed	LCS/LCSD Ba	atch Number
099-05-097-5507	LCS	Aqu	eous	TOC 6	02/06/15	02/0	7/15 06:14	F0206TOCL2	
099-05-097-5507	LCSD	Aqu	eous	TOC 6	02/06/15	02/0	7/15 06:14	F0206TOCL2	
Parameter	Spike Added L	_CS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	5.000 5	5.060	101	5.080	102	80-120	0	0-20	





Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

15-02-0071 N/A

EPA 200.7

02/02/15

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-012-6060	LCS	Aqueous	ICP 7300	02/02/15	02/09/15 12:32	150202L11A
<u>Parameter</u>		Spike Added	Conc. Recovere	ed LCS %Re	ec. %Rec	. CL Qualifiers
Boron		0.5000	0.4235	85	85-11	5





Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method: 02/02/15 15-02-0071 EPA 3010A Total EPA 6010B

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Quality Control Sample ID	Туре	Matrix	x Instrumen	t Date Prep	ared Date Anal	lyzed LCS Bato	h Number
097-01-003-14837	LCS	Aque	eous ICP 7300	02/03/15	02/04/15	10:57 150203L	A2
Parameter		Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	<u>Qualifiers</u>
Antimony		0.5000	0.5882	118	80-120	73-127	
Arsenic		0.5000	0.4745	95	80-120	73-127	
Barium		0.5000	0.4871	97	80-120	73-127	
Beryllium		0.5000	0.5150	103	80-120	73-127	
Cadmium		0.5000	0.5297	106	80-120	73-127	
Chromium		0.5000	0.5393	108	80-120	73-127	
Cobalt		0.5000	0.5481	110	80-120	73-127	
Copper		0.5000	0.5550	111	80-120	73-127	
Lead		0.5000	0.5240	105	80-120	73-127	
Molybdenum		0.5000	0.5307	106	80-120	73-127	
Nickel		0.5000	0.5129	103	80-120	73-127	
Selenium		0.5000	0.5103	102	80-120	73-127	
Silver		0.2500	0.2202	88	80-120	73-127	
Thallium		0.5000	0.5230	105	80-120	73-127	
Vanadium		0.5000	0.5323	106	80-120	73-127	
Zinc		0.5000	0.5454	109	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

15-02-0071 EPA 3005A Filt. EPA 6010B

02/02/15

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-683-1140	LCS	Aqueous	ICP 7300	02/03/15	02/07/15 12:44	150203LA3A
<u>Parameter</u>		Spike Added	Conc. Recovere	ed LCS %Re	<u>%Rec.</u>	CL Qualifiers
Iron		0.5000	0.5039	101	80-120	)
Manganese		0.5000	0.5299	106	80-120	)



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received: Work Order: Preparation: Method:

15-02-0071 EPA 7470A Total EPA 7470A

02/02/15

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Quality Control Sample ID	Type	Matrix	Instrument [	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7306	LCS	Aqueous	Mercury 04 0	02/06/15	02/06/15 20:00	150206L05
<u>Parameter</u>		Spike Added	Conc. Recovered	ed LCS %Re	<u>%Rec.</u>	. CL Qualifiers
Mercury		0.01000	0.01010	101	85-121	1

02/02/15

15-02-0071



#### **Quality Control - LCS**

Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335

Date Received: Work Order: Preparation: Method:

EPA 3510C EPA 8270C (M) Isotope Dilution

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Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-216-359	LCS	Aqueous	GC/MS DDD	02/03/15	02/03/15 13:56	150203L08
<u>Parameter</u>		Spike Added	Conc. Recover	red LCS %R	ec. %Rec	. CL Qualifiers
1,4-Dioxane		20.00	19.91	100	50-130	)



Alta Environmental 3777 Long Beach Blvd., Annex Building Long Beach, CA 90802-3335 Date Received:
Work Order:
Preparation:
Method:

15-02-0071 EPA 5030C EPA 8260B

02/02/15

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Quality Control Sample ID	Type	Matrix	x Instrumer	nt Date Pre	pared Date Ana	lyzed LCS Bate	ch Number
099-14-001-16318	LCS	Aque	ous GC/MS Z	02/03/15	02/03/15	23:52 150203L	029
Parameter		Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene		50.00	46.54	93	80-120	73-127	
Carbon Tetrachloride		50.00	46.16	92	67-139	55-151	
Chlorobenzene		50.00	49.58	99	78-120	71-127	
1,2-Dibromoethane		50.00	49.33	99	80-120	73-127	
1,2-Dichlorobenzene		50.00	50.48	101	63-129	52-140	
1,2-Dichloroethane		50.00	53.24	106	70-130	60-140	
1,1-Dichloroethene		50.00	49.34	99	66-126	56-136	
Ethylbenzene		50.00	48.50	97	80-123	73-130	
Toluene		50.00	49.08	98	80-120	73-127	
Trichloroethene		50.00	49.06	98	80-122	73-129	
Vinyl Chloride		50.00	53.01	106	70-130	60-140	
p/m-Xylene		100.0	94.97	95	75-123	67-131	
o-Xylene		50.00	49.24	98	74-122	66-130	
Methyl-t-Butyl Ether (MTBE)		50.00	44.76	90	69-129	59-139	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass



#### **Glossary of Terms and Qualifiers**

Work Order: 15-02-0071 Page 1 of 1

	<u> </u>
<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
Е	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike

SG The sample extract was subjected to Silica Gel treatment prior to analysis.

concentration by a factor of four or greater.

- X % Recovery and/or RPD out-of-range.
- Z Analyte presence was not confirmed by second column or GC/MS analysis.

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

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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### Calscience

WORK ORDER #: 15-02-0 0 7 7

# SAMPLE RECEIPT FORM

Cooler  $\frac{1}{2}$  of  $\frac{2}{2}$ 

CLIENT: Alta Chv'l DATE: 02/02/15

CLIENT: VIII ENVX	DATE:_	02/02	<u>/ 10 </u>		
TEMPERATURE: Thermometer ID: SC4 (Criteria: 0.0 °C – 6.0 °C, not froz			· · · · · · · · · · · · · · · · · · ·		
Temperature $3 \cdot 8 \text{ °C} + 0.2 \text{ °C} \text{ (CF)} = 4 \cdot 0 \text{ °C}$	☑Blank	☐ Samp	le		
☐ Sample(s) outside temperature criteria (PM/APM contacted by:)					
$\square$ Sample(s) outside temperature criteria but received on ice/chilled on same	day of sampl	ing.			
$\square$ Received at ambient temperature, placed on ice for transport by ${\sf C}$	ourier.				
Ambient Temperature: ☐ Air ☐ Filter		Checked b	v: 613		
CUSTODY SEALS INTACT:	1.5				
□ Cooler □ □ No (Not Intact) □ Not Presen	t □ N/A	Checked b	y: 689		
□ Sample □ □ No (Not Intact) ☑ Not Presen	t ·	Checked b			
	er i gets Stan Sen tresses e est Sen su i su unus S				
SAMPLE CONDITION:	Yes	No	N/A		
Chain-Of-Custody (COC) document(s) received with samples	🏿				
COC document(s) received complete	🗹 🔭				
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels	S.				
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.	j.				
Sampler's name indicated on COC	🗹				
Sample container label(s) consistent with COC					
Sample container(s) intact and good condition	I				
Proper containers and sufficient volume for analyses requested	. 🗹				
Analyses received within holding time	. 🗹				
Aqueous samples received within 15-minute holding time					
□ pH □ Residual Chlorine □ Dissolved Sulfides □ Dissolved Oxygen	🗆				
Proper preservation noted on COC or sample container	🗹				
ันบาร dUnpreserved vials received for Volatiles analysis					
Volatile analysis container(s) free of headspace	Z				
Tedlar bag(s) free of condensation  CONTAINER TYPE:	🗆		ď		
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve () □EnCore	es <sup>®</sup> □Terrat	Cores® □			
Aqueous: ZVOA ZVOAh □VOAna₂ □125AGB □125AGBh □125AGB			T1AGRe		
Ø500AGB □500AGJ □500AGJs □250AGB □250CGB Ø250CGB					
하는 사람이 그 전문 특별한 하는 사람들은 하는 사람들은 사람들은 사람들은 사람들은 사람들이 되었다.	s Mirr f	irbna ⊑ _	DUUPB		
✓250PB ✓250PBn ✓125PB ✓125PBznna □100PJ □100PJna₂ □	U		027		
Air: Tedlar® Canister Other: Trip Blank Lot#: 1501219 Labeled/Checked by: 917 Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 876					
Preservative: h: HCL n: HNO <sub>3</sub> na <sub>2</sub> :Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> na: NaOH p: H <sub>3</sub> PO <sub>4</sub> s: H <sub>2</sub> SO <sub>4</sub> u: Ultra-pure znna: ZnAc <sub>2</sub> +N		Scanned by	XMi_		



Calscience

WORK ORDER #: 15-02-0 0 7 [

## SAMPLE RECEIPT FORM

Cooler	<sup>2</sup> of	2

CLIENT: Alta Envil	DATE:_	02/02	2/15		
TEMPERATURE: Thermometer ID: SC4 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)  Temperature					
☐ Received at ambient temperature, placed on ice for transport by C  Ambient Temperature: ☐ Air ☐ Filter	ourier.	Checked	by: 613		
CUSTODY SEALS INTACT:  Cooler	t □ N/A t	Checked Checked	by: <u>617</u> by: <u>971</u>		
SAMPLE CONDITION: Chain-Of-Custody (COC) document(s) received with samples COC document(s) received complete		No	N/A		
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.  Sampler's name indicated on COC	,				
Sample container label(s) consistent with COC	🗹				
Analyses received within holding time					
□ pH □ Residual Chlorine □ Dissolved Sulfides □ Dissolved Oxygen  Proper preservation noted on COC or sample container	P		<b>d</b>		
Volatile analysis container(s) free of headspace  Tedlar bag(s) free of condensation  CONTAINER TYPE:					
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve () □EnCor Aqueous: ☑VOA ☑VOAh □VOAna₂ □125AGB □125AGBh □125AGB ☑500AGB □500AGJ □500AGJs □250AGB □250CGB ☑250CGE	p □1AGB	□1AGB <b>na</b> ;	2 □1AGBs		
∆500AGB			□ py: <u>971</u>		

Preservative: h: HCL n: HNO<sub>3</sub> na<sub>2</sub>:Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> na: NaOH p: H<sub>3</sub>PO<sub>4</sub> s: H<sub>2</sub>SO<sub>4</sub> u: Ultra-pure znna: ZnAc<sub>2</sub>+NaOH f: Filtered

Scanned by: M