

# Phase II Environmental Site Assessment

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316 North Juanita Avenue

316 North Juanita Avenue  
Los Angeles, California

EBI Project No. 1218000439

December 26, 2018

Prepared for:

Flexible PSH, Solutions, Inc.  
2102 Century Park Lane  
Los Angeles, California 90067

Prepared by:



December 26, 2018

Mr. John Molloy  
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Los Angeles, California 90067

**Subject: Phase II Environmental Site Assessment**

316 North Juanita Avenue  
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Los Angeles, California  
EBI Project No. 1218000439

Dear Mr. Molloy:

In accordance with the Proposal and Standard Conditions for Engagement approved by yourself on October 30, 2018, EnviroBusiness, Inc. (dba EBI Consulting, hereinafter "EBI") is pleased to submit this Phase II Environmental Site Assessment (ESA) for the above-referenced property (herein referred to as the Subject Property).

This Report is addressed to *Flexible PSH, Solutions, Inc.* and such other persons as may be designated by *Flexible PSH, Solutions, Inc.* and respective successors and assigns. This Report is for the use and benefit of, and may be relied upon by, *Flexible PSH, Solutions, Inc.* or any affiliates; initial and subsequent holders from time to time of any debt and/or debt securities secured, directly or indirectly, any participation interest in such debt; any indenture trustee, servicer, or other agent acting on behalf of such holders of such debt and/or debt securities; rating agencies; and the institutional provider(s) from time to time of any liquidity facility or credit support for such financings, and their respective successors and assigns.

The information contained in this report has received appropriate technical review and approval. The conclusions represent professional judgments and are founded upon the findings of the investigations identified in the report and the interpretation of such data based on our experience and expertise according to the existing standard of care. No other warranty or limitation exists, either express or implied.

The conclusions of this Report are based on soil and groundwater analytical data prepared by SGS Laboratories, a California certified laboratory, soil screening results obtained utilizing a field screening instrument, and field observations recorded by EBI personnel.

There are no intended or unintended third party beneficiaries to this Report, except as expressly stated herein.

EBI is an independent contractor, not an employee of either the issuer or the borrower, and its compensation was not based on the findings or recommendations made in the Report or on the closing of any business transaction.

Thank you for the opportunity to prepare this Report, and assist you with this project. Please call us if you have any questions or if we may be of further assistance.

Respectfully submitted,  
**EBI CONSULTING**



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The Environmental Professionals listed above performed this Phase II ESA in general conformance with the ASTM E1903-11 Standard Practice for Phase II ESAs. The listed individuals meet the qualifications for individuals completing or overseeing all appropriate inquiries, and possess sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding the existence of environmental conditions on the property. Any work completed on this Phase II ESA by an individual who is not considered an environmental professional was completed under the supervision or responsible charge of the environmental professional.

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## I.0 INTRODUCTION

In accordance with our Proposal and Standard Conditions for Engagement, EnviroBusiness, Inc. (dba EBI Consulting, hereinafter "EBI") is pleased to submit our *Phase II Environmental Site Assessment (ESA) Report (Report)* on the property located at 316 North Juanita Avenue, Los Angeles, California (the Subject Property). Mr. Chad Bechtel and Ms. Lizette Ruiz of EBI conducted the investigation at the Subject Property on November 30 and December 5, 2018.

### I.1 BACKGROUND

EBI was requested to conduct a limited subsurface investigation to evaluate the potential impact to the Subject Property from the following recognized environmental concern(s) identified in EBI's (July 26, 2018) Phase I ESA report:

- AT&T has been engaged in automotive service activities that include petroleum hydrocarbons and generate regulated wastes (used oil and other automotive fluids such as automatic transmission fluid and antifreeze) and has operated automotive lifts since at least 1975. These operations are suspect to have occurred on the Subject Property prior to construction of the vehicle maintenance building that was constructed in 1975. AT&T also operates an in-ground oil/water separator and currently three aboveground hydraulic lifts. These lifts replaced underground hydraulic lifts in 2010 and a portion of the foundation was replaced at that time, per the Building Department record. No data regarding this activity was otherwise identified. The historic use of regulated materials, generation of regulated wastes, and presence of the in-ground automotive lifts and oil/water separator are considered to represent a recognized environmental condition (REC) to the Subject Property.

### I.2 STATEMENT OF OBJECTIVES

The primary objective of this Phase II ESA was to evaluate potential impact to the Subject Property from the RECs identified in the Phase I ESA prepared by EBI (July 26, 2018) for the purpose of providing sufficient information regarding the nature and extent of contamination to assist in making informed business decisions about the property; and where applicable, providing the level of knowledge necessary to satisfy the innocent purchaser defense under CERCLA. The investigation focused on: 1) interior locations in the approximate location of the three former underground hydraulic lifts; and 2) exterior locations near the oil/water separator (OWS) and former wash rack.

In order to achieve the objectives of this investigation, EBI performed the following tasks:

- Contacted the local utility locating service Underground Service Alert of Southern California (Ticket #A183110874) prior to undertaking subsurface explorations on-site.
- Retained a private utility locating service (Ground Penetrating Radar Services, Inc. [GPRS]) to further screen for underground utilities in the vicinity of the proposed sampling locations.
- Advanced two exterior soil borings (B-1 and B-2) using direct push drilling methods near the OWS and former wash rack to depths of up to approximately 25 feet bgs.
- Advanced three interior soil borings (B-3 through B-5) using direct push drilling methods adjacent to the former underground hydraulic lifts to depths of up to approximately 28 feet bgs.

- Collected continuous soil samples from the borings, field screened the vapor headspace of the soil samples for total ionizable volatile organic compounds (VOCs) using a photoionization detector (PID), and described the physical characteristics of the soil samples on boring logs.
- Selected one soil sample from each soil boring, prepared, and submitted the samples under chain-of-custody documentation to a California-certified independent laboratory (SGS Laboratories). The samples collected near the OWS and former wash rack (B-1 and B-2) were submitted for analysis of VOCs via United States Environmental Protection Agency (EPA) Method 8260, polycyclic aromatic hydrocarbons (PAHs) via EPA Method 8270, and total petroleum hydrocarbons (TPH) - diesel range organics (DRO) and oil range organics (ORO) via EPA Method 8015. The samples collected near the former underground hydraulic lifts (B-3 through B-5) were submitted for analysis of TPH-DRO and -ORO via EPA Method 8015, PAHs via EPA Method 8270, and polychlorinated biphenyls (PCBs) via EPA Method 8082.
- Collected grab groundwater samples from temporary wells inserted into each boring, prepared, and submitted the samples under chain-of-custody documentation to SGS Laboratories. The samples collected near the OWS and former wash rack (B-1 and B-2) were submitted for analysis of VOCs via EPA Method 8260, PAHs via EPA Method 8270, and TPH-DRO and -ORO via EPA Method 8015. The samples collected near the former underground hydraulic lifts (B-3 through B-5) were submitted for analysis of TPH-DRO and -ORO via EPA Method 8015, PAHs via EPA Method 8270, and PCBs via EPA Method 8082.
- Prepared this summary of pertinent information obtained during this investigation including accompanying illustrations and appendices, along with EBI's findings and preliminary conclusions regarding the presence or absence of contamination in soils beneath the Subject Property in the areas investigated.

A detailed description of investigation methods is provided in Section 3.0 of this report.

### **I.3 LIMITATIONS AND ASSUMPTIONS**

This *Report* was prepared for the use of *Flexible PSH, Solutions, Inc.* It was performed in accordance with ASTM E1903-11, accepted practices of other consultants undertaking similar studies at the same time and in the same locale under like circumstances. The conclusions provided by EBI are based solely on the information obtained during the subsurface investigation. EBI renders no opinion as to the presence of potential contamination in the areas not investigated. The observations in this *Report* are valid on the date of the investigation. Any additional information that becomes available concerning the Subject Property should be provided to EBI so that our conclusions may be revised and modified, if necessary. This *Report* has been prepared in accordance with the proposal approved by *Flexible PSH, Solutions, Inc.* and with the limitations and assumptions described below, all of which are integral parts of this *Report*. No other warranty, express or implied, is made.

## Limitations

1. The observations described in this Report were made under the conditions stated herein. The conclusions presented are based solely upon the services described, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by Client. The work described in this Report was carried out in accordance with terms and conditions in our Authorization Letter and Agreement for Environmental Services regarding the Site, which are incorporated herein by references.
2. In preparing this Report, EBI has relied on certain information provided by state and other referenced parties, and on information contained in the files of federal, state and/or local agencies available to EBI at the time of the assessment. Although there may have been some degree of overlap in the information provided by these various sources, EBI did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of these Environmental Services.
3. Observations were made of the Site and of structures on the Site as indicated within the Report. Where access to portions of the Site or to structures on the Site was unavailable or limited, EBI renders no opinion as to the presence of oil or hazardous materials (OHM) in that portion of the Site or structure. In addition, EBI renders no opinion as to the presence of OHM or the presence of indirect evidence relating to OHM where direct observation of the interior walls, floor, or ceiling of a structure on a Site was obstructed by objects or coverings on or over these surfaces. No representations concerning insulating material is express or implied.
4. EBI did not perform testing or analyses to determine the presence or concentration of asbestos, radon, or lead at the Site unless specifically stated otherwise in the Report. Similarly, no investigation of dust or air quality was conducted unless specifically stated otherwise in the Report.
5. The purpose of this Report is to assess the physical characteristics of the Site with respect to the presence of OHM in the environment. No specific attempt was made to determine the compliance of present or past owners or operators of the Site with federal, state, or local laws or regulations (environmental or otherwise).
6. Except as noted in the Report, no quantitative laboratory testing was performed as part of the assessment. Where such analyses have been conducted by an outside laboratory, EBI has relied upon the data provided, and has not conducted an independent evaluation of the reliability of this data.
7. Any qualitative or quantitative information regarding the Site, which was not available to EBI at the time of this assessment may result in a modification of the representations made herein.
8. It is acknowledged that EBI judgments shall not be based on scientific or technical test or procedures beyond the scope of the Services or beyond the time and budgetary constraints imposed by Client. It is acknowledged further that EBI conclusions shall not rest on pure science but on such considerations as economic feasibility and available alternatives. Client also acknowledges that, because geologic and soil formations are inherently random, variable, and indeterminate in nature, the Services and opinions provided under this Agreement with respect to such Services, are not guaranteed to be a representation of actual conditions on the Site, which are also subject to change with time as a result of natural or man-made processes, including water permeation. In performing the Services, EBI shall use that degree of care and skill ordinarily exercised by environmental consultants or engineers performing similar services in the same or similar locality. The standard of care shall be determined solely at the time the Services are rendered and not according to standards utilized at a later date. The Services shall be rendered without any other warranty, express or implied,

including, without limitation, the warranty of merchant ability and the warranty of fitness for a particular purpose.

9. Client and EBI agree that to the fullest extent permitted by law, EBI shall not be liable to Client for any special, indirect or consequential damages whatsoever, whether caused by EBI's negligence, errors, omissions, strict liability, breach of contract, breach of warranty or other cause of causes whatsoever.

### **Assumptions**

1. This Phase II ESA does not address the evaluation of business environmental risks in light of data collected through the Phase II ESA process. Such evaluation is a function of site and transaction-specific variables, and of the user's objectives and risk tolerance. This practice contemplates that the Phase II ESA process was planned and conducted with such variables in mind, and that the user will evaluate legal, business and environmental risks in light of known data relating to the particular site and transaction, and in consultation with legal and business advisors as well as the Phase II Assessor.
2. The ASTM E1903-II does not define the threshold levels at which target analytes pose a concern of significance to the user. Users may apply this practice not only in light of applicable regulatory criteria and relevant liability principles, but also to meet self-defined objectives.
3. The scope of work for this Phase II ESA is site-specific and context-specific. The assessment process defined by ASTM E1903-II is intended to generate sound, objective, and defensible information sufficient to satisfy diverse user objectives.
4. No Phase II ESA can eliminate all uncertainty. Furthermore, any sample, either surface or subsurface, taken for chemical testing may or may not be representative of a larger population. Professional judgment and interpretation are inherent in the process, and even when exercised in accordance with objective scientific principles, uncertainty is inevitable. Additional assessment beyond that which was reasonably undertaken may reduce the uncertainty.
5. Even when Phase II ESA work is executed competently and in accordance with ASTM E1903-II, it must be recognized that certain conditions present especially difficult target analyte detection problems. Such conditions may include, but are not limited to, complex geological settings, unusual or generally poorly understood behavior and fate characteristics of certain substances, complex, discontinuous, random, or spotty distributions of existing target analytes, physical impediments to investigation imposed by the location of utilities and other man-made objects, and the inherent limitations of assessment technologies.
6. The Phase II ESA is intended to develop and present sound, scientifically valid data concerning actual site conditions. It shall not be the role of the Phase II Assessor to provide legal or business advice.



#### **I.4 SPECIAL TERMS AND CONDITIONS**

This Phase II ESA (the report) has been prepared to assist *Flexible PSH, Solutions, Inc.* in its underwriting of a proposed mortgage loan on the Subject Property. This report can be relied upon by only the parties stated in the transmittal letter at the front of this report. EBI's liability to a purchaser wishing to use this report is limited to the cost of the report. Amendments to EBI's limitations as stated herein that may occur after issuance of the report are considered to be included in this report. Payment for the report is made by, and EBI's contract and report extends to *Flexible PSH, Solutions, Inc.* only, in accordance with our Standard Conditions for Engagement and, Authorization Letter and Agreement for Environmental Services.

## 2.0 SUBJECT PROPERTY BACKGROUND

### 2.1 SUBJECT PROPERTY DESCRIPTION AND FEATURES

Information regarding the Subject Property description, improvements, and operations is summarized below:

PROPERTY DESCRIPTION, IMPROVEMENTS, AND OPERATIONS	
<b>Address</b>	316 North Juanita Avenue, Los Angeles, California
<b>Location</b>	Southwest corner of the intersection of North Madison Avenue and Oakwood Avenue and is enclosed by North Juanita Avenue on the west side
<b>Property Owner</b>	According to the Los Angeles County Assessor's Office, the Subject Property is owned by Pacific Bell / S B of E Par 2 Map 303-19-47
<b>Number of Parcels</b>	One – 5501-001-800
<b>Total Land Area</b>	1.93 acre
<b>Number/Type of Buildings</b>	Three/commercial office, vehicle maintenance building, storage building
<b>Number of Stories</b>	One
<b>Date of Construction</b>	1960 – 1981
<b>Area (SF)</b>	5,402± square foot administration building, a 2,160± square foot vehicle maintenance building and a 300± square foot storage building
<b>Basement</b>	None
<b>Operations</b>	Commercial office and vehicle maintenance building
<b>Site Characteristics</b>	At the time of assessment, the Subject Property was solely occupied by AT&T and used for administration, vehicle maintenance and storage. There are currently no manufacturing or fueling operations conducted at the Subject Property.

### 2.2 PHYSICAL SETTING

Information regarding the physical settings at the Subject Property and immediate vicinity are summarized below:

PHYSICAL SETTING DESCRIPTIONS	
<b>Regional Geology</b>	Information concerning the geology of the Subject Property was obtained from the United States Geological Survey (USGS) Ground Water Atlas of the United States, California Region (1995). The Subject Property is located within the Pacific Border physiographic province, which is characterized by steep rolling hills and mountains and consists of severely folded, faulted, commonly metamorphosed marine and continental sediments.
<b>Depth to Bedrock</b>	No bedrock outcroppings were noted at the Subject Property. Depth to bedrock is expected to be greater than or equal to 28 feet.
<b>Surficial Features</b>	Surface drainage on the Subject Property occurs over land to the surrounding streets primarily to the south and east. No indication of cross-lot runoff, swales, drainage flows, or active rills or gullies were observed on the Subject Property.
<b>Surficial Soils</b>	According to the Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS) website ( <a href="http://websoilsurvey.nrcs.usda.gov/app/">http://websoilsurvey.nrcs.usda.gov/app/</a> ), the dominant soil composition in the vicinity of the Subject Property is classified as Urban Land.
<b>Soil Stratigraphy Encountered during the Investigation</b>	Soil stratigraphy encountered during the completion of soil borings consisted of dark brown to gray/brown clays with varying amounts of fine sand to 28 feet bgs, the total depth explored.

<b>PHYSICAL SETTING DESCRIPTIONS</b>	
<b>Estimated Direction of Groundwater Flow</b>	Local groundwater gradient is expected to follow surface topography; therefore, groundwater flow near the Subject Property is expected to flow to the east-southeast. Groundwater depths and flow gradients are best evaluated by a subsurface investigation involving the installation of at least three groundwater-monitoring wells, survey of well elevations, and precise measurements of hydraulic head. Calculation of groundwater flow directions based on relative differences of hydraulic head on the Subject Property was not included in this scope of work.
<b>Depth to Groundwater (encountered during the investigation)</b>	Depth to groundwater was observed during the investigation at depths of around 11 feet bgs.

### 2.3 SITE HISTORY AND LAND USE

According to the Phase I ESA prepared by EBI (July 26, 2018), the site history and land use is summarized in the following table:

<b>Period</b>	<b>Site History And Land Use</b>
<b>At least 1894 - 1919</b>	Undeveloped land
<b>1919 – 1957</b>	Residential with limited commercial (venetian blind manufacturing, pottery molding and store 1950 – 1956)
<b>1957 – 1960</b>	Undeveloped
<b>1960 to Present</b>	Existing communications company yard

### 2.4 ADJACENT PROPERTY LAND USE

Property use in the vicinity of the Subject Property is primarily characterized by multifamily residential and commercial development.

<b>ADJOINING PROPERTIES</b>	
<b>North</b>	The northeast side of the Subject Property is enclosed by Oakwood Avenue followed mostly by undeveloped land and the ramp to the Hollywood 101 Freeway. Remnants of a concrete structure were also located to the north with an unknown former use. MZ Collision at 340 North Juanita Avenue and a triplex at 3812 Oakwood Avenue enclose the northwest side of the Subject Property. EBI noted a few food trucks and an inground oil/water separator at the triplex indicating the residential use was likely converted to commercial use in support of the food trucks.
<b>South</b>	Midway Auto at 3725 - 3737 Beverly Boulevard and Dewey Pest Control at 3713 Beverly Boulevard and 307 – 311 North Madison Avenue enclose the south side of the Subject Property.
<b>East</b>	North Madison Avenue encloses the majority of the east side of the Subject Property. This street is followed by an office building that appears to provide assistance to homeless individuals at 3766 Oakwood Avenue and 340 North Madison Avenue and by a parcel that appeared to be undergoing construction at 320 North Madison Avenue. To the southeast was another Dewey Pest Control facility at 310 North Madison Avenue. The other Dewey Pest Control facility at 3713 Beverly Boulevard also encloses a portion of the southeast side of the Subject Property.
<b>West</b>	North Juanita Avenue encloses the west side of the Subject property followed by apartments at 335 North Juanita Avenue, a landscaping supply storage yard at 311 – 329 North Juanita Avenue and a parking lot associated with an office building to the southwest at 3755 Beverly Boulevard.

## 2.5 SUMMARY OF PREVIOUS ENVIRONMENTAL ASSESSMENTS

As noted in Section 1.1, EBI was requested to conduct a Phase II ESA to evaluate potential impact to the Subject Property from the following RECs identified in EBI's (July 26, 2018) Phase I ESA report:

- AT&T has been engaged in automotive service activities that include petroleum hydrocarbons and generate regulated wastes (used oil and other automotive fluids such as automatic transmission fluid and antifreeze) and has operated automotive lifts since at least 1975. These operations are suspect to have occurred on the Subject Property prior to construction of the vehicle maintenance building that was constructed in 1975. AT&T also operates an in-ground oil/water separator and currently three aboveground hydraulic lifts. These lifts replaced underground hydraulic lifts in 2010 and a portion of the foundation was replaced at that time, per the Building Department record. No data regarding this activity was otherwise identified. The historic use of regulated materials, generation of regulated wastes, and presence of the in-ground automotive lifts and oil/water separator are considered to represent a recognized environmental condition (REC) to the Subject Property.

During the Phase I ESA, EBI was not provided with or made aware of previous environmental assessments or other documentation regarding environmental investigations performed for the Subject Property other than those documents found on the Geotracker website that are referenced below.

Workplan for Site Assessment, Pacific Bell Telephone Company dba AT&T, 316 N. Juanita Avenue, Los Angeles, California, Hydrologue Inc., January 18, 2006. Significant findings are summarized as follows:

- In November 2004, a 12,000-gallon gasoline UST was removed from the site with no visual evidence of holes or a release from the tank upon removal. Soil samples only detected methyl tertiary butyl ether (MTBE) at 2.7 – 6 parts per billion (ppb). A sample of the water that accumulated at the base of the excavation was also analyzed and total petroleum hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene and xylene (BTEX) components were detected up to 20,900 ppb and notably included benzene at 524 ppb along with MTBE at 5,400 ppb along with other fuel contaminants.
- A prior UST had been removed from the Subject Property in 1989. A leak was reported during that tank removal activity, the site was added to the LUST List and case closure was issued in 1996. No data regarding the 1989 tank removal was available. Additional work was proposed to further determine whether the source of the groundwater contamination identified in 2004 and include the installation of five groundwater monitoring wells on the Subject Property.
- A site plan included with the Workplan showed the 12,000-gallon UST was located just west of the vehicle maintenance building. At that time, a 250-gallon fuel oil AST was shown on the northeast corner at the southwest side of the storage building. The location of the former UST removed in 1989 was not shown.

Phase II Environmental Site Assessment Report, Case No. 900040225A, AT&T G118 Facility, 316 N. Juanita Avenue, Los Angeles, California, RMT Inc., November 29, 2007. Significant findings are summarized as follows:

- Five borings were installed to a depth of approximately 30 feet below ground surface (bgs). Soil samples were collected at each approximate 5-foot interval and wells were constructed in each boring. Laboratory analysis only detected TPH as heavy extractable range organics (TPH-ORO) in one boring (MW2) at 10 feet bgs at 140 parts per million (ppm) and MTBE in another soil boring (MW1) at depths of 10 – 15 feet bgs up to 51 ppb.
- Groundwater samples were collected from each well and the maximum contaminant levels were identified in three of the five wells: total petroleum hydrocarbon as diesel (TPH-DRO) 7,900 ppb in MW3, and MTBE up to 6.8 ppb in MW1 and MW2.
- The former ARCO site to the south at 3737 Beverly Boulevard had been in operation circa 1950s possibly to the early 1990s, was identified as a LUST site and as a potential source of contamination to the Subject Property.

Second Quarter 2008 Groundwater Monitoring Report, AT&T G1118 Facility, 316 N. Juanita Avenue, Los Angeles, California, RMT Inc., July 10, 2008. Significant findings are summarized as follows:

- Groundwater was encountered at depths of 9.7 to 13.2 bgs and the direction of groundwater flow was determined to be to the east-southeast.
- Groundwater samples were collected from each well and the maximum contaminant levels were identified in three of the five wells: TPH-DRO at 820 ppb in MW3 and 10,500 ppb in MW5; and MTBE at 8.65 ppb in MW2. MW3 was located on the northwest side of the Subject Property and MW5 was located south of the vehicle maintenance building (also south of the oil/water separator).
- The former ARCO site to the south at 3737 Beverly Boulevard had been in operation circa 1950s possibly to the early 1990s, was identified as a LUST site and as a potential source of contamination to the Subject Property.
- The report stated that the release did not occur from the former gasoline UST. EBI notes that there was no discussion of the other UST that was removed in 1989. As the report concluded the source did not appear to be on-site, case closure should be granted.

Addendum to Phase II Environmental Site Assessment Report, Case No. 900040225A, AT&T G118 Facility, 316 N. Juanita Avenue, Los Angeles, California, RMT Inc., November 6, 2008. Significant findings are summarized as follows:

- The RWQCB reportedly concurred with the consultant's request that case closure should be granted; however, the RWQCB also requested two grab groundwater samples be collected downgradient of MW5 prior to issuing case closure.

- In October 2008, two grab groundwater samples were collected from temporary wells placed downgradient of MW5. No TPH, BTEX, ethanol or fuel oxygenates were identified above laboratory detection levels in these two grab groundwater samples.
- The temporary wells were properly abandoned and the report concluded case closure should be granted.

Underground Storage Tanks Program – Case Closure Letter, Pacific Bell Telepho5one Company, AT&T, 316 N. Juanita Avenue, Los Angeles, Case No. 900040225A, RWQCB, April 10, 2009.

This letter granted case closure/no further action for the LUST case associated with the 12,000-gallon UST removed in 2004. The reasons for case closure were that no free product was ever observed; the extent of soil and groundwater contamination had been adequately defined; the levels of residual soil contamination were below the respective Screening Levels (SLs) and the groundwater samples “did not detect any fuel hydrocarbons higher than Maximum Contaminant Levels (MCLs for drinking water).”

### 3.0 RATIONALE AND WORK PERFORMED

#### 3.1 RATIONALE

##### 3.1.1 Conceptual Model

The Conceptual Model is a representation of hypothesized current site conditions, which describes the physical setting characteristics of a site and the likely distribution of target contaminants (in soil, air, ground water, surface water and/or sediments) that might have resulted from a known or likely release and the risk they pose to human and/or ecological receptors. This Conceptual Model takes into consideration the potential distributions of contaminants with respect to the properties, behaviors and fate and transport characteristics of the contaminant in a setting such as that being assessed. The sampling plan was designed to provide for the collection of potentially contaminated environmental media, if they occur, at locations and depths where the highest concentrations are likely to occur.

Site Environmental Concerns		Site Physical Characteristics		Onsite Environmental Receptors	
RECs	COC's	Primary Release Media	Fate & Transport	Potential Exposure Route(s)	Potential Human Exposure
On-site automotive servicing	VOCs PAHs	Soil Groundwater	Soil Groundwater	Ingestion Inhalation	Tenants Site workers
OWS and wash rack	TPH PCBs			Dermal (direct Contact)	Construction workers

COC = contaminants of concern

Assumptions:

1. Assumes the Subject Property retains existing use (Commercial)
2. Construction Worker exposure is limited due to short exposure duration

##### 3.1.2 Rationale for Soil Boring Placement

The rationale for the placement of the soil borings was based on the 1) the *Likely Release Area(s)* that target analytes were first introduced into environmental media as a result of a release; and 2) the likely vertical and horizontal migration of the release.

##### 3.1.3 Chemical Testing Plan

The chemical testing plan was designed to detect the target analytes that are present in, or have been released or potentially have been released to, environmental media at the site, and which are of interest in the context of the particular Phase II ESA and its objectives, the presence of which will be sought and concentrations of which will be quantified through chemical testing.

### 3.1.4 Deviations from the Proposed Scope of Work

There were no significant deviations to the proposed scope of work. EBI notes the soil samples from borings B-1 and B-5 were collected below the groundwater table and/or the “smear zone” which initially appeared to be above the groundwater table. Therefore, these soil samples are not representative of the current vadose zone soil (i.e., unsaturated soil zone above the water table) conditions and were not included in the evaluation<sup>[1]</sup>. EBI notes that this does not alter our findings and conclusions.

## 3.2 EXPLORATION, SAMPLING, AND TEST SCREENING METHODS

### 3.2.1 Pre-Drilling Activities

As required to install the soil borings on the Subject Property, EBI obtained a soil boring permit from the County of Los Angeles Department of Public Health, Environmental Health - Drinking Water Program (Permit #SR0165541) prior to conducting the field work activities. A copy of the permit is included as Attachment E.

EBI’s drilling subcontractor submitted dig-safe clearance request to Underground Service Alert of Southern California to mark-out the locations of utilities on the Subject Property on November 7, 2018. Clearance for drilling at the Subject Property was granted for after 7:00 a.m. on November 13, 2018. EBI additionally retained a private utility locating service (Ground Penetrating Radar Services, Inc.) to screen for underground utilities in the area of the soil borings.

Personal health and safety precautions were followed in accordance with applicable federal and state law or local equivalents and any requirements imposed by the owner, occupant, or field personnel. EBI prepared a site-specific health and safety plan (HASP) and conducted a health and safety meeting with the onsite personnel prior to the drilling activities. No additional pre-drilling activities were performed as part of this investigation.

### 3.2.2 Soil Borings

A total of five borings (B-1 through B-5) were advanced at the Subject Property using a direct push rig operated by J&H Drilling Co., Inc. of Buena Park, California. EBI recorded soil sampling information and the physical characteristics of each soil sample onto boring logs presented in Appendix B.

**TABLE 3.2.2  
 SUMMARY OF SOIL BORING DETAILS**

Boring ID#	Location	Termination Depth/Reason (feet bgs)	Approx. Depth to Groundwater (feet)	Sample ID #/ Depths	Target Analytes/ EPA Method
B-1	Exterior location adjacent to the OWS	25 (termination per SOW)	11	B-1 (22.5-25) B-1 GW (20)	VOCs / 8260 PAHs / 8270 TPH / 8015

[1] The smear zone is generally defined as soil or rock in the vicinity of the capillary fringe, and below the water table, which contains contaminants in a sorbed or free product phase. The smear zone developed when the water table fluctuates or is depressed by non-aqueous phase liquids (NAPL).



Boring ID#	Location	Termination Depth/Reason (feet bgs)	Approx. Depth to Groundwater (feet)	Sample ID #/ Depths	Target Analytes/ EPA Method
B-2	Exterior location adjacent to the former wash rack	25 (termination per SOW)	11	B-2 (12.5-15) B-2 GW (17)	VOCs / 8260 PAHs / 8270 TPH / 8015
B-3	Interior location, approximate former location of west hydraulic lift	15 (Equipment refusal)	11	B-3 (7.5-10) B-3 GW (11)	TPH / 8015 PAHs / 8270 PCBs / 8082
B-4	Interior location, approximate former location of center hydraulic lift	20 (termination per SOW)	11	B-4 (7.5-10) B-4 GW (11)	TPH / 8015 PAHs / 8270 PCBs / 8082
B-5	Interior location, approximate former location of east hydraulic lift	28 (termination per SOW)	11	B-5 (28) B-5 GW (28)	TPH / 8015 PAHs / 8270 PCBs / 8082
Notes: VOCs – Volatile organic compounds (VOCs) via EPA Method 8260 PAHs – Polynuclear aromatic hydrocarbons (PAHs) via EPA Method 8270 TPH – Total petroleum hydrocarbons (TPH) via EPA Method 8015 PCBs - Polychlorinated biphenyls (PCBs) via EPA Method 8082 (#) – Depth below grade sample collected					

Boring locations are illustrated on Figure 3, Boring Location Map.

### 3.2.3 Field Screening

The vapor headspace of each soil sample was field-screened using a photoionization detector (PID). The PID provides a reading of total ionizable VOCs. The PID was calibrated with an isobutylene standard, to measure total VOCs as isobutylene equivalents. The PID has a practical sensitivity of approximately one part per million by volume (ppmV). PID readings should not be considered as exact measurements, but as relative readings of VOCs between locations. The soil samples were placed in a zip-lock bag approximately three-quarters full with the soil to be analyzed, which was sealed for approximately 10 minutes in a warm (>60° F) location for equilibration. The headspace analysis was conducted by inserting the probe of the PID through an opening in the zip-lock bag and into the space above the soil sample.

A strong petroleum odor and possible staining was observed in the soil sample collected from a depth of 20-25 feet bgs in boring B-1 with a PID reading of 15.0 ppmV. A strong petroleum odor was observed in the soil sample collected from a depth of 25-28 feet bgs in boring B-5 with a PID reading of 35.1 ppmV. No other visual or olfactory evidence of contamination or elevated PID readings above background was observed in the other soil samples collected. The PID results are noted in the Boring Logs provided in Appendix B.

### 3.2.4 Soil Sampling and Analysis

Selected “grab” soil samples (of approximate 6” intervals) from the borings were collected in laboratory-provided sample containers. Each sample was labeled/logged onto a chain-of-custody form, and placed in a cooler with ice for preservation in accordance with current Federal EPA SW-846 (3rd ed.). The samples were submitted to an independent qualified laboratory (SGS Laboratories) for analyses. The samples were analyzed for the target analytes noted in Table 3.2.2.

Samples submitted for VOC analyses were collected into 40-ml vials containing methanol using Terracore samplers in accordance with EPA Method 5035.

In order to ensure that no cross-contamination between samples occurred, all non-dedicated sampling equipment was decontaminated after the collection of each sample. Sampling equipment was scrubbed with a brush to remove loose material and then washed thoroughly with a laboratory grade detergent and water to remove all particulate matter and surface film. After washing, each piece and brush was rinsed with clean distilled water. Dedicated sampling equipment such as sampling liners and latex gloves were properly disposed of after the handling of each sample was complete. Samples were then collected using clean disposable gloves and laboratory-provided glassware appropriate for the specified analysis.

### 3.2.5 Groundwater Sampling and Analysis

Grab groundwater samples were collected from temporary small-diameter PVC well screens installed within the soil borings using new bailers or new tubing and a peristaltic pump. The groundwater samples were collected in clean laboratory-provided containers. Samples collected for VOC analysis were preserved with hydrochloric acid to a pH less than 2. Each sample was labeled/logged onto a chain-of-custody form, and placed in a cooler with ice for preservation in accordance with current Federal EPA SW-846 (3rd ed.). After collection, the samples were submitted to an independent qualified laboratory (SGS Laboratories) for analyses. The samples were analyzed for the target analytes noted in Table 3.2.2.

### 3.2.6 Abandonment of Borings

Upon completion of the soil sampling activities, each soil boring was tremie filled with neat cement in accordance with the County of Los Angeles permit requirements. The top two to four inches were patched with concrete or asphalt to match existing conditions.

#### 4.0 PRESENTATION OF EVALUATION AND RESULTS

The analytical results of the soil and groundwater samples were compared to the following regulatory screening values:

- 1) California Department of Toxic Substances Control (DTSC, June 2018) Modified Screening Levels (DTSC-SLs);
- 2) EPA (November 2018) Regional Screening Levels (RSLs); and
- 3) California San Francisco Bay Regional Water Quality Control Board (RWQCB; February 2016) Tier I Environmental Screening Levels (ESLs, i.e., unrestricted land uses) for TPH because DTSC-SLs and EPA RSLs have not been developed for TPH.

#### 4.1 SOIL ANALYSIS RESULTS

The soil samples were analyzed for the target analytes noted in Table 3.2.2. The following table presents only the contaminants identified above the laboratory method detection limits.

**Table 4.1 – Soil Analytical Results**

Table 4.1		Soil Results				
Project:		316 North Juanita Avenue				
Project Number:		1218000461				
Results flagged as "Exceed" if any of the selected criteria exceeded (most stringent).						Legend: Hit Exceed
Client Sample ID:		B-2 (12.5-15)	B-3 (7.5-10)	B-4 (7.5-10)	DTSC Modified RSLs Res/Com/Ind	Tier I ESLs
Lab Sample ID:		FA59800-2	FA59800-3	FA59800-4		
Date Sampled:		11/30/18	11/30/18	11/30/18		
Matrix:		Soil	Soil	Soil		
<b>Total Petroleum Hydrocarbons (TPH)</b>						
TPH-DRO (C10-C28)	mg/kg	31.6	249	42.0	NS	230
TPH-ORO (>C28-C40)	mg/kg	75.0	994	90.9	NS	5,100
<b>Polycyclic Aromatic Hydrocarbons</b>						
Benzo(g,h,i)perylene	mg/kg	0.0386 I	ND (0.017)	ND (0.017)	NS	NS
Indeno(1,2,3-cd)pyrene	mg/kg	0.0225 I	ND (0.020)	ND (0.020)	1.1 / 21	NS
<b>Volatile Organic Compounds (VOCs)</b>						
Acetone	mg/kg	0.0610 B	NA	NA	61,000 / 670,000	NS
2-Butanone (MEK)	mg/kg	0.0087 I	NA	NA	27,000 / 190,000	NS
Methylene Chloride	mg/kg	ND (0.0031)	NA	NA	1.9 / 24	NS
Toluene	mg/kg	ND (0.00079)	NA	NA	1,100 / 5,400	NS

Notes: All results are shown in milligrams per kilogram (mg/kg)

NA = Not analyzed

ND = Non-detect

NS = No Standard listed or Not Applicable

a = Suspected laboratory contaminant

B = Indicates analyte found in associated method blank

J = Indicates a laboratory estimated value

DTSC Modified RSLs = California Department of Toxic Substances Control (DTSC) Modified EPA Region IX Regional Screening Levels (RSLs) HERO HHRA Note Number 3, issued June 2018, Table I DTSC-SLs Residential and Commercial/Industrial Soil Screening Levels (SLs)

Shading = Contaminant not listed on HERO Note 3; therefore, DTSC recommends usage of May 2018 EPA RSLs

Tier I ESLs = California Regional Water Quality Control Board (RWQCB), San Francisco Bay Area Region, Tier I Environmental Screening Levels (ESLs) for Soil, February 2016 (Rev 3).

The soil sample results of analysis revealed the following:

- 1) No PCBs were detected<sup>1</sup> at concentrations greater than the laboratory method detection limits in the samples submitted for those analyses.
- 2) No VOCs were detected in the soil samples collected from borings B-1 and B-2 except acetone, 2-butanone (MEK), methylene chloride, and toluene. None of the detected concentrations exceeded the corresponding DTSC-SLs for residential and commercial/industrial soil. It is noted that concentrations of acetone and toluene were detected in the associated laboratory method blank sample.
- 3) TPH-DRO and TPH-ORO were detected at concentrations greater than the laboratory method detection limits in each of the soil samples submitted for analysis. None of the detected concentrations exceeded the corresponding Tier I ESLs except those detected in the 7.5 to 10 foot sample collected from boring B-3.
- 4) The PAHs benzo(g,h,i)perylene and indeno(1,2,3-cd)pyrene were detected in the soil sample collected from boring B-2. None of the detected concentrations exceeded the corresponding DTSC-SLs for residential and commercial/industrial soil.

Laboratory soil analytical results and complete laboratory data sheets and chain-of-custody documentation are presented in Appendix C.

#### 4.2 GROUNDWATER ANALYSIS RESULTS

The groundwater samples were analyzed for the target analytes noted in Table 3.2.2. The following table presents only the contaminants identified above the laboratory method detection limits.

**Table 4.2 – Groundwater Analytical Results**

Table 4.2		Groundwater Results							
Project:		316 North Juanita Avenue							
Project Number:		1218000461							
Results flagged as "Exceed" if any of the selected criteria exceeded (most stringent).							Legend:	Hit	Exceed
Client Sample ID:		B-1 GW (20)	B-2 GW (17)	B-3 GW (11)	B-4 GW (11)	B-5 GW (28)	DTSC Modified MCLs	Tier I ESLs	
Lab Sample ID:		FA59814-1	FA59814-2	FA59814-3	FA59814-4	FA59906-1			
Date Sampled:		11/30/18	11/30/18	11/30/18	11/30/18	12/5/18			
Matrix:		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater			
<b>Total Petroleum Hydrocarbons (TPH)</b>									
TPH-DRO (C10-C28)	µg/L	707	550	1,360	1,300	7,640	NS	100	
TPH-ORO (>C28-C40)	µg/L	545	737	489	443	7,400	NS	100***	
<b>Volatile Organic Compounds (VOCs)</b>									
MTBE	µg/L	10.3	20.9	NA	NA	NA	13.0	NS	
m,p-Xylene	µg/L	0.75 J	ND (0.47)	NA	NA	NA	10,000	NS	

Notes: All results are shown in micrograms per liter (µg/L)  
 ND = Non-detect  
 J = Indicates a laboratory estimated value  
 Tier I ESLs = California Regional Water Quality Control Board (RWQCB), San Francisco Bay Area Region, Tier I Environmental Screening Levels (ESLs) for Groundwater, February 2016 (Rev 3)

<sup>1</sup> Detected means that the analyte concentration exceeded the laboratory reporting limit.

\*\*\*TPH-ORO is not soluble – if detected, add to TPH-DRO and compare to TPH-DRO standard  
DTSC Modified MCLs = California Department of Toxic Substances Control (DTSC) HERO HHRA Note Number 3, issued June 2018,  
Table 4 DTSC-Modified Groundwater Maximum Contaminant Levels (MCLs)  
Shading = Contaminant not listed on HERO Note 3; therefore, DTSC recommends usage of May 2018 EPA MCLs

The groundwater sample results of analysis revealed the following:

- 1) No PAHs or PCBs were detected at concentrations greater than the laboratory method detection limits in the samples submitted for those analyses.
- 2) No VOCs were detected except m,p-xylenes and MTBE. None of the detected concentrations exceeded the corresponding regulatory screening values except MTBE in the sample collected from boring B-2.
- 3) TPH-DRO and TPH-ORO were detected in each of the samples at concentrations that exceeded the corresponding Tier I ESLs for groundwater.

Laboratory groundwater analytical results and complete laboratory data sheets and chain-of-custody documentation are presented in Appendix C.

## 5.0 FINDINGS & CONCLUSIONS

We have performed a Phase II ESA at the property at (address) in general conformance with the scope and limitations of ASTM E1903-11 and for the following objectives:

- The primary objective of this Phase II ESA was to evaluate potential impact to the Subject Property from the RECs identified in the Phase I ESA prepared by EBI (July 26, 2018) for the purpose of providing sufficient information regarding the nature and extent of contamination to assist in making informed business decisions about the property; and where applicable, providing the level of knowledge necessary to satisfy the innocent purchaser defense under CERCLA. The investigation focused on: 1) interior locations in the approximate locations of the three former underground hydraulic lifts; and 2) exterior locations near the oil/water separator (OWS) and former wash rack.

The scope of work conducted by EBI on November 30 and December 5, 2018 included the following:

- 1) Advanced two exterior soil borings (B-1 and B-2) using direct push drilling methods near the OWS and former wash rack to depths of up to approximately 25 feet bgs.
- 2) Advanced three interior soil borings (B-3 through B-5) using direct push drilling methods adjacent to the former underground hydraulic lifts to depths of up to approximately 28 feet bgs.
- 3) Collected continuous soil samples from the borings, field screened the vapor headspace of the soil samples for total ionizable VOCs using a PID, and described the physical characteristics of the soil samples on boring logs.
- 4) Selected one soil sample from each soil boring, prepared, and submitted the samples under chain-of-custody documentation to a California-certified independent laboratory (SGS Laboratories). The samples collected near the OWS and former wash rack (B-1 and B-2) were submitted for analysis of VOCs via EPA Method 8260, PAHs via EPA Method 8270, and TPH-DRO and -ORO via EPA Method 8015. The samples collected near the former underground hydraulic lifts (B-3 through B-5) were submitted for analysis of TPH-DRO and -ORO via EPA Method 8015, PAHs via EPA Method 8270, and PCBs via EPA Method 8082.
- 5) Collected grab groundwater samples from temporary wells inserted into each boring, prepared, and submitted the samples under chain-of-custody documentation to SGS Laboratories. The samples collected near the OWS and former wash rack (B-1 and B-2) were submitted for analysis of VOCs via EPA Method 8260, PAHs via EPA Method 8270, and TPH-DRO and -ORO via EPA Method 8015. The samples collected near the former underground hydraulic lifts (B-3 through B-5) were submitted for analysis of TPH-DRO and -ORO via EPA Method 8015, PAHs via EPA Method 8270, and PCBs via EPA Method 8082.

### **Validation of the Conceptual Model**

It is EBI's opinion that the findings and results of this Phase II ESA investigation are consistent with and support the assumptions of the Conceptual Model presented in Section 3.1.1. Sufficient investigation has been demonstrated to support sound conclusions regarding the presence of the target analytes.

## Findings

The findings of the Phase II ESA indicated the following:

- 1) Soil stratigraphy observed during advancement of the soil borings consisted of dark brown to gray/brown clays with varying amounts of fine sand to 28 feet bgs, the total depth explored. Groundwater stabilized at depths of approximately 11 feet bgs in each of the temporary groundwater monitoring wells.
- 2) The soil sample results of analysis revealed the following:
  - a) No PCBs were detected at concentrations greater than the laboratory method detection limits in the samples submitted for those analyses.
  - b) No VOCs were detected in the soil samples collected from borings B-1 and B-2 except acetone, 2-butanone (MEK), methylene chloride, and toluene. None of the detected concentrations exceeded the corresponding DTSC-SLs for residential and commercial/industrial soil. It is noted that concentrations of acetone and toluene were detected in the associated laboratory method blank sample.
  - c) TPH-DRO and TPH-ORO were detected at concentrations greater than the laboratory method detection limits in each of the soil samples submitted for analysis. None of the detected concentrations exceeded the corresponding Tier I ESLs except those detected in the 7.5 to 10 foot sample collected from boring B-3.
  - d) The PAHs benzo(g,h,i)perylene and indeno(1,2,3-cd)pyrene were detected in the soil sample collected from boring B-2. None of the detected concentrations exceeded the corresponding DTSC-SLs for residential and commercial/industrial soil.
- 3) The groundwater sample results of analysis revealed the following:
  - a) No PAHs or PCBs were detected at concentrations greater than the laboratory method detection limits in the samples submitted for those analyses.
  - b) No VOCs were detected except m,p-xylenes and MTBE. None of the detected concentrations exceeded the corresponding regulatory screening values except MTBE in the sample collected from boring B-2.
  - c) TPH-DRO and TPH-ORO were detected in each of the samples at concentrations that exceeded the corresponding Tier I ESLs for groundwater.

## **Conclusions**

Based on the findings of this Phase II ESA, EBI concludes the following:

- I) Significant subsurface impacts related to the historical uses of the OWS, former wash rack, and hydraulic lifts were not identified. The soil and groundwater results show that the contaminant concentrations (e.g., TPH-DRO, TPH-ORO, and MTBE) detected in the samples collected during EBI's 2018 Phase II ESA investigation are comparable to those collected by others during previous sampling events, which was issued a no further action (NFA) determination by the RWQCB in 2009.



## 6.0 RECOMMENDATIONS

Based on the findings and conclusions of this Phase II ESA, additional subsurface investigation does not appear to be warranted at this time. However, In the event any future redevelopment or excavation/construction activities are conducted at the Subject Property, further assessment of the soil should be conducted. In the event that impacted soil and/or groundwater is identified, the oversight of the subsurface activities should be conducted by an environmental professional and any impacted soil and/or groundwater should be handled/disposed in accordance with the applicable regulatory regulations.

## **APPENDIX A**

### **FIGURES**

---

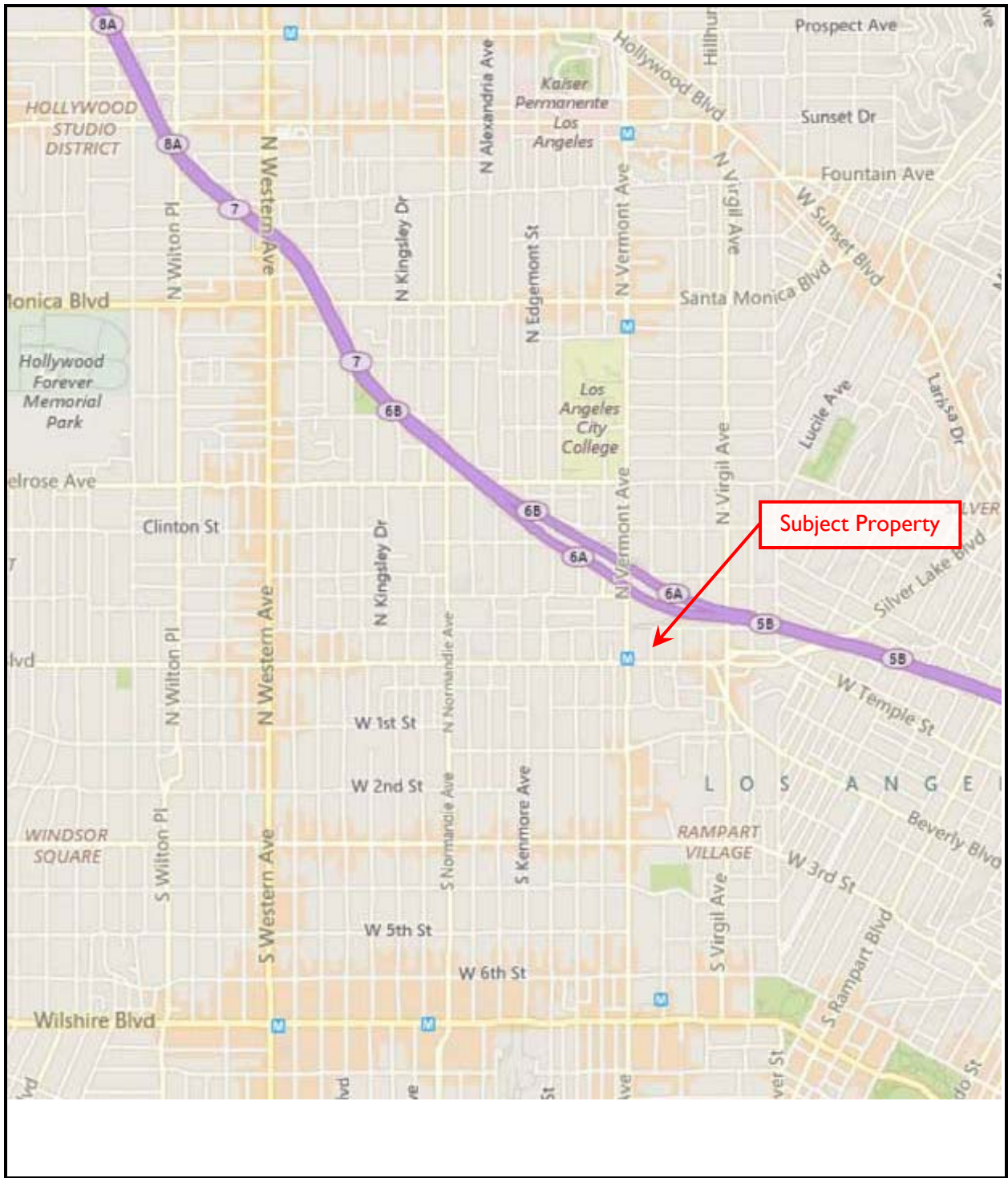


FIGURE I – SITE LOCATION MAP



Not to scale

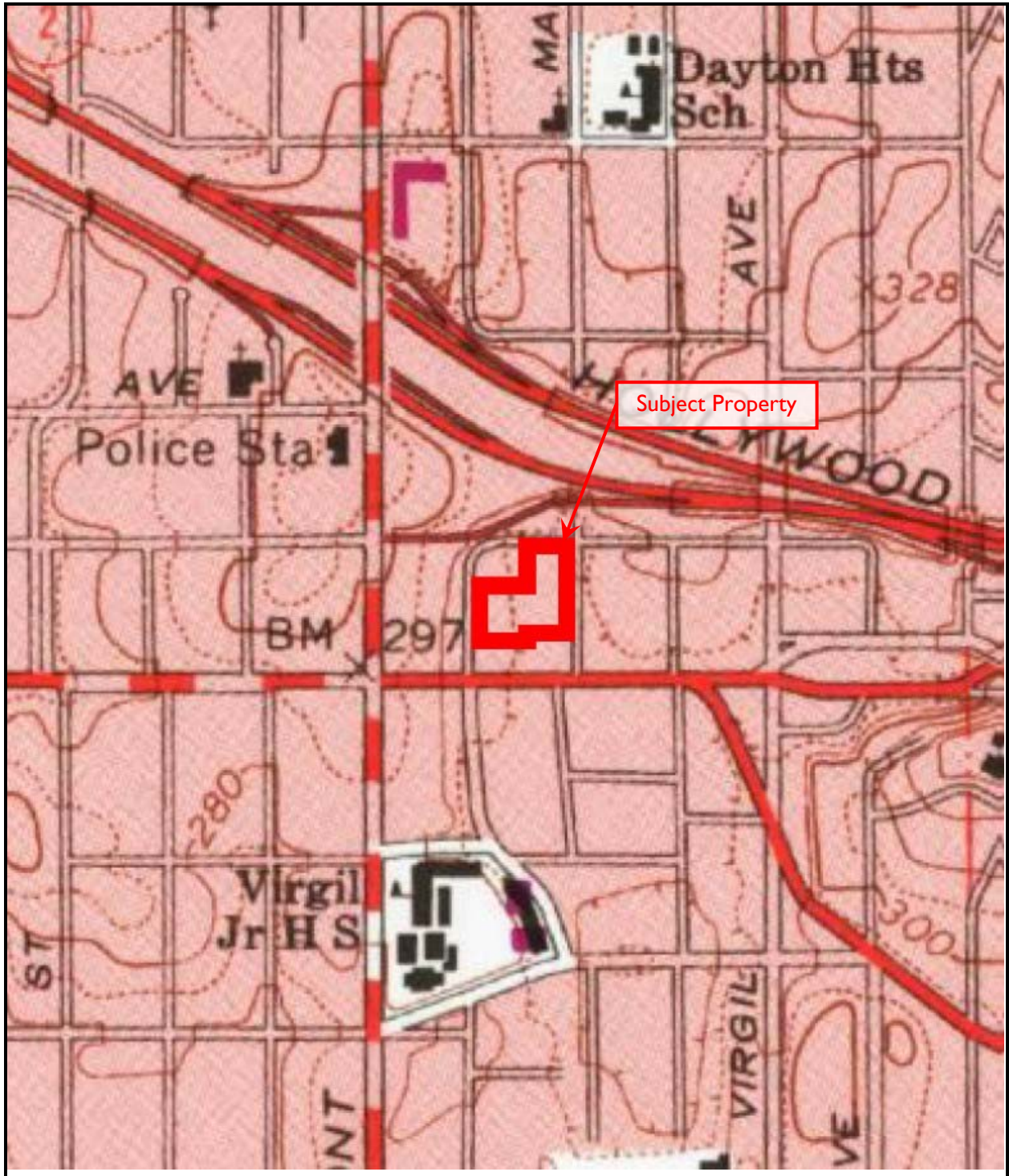


FIGURE 2 – TOPOGRAPHIC MAP



Not to scale



FIGURE 3 – BORING LOCATION MAP



Not to scale

**APPENDIX B**  
**BORING LOGS**

---

**SOIL BORING LOG - FIELD READINGS**

**EBI Project #1218000439**

**Project Name: 316 North Juanita Avenue  
Los Angeles, California**

**BORING METHOD: Direct Push      DATE: 11/30/18 & 12/5/18**

Sample #	Depth (Ft)	Moisture (Low-Med-High-Saturated)	PID Reading	Soil Description/Notes
B-1	0 - 5	M	5.5	Dark brown soft sandy clay, some gravel
B-1	5 - 10	M	4.8	Dark brown soft sandy clay, some gravel
B-1	10 - 15	M	7.0	Dark gray/brown soft sandy clay
B-1	15 - 20	H	5.6	Dark gray/brown soft sandy clay
B-1	20 - 25	S	15.0	Dark brown medium soft silty clay, strong petroleum odor and possible staining observed
Bottom of Boring at 25' (Termination depth), groundwater observed at 20', stabilized at 11'				
B-2	0 - 5	M	3.1	Dark brown soft sandy clay, some gravel
B-2	5 - 10	M	4.6	Dark brown soft sandy clay, some gravel
B-2	10 - 15	M	5.3	Dark gray/brown soft sandy clay
B-2	15 - 20	S	4.6	Dark gray/brown soft sandy clay
B-2	20 - 25	S	5.6	Dark brown medium soft silty clay
Bottom of Boring at 25' (Termination depth), groundwater observed at 17', stabilized at 11'				
B-3	0 - 5	M	2.1	Dark brown soft sandy clay, some gravel
B-3	5 - 10	M	5.8	Dark brown soft sandy clay, some gravel
B-3	10 - 15	S	3.2	Brown and gray soft silty sand
Bottom of Boring at 15' (Refusal depth), groundwater encountered at 11'				
B-4	0 - 5	M	4.3	Dark brown soft sandy clay, some gravel
B-4	5 - 10	M	6.5	Dark brown soft sandy clay, some gravel
B-4	10 - 15	S	5.5	Dark gray/brown soft sandy clay
B-4	15 - 20	S	4.1	Dark brown medium soft silty clay
Bottom of Boring at 20' (Termination depth), groundwater encountered at 11'				
B-5	0 - 5	M	4.8	Brown soft sandy clay, some gravel
B-5	5 - 10	--	--	No Recovery
B-5	10 - 15	M	10.6	Dark gray/brown soft sandy clay
B-5	15 - 20	M	7.4	Dark gray/brown soft sandy clay
B-5	20 - 25	H	7.2	Dark brown medium soft clay
B-5	25 - 28	S	35.1	Dark brown medium soft silty clay, strong petroleum odor observed
Bottom of Boring at 28' (Termination depth), groundwater stabilized at 11'				

**APPENDIX C**  
**LABORATORY ANALYTICAL RESULTS**

---



The results set forth herein are provided by SGS North America Inc.

*e-Hardcopy 2.0*  
*Automated Report*

## Technical Report for

### EBI Consulting

1218000439 Los Angeles, CA

SGS Job Number: FA59800

Sampling Date: 11/30/18

#### Report to:

EBI Consulting  
21 B St  
Burlington, MA 01803  
rdeutsch@ebiconsulting.com; cbechtel@ebiconsulting.com  
ATTN: Ryan Deutsch

Total number of pages in report: 45



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink that reads "Caitlin Brice".

Caitlin Brice, M.S.  
General Manager

Client Service contact: Elvin Kumar 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), IL(200063), NC(573), NJ(FL002), NY(12022), SC(96038001)  
DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177),  
AK, AR, IA, KY, MA, MS, ND, NH, NV, OK, OR, UT, WA, WV

This report shall not be reproduced, except in its entirety, without the written approval of SGS.

Test results relate only to samples analyzed.



December 17, 2018

Ryan Deutsch  
EBI Consulting  
21 B Street  
Burlington, MA 01803

RE: SGS North America Inc. - Orlando job FA59800 Reissue

Dear Mr. Deutsch,

The final report for job number FA59800 has been revised to exclude sample FA59800-1 from the final report.

SGS North America Inc. - Orlando apologies for any inconvenience this may have caused. Please feel free to contact us if we can be of further assistance.

Sincerely,

SGS North America, Inc. - Orlando

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## Sample Summary

EBI Consulting

Job No: FA59800

1218000439 Los Angeles, CA

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
FA59800-2	11/30/18	09:00 CB	12/01/18	SO	Soil	B-2 (12.5-15)
FA59800-3	11/30/18	10:10 CB	12/01/18	SO	Soil	B-3 (7.5-10)
FA59800-4	11/30/18	10:45 CB	12/01/18	SO	Soil	B-4 (7.5-10)

---

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## Summary of Hits

**Job Number:** FA59800  
**Account:** EBI Consulting  
**Project:** 1218000439 Los Angeles, CA  
**Collected:** 11/30/18

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
<b>FA59800-2</b>		<b>B-2 (12.5-15)</b>				
Acetone		0.0610 B	0.039	0.0079	mg/kg	SW846 8260B
2-Butanone (MEK)		0.0087 J	0.020	0.0057	mg/kg	SW846 8260B
Benzo(g,h,i)perylene		0.0386 J	0.17	0.017	mg/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		0.0225 J	0.17	0.020	mg/kg	SW846 8270D
TPH (C10-C28)		31.6	13	6.5	mg/kg	SW846 8015C
TPH (> C28-C40)		75.0	13	6.5	mg/kg	SW846 8015C
<b>FA59800-3</b>		<b>B-3 (7.5-10)</b>				
TPH (C10-C28)		249	66	33	mg/kg	SW846 8015C
TPH (> C28-C40)		994	66	33	mg/kg	SW846 8015C
<b>FA59800-4</b>		<b>B-4 (7.5-10)</b>				
TPH (C10-C28)		42.0	13	6.5	mg/kg	SW846 8015C
TPH (> C28-C40)		90.9	13	6.5	mg/kg	SW846 8015C

Sample Results

---

Report of Analysis

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## Report of Analysis

<b>Client Sample ID:</b>	B-2 (12.5-15)	<b>Date Sampled:</b>	11/30/18
<b>Lab Sample ID:</b>	FA59800-2	<b>Date Received:</b>	12/01/18
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	1218000439 Los Angeles, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F0087494.D	1	12/03/18 13:37	SP	n/a	n/a	VF3048
Run #2	F0087527.D	1	12/04/18 14:05	SP	n/a	n/a	VF3049

Run #	Initial Weight	Final Volume
Run #1	6.35 g	5.0 ml
Run #2	6.65 g	5.0 ml

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	0.0610	0.039	0.0079	mg/kg	B
71-43-2	Benzene	ND	0.0039	0.00096	mg/kg	
108-86-1	Bromobenzene	ND	0.0039	0.00079	mg/kg	
74-97-5	Bromochloromethane	ND	0.0039	0.0012	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0039	0.00079	mg/kg	
75-25-2	Bromoform	ND	0.0039	0.00079	mg/kg	
78-93-3	2-Butanone (MEK)	0.0087	0.020	0.0057	mg/kg	J
104-51-8	n-Butylbenzene	ND	0.0039	0.00079	mg/kg	
135-98-8	sec-Butylbenzene	ND	0.0039	0.00079	mg/kg	
98-06-6	tert-Butylbenzene	ND	0.0039	0.00079	mg/kg	
75-15-0	Carbon Disulfide	ND	0.0039	0.00079	mg/kg	
56-23-5	Carbon Tetrachloride	ND	0.0039	0.00080	mg/kg	
108-90-7	Chlorobenzene	ND	0.0039	0.00079	mg/kg	
75-00-3	Chloroethane	ND	0.0039	0.0016	mg/kg	
67-66-3	Chloroform	ND	0.0039	0.0010	mg/kg	
95-49-8	o-Chlorotoluene	ND	0.0039	0.00079	mg/kg	
106-43-4	p-Chlorotoluene	ND	0.0039	0.00079	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0039	0.00079	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0039	0.0015	mg/kg	
106-93-4	1,2-Dibromoethane	ND	0.0039	0.00079	mg/kg	
75-71-8	Dichlorodifluoromethane	ND <sup>b</sup>	0.0038	0.0015	mg/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.0039	0.00079	mg/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.0039	0.00079	mg/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.0039	0.00091	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0039	0.0014	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0039	0.00079	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0039	0.00079	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0039	0.0011	mg/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0039	0.00079	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0039	0.00079	mg/kg	
142-28-9	1,3-Dichloropropane	ND	0.0039	0.00079	mg/kg	
594-20-7	2,2-Dichloropropane	ND	0.0039	0.00079	mg/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	B-2 (12.5-15)	<b>Date Sampled:</b>	11/30/18
<b>Lab Sample ID:</b>	FA59800-2	<b>Date Received:</b>	12/01/18
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	1218000439 Los Angeles, CA		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
563-58-6	1,1-Dichloropropene	ND	0.0039	0.00080	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0039	0.00079	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0039	0.00079	mg/kg	
100-41-4	Ethylbenzene	ND	0.0039	0.00079	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.0039	0.0010	mg/kg	
591-78-6	2-Hexanone	ND	0.020	0.0059	mg/kg	
98-82-8	Isopropylbenzene	ND	0.0039	0.00079	mg/kg	
99-87-6	p-Isopropyltoluene	ND	0.0039	0.00079	mg/kg	
74-83-9	Methyl Bromide	ND	0.0039	0.0016	mg/kg	
74-87-3	Methyl Chloride	ND <sup>b</sup>	0.0038	0.0015	mg/kg	
74-95-3	Methylene Bromide	ND	0.0039	0.00079	mg/kg	
75-09-2	Methylene Chloride	ND	0.0079	0.0031	mg/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	0.020	0.0059	mg/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0039	0.00079	mg/kg	
91-20-3	Naphthalene	ND	0.0039	0.0016	mg/kg	
103-65-1	n-Propylbenzene	ND	0.0039	0.00079	mg/kg	
100-42-5	Styrene	ND	0.0039	0.00079	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0039	0.00081	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0039	0.00079	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0039	0.0010	mg/kg	
108-88-3	Toluene	ND	0.0039	0.00079	mg/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0039	0.0011	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0039	0.00079	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.0039	0.00079	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.0039	0.00079	mg/kg	
79-01-6	Trichloroethylene	ND	0.0039	0.00079	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.0039	0.0016	mg/kg	
96-18-4	1,2,3-Trichloropropane	ND	0.0039	0.00098	mg/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0039	0.00079	mg/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0039	0.00079	mg/kg	
108-05-4	Vinyl Acetate	ND	0.020	0.013	mg/kg	
75-01-4	Vinyl Chloride	ND	0.0039	0.00079	mg/kg	
	m,p-Xylene	ND	0.0079	0.00087	mg/kg	
95-47-6	o-Xylene	ND	0.0039	0.00079	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%	98%	75-124%
17060-07-0	1,2-Dichloroethane-D4	102%	102%	72-135%
2037-26-5	Toluene-D8	99%	101%	75-126%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> B-2 (12.5-15)	
<b>Lab Sample ID:</b> FA59800-2	<b>Date Sampled:</b> 11/30/18
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 12/01/18
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> n/a <sup>a</sup>
<b>Project:</b> 1218000439 Los Angeles, CA	

### VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	103%	103%	71-133%

(a) All results reported on a wet weight basis.

(b) Result is from Run# 2

ND = Not detected      MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> B-2 (12.5-15)		<b>Date Sampled:</b> 11/30/18
<b>Lab Sample ID:</b> FA59800-2		<b>Date Received:</b> 12/01/18
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> n/a <sup>a</sup>
<b>Method:</b> SW846 8270D SW846 3550C		
<b>Project:</b> 1218000439 Los Angeles, CA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X064043.D	1	12/05/18 16:37	MV	12/05/18 08:30	OP72890	SX2645
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	30.3 g	1.0 ml
Run #2		

## BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.17	0.018	mg/kg	
208-96-8	Acenaphthylene	ND	0.17	0.017	mg/kg	
120-12-7	Anthracene	ND	0.17	0.018	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.17	0.017	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.17	0.019	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.17	0.018	mg/kg	
191-24-2	Benzo(g,h,i)perylene	0.0386	0.17	0.017	mg/kg	J
207-08-9	Benzo(k)fluoranthene	ND	0.17	0.022	mg/kg	
218-01-9	Chrysene	ND	0.17	0.017	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.17	0.021	mg/kg	
206-44-0	Fluoranthene	ND	0.17	0.017	mg/kg	
86-73-7	Fluorene	ND	0.17	0.018	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	0.0225	0.17	0.020	mg/kg	J
90-12-0	1-Methylnaphthalene	ND	0.17	0.017	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.17	0.017	mg/kg	
91-20-3	Naphthalene	ND	0.17	0.017	mg/kg	
85-01-8	Phenanthrene	ND	0.17	0.017	mg/kg	
129-00-0	Pyrene	ND	0.17	0.019	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	64%		40-105%
321-60-8	2-Fluorobiphenyl	70%		43-107%
1718-51-0	Terphenyl-d14	65%		45-119%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> B-2 (12.5-15)	<b>Date Sampled:</b> 11/30/18
<b>Lab Sample ID:</b> FA59800-2	<b>Date Received:</b> 12/01/18
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> n/a <sup>a</sup>
<b>Method:</b> SW846 8015C SW846 3546	
<b>Project:</b> 1218000439 Los Angeles, CA	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ022373.D	2	12/07/18 13:44	SJL	12/05/18 13:00	OP72907	GJJ911
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	1.0 ml
Run #2		

**TPH Extractable**

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	31.6	13	6.5	mg/kg	
	TPH (> C28-C40)	75.0	13	6.5	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	79%		56-122%

(a) All results reported on a wet weight basis.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> B-3 (7.5-10)		<b>Date Sampled:</b> 11/30/18
<b>Lab Sample ID:</b> FA59800-3		<b>Date Received:</b> 12/01/18
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> n/a <sup>a</sup>
<b>Method:</b> SW846 8270D SW846 3550C		
<b>Project:</b> 1218000439 Los Angeles, CA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X064044.D	1	12/05/18 17:03	MV	12/05/18 08:30	OP72890	SX2645
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

## BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.17	0.018	mg/kg	
208-96-8	Acenaphthylene	ND	0.17	0.017	mg/kg	
120-12-7	Anthracene	ND	0.17	0.019	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.17	0.017	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.17	0.020	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.17	0.018	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.17	0.017	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.17	0.022	mg/kg	
218-01-9	Chrysene	ND	0.17	0.017	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.17	0.021	mg/kg	
206-44-0	Fluoranthene	ND	0.17	0.017	mg/kg	
86-73-7	Fluorene	ND	0.17	0.018	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.17	0.020	mg/kg	
90-12-0	1-Methylnaphthalene	ND	0.17	0.017	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.17	0.017	mg/kg	
91-20-3	Naphthalene	ND	0.17	0.017	mg/kg	
85-01-8	Phenanthrene	ND	0.17	0.017	mg/kg	
129-00-0	Pyrene	ND	0.17	0.019	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	63%		40-105%
321-60-8	2-Fluorobiphenyl	69%		43-107%
1718-51-0	Terphenyl-d14	65%		45-119%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> B-3 (7.5-10)	
<b>Lab Sample ID:</b> FA59800-3	<b>Date Sampled:</b> 11/30/18
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 12/01/18
<b>Method:</b> SW846 8082A SW846 3546	<b>Percent Solids:</b> n/a <sup>a</sup>
<b>Project:</b> 1218000439 Los Angeles, CA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MM53593.D	1	12/05/18 19:20	NM	12/05/18 11:00	OP72902	GMM1045
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.2 g	5.0 ml
Run #2		

### PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.016	0.0066	mg/kg	
11104-28-2	Aroclor 1221	ND	0.016	0.0082	mg/kg	
11141-16-5	Aroclor 1232	ND	0.016	0.0082	mg/kg	
53469-21-9	Aroclor 1242	ND	0.016	0.0066	mg/kg	
12672-29-6	Aroclor 1248	ND	0.016	0.0066	mg/kg	
11097-69-1	Aroclor 1254	ND	0.016	0.0066	mg/kg	
11096-82-5	Aroclor 1260	ND	0.016	0.0066	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	82%		44-126%
2051-24-3	Decachlorobiphenyl	50%		41-145%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

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3

<b>Client Sample ID:</b> B-3 (7.5-10)	<b>Date Sampled:</b> 11/30/18
<b>Lab Sample ID:</b> FA59800-3	<b>Date Received:</b> 12/01/18
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> n/a <sup>a</sup>
<b>Method:</b> SW846 8015C SW846 3546	
<b>Project:</b> 1218000439 Los Angeles, CA	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ022380.D	10	12/07/18 17:04	SJL	12/05/18 13:00	OP72907	GJJ911
Run #2							

	Initial Weight	Final Volume
Run #1	15.1 g	1.0 ml
Run #2		

### TPH Extractable

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	249	66	33	mg/kg	
	TPH (> C28-C40)	994	66	33	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	60%		56-122%

(a) All results reported on a wet weight basis.

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> B-4 (7.5-10)		<b>Date Sampled:</b> 11/30/18
<b>Lab Sample ID:</b> FA59800-4		<b>Date Received:</b> 12/01/18
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> n/a <sup>a</sup>
<b>Method:</b> SW846 8270D SW846 3550C		
<b>Project:</b> 1218000439 Los Angeles, CA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X064045.D	1	12/05/18 17:28	MV	12/05/18 08:30	OP72890	SX2645
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	29.9 g	1.0 ml
Run #2		

## BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.17	0.018	mg/kg	
208-96-8	Acenaphthylene	ND	0.17	0.017	mg/kg	
120-12-7	Anthracene	ND	0.17	0.019	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.17	0.017	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.17	0.020	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.17	0.018	mg/kg	
191-24-2	Benzo(g,h,i)perylene	ND	0.17	0.017	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.17	0.022	mg/kg	
218-01-9	Chrysene	ND	0.17	0.017	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.17	0.021	mg/kg	
206-44-0	Fluoranthene	ND	0.17	0.017	mg/kg	
86-73-7	Fluorene	ND	0.17	0.018	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.17	0.020	mg/kg	
90-12-0	1-Methylnaphthalene	ND	0.17	0.017	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.17	0.017	mg/kg	
91-20-3	Naphthalene	ND	0.17	0.017	mg/kg	
85-01-8	Phenanthrene	ND	0.17	0.017	mg/kg	
129-00-0	Pyrene	ND	0.17	0.019	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	63%		40-105%
321-60-8	2-Fluorobiphenyl	66%		43-107%
1718-51-0	Terphenyl-d14	62%		45-119%

(a) All results reported on a wet weight basis.

ND = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

MDL = Method Detection Limit  
 J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> B-4 (7.5-10)	
<b>Lab Sample ID:</b> FA59800-4	<b>Date Sampled:</b> 11/30/18
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 12/01/18
<b>Method:</b> SW846 8082A SW846 3546	<b>Percent Solids:</b> n/a <sup>a</sup>
<b>Project:</b> 1218000439 Los Angeles, CA	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MM53596.D	1	12/05/18 19:55	NM	12/05/18 11:00	OP72902	GMM1045
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	15.0 g	5.0 ml
Run #2		

### PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.017	0.0067	mg/kg	
11104-28-2	Aroclor 1221	ND	0.017	0.0083	mg/kg	
11141-16-5	Aroclor 1232	ND	0.017	0.0083	mg/kg	
53469-21-9	Aroclor 1242	ND	0.017	0.0067	mg/kg	
12672-29-6	Aroclor 1248	ND	0.017	0.0067	mg/kg	
11097-69-1	Aroclor 1254	ND	0.017	0.0067	mg/kg	
11096-82-5	Aroclor 1260	ND	0.017	0.0067	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	97%		44-126%
2051-24-3	Decachlorobiphenyl	55%		41-145%

(a) All results reported on a wet weight basis.

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> B-4 (7.5-10)	<b>Date Sampled:</b> 11/30/18
<b>Lab Sample ID:</b> FA59800-4	<b>Date Received:</b> 12/01/18
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> n/a <sup>a</sup>
<b>Method:</b> SW846 8015C SW846 3546	
<b>Project:</b> 1218000439 Los Angeles, CA	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ022375.D	2	12/07/18 14:41	SJL	12/05/18 13:00	OP72907	GJJ911
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	1.0 ml
Run #2		

### TPH Extractable

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	42.0	13	6.5	mg/kg	
	TPH (> C28-C40)	90.9	13	6.5	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	77%		56-122%

(a) All results reported on a wet weight basis.

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ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

Misc. Forms

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Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody



ACCUTEST

# CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131  
(408) 588-0200 FAX: (408) 588-0201

# FA59800

FED-EX Tracking #		Bottle Order Control #	
SGS Accutest Quote #		SGS Accutest NC Job # C	

Client / Reporting Information		Project Information		Requested Analysis				Matrix Codes							
Company Name <b>EBI</b>		Project Name: <b>1218000464 / Los Angeles, CA</b>		VOCs (8260)	PAHs (8270)	TPH-DRO/DRO (8015)	PCBs (8082)	WW- Wastewater	LAB USE ONLY						
Address <b>21 B Street</b>		Street						GW- Ground Water							
City <b>Burlington</b>	State <b>MA</b>	Zip <b>01803</b>	City <b>Los Angeles</b>					State <b>California</b>		SW- Surface Water					
Project Contact: <b>Chad Bechtel / Ryan Deutch</b>		Project # <b>1218000439</b>						SO- Soil							
Phone #		EMAIL:		AIR				DW- Drinking Water (Perchlorate Only)							
Sampler's Name <b>Chad Bechtel / Liz Ruiz</b>		Client Purchase Order #		LIQ - Non-aqueous Liquid											
SGS Accutest Sample ID	Sample ID / Field Point / Point of Collection	Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles								
							PCCL	MECH	INOC	LEAD	CAD	NOI	PERM	MECH	INOC
1	B-1 (22.5-25)	11/30/18	0820	CB	SO	5						4	1		
2	B-2 (12.5-15)		0900			5						4	1		
3	B-3 (7.5-10)		1010			1						1			
4	B-4 (7.5-10)		1045			1						1			
	<del>B-5</del> ← Not sampled														

Turnaround Time ( Business days)		Data Deliverable Information		Comments / Remarks	
<input type="checkbox"/> 10 Day <input type="checkbox"/> 5 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> 2 Day <input checked="" type="checkbox"/> 1 Day <input type="checkbox"/> Same Day		Approved By/ Date: _____ <input type="checkbox"/> Commercial "A" - Results only <input checked="" type="checkbox"/> Commercial "B" - Results with QC summaries <input type="checkbox"/> Commercial "B+" - Results, QC, and chromatograms <input type="checkbox"/> FULT1 - Level 4 data package <input type="checkbox"/> EDF for Geotracker <input type="checkbox"/> EDD Format Provide EDF Global ID _____ Provide EDF Logcode: _____		<b>**RUSH TAT**</b>	

Emergency T/A data available VIA Lablink

Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 <i>Chad Bechtel</i>	11/30/18 9:00	1 Fed Ex	2 FE		2 <i>R. Deutch</i> 12/1/18
Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Appropriate Bottle / Pres. Y / N	Headspace Y / N
5		5		Labels match Coo? Y / N	On Ice Y / N
				Separate Receiving Check List used: Y / N	Cooler Temp. <u>3.7</u> °C

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FA59800: Chain of Custody

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## SGS Sample Receipt Summary

Job Number: FA59800

Client: EBI

Project: 1218000464/Los Angeles, CA

Date / Time Received: 12/1/2018 10:00:00 AM

Delivery Method: FedEx

Airbill #: 790902933001

Therm ID: IR 1;

Therm CF: -0.2;

# of Coolers: 1

Cooler Temps (Raw Measured) °C: Cooler 1: (3.9);

Cooler Temps (Corrected) °C: Cooler 1: (3.7);

**Cooler Information**

Y or N

- |                             |                                     |                          |
|-----------------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present    | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact     | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Temp criteria achieved   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Cooler temp verification | <u>IR Gun</u>                       |                          |
| 5. Cooler media             | <u>Ice (Bag)</u>                    |                          |

**Trip Blank Information**

Y or N    N/A

- |                                |                          |                          |                                     |
|--------------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Trip Blank listed on COC    | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|                                | <u>W or S</u>            |                          | <u>N/A</u>                          |
| 3. Type Of TB Received         | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Sample Information**

Y or N    N/A

- |   |                                     |                                     |                                     |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Sample labels present on bottles                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 2. Samples preserved properly                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 3. Sufficient volume/containers recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 4. Condition of sample                              | <u>Intact</u>                       |                                     |                                     |
| 5. Sample recvd within HT                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 6. Dates/Times/IDs on COC match Sample Label        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 7. VOCs have headspace                              | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 8. Bottles received for unspecified tests           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |
| 9. Compositing instructions clear                   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 10. Voa Soil Kits/Jars received past 48hrs?         | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 11. % Solids Jar received?                          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 12. Residual Chlorine Present?                      | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**Misc. Information**

Number of Encores: 25-Gram \_\_\_\_\_ 5-Gram \_\_\_\_\_      Number of 5035 Field Kits: 2      Number of Lab Filtered Metals: \_\_\_\_\_  
 Test Strip Lot #: pH 0-3 230315      pH 10-12 219813A      Other: (Specify) \_\_\_\_\_  
 Residual Chlorine Test Strip Lot #: \_\_\_\_\_

Comments

SM001  
Rev. Date 05/24/17

Technician: PETERH

Date: 12/1/2018 10:00:00 A

Reviewer: PH

Date: 12/2/2018

FA59800: Chain of Custody

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## MS Volatiles

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF3048-MB	F0087491.D	1	12/03/18	SP	n/a	n/a	VF3048

The QC reported here applies to the following samples:

Method: SW846 8260B

FA59800-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	16.7	50	10	ug/kg	J
71-43-2	Benzene	ND	5.0	1.2	ug/kg	
108-86-1	Bromobenzene	ND	5.0	1.0	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	1.5	ug/kg	
75-27-4	Bromodichloromethane	ND	5.0	1.0	ug/kg	
75-25-2	Bromoform	ND	5.0	1.0	ug/kg	
78-93-3	2-Butanone (MEK)	ND	25	7.3	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	1.0	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	1.0	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	1.0	ug/kg	
75-15-0	Carbon Disulfide	ND	5.0	1.0	ug/kg	
56-23-5	Carbon Tetrachloride	ND	5.0	1.0	ug/kg	
108-90-7	Chlorobenzene	ND	5.0	1.0	ug/kg	
75-00-3	Chloroethane	ND	5.0	2.0	ug/kg	
67-66-3	Chloroform	ND	5.0	1.3	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	1.0	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	1.0	ug/kg	
124-48-1	Dibromochloromethane	ND	5.0	1.0	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.9	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.0	1.0	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.0	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.0	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.2	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.0	1.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.0	1.0	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.0	1.0	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.0	1.4	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	1.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.0	1.0	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	1.0	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.0	1.0	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	1.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.0	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.0	ug/kg	
100-41-4	Ethylbenzene	ND	5.0	1.0	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/kg	

## Method Blank Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF3048-MB	F0087491.D	1	12/03/18	SP	n/a	n/a	VF3048

The QC reported here applies to the following samples:

Method: SW846 8260B

FA59800-2

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	25	7.5	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	1.0	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.0	1.0	ug/kg	
74-83-9	Methyl Bromide	ND	5.0	2.0	ug/kg	
74-95-3	Methylene Bromide	ND	5.0	1.0	ug/kg	
75-09-2	Methylene Chloride	ND	10	4.0	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	25	7.5	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	1.0	ug/kg	
91-20-3	Naphthalene	ND	5.0	2.0	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	1.0	ug/kg	
100-42-5	Styrene	ND	5.0	1.0	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	1.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.0	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.0	1.3	ug/kg	
108-88-3	Toluene	ND	5.0	1.0	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.4	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.0	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.0	1.0	ug/kg	
79-01-6	Trichloroethylene	ND	5.0	1.0	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	2.0	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	1.3	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	1.0	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.0	ug/kg	
108-05-4	Vinyl Acetate	ND	25	16	ug/kg	
75-01-4	Vinyl Chloride	ND	5.0	1.0	ug/kg	
	m,p-Xylene	ND	10	1.1	ug/kg	
95-47-6	o-Xylene	ND	5.0	1.0	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	98%	75-124%
17060-07-0	1,2-Dichloroethane-D4	102%	72-135%
2037-26-5	Toluene-D8	98%	75-126%
460-00-4	4-Bromofluorobenzene	105%	71-133%

## Method Blank Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF3049-MB	F0087525.D	1	12/04/18	SP	n/a	n/a	VF3049

The QC reported here applies to the following samples:

Method: SW846 8260B

FA59800-2

CAS No.	Compound	Result	RL	MDL	Units	Q
75-71-8	Dichlorodifluoromethane	ND	5.0	2.0	ug/kg	
74-87-3	Methyl Chloride	ND	5.0	2.0	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	100%	75-124%
17060-07-0	1,2-Dichloroethane-D4	102%	72-135%
2037-26-5	Toluene-D8	102%	75-126%
460-00-4	4-Bromofluorobenzene	104%	71-133%



# Blank Spike Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF3048-BS	F0087492.D	1	12/03/18	SP	n/a	n/a	VF3048

The QC reported here applies to the following samples:

Method: SW846 8260B

FA59800-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	250	235	94	61-152
71-43-2	Benzene	50	50.1	100	76-126
108-86-1	Bromobenzene	50	50.3	101	76-122
74-97-5	Bromochloromethane	50	45.0	90	77-120
75-27-4	Bromodichloromethane	50	51.2	102	74-130
75-25-2	Bromoform	50	51.8	104	76-127
78-93-3	2-Butanone (MEK)	250	244	98	75-137
104-51-8	n-Butylbenzene	50	53.5	107	71-128
135-98-8	sec-Butylbenzene	50	52.0	104	79-135
98-06-6	tert-Butylbenzene	50	50.7	101	77-133
75-15-0	Carbon Disulfide	50	47.3	95	72-122
56-23-5	Carbon Tetrachloride	50	47.1	94	78-133
108-90-7	Chlorobenzene	50	49.7	99	81-129
75-00-3	Chloroethane	50	49.2	98	68-133
67-66-3	Chloroform	50	47.2	94	72-123
95-49-8	o-Chlorotoluene	50	51.9	104	77-129
106-43-4	p-Chlorotoluene	50	52.0	104	80-134
124-48-1	Dibromochloromethane	50	48.6	97	76-127
96-12-8	1,2-Dibromo-3-chloropropane	50	49.8	100	70-137
106-93-4	1,2-Dibromoethane	50	46.8	94	77-126
95-50-1	1,2-Dichlorobenzene	50	49.5	99	80-129
541-73-1	1,3-Dichlorobenzene	50	51.7	103	81-129
106-46-7	1,4-Dichlorobenzene	50	50.7	101	76-130
75-34-3	1,1-Dichloroethane	50	50.8	102	73-125
107-06-2	1,2-Dichloroethane	50	50.7	101	74-128
75-35-4	1,1-Dichloroethylene	50	50.0	100	81-136
156-59-2	cis-1,2-Dichloroethylene	50	48.4	97	74-126
156-60-5	trans-1,2-Dichloroethylene	50	48.8	98	70-127
78-87-5	1,2-Dichloropropane	50	50.1	100	74-125
142-28-9	1,3-Dichloropropane	50	45.9	92	76-122
594-20-7	2,2-Dichloropropane	50	51.8	104	77-133
563-58-6	1,1-Dichloropropene	50	48.4	97	75-130
10061-01-5	cis-1,3-Dichloropropene	50	50.0	100	80-123
10061-02-6	trans-1,3-Dichloropropene	50	51.1	102	75-131
100-41-4	Ethylbenzene	50	51.0	102	77-123
87-68-3	Hexachlorobutadiene	50	50.2	100	74-136

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF3048-BS	F0087492.D	1	12/03/18	SP	n/a	n/a	VF3048

The QC reported here applies to the following samples:

Method: SW846 8260B

FA59800-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
591-78-6	2-Hexanone	250	240	96	72-133
98-82-8	Isopropylbenzene	50	52.9	106	80-136
99-87-6	p-Isopropyltoluene	50	52.0	104	77-131
74-83-9	Methyl Bromide	50	44.7	89	65-139
74-95-3	Methylene Chloride	50	48.3	97	74-124
75-09-2	Methylene Chloride	50	51.0	102	74-137
108-10-1	4-Methyl-2-pentanone (MIBK)	250	239	96	76-132
1634-04-4	Methyl Tert Butyl Ether	50	45.6	91	77-120
91-20-3	Naphthalene	50	48.6	97	79-129
103-65-1	n-Propylbenzene	50	50.9	102	80-135
100-42-5	Styrene	50	51.4	103	78-125
630-20-6	1,1,1,2-Tetrachloroethane	50	48.6	97	78-126
79-34-5	1,1,2,2-Tetrachloroethane	50	49.9	100	71-126
127-18-4	Tetrachloroethylene	50	46.8	94	79-130
108-88-3	Toluene	50	48.7	97	76-124
87-61-6	1,2,3-Trichlorobenzene	50	49.6	99	77-128
120-82-1	1,2,4-Trichlorobenzene	50	50.4	101	78-130
71-55-6	1,1,1-Trichloroethane	50	46.6	93	70-129
79-00-5	1,1,2-Trichloroethane	50	48.4	97	74-124
79-01-6	Trichloroethylene	50	49.7	99	75-128
75-69-4	Trichlorofluoromethane	50	47.4	95	73-145
96-18-4	1,2,3-Trichloropropane	50	49.5	99	74-127
95-63-6	1,2,4-Trimethylbenzene	50	49.8	100	74-123
108-67-8	1,3,5-Trimethylbenzene	50	51.9	104	73-122
108-05-4	Vinyl Acetate	250	177	71	48-164
75-01-4	Vinyl Chloride	50	41.3	83	76-141
	m,p-Xylene	100	103	103	80-128
95-47-6	o-Xylene	50	49.4	99	80-132

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	75-124%
17060-07-0	1,2-Dichloroethane-D4	100%	72-135%
2037-26-5	Toluene-D8	96%	75-126%
460-00-4	4-Bromofluorobenzene	100%	71-133%

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF3049-BS	F0087524.D	1	12/04/18	SP	n/a	n/a	VF3049

The QC reported here applies to the following samples:

Method: SW846 8260B

FA59800-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
75-71-8	Dichlorodifluoromethane	50	36.2	72	68-168
74-87-3	Methyl Chloride	50	39.0	78	71-144

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	96%	75-124%
17060-07-0	1,2-Dichloroethane-D4	100%	72-135%
2037-26-5	Toluene-D8	97%	75-126%
460-00-4	4-Bromofluorobenzene	102%	71-133%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA59800-2MS	F0087495.D	1	12/03/18	SP	n/a	n/a	VF3048
FA59800-2MSD	F0087496.D	1	12/03/18	SP	n/a	n/a	VF3048
FA59800-2	F0087494.D	1	12/03/18	SP	n/a	n/a	VF3048

The QC reported here applies to the following samples:

Method: SW846 8260B

FA59800-2

CAS No.	Compound	FA59800-2 ug/kg	Spike Q	ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	61.0	B	289	271	73	288	269	72	1	61-152/27
71-43-2	Benzene	ND		57.7	56.5	98	57.6	58.6	102	4	76-126/26
108-86-1	Bromobenzene	ND		57.7	57.2	99	57.6	60.7	105	6	76-122/32
74-97-5	Bromochloromethane	ND		57.7	49.8	86	57.6	53.5	93	7	77-120/24
75-27-4	Bromodichloromethane	ND		57.7	57.1	99	57.6	58.2	101	2	74-130/25
75-25-2	Bromoform	ND		57.7	59.7	103	57.6	60.0	104	1	76-127/26
78-93-3	2-Butanone (MEK)	8.7	J	289	275	92	288	266	89	3	75-137/25
104-51-8	n-Butylbenzene	ND		57.7	57.6	100	57.6	58.8	102	2	71-128/35
135-98-8	sec-Butylbenzene	ND		57.7	57.1	99	57.6	60.8	106	6	79-135/34
98-06-6	tert-Butylbenzene	ND		57.7	55.5	96	57.6	59.6	103	7	77-133/34
75-15-0	Carbon Disulfide	ND		57.7	53.6	93	57.6	55.3	96	3	72-122/29
56-23-5	Carbon Tetrachloride	ND		57.7	53.3	92	57.6	55.4	96	4	78-133/29
108-90-7	Chlorobenzene	ND		57.7	55.9	97	57.6	57.1	99	2	81-129/29
75-00-3	Chloroethane	ND		57.7	54.8	95	57.6	56.2	98	3	68-133/29
67-66-3	Chloroform	ND		57.7	52.5	91	57.6	55.0	95	5	72-123/26
95-49-8	o-Chlorotoluene	ND		57.7	57.9	100	57.6	61.7	107	6	77-129/33
106-43-4	p-Chlorotoluene	ND		57.7	58.5	101	57.6	62.0	108	6	80-134/33
124-48-1	Dibromochloromethane	ND		57.7	54.8	95	57.6	56.7	98	3	76-127/27
96-12-8	1,2-Dibromo-3-chloropropane	ND		57.7	55.1	95	57.6	57.4	100	4	70-137/29
106-93-4	1,2-Dibromoethane	ND		57.7	54.3	94	57.6	55.9	97	3	77-126/26
95-50-1	1,2-Dichlorobenzene	ND		57.7	53.9	93	57.6	55.7	97	3	80-129/32
541-73-1	1,3-Dichlorobenzene	ND		57.7	57.7	100	57.6	59.1	103	2	81-129/33
106-46-7	1,4-Dichlorobenzene	ND		57.7	56.2	97	57.6	57.7	100	3	76-130/32
75-34-3	1,1-Dichloroethane	ND		57.7	56.5	98	57.6	58.8	102	4	73-125/27
107-06-2	1,2-Dichloroethane	ND		57.7	56.7	98	57.6	57.4	100	1	74-128/23
75-35-4	1,1-Dichloroethylene	ND		57.7	56.2	97	57.6	58.5	102	4	81-136/28
156-59-2	cis-1,2-Dichloroethylene	ND		57.7	54.5	94	57.6	57.1	99	5	74-126/26
156-60-5	trans-1,2-Dichloroethylene	ND		57.7	55.0	95	57.6	57.8	100	5	70-127/27
78-87-5	1,2-Dichloropropane	ND		57.7	55.1	95	57.6	57.2	99	4	74-125/25
142-28-9	1,3-Dichloropropane	ND		57.7	52.5	91	57.6	53.7	93	2	76-122/26
594-20-7	2,2-Dichloropropane	ND		57.7	57.8	100	57.6	59.3	103	3	77-133/28
563-58-6	1,1-Dichloropropene	ND		57.7	54.5	94	57.6	56.8	99	4	75-130/28
10061-01-5	cis-1,3-Dichloropropene	ND		57.7	56.9	99	57.6	57.3	99	1	80-123/26
10061-02-6	trans-1,3-Dichloropropene	ND		57.7	57.8	100	57.6	59.0	102	2	75-131/28
100-41-4	Ethylbenzene	ND		57.7	56.8	98	57.6	58.8	102	3	77-123/31
87-68-3	Hexachlorobutadiene	ND		57.7	44.8	78	57.6	40.3	70*	11	74-136/38

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA59800-2MS	F0087495.D	1	12/03/18	SP	n/a	n/a	VF3048
FA59800-2MSD	F0087496.D	1	12/03/18	SP	n/a	n/a	VF3048
FA59800-2	F0087494.D	1	12/03/18	SP	n/a	n/a	VF3048

The QC reported here applies to the following samples:

Method: SW846 8260B

FA59800-2

CAS No.	Compound	FA59800-2 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	ND	289	273	95	288	264	92	3	72-133/26
98-82-8	Isopropylbenzene	ND	57.7	59.0	102	57.6	60.5	105	3	80-136/32
99-87-6	p-Isopropyltoluene	ND	57.7	57.7	100	57.6	59.8	104	4	77-131/34
74-83-9	Methyl Bromide	ND	57.7	50.3	87	57.6	51.5	89	2	65-139/31
74-95-3	Methylene Bromide	ND	57.7	55.6	96	57.6	56.1	97	1	74-124/24
75-09-2	Methylene Chloride	ND	57.7	58.1	101	57.6	58.4	101	1	74-137/28
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	289	268	93	288	266	92	1	76-132/26
1634-04-4	Methyl Tert Butyl Ether	ND	57.7	52.8	91	57.6	52.7	91	0	77-120/24
91-20-3	Naphthalene	ND	57.7	49.0	85	57.6	47.1	82	4	79-129/33
103-65-1	n-Propylbenzene	ND	57.7	57.7	100	57.6	61.9	107	7	80-135/33
100-42-5	Styrene	ND	57.7	56.4	98	57.6	58.2	101	3	78-125/30
630-20-6	1,1,1,2-Tetrachloroethane	ND	57.7	53.7	93	57.6	55.3	96	3	78-126/27
79-34-5	1,1,2,2-Tetrachloroethane	ND	57.7	57.7	100	57.6	60.8	106	5	71-126/30
127-18-4	Tetrachloroethylene	ND	57.7	57.9	100	57.6	60.2	105	4	79-130/31
108-88-3	Toluene	ND	57.7	54.6	95	57.6	57.2	99	5	76-124/30
87-61-6	1,2,3-Trichlorobenzene	ND	57.7	44.3	77	57.6	40.5	70*	9	77-128/35
120-82-1	1,2,4-Trichlorobenzene	ND	57.7	47.2	82	57.6	44.2	77*	7	78-130/34
71-55-6	1,1,1-Trichloroethane	ND	57.7	52.5	91	57.6	55.0	95	5	70-129/27
79-00-5	1,1,2-Trichloroethane	ND	57.7	55.3	96	57.6	55.7	97	1	74-124/28
79-01-6	Trichloroethylene	ND	57.7	55.9	97	57.6	58.1	101	4	75-128/27
75-69-4	Trichlorofluoromethane	ND	57.7	52.8	91	57.6	53.8	93	2	73-145/31
96-18-4	1,2,3-Trichloropropane	ND	57.7	56.0	97	57.6	60.2	105	7	74-127/27
95-63-6	1,2,4-Trimethylbenzene	ND	57.7	55.1	95	57.6	58.4	101	6	74-123/34
108-67-8	1,3,5-Trimethylbenzene	ND	57.7	58.2	101	57.6	61.7	107	6	73-122/33
108-05-4	Vinyl Acetate	ND	289	139	48	288	69.1	24*	67*	48-164/37
75-01-4	Vinyl Chloride	ND	57.7	46.8	81	57.6	48.1	84	3	76-141/27
	m,p-Xylene	ND	115	117	101	115	120	104	3	80-128/30
95-47-6	o-Xylene	ND	57.7	55.4	96	57.6	56.5	98	2	80-132/30

CAS No.	Surrogate Recoveries	MS	MSD	FA59800-2	Limits
1868-53-7	Dibromofluoromethane	98%	97%	98%	75-124%
17060-07-0	1,2-Dichloroethane-D4	100%	97%	102%	72-135%
2037-26-5	Toluene-D8	96%	96%	99%	75-126%
460-00-4	4-Bromofluorobenzene	102%	106%	103%	71-133%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA59795-3MS	F0087540.D	1	12/04/18	SP	n/a	n/a	VF3049
FA59795-3MSD	F0087541.D	1	12/04/18	SP	n/a	n/a	VF3049
FA59795-3	F0087530.D	1	12/04/18	SP	n/a	n/a	VF3049

The QC reported here applies to the following samples:

Method: SW846 8260B

FA59800-2

CAS No.	Compound	FA59795-3 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
75-71-8	Dichlorodifluoromethane	ND	66.6	45.6	68	66.6	47.5	71	4	68-168/29
74-87-3	Methyl Chloride	ND	66.6	50.3	76	66.6	52.6	79	4	71-144/27

CAS No.	Surrogate Recoveries	MS	MSD	FA59795-3	Limits
1868-53-7	Dibromofluoromethane	96%	96%	99%	75-124%
17060-07-0	1,2-Dichloroethane-D4	102%	102%	103%	72-135%
2037-26-5	Toluene-D8	101%	100%	107%	75-126%
460-00-4	4-Bromofluorobenzene	116%	115%	129%	71-133%

\* = Outside of Control Limits.

5.3.2  
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## MS Semi-volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72890-MB	X064038.D	1	12/05/18	MV	12/05/18	OP72890	SX2645

The QC reported here applies to the following samples:

Method: SW846 8270D

FA59800-2, FA59800-3, FA59800-4

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	170	18	ug/kg	
208-96-8	Acenaphthylene	ND	170	17	ug/kg	
120-12-7	Anthracene	ND	170	19	ug/kg	
56-55-3	Benzo(a)anthracene	ND	170	17	ug/kg	
50-32-8	Benzo(a)pyrene	ND	170	20	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	170	18	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	170	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	170	22	ug/kg	
218-01-9	Chrysene	ND	170	17	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	170	21	ug/kg	
206-44-0	Fluoranthene	ND	170	17	ug/kg	
86-73-7	Fluorene	ND	170	18	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	170	20	ug/kg	
90-12-0	1-Methylnaphthalene	ND	170	17	ug/kg	
91-57-6	2-Methylnaphthalene	ND	170	17	ug/kg	
91-20-3	Naphthalene	ND	170	17	ug/kg	
85-01-8	Phenanthrene	ND	170	17	ug/kg	
129-00-0	Pyrene	ND	170	19	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
367-12-4	2-Fluorophenol	65%	40-102%
4165-62-2	Phenol-d5	69%	41-100%
118-79-6	2,4,6-Tribromophenol	74%	42-108%
4165-60-0	Nitrobenzene-d5	66%	40-105%
321-60-8	2-Fluorobiphenyl	68%	43-107%
1718-51-0	Terphenyl-d14	67%	45-119%



# Method Blank Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72890-MB	X064064.D	1	12/06/18	MV	12/05/18	OP72890	SX2646

The QC reported here applies to the following samples:

Method: SW846 8270D

FA59800-2, FA59800-3, FA59800-4

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	170	18	ug/kg	
208-96-8	Acenaphthylene	ND	170	17	ug/kg	
120-12-7	Anthracene	ND	170	19	ug/kg	
56-55-3	Benzo(a)anthracene	ND	170	17	ug/kg	
50-32-8	Benzo(a)pyrene	ND	170	20	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	170	18	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	170	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	170	22	ug/kg	
218-01-9	Chrysene	ND	170	17	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	170	21	ug/kg	
206-44-0	Fluoranthene	ND	170	17	ug/kg	
86-73-7	Fluorene	ND	170	18	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	170	20	ug/kg	
90-12-0	1-Methylnaphthalene	ND	170	17	ug/kg	
91-57-6	2-Methylnaphthalene	ND	170	17	ug/kg	
91-20-3	Naphthalene	ND	170	17	ug/kg	
85-01-8	Phenanthrene	ND	170	17	ug/kg	
129-00-0	Pyrene	ND	170	19	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
367-12-4	2-Fluorophenol	63%	40-102%
4165-62-2	Phenol-d5	67%	41-100%
118-79-6	2,4,6-Tribromophenol	75%	42-108%
4165-60-0	Nitrobenzene-d5	67%	40-105%
321-60-8	2-Fluorobiphenyl	69%	43-107%
1718-51-0	Terphenyl-d14	68%	45-119%

# Blank Spike Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72890-BS	X064037.D	1	12/05/18	MV	12/05/18	OP72890	SX2645

The QC reported here applies to the following samples:

Method: SW846 8270D

FA59800-2, FA59800-3, FA59800-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
83-32-9	Acenaphthene	1670	1190	71	56-109
208-96-8	Acenaphthylene	1670	1240	74	56-106
120-12-7	Anthracene	1670	1180	71	61-110
56-55-3	Benzo(a)anthracene	1670	1210	73	66-111
50-32-8	Benzo(a)pyrene	1670	1160	70	59-104
205-99-2	Benzo(b)fluoranthene	1670	1220	73	67-113
191-24-2	Benzo(g,h,i)perylene	1670	1250	75	67-113
207-08-9	Benzo(k)fluoranthene	1670	1230	74	67-114
218-01-9	Chrysene	1670	1250	75	65-112
53-70-3	Dibenzo(a,h)anthracene	1670	1250	75	68-115
206-44-0	Fluoranthene	1670	1180	71	60-108
86-73-7	Fluorene	1670	1210	73	58-109
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1270	76	66-116
90-12-0	1-Methylnaphthalene	1670	1080	65	49-106
91-57-6	2-Methylnaphthalene	1670	1160	70	47-106
91-20-3	Naphthalene	1670	1080	65	44-104
85-01-8	Phenanthrene	1670	1190	71	63-111
129-00-0	Pyrene	1670	1230	74	65-115

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	63%	40-102%
4165-62-2	Phenol-d5	66%	41-100%
118-79-6	2,4,6-Tribromophenol	73%	42-108%
4165-60-0	Nitrobenzene-d5	66%	40-105%
321-60-8	2-Fluorobiphenyl	69%	43-107%
1718-51-0	Terphenyl-d14	63%	45-119%

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72890-BS	X064063.D	1	12/06/18	MV	12/05/18	OP72890	SX2646

The QC reported here applies to the following samples:

Method: SW846 8270D

FA59800-2, FA59800-3, FA59800-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
83-32-9	Acenaphthene	1670	1190	71	56-109
208-96-8	Acenaphthylene	1670	1250	75	56-106
120-12-7	Anthracene	1670	1190	71	61-110
56-55-3	Benzo(a)anthracene	1670	1210	73	66-111
50-32-8	Benzo(a)pyrene	1670	1170	70	59-104
205-99-2	Benzo(b)fluoranthene	1670	1250	75	67-113
191-24-2	Benzo(g,h,i)perylene	1670	1220	73	67-113
207-08-9	Benzo(k)fluoranthene	1670	1220	73	67-114
218-01-9	Chrysene	1670	1240	74	65-112
53-70-3	Dibenzo(a,h)anthracene	1670	1260	76	68-115
206-44-0	Fluoranthene	1670	1190	71	60-108
86-73-7	Fluorene	1670	1220	73	58-109
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1260	76	66-116
90-12-0	1-Methylnaphthalene	1670	1080	65	49-106
91-57-6	2-Methylnaphthalene	1670	1170	70	47-106
91-20-3	Naphthalene	1670	1090	65	44-104
85-01-8	Phenanthrene	1670	1210	73	63-111
129-00-0	Pyrene	1670	1240	74	65-115

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	62%	40-102%
4165-62-2	Phenol-d5	65%	41-100%
118-79-6	2,4,6-Tribromophenol	75%	42-108%
4165-60-0	Nitrobenzene-d5	66%	40-105%
321-60-8	2-Fluorobiphenyl	70%	43-107%
1718-51-0	Terphenyl-d14	64%	45-119%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72890-MS	X064041.D	1	12/05/18	MV	12/05/18	OP72890	SX2645
OP72890-MSD	X064042.D	1	12/05/18	MV	12/05/18	OP72890	SX2645
FA59800-1 <sup>a</sup>	X064040.D	5	12/05/18	MV	12/05/18	OP72890	SX2645

The QC reported here applies to the following samples:

Method: SW846 8270D

FA59800-2, FA59800-3, FA59800-4

CAS No.	Compound	FA59800-1 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	1670	888	53*	1670	1130	68	24*	56-109/23
208-96-8	Acenaphthylene	ND	1670	919	55*	1670	1190	71	26*	56-106/23
120-12-7	Anthracene	ND	1670	924	55*	1670	1230	74	28*	61-110/21
56-55-3	Benzo(a)anthracene	ND	1670	921	55*	1670	1250	75	30*	66-111/23
50-32-8	Benzo(a)pyrene	ND	1670	843	51*	1670	1240	74	38*	59-104/23
205-99-2	Benzo(b)fluoranthene	ND	1670	942	57*	1670	1260	76	29*	67-113/24
191-24-2	Benzo(g,h,i)perylene	ND	1670	919	55*	1670	1000	60*	8	67-113/21
207-08-9	Benzo(k)fluoranthene	ND	1670	921	55*	1670	1220	73	28*	67-114/22
218-01-9	Chrysene	ND	1670	992	60*	1670	1380	83	33*	65-112/25
53-70-3	Dibenzo(a,h)anthracene	ND	1670	882	53*	1670	1100	66*	22	68-115/23
206-44-0	Fluoranthene	ND	1670	866	52*	1670	1200	72	32*	60-108/25
86-73-7	Fluorene	ND	1670	933	56*	1670	1190	71	24*	58-109/21
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1670	836	50*	1670	1020	61*	20	66-116/22
90-12-0	1-Methylnaphthalene	ND	1670	825	49	1670	1100	66	29*	49-106/26
91-57-6	2-Methylnaphthalene	ND	1670	905	54	1670	1160	70	25	47-106/27
91-20-3	Naphthalene	ND	1670	873	52	1670	1140	68	27	44-104/27
85-01-8	Phenanthrene	ND	1670	927	56*	1670	1270	76	31*	63-111/22
129-00-0	Pyrene	ND	1670	986	59*	1670	1270	76	25	65-115/25

CAS No.	Surrogate Recoveries	MS	MSD	FA59800-1	Limits
367-12-4	2-Fluorophenol	50%	62%		40-102%
4165-62-2	Phenol-d5	52%	65%		41-100%
118-79-6	2,4,6-Tribromophenol	53%	73%		42-108%
4165-60-0	Nitrobenzene-d5	52%	65%	53%	40-105%
321-60-8	2-Fluorobiphenyl	52%	70%	56%	43-107%
1718-51-0	Terphenyl-d14	50%	66%	60%	45-119%

(a) Dilution required due to matrix interference.

\* = Outside of Control Limits.

GC/LC Semi-volatiles

QC Data Summaries

---

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72902-MB	MM53579.D	1	12/05/18	NM	12/05/18	OP72902	GMM1045

The QC reported here applies to the following samples:

Method: SW846 8082A

FA59800-3, FA59800-4

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	17	6.7	ug/kg	
11104-28-2	Aroclor 1221	ND	17	8.3	ug/kg	
11141-16-5	Aroclor 1232	ND	17	8.3	ug/kg	
53469-21-9	Aroclor 1242	ND	17	6.7	ug/kg	
12672-29-6	Aroclor 1248	ND	17	6.7	ug/kg	
11097-69-1	Aroclor 1254	ND	17	6.7	ug/kg	
11096-82-5	Aroclor 1260	ND	17	6.7	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
877-09-8	Tetrachloro-m-xylene	106%	44-126%
2051-24-3	Decachlorobiphenyl	80%	41-145%

7.1.1  
7

## Method Blank Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72902-MB	MM53623.D	1	12/06/18	NM	12/05/18	OP72902	GMM1046

The QC reported here applies to the following samples:

Method: SW846 8082A

FA59800-3, FA59800-4

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	17	6.7	ug/kg	
11104-28-2	Aroclor 1221	ND	17	8.3	ug/kg	
11141-16-5	Aroclor 1232	ND	17	8.3	ug/kg	
53469-21-9	Aroclor 1242	ND	17	6.7	ug/kg	
12672-29-6	Aroclor 1248	ND	17	6.7	ug/kg	
11097-69-1	Aroclor 1254	ND	17	6.7	ug/kg	
11096-82-5	Aroclor 1260	ND	17	6.7	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
877-09-8	Tetrachloro-m-xylene	105%	44-126%
2051-24-3	Decachlorobiphenyl	70%	41-145%

## Method Blank Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72907-MB	JJ022344.D	1	12/06/18	SJL	12/05/18	OP72907	GJJ910

The QC reported here applies to the following samples:

Method: SW846 8015C

FA59800-2, FA59800-3, FA59800-4

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	6.7	3.3	mg/kg	
	TPH (> C28-C40)	ND	6.7	3.3	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	80% 56-122%



# Blank Spike Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72902-BS	MM53578.D	1	12/05/18	NM	12/05/18	OP72902	GMM1045

The QC reported here applies to the following samples:

Method: SW846 8082A

FA59800-3, FA59800-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	133	129	97	58-126
11096-82-5	Aroclor 1260	133	125	94	59-133

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	98%	44-126%
2051-24-3	Decachlorobiphenyl	73%	41-145%

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72902-BS2	MM53622.D	1	12/06/18	NM	12/05/18	OP72902	GMM1046

The QC reported here applies to the following samples:

Method: SW846 8082A

FA59800-3, FA59800-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
11097-69-1	Aroclor 1254	133	158	119	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	117%	44-126%
2051-24-3	Decachlorobiphenyl	73%	41-145%

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72907-BS	JJ022343.D	1	12/06/18	SJL	12/05/18	OP72907	GJJ910

The QC reported here applies to the following samples:

Method: SW846 8015C

FA59800-2, FA59800-3, FA59800-4

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH (C10-C28)	66.7	56.4	85	62-116
	TPH (> C28-C40)	66.7	58.7	88	47-138

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	86%	56-122%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72902-MS	MM53594.D	1	12/05/18	NM	12/05/18	OP72902	GMM1045
OP72902-MSD	MM53595.D	1	12/05/18	NM	12/05/18	OP72902	GMM1045
FA59800-3	MM53593.D	1	12/05/18	NM	12/05/18	OP72902	GMM1045

The QC reported here applies to the following samples:

Method: SW846 8082A

FA59800-3, FA59800-4

CAS No.	Compound	FA59800-3 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND	133	103	77	133	104	78	1	58-126/25
11096-82-5	Aroclor 1260	ND	133	95.3	71	133	95.0	71	0	59-133/31

CAS No.	Surrogate Recoveries	MS	MSD	FA59800-3	Limits
877-09-8	Tetrachloro-m-xylene	84%	86%	82%	44-126%
2051-24-3	Decachlorobiphenyl	51%	53%	50%	41-145%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA59800  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72907-MS	JJ022365.D	2	12/06/18	SJL	12/05/18	OP72907	GJJ910
OP72907-MSD	JJ022366.D	2	12/06/18	SJL	12/05/18	OP72907	GJJ910
FA59724-3	JJ022364.D	2	12/06/18	SJL	12/05/18	OP72907	GJJ910

The QC reported here applies to the following samples:

Method: SW846 8015C

FA59800-2, FA59800-3, FA59800-4

CAS No.	Compound	FA59724-3 mg/kg	Spike Q mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	42.3	73.8	117	101	74.2	145	138*	21	62-116/35
	TPH (> C28-C40)	53.0	73.8	124	96	74.2	133	108	7	47-138/29

CAS No.	Surrogate Recoveries	MS	MSD	FA59724-3	Limits
84-15-1	o-Terphenyl	85%	82%	81%	56-122%

\* = Outside of Control Limits.

7.3.2  
7

The results set forth herein are provided by SGS North America Inc.

*e-Hardcopy 2.0*  
*Automated Report*

## Technical Report for

EBI Consulting

1218000439 Los Angeles, CA

1218000439

SGS Job Number: FA59814

Sampling Date: 11/30/18

Report to:

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Total number of pages in report: 45



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink that reads "Caitlin Brice".

Caitlin Brice, M.S.  
General Manager

Client Service contact: Elvin Kumar 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), IL(200063), NC(573), NJ(FL002), NY(12022), SC(96038001)  
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Test results relate only to samples analyzed.

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## Sample Summary

EBI Consulting

Job No: FA59814

1218000439 Los Angeles, CA  
Project No: 1218000439

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
FA59814-1	11/30/18	09:30 CB	12/01/18	AQ	Ground Water	B-1 GW(20)
FA59814-2	11/30/18	11:20 CB	12/01/18	AQ	Ground Water	B-2 GW(17)
FA59814-3	11/30/18	12:40 CB	12/01/18	AQ	Ground Water	B-3 GW(11)
FA59814-4	11/30/18	11:50 CB	12/01/18	AQ	Ground Water	B-4 GW(11)



## Summary of Hits

**Job Number:** FA59814  
**Account:** EBI Consulting  
**Project:** 1218000439 Los Angeles, CA  
**Collected:** 11/30/18

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
<b>FA59814-1</b>		<b>B-1 GW(20)</b>				
Methyl Tert Butyl Ether <sup>a</sup>		10.3	1.0	0.23	ug/l	SW846 8260B
m,p-Xylene <sup>a</sup>		0.75 J	2.0	0.47	ug/l	SW846 8260B
TPH (C10-C28)		0.707	0.20	0.080	mg/l	SW846 8015C
TPH (> C28-C40)		0.545	0.20	0.080	mg/l	SW846 8015C
<b>FA59814-2</b>		<b>B-2 GW(17)</b>				
Methyl Tert Butyl Ether <sup>a</sup>		20.9	1.0	0.23	ug/l	SW846 8260B
TPH (C10-C28)		0.550	0.20	0.080	mg/l	SW846 8015C
TPH (> C28-C40)		0.737	0.20	0.080	mg/l	SW846 8015C
<b>FA59814-3</b>		<b>B-3 GW(11)</b>				
TPH (C10-C28)		1.36	0.20	0.080	mg/l	SW846 8015C
TPH (> C28-C40)		0.489	0.20	0.080	mg/l	SW846 8015C
<b>FA59814-4</b>		<b>B-4 GW(11)</b>				
TPH (C10-C28)		1.30	0.20	0.080	mg/l	SW846 8015C
TPH (> C28-C40)		0.443	0.20	0.080	mg/l	SW846 8015C

(a) Sample was treated with an anti-foaming agent.

Sample Results

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Report of Analysis

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## Report of Analysis

<b>Client Sample ID:</b>	B-1 GW(20)	<b>Date Sampled:</b>	11/30/18
<b>Lab Sample ID:</b>	FA59814-1	<b>Date Received:</b>	12/01/18
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	1218000439 Los Angeles, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	5E11969.D	1	12/03/18 15:11	AB	n/a	n/a	V5E487
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.37	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.45	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.23	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.24	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.31	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.31	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.31	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.24	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	B-1 GW(20)	<b>Date Sampled:</b>	11/30/18
<b>Lab Sample ID:</b>	FA59814-1	<b>Date Received:</b>	12/01/18
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	1218000439 Los Angeles, CA		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
563-58-6	1,1-Dichloropropene	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.30	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.22	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	10.3	1.0	0.23	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.29	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.27	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
	m,p-Xylene	0.75	2.0	0.47	ug/l	J
95-47-6	o-Xylene	ND	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		83-118%
17060-07-0	1,2-Dichloroethane-D4	92%		79-125%
2037-26-5	Toluene-D8	100%		85-112%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> B-1 GW(20)	
<b>Lab Sample ID:</b> FA59814-1	<b>Date Sampled:</b> 11/30/18
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 12/01/18
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> n/a
<b>Project:</b> 1218000439 Los Angeles, CA	

### VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		83-118%

(a) Sample was treated with an anti-foaming agent.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> B-1 GW(20)	
<b>Lab Sample ID:</b> FA59814-1	<b>Date Sampled:</b> 11/30/18
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 12/01/18
<b>Method:</b> SW846 8270D SW846 3510C	<b>Percent Solids:</b> n/a
<b>Project:</b> 1218000439 Los Angeles, CA	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	9I003435.D	1	12/06/18 18:14	MV	12/05/18 08:30	OP72893	S9I120
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

### BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.60	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.61	ug/l	
120-12-7	Anthracene	ND	4.8	0.76	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.72	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.75	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.74	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.78	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.82	ug/l	
218-01-9	Chrysene	ND	4.8	0.81	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.77	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.53	ug/l	
86-73-7	Fluorene	ND	4.8	0.67	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	0.68	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.50	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.57	ug/l	
91-20-3	Naphthalene	ND	4.8	0.48	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.82	ug/l	
129-00-0	Pyrene	ND	4.8	0.65	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	73%		42-108%
321-60-8	2-Fluorobiphenyl	73%		40-106%
1718-51-0	Terphenyl-d14	71%		39-121%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> B-1 GW(20)	
<b>Lab Sample ID:</b> FA59814-1	<b>Date Sampled:</b> 11/30/18
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 12/01/18
<b>Method:</b> SW846 8015C SW846 3510C	<b>Percent Solids:</b> n/a
<b>Project:</b> 1218000439 Los Angeles, CA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ022335.D	1	12/06/18 05:30	SJL	12/05/18 12:00	OP72899	GJJ910
Run #2							

Run #	Initial Volume	Final Volume
Run #1	250 ml	1.0 ml
Run #2		

### TPH Extractable

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	0.707	0.20	0.080	mg/l	
	TPH (> C28-C40)	0.545	0.20	0.080	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	83%		50-131%

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> B-2 GW(17)	
<b>Lab Sample ID:</b> FA59814-2	<b>Date Sampled:</b> 11/30/18
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 12/01/18
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> n/a
<b>Project:</b> 1218000439 Los Angeles, CA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	5E11970.D	1	12/03/18 15:35	AB	n/a	n/a	V5E487
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

### VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.37	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.45	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.23	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.24	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.31	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.31	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.31	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.24	ug/l	

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	B-2 GW(17)	<b>Date Sampled:</b>	11/30/18
<b>Lab Sample ID:</b>	FA59814-2	<b>Date Received:</b>	12/01/18
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	1218000439 Los Angeles, CA		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
563-58-6	1,1-Dichloropropene	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.30	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.22	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	20.9	1.0	0.23	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.29	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.27	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
	m,p-Xylene	ND	2.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		83-118%
17060-07-0	1,2-Dichloroethane-D4	92%		79-125%
2037-26-5	Toluene-D8	100%		85-112%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> B-2 GW(17)	
<b>Lab Sample ID:</b> FA59814-2	<b>Date Sampled:</b> 11/30/18
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 12/01/18
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> n/a
<b>Project:</b> 1218000439 Los Angeles, CA	

### VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	102%		83-118%

(a) Sample was treated with an anti-foaming agent.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> B-2 GW(17)	<b>Date Sampled:</b> 11/30/18
<b>Lab Sample ID:</b> FA59814-2	<b>Date Received:</b> 12/01/18
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8270D SW846 3510C	
<b>Project:</b> 1218000439 Los Angeles, CA	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	X064071.D	1	12/06/18 17:11	MV	12/05/18 08:30	OP72893	SX2646

Run #1	Initial Volume	Final Volume
Run #2	1030 ml	1.0 ml

### BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	0.61	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.62	ug/l	
120-12-7	Anthracene	ND	4.9	0.77	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.74	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.76	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.75	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.80	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.83	ug/l	
218-01-9	Chrysene	ND	4.9	0.83	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.78	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.54	ug/l	
86-73-7	Fluorene	ND	4.9	0.68	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	0.69	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	0.51	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.58	ug/l	
91-20-3	Naphthalene	ND	4.9	0.49	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.84	ug/l	
129-00-0	Pyrene	ND	4.9	0.66	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
4165-60-0	Nitrobenzene-d5	71%		42-108%		
321-60-8	2-Fluorobiphenyl	77%		40-106%		
1718-51-0	Terphenyl-d14	72%		39-121%		

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> B-2 GW(17)	<b>Date Sampled:</b> 11/30/18
<b>Lab Sample ID:</b> FA59814-2	<b>Date Received:</b> 12/01/18
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8015C SW846 3510C	
<b>Project:</b> 1218000439 Los Angeles, CA	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ022355.D	1	12/06/18 15:04	SJL	12/05/18 12:00	OP72899	GJJ910
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	250 ml	1.0 ml
Run #2		

**TPH Extractable**

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	0.550	0.20	0.080	mg/l	
	TPH (> C28-C40)	0.737	0.20	0.080	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	81%		50-131%

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> B-3 GW(11)	
<b>Lab Sample ID:</b> FA59814-3	<b>Date Sampled:</b> 11/30/18
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 12/01/18
<b>Method:</b> SW846 8270D SW846 3510C	<b>Percent Solids:</b> n/a
<b>Project:</b> 1218000439 Los Angeles, CA	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	9I003436.D	1	12/06/18 18:39	MV	12/05/18 08:30	OP72893	S9I120
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

### BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.60	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.61	ug/l	
120-12-7	Anthracene	ND	4.8	0.77	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.73	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.75	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.75	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.79	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.82	ug/l	
218-01-9	Chrysene	ND	4.8	0.82	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.77	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.53	ug/l	
86-73-7	Fluorene	ND	4.8	0.67	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	0.69	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.50	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.58	ug/l	
91-20-3	Naphthalene	ND	4.8	0.48	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.83	ug/l	
129-00-0	Pyrene	ND	4.8	0.66	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	53%		42-108%
321-60-8	2-Fluorobiphenyl	52%		40-106%
1718-51-0	Terphenyl-d14	45%		39-121%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> B-3 GW(11)	
<b>Lab Sample ID:</b> FA59814-3	<b>Date Sampled:</b> 11/30/18
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 12/01/18
<b>Method:</b> SW846 8082A SW846 3510C	<b>Percent Solids:</b> n/a
<b>Project:</b> 1218000439 Los Angeles, CA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MM53540.D	1	12/04/18 11:40	NM	12/03/18 10:00	OP72859	GMM1044
Run #2							

Run #	Initial Volume	Final Volume
Run #1	250 ml	5.0 ml
Run #2		

### PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.40	0.16	ug/l	
11104-28-2	Aroclor 1221	ND	0.40	0.20	ug/l	
11141-16-5	Aroclor 1232	ND	0.40	0.20	ug/l	
53469-21-9	Aroclor 1242	ND	0.40	0.16	ug/l	
12672-29-6	Aroclor 1248	ND	0.40	0.16	ug/l	
11097-69-1	Aroclor 1254	ND	0.40	0.16	ug/l	
11096-82-5	Aroclor 1260	ND	0.40	0.16	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	106%		38-127%
2051-24-3	Decachlorobiphenyl	79%		25-137%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> B-3 GW(11)	<b>Date Sampled:</b> 11/30/18
<b>Lab Sample ID:</b> FA59814-3	<b>Date Received:</b> 12/01/18
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8015C SW846 3510C	
<b>Project:</b> 1218000439 Los Angeles, CA	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ022337.D	1	12/06/18 06:27	SJL	12/05/18 12:00	OP72899	GJJ910
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	250 ml	1.0 ml
Run #2		

### TPH Extractable

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	1.36	0.20	0.080	mg/l	
	TPH (> C28-C40)	0.489	0.20	0.080	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	81%		50-131%

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> B-4 GW(11)	
<b>Lab Sample ID:</b> FA59814-4	<b>Date Sampled:</b> 11/30/18
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 12/01/18
<b>Method:</b> SW846 8270D SW846 3510C	<b>Percent Solids:</b> n/a
<b>Project:</b> 1218000439 Los Angeles, CA	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	9I003437.D	1	12/06/18 19:04	MV	12/05/18 08:30	OP72893	S9I120
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

### BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	0.61	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.63	ug/l	
120-12-7	Anthracene	ND	4.9	0.78	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.75	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.77	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.76	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	0.81	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	0.84	ug/l	
218-01-9	Chrysene	ND	4.9	0.83	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	0.79	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.54	ug/l	
86-73-7	Fluorene	ND	4.9	0.69	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	0.70	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	0.51	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	0.59	ug/l	
91-20-3	Naphthalene	ND	4.9	0.49	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.85	ug/l	
129-00-0	Pyrene	ND	4.9	0.67	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	57%		42-108%
321-60-8	2-Fluorobiphenyl	57%		40-106%
1718-51-0	Terphenyl-d14	57%		39-121%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound





## Report of Analysis

<b>Client Sample ID:</b> B-4 GW(11)	<b>Date Sampled:</b> 11/30/18
<b>Lab Sample ID:</b> FA59814-4	<b>Date Received:</b> 12/01/18
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8015C SW846 3510C	
<b>Project:</b> 1218000439 Los Angeles, CA	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ022338.D	1	12/06/18 06:56	SJL	12/05/18 12:00	OP72899	GJJ910
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	250 ml	1.0 ml
Run #2		

### TPH Extractable

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	1.30	0.20	0.080	mg/l	
	TPH (> C28-C40)	0.443	0.20	0.080	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	72%		50-131%

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody



## SGS Sample Receipt Summary

Job Number: FA59814

Client: EBI

Project: 1218000464/Los Angeles, CA

Date / Time Received: 12/1/2018 10:00:00 AM

Delivery Method: FedEx

Airbill #s: 790902933012

Therm ID: IR 1;

Therm CF: -0.2;

# of Coolers: 2

Cooler Temps (Raw Measured) °C: Cooler 1: (2.9); Cooler 2: (2.0);

Cooler Temps (Corrected) °C: Cooler 1: (2.7); Cooler 2: (1.8);

**Cooler Information**

Y or N

- 1. Custody Seals Present
- 2. Custody Seals Intact
- 3. Temp criteria achieved
- 4. Cooler temp verification IR Gun
- 5. Cooler media Ice (Bag)

**Trip Blank Information**

Y or N N/A

- 1. Trip Blank present / cooler
  - 2. Trip Blank listed on COC
- W or S N/A
- 3. Type Of TB Received

**Sample Information**

Y or N N/A

- 1. Sample labels present on bottles
- 2. Samples preserved properly
- 3. Sufficient volume/containers recvd for analysis:
- 4. Condition of sample Intact
- 5. Sample recvd within HT
- 6. Dates/Times/IDs on COC match Sample Label
- 7. VOCs have headspace
- 8. Bottles received for unspecified tests
- 9. Compositing instructions clear
- 10. Voa Soil Kits/Jars received past 48hrs?
- 11. % Solids Jar received?
- 12. Residual Chlorine Present?

**Misc. Information**

Number of Encores: 25-Gram \_\_\_\_\_ 5-Gram \_\_\_\_\_ Number of 5035 Field Kits: \_\_\_\_\_ Number of Lab Filtered Metals: \_\_\_\_\_  
 Test Strip Lot #: pH 0-3 230315 pH 10-12 219813A Other: (Specify) \_\_\_\_\_  
 Residual Chlorine Test Strip Lot #: \_\_\_\_\_

Comments SAMPLE #2 HAS 2 250ML AMBER N/P AND 2 250 ML AMBERS PERSERVED WITH H2SO4 CHAIN STATES ALL 4 SUPPOSED TO BE PRESERVED.

SM001  
Rev. Date 05/24/17

Technician: PETERH

Date: 12/1/2018 10:00:00 A

Reviewer: PH

Date: 12/2/2018

FA59814: Chain of Custody

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## MS Volatiles

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

**Job Number:** FA59814  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5E487-MB	5E11961.D	1	12/03/18	AB	n/a	n/a	V5E487

The QC reported here applies to the following samples:

Method: SW846 8260B

FA59814-1, FA59814-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.37	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.45	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.23	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.24	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.31	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.22	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.31	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.31	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.24	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	

## Method Blank Summary

**Job Number:** FA59814  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5E487-MB	5E11961.D	1	12/03/18	AB	n/a	n/a	V5E487

The QC reported here applies to the following samples:

Method: SW846 8260B

FA59814-1, FA59814-2

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	2.0	0.30	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.22	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.21	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.59	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
74-95-3	Methylene Bromide	ND	2.0	0.37	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.23	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.29	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.28	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.63	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.32	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.27	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
	m,p-Xylene	ND	2.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	95%	83-118%
17060-07-0	1,2-Dichloroethane-D4	91%	79-125%



## Method Blank Summary

**Job Number:** FA59814  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5E487-MB	5E11961.D	1	12/03/18	AB	n/a	n/a	V5E487

The QC reported here applies to the following samples:

Method: SW846 8260B

FA59814-1, FA59814-2

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	99% 85-112%
460-00-4	4-Bromofluorobenzene	100% 83-118%

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# Blank Spike Summary

**Job Number:** FA59814  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5E487-BS	5E11959.D	1	12/03/18	AB	n/a	n/a	V5E487

The QC reported here applies to the following samples:

Method: SW846 8260B

FA59814-1, FA59814-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	104	83	50-147
71-43-2	Benzene	25	23.2	93	81-122
108-86-1	Bromobenzene	25	23.7	95	80-121
74-97-5	Bromochloromethane	25	22.8	91	76-123
75-27-4	Bromodichloromethane	25	23.2	93	79-123
75-25-2	Bromoform	25	22.7	91	66-123
78-93-3	2-Butanone (MEK)	125	103	82	56-143
104-51-8	n-Butylbenzene	25	25.6	102	79-126
135-98-8	sec-Butylbenzene	25	25.4	102	83-133
98-06-6	tert-Butylbenzene	25	24.3	97	80-133
75-15-0	Carbon Disulfide	25	22.2	89	66-148
56-23-5	Carbon Tetrachloride	25	23.6	94	76-136
108-90-7	Chlorobenzene	25	22.8	91	82-124
75-00-3	Chloroethane	25	25.4	102	62-144
67-66-3	Chloroform	25	22.9	92	80-124
95-49-8	o-Chlorotoluene	25	23.8	95	81-127
106-43-4	p-Chlorotoluene	25	24.1	96	83-130
124-48-1	Dibromochloromethane	25	23.5	94	78-122
96-12-8	1,2-Dibromo-3-chloropropane	25	20.7	83	64-123
106-93-4	1,2-Dibromoethane	25	22.8	91	75-120
75-71-8	Dichlorodifluoromethane	25	26.8	107	42-167
95-50-1	1,2-Dichlorobenzene	25	23.5	94	82-124
541-73-1	1,3-Dichlorobenzene	25	24.3	97	84-125
106-46-7	1,4-Dichlorobenzene	25	23.2	93	78-120
75-34-3	1,1-Dichloroethane	25	23.5	94	81-122
107-06-2	1,2-Dichloroethane	25	20.9	84	75-125
75-35-4	1,1-Dichloroethylene	25	23.6	94	78-137
156-59-2	cis-1,2-Dichloroethylene	25	23.9	96	78-120
156-60-5	trans-1,2-Dichloroethylene	25	23.2	93	76-127
78-87-5	1,2-Dichloropropane	25	23.4	94	76-124
142-28-9	1,3-Dichloropropane	25	21.6	86	80-118
594-20-7	2,2-Dichloropropane	25	23.8	95	74-139
563-58-6	1,1-Dichloropropene	25	23.9	96	79-131
10061-01-5	cis-1,3-Dichloropropene	25	22.8	91	75-118
10061-02-6	trans-1,3-Dichloropropene	25	23.4	94	80-120
100-41-4	Ethylbenzene	25	23.2	93	81-121

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA59814  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5E487-BS	5E11959.D	1	12/03/18	AB	n/a	n/a	V5E487

The QC reported here applies to the following samples:

Method: SW846 8260B

FA59814-1, FA59814-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
87-68-3	Hexachlorobutadiene	25	23.5	94	75-142
591-78-6	2-Hexanone	125	102	82	61-129
98-82-8	Isopropylbenzene	25	26.0	104	83-132
99-87-6	p-Isopropyltoluene	25	25.8	103	79-130
74-83-9	Methyl Bromide	25	21.1	84	59-143
74-87-3	Methyl Chloride	25	25.8	103	50-159
74-95-3	Methylene Bromide	25	22.8	91	78-119
75-09-2	Methylene Chloride	25	21.2	85	69-135
108-10-1	4-Methyl-2-pentanone (MIBK)	125	104	83	66-122
1634-04-4	Methyl Tert Butyl Ether	25	21.6	86	72-117
91-20-3	Naphthalene	25	21.3	85	63-132
103-65-1	n-Propylbenzene	25	24.1	96	82-133
100-42-5	Styrene	25	23.6	94	78-119
630-20-6	1,1,1,2-Tetrachloroethane	25	23.3	93	77-122
79-34-5	1,1,2,2-Tetrachloroethane	25	22.8	91	72-120
127-18-4	Tetrachloroethylene	25	24.4	98	76-135
108-88-3	Toluene	25	23.4	94	80-120
87-61-6	1,2,3-Trichlorobenzene	25	21.7	87	68-131
120-82-1	1,2,4-Trichlorobenzene	25	22.4	90	73-129
71-55-6	1,1,1-Trichloroethane	25	22.5	90	75-130
79-00-5	1,1,2-Trichloroethane	25	22.6	90	76-119
79-01-6	Trichloroethylene	25	23.5	94	81-126
75-69-4	Trichlorofluoromethane	25	24.1	96	71-156
96-18-4	1,2,3-Trichloropropane	25	21.9	88	77-120
95-63-6	1,2,4-Trimethylbenzene	25	23.9	96	79-120
108-67-8	1,3,5-Trimethylbenzene	25	25.0	100	79-120
108-05-4	Vinyl Acetate	125	117	94	43-154
75-01-4	Vinyl Chloride	25	25.2	101	69-159
	m,p-Xylene	50	48.0	96	79-126
95-47-6	o-Xylene	25	24.4	98	80-127

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	83-118%
17060-07-0	1,2-Dichloroethane-D4	94%	79-125%

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA59814  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5E487-BS	5E11959.D	1	12/03/18	AB	n/a	n/a	V5E487

The QC reported here applies to the following samples:

Method: SW846 8260B

FA59814-1, FA59814-2

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	98%	85-112%
460-00-4	4-Bromofluorobenzene	100%	83-118%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA59814  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA59749-6MS	5E11972.D	1	12/03/18	AB	n/a	n/a	V5E487
FA59749-6MSD	5E11973.D	1	12/03/18	AB	n/a	n/a	V5E487
FA59749-6 <sup>a</sup>	5E11967.D	1	12/03/18	AB	n/a	n/a	V5E487

The QC reported here applies to the following samples:

Method: SW846 8260B

FA59814-1, FA59814-2

CAS No.	Compound	FA59749-6 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	25 U	125	123	98	125	125	100	2	50-147/21
71-43-2	Benzene	1.0 U	25	24.2	97	25	24.0	96	1	81-122/14
108-86-1	Bromobenzene	1.0 U	25	23.9	96	25	24.0	96	0	80-121/14
74-97-5	Bromochloromethane	1.0 U	25	23.5	94	25	23.3	93	1	76-123/14
75-27-4	Bromodichloromethane	1.0 U	25	24.2	97	25	24.2	97	0	79-123/19
75-25-2	Bromoform	1.0 U	25	24.5	98	25	24.5	98	0	66-123/21
78-93-3	2-Butanone (MEK)	5.0 U	125	128	102	125	127	102	1	56-143/18
104-51-8	n-Butylbenzene	1.0 U	25	25.7	103	25	25.6	102	0	79-126/16
135-98-8	sec-Butylbenzene	1.0 U	25	25.4	102	25	25.4	102	0	83-133/16
98-06-6	tert-Butylbenzene	1.0 U	25	24.2	97	25	24.4	98	1	80-133/16
75-15-0	Carbon Disulfide	2.0 U	25	23.0	92	25	22.7	91	1	66-148/23
56-23-5	Carbon Tetrachloride	1.0 U	25	23.9	96	25	24.0	96	0	76-136/23
108-90-7	Chlorobenzene	1.0 U	25	23.6	94	25	23.5	94	0	82-124/14
75-00-3	Chloroethane	2.0 U	25	26.7	107	25	27.3	109	2	62-144/20
67-66-3	Chloroform	1.0 U	25	23.8	95	25	23.6	94	1	80-124/15
95-49-8	o-Chlorotoluene	1.0 U	25	24.1	96	25	24.0	96	0	81-127/15
106-43-4	p-Chlorotoluene	1.0 U	25	24.3	97	25	24.5	98	1	83-130/15
124-48-1	Dibromochloromethane	1.0 U	25	24.3	97	25	24.5	98	1	78-122/19
96-12-8	1,2-Dibromo-3-chloropropane	5.0 U	25	25.6	102	25	25.7	103	0	64-123/18
106-93-4	1,2-Dibromoethane	2.0 U	25	25.0	100	25	24.8	99	1	75-120/13
75-71-8	Dichlorodifluoromethane	2.0 U	25	28.0	112	25	28.4	114	1	42-167/19
95-50-1	1,2-Dichlorobenzene	1.0 U	25	24.3	97	25	24.2	97	0	82-124/14
541-73-1	1,3-Dichlorobenzene	1.0 U	25	24.5	98	25	24.6	98	0	84-125/14
106-46-7	1,4-Dichlorobenzene	1.0 U	25	23.5	94	25	23.6	94	0	78-120/15
75-34-3	1,1-Dichloroethane	1.0 U	25	24.6	98	25	24.5	98	0	81-122/15
107-06-2	1,2-Dichloroethane	1.0 U	25	22.7	91	25	22.6	90	0	75-125/14
75-35-4	1,1-Dichloroethylene	1.0 U	25	24.0	96	25	24.1	96	0	78-137/18
156-59-2	cis-1,2-Dichloroethylene	1.0 U	25	24.1	96	25	24.1	96	0	78-120/15
156-60-5	trans-1,2-Dichloroethylene	1.0 U	25	24.0	96	25	23.7	95	1	76-127/17
78-87-5	1,2-Dichloropropane	1.0 U	25	24.5	98	25	24.3	97	1	76-124/14
142-28-9	1,3-Dichloropropane	1.0 U	25	23.5	94	25	23.3	93	1	80-118/13
594-20-7	2,2-Dichloropropane	1.0 U	25	23.2	93	25	23.6	94	2	74-139/17
563-58-6	1,1-Dichloropropene	1.0 U	25	24.7	99	25	24.6	98	0	79-131/16
10061-01-5	cis-1,3-Dichloropropene	1.0 U	25	23.7	95	25	23.6	94	0	75-118/23
10061-02-6	trans-1,3-Dichloropropene	1.0 U	25	24.8	99	25	24.8	99	0	80-120/22
100-41-4	Ethylbenzene	1.0 U	25	23.9	96	25	23.8	95	0	81-121/14

\* = Outside of Control Limits.

5.3.1  
5

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA59814  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA59749-6MS	5E11972.D	1	12/03/18	AB	n/a	n/a	V5E487
FA59749-6MSD	5E11973.D	1	12/03/18	AB	n/a	n/a	V5E487
FA59749-6 <sup>a</sup>	5E11967.D	1	12/03/18	AB	n/a	n/a	V5E487

The QC reported here applies to the following samples:

Method: SW846 8260B

FA59814-1, FA59814-2

CAS No.	Compound	FA59749-6 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
87-68-3	Hexachlorobutadiene	2.0 U	25	20.3	81	25	21.7	87	7	75-142/19
591-78-6	2-Hexanone	10 U	125	147	118	125	147	118	0	61-129/18
98-82-8	Isopropylbenzene	1.0 U	25	26.2	105	25	26.2	105	0	83-132/15
99-87-6	p-Isopropyltoluene	1.0 U	25	25.6	102	25	25.9	104	1	79-130/16
74-83-9	Methyl Bromide	2.0 U	25	22.3	89	25	22.6	90	1	59-143/19
74-87-3	Methyl Chloride	2.0 U	25	27.4	110	25	27.7	111	1	50-159/19
74-95-3	Methylene Bromide	2.0 U	25	24.5	98	25	24.3	97	1	78-119/14
75-09-2	Methylene Chloride	5.0 U	25	22.4	90	25	22.3	89	0	69-135/16
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0 U	125	146	117	125	146	117	0	66-122/16
1634-04-4	Methyl Tert Butyl Ether	1.0 U	25	23.7	95	25	24.0	96	1	72-117/14
91-20-3	Naphthalene	5.0 U	25	24.2	97	25	25.1	100	4	63-132/25
103-65-1	n-Propylbenzene	1.0 U	25	24.5	98	25	24.5	98	0	82-133/15
100-42-5	Styrene	1.0 U	25	24.0	96	25	23.8	95	1	78-119/23
630-20-6	1,1,1,2-Tetrachloroethane	1.0 U	25	23.8	95	25	23.8	95	0	77-122/19
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U	25	26.9	108	25	26.5	106	1	72-120/14
127-18-4	Tetrachloroethylene	1.0 U	25	24.6	98	25	24.8	99	1	76-135/16
108-88-3	Toluene	1.0 U	25	24.0	96	25	24.0	96	0	80-120/14
87-61-6	1,2,3-Trichlorobenzene	2.0 U	25	21.5	86	25	22.7	91	5	68-131/25
120-82-1	1,2,4-Trichlorobenzene	2.0 U	25	22.7	91	25	23.1	92	2	73-129/20
71-55-6	1,1,1-Trichloroethane	1.0 U	25	23.0	92	25	23.0	92	0	75-130/16
79-00-5	1,1,2-Trichloroethane	1.0 U	25	24.8	99	25	24.7	99	0	76-119/14
79-01-6	Trichloroethylene	1.0 U	25	24.0	96	25	24.0	96	0	81-126/15
75-69-4	Trichlorofluoromethane	2.0 U	25	24.8	99	25	25.0	100	1	71-156/21
96-18-4	1,2,3-Trichloropropane	2.0 U	25	25.1	100	25	25.2	101	0	77-120/16
95-63-6	1,2,4-Trimethylbenzene	1.0 U	25	24.1	96	25	24.0	96	0	79-120/18
108-67-8	1,3,5-Trimethylbenzene	1.0 U	25	24.9	100	25	25.0	100	0	79-120/19
108-05-4	Vinyl Acetate	10 U	125	128	102	125	128	102	0	43-154/14
75-01-4	Vinyl Chloride	1.0 U	25	26.1	104	25	26.3	105	1	69-159/18
	m,p-Xylene	2.0 U	50	49.0	98	50	48.8	98	0	79-126/15
95-47-6	o-Xylene	1.0 U	25	24.8	99	25	24.6	98	1	80-127/14

CAS No.	Surrogate Recoveries	MS	MSD	FA59749-6	Limits
1868-53-7	Dibromofluoromethane	99%	99%	96%	83-118%
17060-07-0	1,2-Dichloroethane-D4	99%	99%	94%	79-125%

\* = Outside of Control Limits.

5.3.1  
5

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA59814  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA59749-6MS	5E11972.D	1	12/03/18	AB	n/a	n/a	V5E487
FA59749-6MSD	5E11973.D	1	12/03/18	AB	n/a	n/a	V5E487
FA59749-6 <sup>a</sup>	5E11967.D	1	12/03/18	AB	n/a	n/a	V5E487

The QC reported here applies to the following samples:

Method: SW846 8260B

FA59814-1, FA59814-2

CAS No.	Surrogate Recoveries	MS	MSD	FA59749-6	Limits
2037-26-5	Toluene-D8	99%	99%	100%	85-112%
460-00-4	4-Bromofluorobenzene	98%	99%	98%	83-118%

(a) Sample was not preserved to a pH < 2.

\* = Outside of Control Limits.

## MS Semi-volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



# Method Blank Summary

**Job Number:** FA59814  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72893-MB	6F02080.D	1	12/05/18	MV	12/05/18	OP72893	S6F77

The QC reported here applies to the following samples:

Method: SW846 8270D

FA59814-1, FA59814-2, FA59814-3, FA59814-4

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	0.63	ug/l	
208-96-8	Acenaphthylene	ND	5.0	0.64	ug/l	
120-12-7	Anthracene	ND	5.0	0.80	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	0.76	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	0.78	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.78	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	0.82	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	0.86	ug/l	
218-01-9	Chrysene	ND	5.0	0.85	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	0.80	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.55	ug/l	
86-73-7	Fluorene	ND	5.0	0.70	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	0.71	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	0.53	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	0.60	ug/l	
91-20-3	Naphthalene	0.56	5.0	0.50	ug/l	J
85-01-8	Phenanthrene	ND	5.0	0.86	ug/l	
129-00-0	Pyrene	ND	5.0	0.68	ug/l	

CAS No.	Surrogate Recoveries	Limits	
367-12-4	2-Fluorophenol	37%	14-67%
4165-62-2	Phenol-d5	24%	10-50%
118-79-6	2,4,6-Tribromophenol	70%	33-118%

# Blank Spike Summary

**Job Number:** FA59814  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72893-BS	6F02079.D	1	12/05/18	MV	12/05/18	OP72893	S6F77

The QC reported here applies to the following samples:

Method: SW846 8270D

FA59814-1, FA59814-2, FA59814-3, FA59814-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	37.3	75	61-107
208-96-8	Acenaphthylene	50	38.8	78	60-104
120-12-7	Anthracene	50	38.4	77	65-108
56-55-3	Benzo(a)anthracene	50	40.2	80	66-111
50-32-8	Benzo(a)pyrene	50	39.6	79	62-107
205-99-2	Benzo(b)fluoranthene	50	41.8	84	65-114
191-24-2	Benzo(g,h,i)perylene	50	44.7	89	66-116
207-08-9	Benzo(k)fluoranthene	50	38.9	78	65-114
218-01-9	Chrysene	50	40.8	82	66-111
53-70-3	Dibenzo(a,h)anthracene	50	43.8	88	66-119
206-44-0	Fluoranthene	50	38.2	76	63-106
86-73-7	Fluorene	50	38.3	77	62-108
193-39-5	Indeno(1,2,3-cd)pyrene	50	44.3	89	64-119
90-12-0	1-Methylnaphthalene	50	33.2	66	53-102
91-57-6	2-Methylnaphthalene	50	36.6	73	51-102
91-20-3	Naphthalene	50	35.1	70	47-100
85-01-8	Phenanthrene	50	38.8	78	66-110
129-00-0	Pyrene	50	41.6	83	64-113

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	40%	14-67%
4165-62-2	Phenol-d5	28%	10-50%
118-79-6	2,4,6-Tribromophenol	76%	33-118%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA59814  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72893-MS	6F02090.D	1	12/05/18	MV	12/05/18	OP72893	S6F77
OP72893-MSD	6F02091.D	1	12/05/18	MV	12/05/18	OP72893	S6F77
FA59686-5	6F02089.D	1	12/05/18	MV	12/05/18	OP72893	S6F77

The QC reported here applies to the following samples:

Method: SW846 8270D

FA59814-1, FA59814-2, FA59814-3, FA59814-4

CAS No.	Compound	FA59686-5 ug/l	Spike Q	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD	
83-32-9	Acenaphthene	ND		96.2	57.8	60*	96.2	65.8	68	13	61-107/22
208-96-8	Acenaphthylene	ND		96.2	59.8	62	96.2	68.1	71	13	60-104/22
120-12-7	Anthracene	ND		96.2	61.6	64*	96.2	71.8	75	15	65-108/20
56-55-3	Benzo(a)anthracene	ND		96.2	64.6	67	96.2	74.6	78	14	66-111/22
50-32-8	Benzo(a)pyrene	ND		96.2	62.6	65	96.2	73.0	76	15	62-107/23
205-99-2	Benzo(b)fluoranthene	ND		96.2	64.2	67	96.2	73.0	76	13	65-114/23
191-24-2	Benzo(g,h,i)perylene	ND		96.2	70.2	73	96.2	83.5	87	17	66-116/23
207-08-9	Benzo(k)fluoranthene	ND		96.2	64.6	67	96.2	74.3	77	14	65-114/24
218-01-9	Chrysene	ND		96.2	67.3	70	96.2	75.5	79	11	66-111/22
53-70-3	Dibenzo(a,h)anthracene	ND		96.2	68.3	71	96.2	82.3	86	19	66-119/24
206-44-0	Fluoranthene	ND		96.2	63.5	66	96.2	72.7	76	14	63-106/21
86-73-7	Fluorene	1.2	J	96.2	60.7	62	96.2	71.3	73	16	62-108/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		96.2	67.8	71	96.2	82.4	86	19	64-119/24
90-12-0	1-Methylnaphthalene	13.3		96.2	69.2	58	96.2	77.3	67	11	53-102/27
91-57-6	2-Methylnaphthalene	24.0		96.2	86.3	65	96.2	98.7	78	13	51-102/26
91-20-3	Naphthalene	341	E	96.2	441	104* a	96.2	527	193* a	18	47-100/29
85-01-8	Phenanthrene	4.7	J	96.2	67.2	65*	96.2	79.7	78	17	66-110/21
129-00-0	Pyrene	ND		96.2	65.5	68	96.2	75.7	79	14	64-113/23

CAS No.	Surrogate Recoveries	MS	MSD	FA59686-5	Limits
367-12-4	2-Fluorophenol	30%	30%	15%	14-67%
4165-62-2	Phenol-d5	21%	21%	8%* b	10-50%
118-79-6	2,4,6-Tribromophenol	59%	72%	54%	33-118%

(a) Outside control limits due to high level in sample relative to spike amount.  
 (b) Outside control limits.

\* = Outside of Control Limits.

## GC/LC Semi-volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary

**Job Number:** FA59814  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72859-MB	MM53535.D	1	12/04/18	NM	12/03/18	OP72859	GMM1044

The QC reported here applies to the following samples:

Method: SW846 8082A

FA59814-3, FA59814-4

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.40	0.16	ug/l	
11104-28-2	Aroclor 1221	ND	0.40	0.20	ug/l	
11141-16-5	Aroclor 1232	ND	0.40	0.20	ug/l	
53469-21-9	Aroclor 1242	ND	0.40	0.16	ug/l	
12672-29-6	Aroclor 1248	ND	0.40	0.16	ug/l	
11097-69-1	Aroclor 1254	ND	0.40	0.16	ug/l	
11096-82-5	Aroclor 1260	ND	0.40	0.16	ug/l	

CAS No.	Surrogate Recoveries	Limits	
877-09-8	Tetrachloro-m-xylene	104%	38-127%
2051-24-3	Decachlorobiphenyl	80%	25-137%

7.1.1  
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# Method Blank Summary

**Job Number:** FA59814  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72899-MB	JJ022331.D	1	12/06/18	SJL	12/05/18	OP72899	GJJ910

The QC reported here applies to the following samples:

Method: SW846 8015C

FA59814-1, FA59814-2, FA59814-3, FA59814-4

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.20	0.080	mg/l	
	TPH (> C28-C40)	ND	0.20	0.080	mg/l	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	90% 50-131%

7.1.2  
7

# Blank Spike Summary

**Job Number:** FA59814  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72859-BS	MM53534.D	1	12/04/18	NM	12/03/18	OP72859	GMM1044

The QC reported here applies to the following samples:

Method: SW846 8082A

FA59814-3, FA59814-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	8	8.3	104	57-122
11096-82-5	Aroclor 1260	8	8.3	104	45-130

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	104%	38-127%
2051-24-3	Decachlorobiphenyl	81%	25-137%

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA59814  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72899-BS	JJ022330.D	1	12/06/18	SJL	12/05/18	OP72899	GJJ910

The QC reported here applies to the following samples:

Method: SW846 8015C

FA59814-1, FA59814-2, FA59814-3, FA59814-4

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH (C10-C28)	4	3.67	92	60-128
	TPH (> C28-C40)	4	3.72	93	51-138

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	91%	50-131%

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA59814  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72859-MS	MM53537.D	1	12/04/18	NM	12/03/18	OP72859	GMM1044
OP72859-MSD	MM53538.D	1	12/04/18	NM	12/03/18	OP72859	GMM1044
FA59708-1	MM53536.D	1	12/04/18	NM	12/03/18	OP72859	GMM1044

The QC reported here applies to the following samples:

Method: SW846 8082A

FA59814-3, FA59814-4

CAS No.	Compound	FA59708-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND	16.7	17.5	105	16.7	16.9	101	3	57-122/18
11096-82-5	Aroclor 1260	ND	16.7	16.4	98	16.7	15.7	94	4	45-130/24

CAS No.	Surrogate Recoveries	MS	MSD	FA59708-1	Limits
877-09-8	Tetrachloro-m-xylene	103%	100%	106%	38-127%
2051-24-3	Decachlorobiphenyl	77%	74%	77%	25-137%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA59814  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72899-MS	JJ022352.D	1	12/06/18	SJL	12/05/18	OP72899	GJJ910
OP72899-MSD	JJ022353.D	1	12/06/18	SJL	12/05/18	OP72899	GJJ910
FA59719-1	JJ022351.D	1	12/06/18	SJL	12/05/18	OP72899	GJJ910

The QC reported here applies to the following samples:

Method: SW846 8015C

FA59814-1, FA59814-2, FA59814-3, FA59814-4

CAS No.	Compound	FA59719-1 mg/l	Spike Q mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	1.42	8.33	8.70	87	8.33	8.78	88	1	60-128/33
	TPH (> C28-C40)	0.257	8.33	8.15	95	8.33	8.44	98	3	51-138/18

CAS No.	Surrogate Recoveries	MS	MSD	FA59719-1	Limits
84-15-1	o-Terphenyl	88%	91%	82%	50-131%

\* = Outside of Control Limits.

The results set forth herein are provided by SGS North America Inc.

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*Automated Report*

## Technical Report for

EBI Consulting

1218000439 Los Angeles, CA

SGS Job Number: FA59906

Sampling Date: 12/05/18

Report to:

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Total number of pages in report: **24**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink that reads "Caitlin Brice".

Caitlin Brice, M.S.  
General Manager

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Certifications: FL(E83510), LA(03051), KS(E-10327), IL(200063), NC(573), NJ(FL002), NY(12022), SC(96038001)  
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Test results relate only to samples analyzed.

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## Sample Summary

EBI Consulting

Job No: FA59906

1218000439 Los Angeles, CA

Sample Number	Collected		Matrix			Client Sample ID
	Date	Time By	Received	Code	Type	
FA59906-1	12/05/18	09:40 LR	12/06/18	AQ	Ground Water	B-5 GW(28)

## Summary of Hits

**Job Number:** FA59906  
**Account:** EBI Consulting  
**Project:** 1218000439 Los Angeles, CA  
**Collected:** 12/05/18

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
<b>FA59906-1</b>	<b>B-5 GW(28)</b>					
TPH (C10-C28)		7.64	0.77	0.31	mg/l	SW846 8015C
TPH (> C28-C40)		7.40	0.77	0.31	mg/l	SW846 8015C

Sample Results

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Report of Analysis

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## Report of Analysis

<b>Client Sample ID:</b> B-5 GW(28)	
<b>Lab Sample ID:</b> FA59906-1	<b>Date Sampled:</b> 12/05/18
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 12/06/18
<b>Method:</b> SW846 8270D SW846 3510C	<b>Percent Solids:</b> n/a
<b>Project:</b> 1218000439 Los Angeles, CA	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X064121.D	1	12/07/18 20:05	NJ	12/06/18 11:00	OP72921	SX2647
Run #2							

Run #1	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

## BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	0.60	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.61	ug/l	
120-12-7	Anthracene	ND	4.8	0.77	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.73	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.75	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.75	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	0.79	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	0.82	ug/l	
218-01-9	Chrysene	ND	4.8	0.82	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	0.77	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.53	ug/l	
86-73-7	Fluorene	ND	4.8	0.67	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	0.69	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.50	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.58	ug/l	
91-20-3	Naphthalene	ND	4.8	0.48	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.83	ug/l	
129-00-0	Pyrene	ND	4.8	0.66	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	55%		42-108%
321-60-8	2-Fluorobiphenyl	60%		40-106%
1718-51-0	Terphenyl-d14	59%		39-121%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

3.1  
3

<b>Client Sample ID:</b> B-5 GW(28)	<b>Date Sampled:</b> 12/05/18
<b>Lab Sample ID:</b> FA59906-1	<b>Date Received:</b> 12/06/18
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8082A SW846 3510C	
<b>Project:</b> 1218000439 Los Angeles, CA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MM53693.D	1	12/07/18 14:29	NM	12/06/18 13:45	OP72927	GMM1047
Run #2							

Run #	Initial Volume	Final Volume
Run #1	250 ml	5.0 ml
Run #2		

### PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.40	0.16	ug/l	
11104-28-2	Aroclor 1221	ND	0.40	0.20	ug/l	
11141-16-5	Aroclor 1232	ND	0.40	0.20	ug/l	
53469-21-9	Aroclor 1242	ND	0.40	0.16	ug/l	
12672-29-6	Aroclor 1248	ND	0.40	0.16	ug/l	
11097-69-1	Aroclor 1254	ND	0.40	0.16	ug/l	
11096-82-5	Aroclor 1260	ND	0.40	0.16	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	100%		38-127%
2051-24-3	Decachlorobiphenyl	62%		25-137%

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ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

3.1  
3

<b>Client Sample ID:</b> B-5 GW(28)	
<b>Lab Sample ID:</b> FA59906-1	<b>Date Sampled:</b> 12/05/18
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 12/06/18
<b>Method:</b> SW846 8015C SW846 3510C	<b>Percent Solids:</b> n/a
<b>Project:</b> 1218000439 Los Angeles, CA	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ022396.D	4	12/08/18 00:41	SJL	12/06/18 15:00	OP72930	GJJ911
Run #2							

	Initial Volume	Final Volume
Run #1	260 ml	1.0 ml
Run #2		

**TPH Extractable**

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	7.64	0.77	0.31	mg/l	
	TPH (> C28-C40)	7.40	0.77	0.31	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	87%		50-131%

---

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
 RL = Reporting Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

Misc. Forms

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Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody



ACCUTEST

CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 688-0201

BD-EX Tracking #
Bottle Order Control #
BDB Accutest Quote #
BDB Accutest NC Job #: C FA59906

Client / Reporting Information, Project Information, Requested Analysis, Matrix Codes, Collection, Turnaround Time, Data Deliverable Information, Emergency T/A data available VIA Lablink, Relinquished by / Received By, Date Time, Custody Seal #, Appropriate Bottle / Pres. Y / N, Headspace Y / N, On Ice Y / N, Cooler Temp.

4.1
4



## SGS Sample Receipt Summary

Job Number: FA59906

Client: EBI Consulting

Project: 1218000439/ Los Angeles, CA

Date / Time Received: 12/6/2018 9:00:00 AM

Delivery Method: FedEx

Airbill #s: 790902933023

Therm ID: IR 1;

Therm CF: -0.2;

# of Coolers: 1

Cooler Temps (Raw Measured) °C: Cooler 1: (4.4);

Cooler Temps (Corrected) °C: Cooler 1: (4.2);

**Cooler Information**

Y or N

- |                             |                                     |                          |
|-----------------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present    | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact     | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Temp criteria achieved   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Cooler temp verification | <u>IR Gun</u>                       |                          |
| 5. Cooler media             | <u>Ice (Bag)</u>                    |                          |

**Trip Blank Information**

Y or N    N/A

- |                                |                          |                          |                                     |
|--------------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Trip Blank listed on COC    | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|                                | <u>W or S</u>            |                          | <u>N/A</u>                          |
| 3. Type Of TB Received         | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Sample Information**

Y or N    N/A

- |   |                                     |                                     |                                     |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Sample labels present on bottles                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 2. Samples preserved properly                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 3. Sufficient volume/containers recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 4. Condition of sample                              | <u>Intact</u>                       |                                     |                                     |
| 5. Sample recvd within HT                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 6. Dates/Times/IDs on COC match Sample Label        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 7. VOCs have headspace                              | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 8. Bottles received for unspecified tests           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |
| 9. Compositing instructions clear                   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 10. Voa Soil Kits/Jars received past 48hrs?         | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 11. % Solids Jar received?                          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 12. Residual Chlorine Present?                      | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**Misc. Information**

Number of Encores: 25-Gram \_\_\_\_\_ 5-Gram \_\_\_\_\_      Number of 5035 Field Kits: \_\_\_\_\_      Number of Lab Filtered Metals: \_\_\_\_\_  
 Test Strip Lot #: pH 0-3 230315      pH 10-12 219813A      Other: (Specify) \_\_\_\_\_  
 Residual Chlorine Test Strip Lot #: \_\_\_\_\_

Comments

SM001  
Rev. Date 05/24/17

Technician: PETERH

Date: 12/6/2018 9:00:00 AM

Reviewer: PH

Date: 12/6/2018

FA59906: Chain of Custody

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MS Semi-volatiles

QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary

**Job Number:** FA59906  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72921-MB	X064082.D	1	12/06/18	MV	12/06/18	OP72921	SX2646

The QC reported here applies to the following samples:

Method: SW846 8270D

FA59906-1

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	50	6.3	ug/l	
208-96-8	Acenaphthylene	ND	50	6.4	ug/l	
120-12-7	Anthracene	ND	50	8.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	50	7.6	ug/l	
50-32-8	Benzo(a)pyrene	ND	50	7.8	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	50	7.8	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	50	8.2	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	50	8.6	ug/l	
218-01-9	Chrysene	ND	50	8.5	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	50	8.0	ug/l	
206-44-0	Fluoranthene	ND	50	5.5	ug/l	
86-73-7	Fluorene	ND	50	7.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	50	7.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	50	5.3	ug/l	
91-57-6	2-Methylnaphthalene	ND	50	6.0	ug/l	
91-20-3	Naphthalene	ND	50	5.0	ug/l	
85-01-8	Phenanthrene	ND	50	8.6	ug/l	
129-00-0	Pyrene	ND	50	6.8	ug/l	

CAS No.	Surrogate Recoveries	Limits	
367-12-4	2-Fluorophenol	41%	14-67%
4165-62-2	Phenol-d5	30%	10-50%
118-79-6	2,4,6-Tribromophenol	80%	33-118%
4165-60-0	Nitrobenzene-d5	71%	42-108%
321-60-8	2-Fluorobiphenyl	73%	40-106%
1718-51-0	Terphenyl-d14	78%	39-121%

# Method Blank Summary

**Job Number:** FA59906  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72921-MB	X064106.D	1	12/07/18	NJ	12/06/18	OP72921	SX2647

The QC reported here applies to the following samples:

Method: SW846 8270D

FA59906-1

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	0.63	ug/l	
208-96-8	Acenaphthylene	ND	5.0	0.64	ug/l	
120-12-7	Anthracene	ND	5.0	0.80	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	0.76	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	0.78	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.78	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	0.82	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	0.86	ug/l	
218-01-9	Chrysene	ND	5.0	0.85	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	0.80	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.55	ug/l	
86-73-7	Fluorene	ND	5.0	0.70	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	0.71	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	0.53	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	0.60	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.86	ug/l	
129-00-0	Pyrene	ND	5.0	0.68	ug/l	

CAS No.	Surrogate Recoveries	Limits	
367-12-4	2-Fluorophenol	41%	14-67%
4165-62-2	Phenol-d5	30%	10-50%
118-79-6	2,4,6-Tribromophenol	78%	33-118%
4165-60-0	Nitrobenzene-d5	71%	42-108%
321-60-8	2-Fluorobiphenyl	71%	40-106%
1718-51-0	Terphenyl-d14	74%	39-121%

5.1.2  
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# Blank Spike Summary

**Job Number:** FA59906  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72921-BS	X064081.D	1	12/06/18	MV	12/06/18	OP72921	SX2646

The QC reported here applies to the following samples:

Method: SW846 8270D

FA59906-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	500	413	83	61-107
208-96-8	Acenaphthylene	500	436	87	60-104
120-12-7	Anthracene	500	428	86	65-108
56-55-3	Benzo(a)anthracene	500	438	88	66-111
50-32-8	Benzo(a)pyrene	500	418	84	62-107
205-99-2	Benzo(b)fluoranthene	500	465	93	65-114
191-24-2	Benzo(g,h,i)perylene	500	449	90	66-116
207-08-9	Benzo(k)fluoranthene	500	416	83	65-114
218-01-9	Chrysene	500	444	89	66-111
53-70-3	Dibenzo(a,h)anthracene	500	449	90	66-119
206-44-0	Fluoranthene	500	412	82	63-106
86-73-7	Fluorene	500	429	86	62-108
193-39-5	Indeno(1,2,3-cd)pyrene	500	455	91	64-119
90-12-0	1-Methylnaphthalene	500	373	75	53-102
91-57-6	2-Methylnaphthalene	500	395	79	51-102
91-20-3	Naphthalene	500	375	75	47-100
85-01-8	Phenanthrene	500	428	86	66-110
129-00-0	Pyrene	500	460	92	64-113

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	48%	14-67%
4165-62-2	Phenol-d5	36%	10-50%
118-79-6	2,4,6-Tribromophenol	86%	33-118%
4165-60-0	Nitrobenzene-d5	74%	42-108%
321-60-8	2-Fluorobiphenyl	77%	40-106%
1718-51-0	Terphenyl-d14	79%	39-121%

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA59906  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72921-BS	X064105.D	1	12/07/18	NJ	12/06/18	OP72921	SX2647

The QC reported here applies to the following samples:

Method: SW846 8270D

FA59906-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	41.2	82	61-107
208-96-8	Acenaphthylene	50	42.9	86	60-104
120-12-7	Anthracene	50	42.4	85	65-108
56-55-3	Benzo(a)anthracene	50	43.5	87	66-111
50-32-8	Benzo(a)pyrene	50	41.8	84	62-107
205-99-2	Benzo(b)fluoranthene	50	45.5	91	65-114
191-24-2	Benzo(g,h,i)perylene	50	42.9	86	66-116
207-08-9	Benzo(k)fluoranthene	50	42.7	85	65-114
218-01-9	Chrysene	50	44.3	89	66-111
53-70-3	Dibenzo(a,h)anthracene	50	43.4	87	66-119
206-44-0	Fluoranthene	50	41.7	83	63-106
86-73-7	Fluorene	50	42.5	85	62-108
193-39-5	Indeno(1,2,3-cd)pyrene	50	43.6	87	64-119
90-12-0	1-Methylnaphthalene	50	37.3	75	53-102
91-57-6	2-Methylnaphthalene	50	39.8	80	51-102
91-20-3	Naphthalene	50	37.8	76	47-100
85-01-8	Phenanthrene	50	42.3	85	66-110
129-00-0	Pyrene	50	44.7	89	64-113

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	49%	14-67%
4165-62-2	Phenol-d5	36%	10-50%
118-79-6	2,4,6-Tribromophenol	85%	33-118%
4165-60-0	Nitrobenzene-d5	74%	42-108%
321-60-8	2-Fluorobiphenyl	77%	40-106%
1718-51-0	Terphenyl-d14	75%	39-121%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA59906  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72921-MS	X064109.D	1	12/07/18	NJ	12/06/18	OP72921	SX2647
OP72921-MSD	X064110.D	1	12/07/18	NJ	12/06/18	OP72921	SX2647
FA59799-1	X064108.D	1	12/07/18	NJ	12/06/18	OP72921	SX2647

The QC reported here applies to the following samples:

Method: SW846 8270D

FA59906-1

CAS No.	Compound	FA59799-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	100	73.1	73	100	79.8	80	9	61-107/22
208-96-8	Acenaphthylene	ND	100	76.4	76	100	84.1	84	10	60-104/22
120-12-7	Anthracene	ND	100	78.1	78	100	83.9	84	7	65-108/20
56-55-3	Benzo(a)anthracene	ND	100	79.2	79	100	87.5	88	10	66-111/22
50-32-8	Benzo(a)pyrene	ND	100	75.9	76	100	85.5	86	12	62-107/23
205-99-2	Benzo(b)fluoranthene	ND	100	80.5	81	100	92.1	92	13	65-114/23
191-24-2	Benzo(g,h,i)perylene	ND	100	78.2	78	100	87.5	88	11	66-116/23
207-08-9	Benzo(k)fluoranthene	ND	100	80.6	81	100	88.4	88	9	65-114/24
218-01-9	Chrysene	ND	100	80.0	80	100	90.1	90	12	66-111/22
53-70-3	Dibenzo(a,h)anthracene	ND	100	78.9	79	100	88.7	89	12	66-119/24
206-44-0	Fluoranthene	ND	100	77.7	78	100	83.4	83	7	63-106/21
86-73-7	Fluorene	ND	100	77.0	77	100	83.6	84	8	62-108/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND	100	78.4	78	100	89.7	90	13	64-119/24
90-12-0	1-Methylnaphthalene	ND	100	65.3	65	100	73.1	73	11	53-102/27
91-57-6	2-Methylnaphthalene	ND	100	70.2	70	100	78.9	79	12	51-102/26
91-20-3	Naphthalene	ND	100	66.0	66	100	74.7	75	12	47-100/29
85-01-8	Phenanthrene	ND	100	77.8	78	100	84.1	84	8	66-110/21
129-00-0	Pyrene	ND	100	80.4	80	100	89.3	89	10	64-113/23

CAS No.	Surrogate Recoveries	MS	MSD	FA59799-1	Limits
367-12-4	2-Fluorophenol	40%	43%	25%	14-67%
4165-62-2	Phenol-d5	30%	32%	16%	10-50%
118-79-6	2,4,6-Tribromophenol	75%	84%	71%	33-118%
4165-60-0	Nitrobenzene-d5	63%	72%	64%	42-108%
321-60-8	2-Fluorobiphenyl	67%	74%	67%	40-106%
1718-51-0	Terphenyl-d14	67%	74%	67%	39-121%

\* = Outside of Control Limits.

5.3.1  
5

## GC/LC Semi-volatiles

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

**Job Number:** FA59906  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72927-MB	MM53692.D	1	12/07/18	NM	12/06/18	OP72927	GMM1047

The QC reported here applies to the following samples:

Method: SW846 8082A

FA59906-1

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.40	0.16	ug/l	
11104-28-2	Aroclor 1221	ND	0.40	0.20	ug/l	
11141-16-5	Aroclor 1232	ND	0.40	0.20	ug/l	
53469-21-9	Aroclor 1242	ND	0.40	0.16	ug/l	
12672-29-6	Aroclor 1248	ND	0.40	0.16	ug/l	
11097-69-1	Aroclor 1254	ND	0.40	0.16	ug/l	
11096-82-5	Aroclor 1260	ND	0.40	0.16	ug/l	

CAS No.	Surrogate Recoveries	Limits	
877-09-8	Tetrachloro-m-xylene	105%	38-127%
2051-24-3	Decachlorobiphenyl	74%	25-137%

# Method Blank Summary

**Job Number:** FA59906  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72930-MB	JJ022384.D	1	12/07/18	SJL	12/06/18	OP72930	GJJ911

The QC reported here applies to the following samples:

Method: SW846 8015C

FA59906-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.20	0.080	mg/l	
	TPH (> C28-C40)	ND	0.20	0.080	mg/l	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	87% 50-131%

# Blank Spike Summary

**Job Number:** FA59906  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72927-BS	MM53691.D	1	12/07/18	NM	12/06/18	OP72927	GMM1047

The QC reported here applies to the following samples:

Method: SW846 8082A

FA59906-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	8	8.8	110	57-122
11096-82-5	Aroclor 1260	8	8.4	105	45-130

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	112%	38-127%
2051-24-3	Decachlorobiphenyl	81%	25-137%

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA59906  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72930-BS	JJ022383.D	1	12/07/18	SJL	12/06/18	OP72930	GJJ911

The QC reported here applies to the following samples:

Method: SW846 8015C

FA59906-1

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH (C10-C28)	4	3.63	91	60-128
	TPH (> C28-C40)	4	4.44	111	51-138

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	90%	50-131%

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA59906  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72927-MS	MM53694.D	1	12/07/18	NM	12/06/18	OP72927	GMM1047
OP72927-MSD	MM53695.D	1	12/07/18	NM	12/06/18	OP72927	GMM1047
FA59906-1	MM53693.D	1	12/07/18	NM	12/06/18	OP72927	GMM1047

The QC reported here applies to the following samples:

Method: SW846 8082A

FA59906-1

CAS No.	Compound	FA59906-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND	8	8.5	106	8	8.9	111	5	57-122/18
11096-82-5	Aroclor 1260	ND	8	8.2	103	8	8.4	105	2	45-130/24

CAS No.	Surrogate Recoveries	MS	MSD	FA59906-1	Limits
877-09-8	Tetrachloro-m-xylene	107%	112%	100%	38-127%
2051-24-3	Decachlorobiphenyl	79%	83%	62%	25-137%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA59906  
**Account:** EBIMAB EBI Consulting  
**Project:** 1218000439 Los Angeles, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72930-MS	JJ022388.D	1	12/07/18	SJL	12/06/18	OP72930	GJJ911
OP72930-MSD	JJ022389.D	1	12/07/18	SJL	12/06/18	OP72930	GJJ911
FA59850-1	JJ022387.D	1	12/07/18	SJL	12/06/18	OP72930	GJJ911

The QC reported here applies to the following samples:

Method: SW846 8015C

FA59906-1

CAS No.	Compound	FA59850-1 mg/l	Spike Q mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	0.21 U	8.33	7.70	92	8.33	7.59	91	1	60-128/33
	TPH (> C28-C40)	0.210	8.33	8.57	100	8.33	8.45	99	1	51-138/18

CAS No.	Surrogate Recoveries	MS	MSD	FA59850-1	Limits
84-15-1	o-Terphenyl	89%	90%	83%	50-131%

\* = Outside of Control Limits.

**APPENDIX D**  
**PROFESSIONAL QUALIFICATIONS**

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## **SUMMARY OF EXPERIENCE**

Chad Bechtel is an EBI Project Scientist. He has worked in the environmental field since 2005. His experience includes conducting environmental site assessments, asbestos surveys, lead-based paint surveys, limited indoor air quality evaluations, visual mold inspections, hazardous materials inspections, abatement/remediation project oversight and monitoring, and clearance inspections and sampling, as well as preparing reports and project documents and submitting documents for regulatory compliance. He has been assigned to projects involving remedial investigations with tasks including groundwater, soil and soil vapor sampling, monitoring well installations and development of wells and regulatory oversight of underground storage tank removals.

## **RELEVANT PROJECT EXPERIENCE**

**ASTM PHASE I ENVIRONMENTAL SITE ASSESSMENTS (ESAs):** Conducted various Phase I Environmental Assessments for both private sector and municipal clients on properties throughout the western United States. Included visual inspections of properties, comprehensive photographic logs, interviews, review of historical records, and comprehensive written reports. The ESAs were performed in accordance with the American Society of Testing and Materials (ASTM) Standard Practices for Environmental Site Assessment requirements, and Mr. Bechtel meets the ASTM requirements of an Environmental Professional (EP).

**PHASE II ENVIRONMENTAL SITE ASSESSMENTS:** Conducted various Phase II Site Assessment projects to evaluate potential soil and/or groundwater contamination. Performed numerous field activities which included collection of soil, soil vapor, and groundwater samples, measurement of water levels, submittal of samples for laboratory analysis submittal under proper chain of custody, and prepared reports of the findings.

**PHASE III ENVIRONMENTAL REMEDIATION OVERSIGHT:** Provided regulatory oversight for the removal of contaminated groundwater and soil at various facilities including gasoline stations, shooting ranges and industrial facilities. Collected soil and groundwater samples for remediation progress reports and completion confirmation and prepared reports of the findings.

**RADON SAMPLING:** Followed strict guidelines for the placement and collection of radon samples in order to test for the presence of radon gas in indoor air at various apartment complexes and prepared reports of the findings.

**LIMITED/COMPREHENSIVE ASBESTOS SURVEYS:** Performed both Limited and Comprehensive inspections on buildings for asbestos containing materials (ACM) for planned renovations and/or demolitions. Assessed the condition of suspect ACM, either friable or non-friable, on interior and exterior portions of a facility and prepared reports of the findings.

**ASBESTOS ABATEMENT OVERSIGHT:** Performed regulatory oversight of asbestos abatement activities. Inspected worker training and fit test documents, containment construction and performed final visual clearance after abatement was completed. In addition, collected ambient air samples during abatement activities and clearance air samples following abatement activities and prepared reports of the findings.

**NEPA ASSESSMENTS:** Prepared numerous NEPA consultation reports, compliance audits, biological assessments and other various environmental assessments for telecommunications sites. Has helped various clients facilitate the Section 106 / environmental review process to ensure compliance with Federal Communications Commission (FCC) requirements under the National Environmental Policy Act (NEPA).

**EDUCATION**

B.S. in Geology, Arizona State University

**PROFESSIONAL REGISTRATIONS**

State of Arizona Registered Geologist

OSHA 40-Hour Hazardous Materials Training

EPA AHERA Certified Building Inspector/Management Planner/Contractor Supervisor

## **SUMMARY OF EXPERIENCE**

Mr. Ryan Deutsch is a licensed Professional Geologist and has over 11 years of professional consulting experience in finance and development due diligence for environmental site assessments, subsurface contamination investigation and remediation, and indoor air and vapor intrusion assessments on various types of commercial and residential properties for a diverse group of clients including lending institutions, investment and legal firms, special servicers, receiverships, property owners, government agencies, telecommunication companies, and corporations. Mr. Deutsch has successfully performed and managed over 1,200 technical environmental site assessments, contamination and remediation projects in several states.

At EBI Consulting, Mr. Deutsch has worked as a Program Manager since 2010 in the Site Investigation and Remediation (SIR) Group from his office in Denver, Colorado, and specializes in business development and project management including client proposals and cost estimates, contractor and field staff coordination and scheduling, and management of contamination investigation and remediation projects for real estate and telecommunication clients.

## **RELEVANT PROJECT EXPERIENCE**

- Review site documentation and reports to develop project scope of work, budget, and client proposal, obtain cost estimates from specialized subcontractors, coordinate staffing and scheduling, and facilitate contamination investigation projects to determine presence and extent of contamination in soil, soil vapor, groundwater, and/or indoor air.
- Manage field staff and subcontractors, conduct and supervise soil, soil vapor, groundwater and indoor air sampling activities, determine appropriate laboratory analysis requirements, write and review subsurface investigation reports, and make recommendations to clients based on analytical results and state/federal reporting requirements.
- Organize personnel to conduct subsurface investigations involving the location of public and private utilities, obtaining required municipal and/or government agency permits, location of underground tanks, product lines, and utilities using geophysical methods, advancement and logging of soil borings, collection of soil, soil vapor and groundwater samples, installation and surveying of monitoring wells to calculate hydrogeologic gradients, removal and/or remediation of contaminated soil, groundwater, hydraulic equipment, and/or Underground Storage Tanks (usts).
- Analyze and interpret laboratory analytical data and state standard and guidance documents and communicate with state regulatory agencies and clients regarding identified contamination and requirements for reporting, additional investigation, and additional investigation, corrective action and remediation measures.
- Sample for suspect Asbestos Containing Materials (acms), Lead-Based Paint, Lead in Drinking Water, Radon, and Mold in commercial and residential structures.

- Perform all aspects of due diligence associated with environmental assessments and property condition assessments including research of historical property uses, field inspections, personnel interviews, material sampling and testing, database analysis, review of building plans and drawings, property and building component reserve and replacement cost estimates, and report writing.
- Managed and conducted environmental studies for roadway, corridor expansion, and bridge replacement projects for city, county, and state government agencies as well as private properties that were acquired by government and/or private land conservation groups for public parks and nature preserves.

**EDUCATION**

Bachelor of Science, Hydrogeology/Environmental Geology, University of Texas at Austin

**PROFESSIONAL AFFILIATIONS**

- OSHA 40-hour Hazardous Materials Safety Training
- U.S. EPA / Colorado A.H.E.R.A. / A.S.H.A.R.A. Asbestos Inspector Certification
- U.S. Department of Housing and Urban Development Visual Assessment Course for Lead-based Paint Inspection
- Scientist Member of the National Ground Water Association (NGWA)

**PROFESSIONAL REGISTRATIONS**

Professional Licensed Geologist State of Tennessee, ID # 00005309

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## **SUMMARY OF EXPERIENCE**

Mr. Bardsley has over 18 years of experience in soil, soil gas, surface water, stormwater, and groundwater investigations and remediation; and hazardous and solid waste management. He has experience as a project manager and/or project geologist on numerous environmental site assessments including real estate transfer, refinancing, and re-use and re-purposing assessments.

Activities have included all aspects of preliminary site assessments and subsequent site investigations on properties with environmental contamination, hazardous waste investigations, industrial facility closures, and underground storage tanks (USTs) / aboveground storage tanks (ASTs), and remediation projects. Mr. Bardsley has also negotiated with and obtained closure from various regulatory agencies.

Mr. Bardsley has worked with corporate environmental officers, Wall Street lending institutions, legal counsels, investment companies, petroleum related clients and real estate brokers to develop strategies for managing environmental due diligence investigation for property acquisition and financing. Mr. Bardsley has also provided litigation support for different environmental projects; and on-call environmental compliance inspections on several Washington State Department of Transportation (WSDOT) roadway construction projects. He has participated in a variety of projects throughout the United States, but more specically in the western United States including Alaska, Arizona, California, Colorado, Idaho, Montana, New Mexico, Nevada, Oregon, Texas, Utah, and Washington.

## **RELEVANT PROJECT EXPERIENCE**

- Managed, conducted, and provided technical oversight for numerous phase I Environmental Site Assessments (ESAs) for sites throughout the western United States, as well as initial site assessments (ISAs) and hazardous substance liability assessments (HSLAs) for sites in California, in accordance with ASTM E 1527.
- Designed and conducted/managed numerous subsequent Phase II assessments. Examples include former and existing dry cleaning facilities, aerospace engineering facilities, electrical manufacturing facilities, former and current automobile dealerships and/or repair shops, former and current aggregate mining sites, former shooting ranges, former and current hot mix plants (asphalt concrete), former burn dumps, and former hospitals (including the former Sutter Memorial Hospital in Sacramento, California, which was repurposed for residential land uses).
- Managed, conducted, and provided technical oversight for the following:
  - Numerous petroleum-related facilities including retail gasoline service stations, bulk fuel facilities, pipeline projects, and automotive dealerships throughout the western United States.
  - A former coal mine that was backfilled with cement kiln dust (CKD) near Ravensdale, Washington.
  - Several “Rails to Trails” projects in California.
  - Various remediation and compliance projects including the following California sites: Port of Richmond, Marina Bay, North Hollywood Operable Unit (NHO) Superfund Site, and the Pacific Gas and Electric’s (PG&E’s) Topock and Hinkley Compressor Station sites. Some of the remediation technologies have included large scale soil remediation projects, dual phase extraction systems, air sparge (AS)/soil vapor extraction (SVE) systems, and sub-slab depressurization (SSD) systems.



- Several Brownfields projects.
- Various solid waste facilities including active and former landfills including former burn dumps.
- Operated and maintained soil, soil gas, and groundwater remediation systems.
- Designed and conducted groundwater monitoring programs.
- Provided geologist services for both environmental and geotechnical subsurface investigations.

## **EDUCATION**

- Bachelor of Arts in Geography (1995), University of Utah, Salt Lake City, Utah
- Bachelor of Arts in Geology (2000), University of Colorado, Boulder, Colorado

## **PROFESSIONAL REGISTRATIONS**

- Professional Geologist, California #9170
- Professional Geologist, Oregon #G2167
- Professional Geologist, Washington #2623
- OSHA 29 CFR 1910.120 40 Hour HAZWOPER

## **PROFESSIONAL DEVELOPMENT COURSES**

- *The Vapor Intrusion Risk Pathway: A Practical Guide* presented on May 8 and 9, 2018, in Santa Fe, New Mexico, by Hartman Environmental Geoscience Training. Instructor was Dr. Blayne Hartman with Hartman Environmental Geoscience. Equivalent to 13.0 professional development hours.
- *Advances in Assessment the Vapor Intrusion Pathway* presented on December 4, 2018, by Air & Waste Management Association in Phoenix, Arizona. Instructors were Robert Ettinger, Senior Principal Environmental Scientist, Geosyntec; and Dr. Loren Lund, Vapor Intrusion/Risk Assessment Leader, Jacobs. Equivalent to 3.5 professional development hours.
- *Vapor Intrusion, Remediation, and Site Closure* presented on December 5 and 6, 2018, by Air & Waste Management Association in Phoenix, Arizona. Equivalent to 10.0 professional development hours.

**APPENDIX E**  
**DRILLING PERMIT**

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# ENVIRONMENTAL HEALTH



## Drinking Water Program

5050 Commerce Drive, Baldwin Park, CA 91706

Telephone: (626) 430-5420 • [http://publichealth.lacounty.gov/eh/ep/dw/dw\\_main.htm](http://publichealth.lacounty.gov/eh/ep/dw/dw_main.htm)

### Work Plan Approval

WORK SITE ADDRESS	CITY	ZIP	EMAIL ADDRESS
316 N Juanita Avenue	Los Angeles	90004	cbechtel@ebiconsulting.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.
- 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.

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

<b>X</b>	WORK PLAN APPROVED FOR: 5 Soil Boring/Exp. Hole	PERMIT NUMBER: SR0165541	DATE: November 13, 2018
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**ADDITIONAL APPROVAL CONDITIONS:**

- Work plan approval is issued for scope of work submitted to the Drinking Water Program. Any modifications to the scope of work will require additional work plan review.
- As discussed, please ensure the boring/exploration hole is backfilled within 24 hours of boring construction.
- Ensure to backfill using a tremie pipe under pressure or equivalent equipment with approved cement grout, proceeding upward from the bottom of the boring/exploration hole.
- Ensure soil borings are sealed per California Well Standards 74-90
  - Cement grout mix ratio of 5-6 gallons of water per 94-pound bag of Portland cement.
  - Up to 6% of Bentonite may be added to the cement-based mix.
  - No hydrated Bentonite chips
- Borings/Exploration holes must comply with all applicable requirements published in the California Well Standards (Bulletins 74-81 and 74-90) and the Los Angeles County Code, Title 11.

**APPROVED BY:**

Teri Hachey, REHS  
26415 Carl Boyer Dr.  
Santa Clarita, Ca 91350  
(661) 287-7017



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