

Appendix G-1  
**Phase I Environmental Site  
Assessment**





# **PARTNER**

**Engineering and Science, Inc.**



## **PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT**

**2311 North Hollywood Way**  
Burbank, California 91505

Report Date: May 18, 2020  
Partner Project No. 20-279443.1



Prepared for:

**LaTerra Development, LLC**  
1880 Century Park East, Suite 1017  
Los Angeles, California 90067

May 18, 2020

Mr. Justin Fleming  
LaTerra Development, LLC  
1880 Century Park East, Suite 1017  
Los Angeles, California 90067

Subject: Phase I Environmental Site Assessment  
2311 North Hollywood Way  
Burbank, California 91505  
Partner Project No. 20-279443.1

Dear Mr. Fleming:

Partner Engineering and Science, Inc. (Partner) is pleased to provide the results of the *Phase I Environmental Site Assessment* (Phase I ESA) report of the abovementioned address (the "subject property"). This assessment was performed in conformance with the scope and limitations as detailed in the ASTM Practice E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

This assessment included a site reconnaissance as well as research and interviews with representatives of the public, property ownership, site manager, and regulatory agencies. An assessment was made, conclusions stated, and recommendations outlined.

We appreciate the opportunity to provide environmental services to you. If you have any questions concerning this report, or if we can assist you in any other matter, please contact me at (310) 765-7243.

Sincerely,



Jenny Redlin  
Relationship Manager

## EXECUTIVE SUMMARY

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Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in accordance with the scope of work and limitations of ASTM Standard Practice E1527-13, the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) and set forth by LaTerra Development, LLC for the property located at 2311 North Hollywood Way in Burbank, Los Angeles County, California (the "subject property"). The Phase I Environmental Site Assessment is designed to provide LaTerra Development, LLC with an assessment concerning environmental conditions (limited to those issues identified in the report) as they exist at the subject property.

### Property Description

The subject property is located on the northwestern corner of North Hollywood Way and Valhalla Drive within a mixed commercial and industrial area of Los Angeles County. Please refer to the table below for further description of the subject property:

#### **Subject Property Data**

<b>Address:</b>	2311 North Hollywood Way, Burbank, California
<b>Property Use:</b>	Commercial – Retail
<b>Land Acreage (Ac):</b>	10.43 Ac
<b>Number of Buildings:</b>	Three
<b>Number of Floors:</b>	One
<b>Gross Building Area (SF):</b>	104,404 SF (Total)
<b>Date of Construction:</b>	1962
<b>Assessor's Parcel Number (APN):</b>	2463-001-019
<b>Type of Construction:</b>	Concrete-Tilt-Up, Slab-on-Grade
<b>Current Tenants:</b>	Fry's Electronics
<b>Site Assessment Performed By:</b>	Louis Mowers of Partner
<b>Site Assessment Conducted On:</b>	April 16, 2020

The subject property is currently occupied by Fry's Electronics for commercial storage and retail use. Onsite operations consist of electronic and miscellaneous product sales, storage, distribution, online pick-up, automotive stereo installation, delivery reception, and typical management and maintenance practices. The subject property consists of three one-story buildings. The main commercial building is located on the southern section of the property with the additional two buildings, one used for an abandoned HVAC system housing, and the other used as a currently non-operational automotive stereo installation garage, located on the western side of the primary structure. In addition to the current structures, the subject property is also improved with asphalt paved parking areas, concrete walkways, a caged delivery center, and associated landscaping.

Based on review of historical sources, the subject property was formerly undeveloped land from as early as 1894; and developed as a dairy with associated residential structures and a store between circa-1928 and the early-1960s. By 1962, the subject property was redeveloped with the current commercial structure on the southern portion and Lockheed Martin (referred to as Plant A-1 South) occupied the property from

1969 to December 1995 for use as offices, a vehicle maintenance shop and parking. Additionally, a gasoline service station/automotive repair operation was developed on the northeastern portion of the subject property in 1962, which was acquired by Lockheed Martin in the mid-1960s and utilized as a gasoline service station/automotive repair operation for Lockheed fleet vehicles until closure in 1992. The subject property has been occupied by Fry's Electronics for retail use since at least 1995. Significant tenants at the subject property include Shoman Dairy (1950s), Lockheed Martin (1960s-1995), Unimart (1962-1986), and Fry's Electronics (1995-Present).

The immediately surrounding properties consist of Burbank Airport Rent-a-Car center to the north across Vanowen Street and Empire Avenue; multi-tenant commercial/industrial to the south across Valhalla Drive; Army National Guard to the southwest across Valhalla Drive; Public Storage across the intersection of North Hollywood Way and Valhalla Drive; Logix Smarter Banking to the east across North Hollywood Way; and Motion Picture Costum, Midnight Oil Agency, and ARRI Inc. to the west.

According to the Regional Water Quality Control Board (RWQCB) online database GeoTracker, a previous subsurface investigation conducted on the subject property (1995) indicates the depth to groundwater in the vicinity of the subject property is approximately 156 feet below ground surface (bgs) and groundwater flow is inferred to be toward the southeast.

## Findings

A *recognized environmental condition (REC)* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment. The following was identified during the course of this assessment:

- The subject property is located within the boundaries of the Burbank Operable Unit (BOU) of the San Fernando Valley North Hollywood National Priorities List (NPL) site, an area of known groundwater contamination. Constituents of Concern (COCs) that have been identified include semi-volatile organic compounds (SVOCs), Volatile Organic Compounds (VOCs) and chromium. The subject property was one of many sites investigated by RWQCB and USEPA as a potential responsible party (PRP) of the groundwater contamination. On July 6, 1995 a letter was issued to Lockheed by RWQCB indicating the subject property would no longer be under investigation for potential groundwater contamination for VOCs and the subject property (former Lockheed Plant A-1 South) and current ownership (Gort Limited) were noted to be excluded from the requirements of the Cleanup and Abatement Order No. 87-161, which is associated with the cleanup of several Lockheed plants in the Burbank area.

Former site occupant, Lockheed Martin, monitors groundwater within the BOU to comply with the provisions of a USEPA Consent Decree (#91-4527-MRP) filed March 1992, and the CRWQCB Cleanup and Abatement Order (#87-161) dated December 1987. As part of the NPL investigation, two groundwater monitoring wells, A-1-CW04 and A-1-CW09, were installed in the north and northeast portion of the subject property, respectively. A third well, monitoring well A-1-CW05 was co-located with monitoring well A-1-CW04 at a later date. Partner contacted Ms. Anita Fang

with CRWQCD regarding the most recent groundwater monitoring results on file with the agency for the BOU. A review of an Annual Groundwater Monitoring Report, Second Quarter 2017 Burbank Operable Unit, provided by Ms. Fang indicates 1,2,3 Trichloropropane (1,2,3 TCP), 1,4 Dioxane, various other VOCs (including Tetrachloroethylene (PCE) and Trichloroethene (TCE), hexavalent chromium and chromium were detected in the onsite wells at levels above the reporting limit (RL), with an increasing trend of 1,2,3 TCP concentrations. Chromium was detected in well A-1-CW04 at 0.88 ug/L which exceeds the Maximum Contaminant Level (MCL).

Lockheed Martin has conducted groundwater monitoring of the onsite wells since approximately 1996 and has been identified as a potential contributor to the regional groundwater contamination. As discussed, the current property owner (Gort, Ltd) has not been identified as a potential responsible party (PRP) and it is unlikely the subject property owner would be responsible for future remediation activities since NFA was issued in 1995. Furthermore, based on the depth to groundwater, review of the most recent groundwater analytical results, and commercial usage of the subject property, a vapor intrusion condition (VIC) is unlikely to exist at the subject property. The location of the subject property within the Burbank Operable Unit of the San Fernando Valley NPL investigation, the identification of a former site occupant as a potential contributor to the regional impact, and the reported VOC and chromium groundwater contamination identified in onsite wells is considered a REC for the subject property; however, based on the lack of an apparent VIC and issuance of an NFA letter with regards to the former subject property operations, Partner recommends no further investigation at this time with regards to this regional groundwater contamination case.

*A controlled recognized environmental condition (CREC)* refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. The following was identified during the course of this assessment:

- Based on review of historical sources, by 1962, the subject property was redeveloped with the current commercial structure on the southern portion and Lockheed Martin (referred to as Plant A-1 South) occupied the property from 1969 to December 1995 for use as offices, a vehicle maintenance shop and parking. Additionally, a gasoline service station/automotive repair operation was developed on the northeastern portion of the subject property in 1962, which was acquired by Lockheed Martin in the mid-1960s and utilized as a gasoline service station/automotive repair operation for Lockheed fleet vehicles until closure in 1992. The subject property has been occupied by Fry's Electronics for retail use since at least 1995.

The subject property at 2311 North Hollywood Way was identified in the regulatory database report under the names Lockheed Martin, Gort Limited and Fry's Electronics. Based on information provided in a previous Phase I ESA report (PSI, 1998) and from a file review, this former operation included four (4) 12,000-gallon gasoline/diesel/tetrachloroethylene (PCE) USTs, one 550-gallon waste oil UST, one concrete 1,600-gallon clarifier and seven (7) dispensers. The

UST containing PCE served as a central supply point for Lockheed's other plants in the Burbank area. The former gasoline service station/automotive repair operation was demolished in 1992 and the former underground storage tank (USTs) and clarifier were removed as part of the demolition. Additionally, other features including hydraulic lifts and storm drains were removed during this demolition under the supervision of the Burbank Fire Department. Following removal of the USTs and other associated features of potential concern, a total of twenty-one soil samples were collected from the excavated areas. According to the analytical results, subsurface soil was found to be impacted with PCE, diesel fuel and hydraulic oil.

Between 1992 and 1995, seven (7) subsurface investigations were conducted at the subject property in relation to this reported release to the subsurface as a result of the former operations, and a total of 426 soil samples were collected from the former service station during this period. The 1992 subsurface investigation included 78 soil borings to depths of 10 to 40 feet bgs, and soil samples collected from varying intervals were analyzed for VOCs, PCBs, and TPH. According to the analytical results, TPH impacts were generally confined to the upper 10 feet of soil. Elevated VOC impacts were also generally limited to the upper 10 feet of soil, with one boring noting PCE impacts extending to 25 feet bgs. In 1993, a Soil Gas Survey was conducted on the subject property to further evaluate the extent of the subsurface impacts. A total of 181 soil-gas samples were collected from 159 locations across the subject property at depths ranging from 5 to 25 feet bgs, and the samples were analyzed for VOCs. According to the analytical results, twelve of the sample collected from the 5-foot depth contained PCE in excess of 0.1 mg/L, with one sample exceeding 1.0 mg/L. None of the samples collected from the 20-foot depth contained concentrations of PCE above 1.0 mg/L. Additional site characterization was conducted in 1994/1995 which included additional soil borings and sampling and additional soil vapor sampling. A total of 18 of the 426 soil samples contained concentrations of PCE above 1 mg/kg.

Based on review of the Final Soil Remediation Report dated May 22, 1995 by Lockheed Martin Corporation, approximately 1,380 tons of PCE- and diesel/oil-impacted soil was excavated and removed from the subject property. Following removal, a total of 109 confirmation soil samples were collected from the base and sidewalls of the excavation and analyzed for VOCs, TPH, and lead. According to the analytical results, the confirmation soil samples all contained less than 150 ug/kg of PCE. As such, the excavations were backfilled with approved clean fill, and a request for closure was submitted with the report. Based on review of the 1995 final soil remediation report, in a letter dated July 5, 1995, the California Regional Water Quality Control Board (RWQCB) issued a No Further Action status to the subject property and indicated the subject property had been remediated in accordance with Cleanup and Abatement Order No. 87-161. As such, the subject property (former Lockheed Plant A-1 South) and current ownership (Gort Limited) were noted to be excluded from the requirements of the Cleanup and Abatement Order No. 87-161, which is associated with the cleanup of several Lockheed plants in the Burbank area. Based on the regulatory closure with residual PCE-impacted soil left in place, the historical usage of the subject property and associated closed release case are considered a CREC for the subject property. As such, prior to any redevelopment activities and due to the presence of residual PCE-impacted soil



in the subsurface, Partner recommends a soil vapor survey be conducted to evaluate potential vapor intrusion issues for any future onsite buildings. Additionally, if the redevelopment plan includes subterranean levels, Partner recommends implementing a Soil Management Plan (SMP).

A *historical recognized environmental condition (HREC)* refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. The following was identified during the course of this assessment:

- Partner did not identify any HRECs during the course of this assessment.

An *environmental issue* refers to environmental concerns identified by Partner, which do not qualify as RECs; however, warrant further discussion. The following was identified during the course of this assessment:

- Due to the age of the subject property buildings, there is a potential that asbestos-containing material (ACM) and/or lead-based paint (LBP) are present. Readily visible suspect ACMs and painted surfaces were observed in good condition. The identified suspect ACMs and LBPs would need to be sampled to confirm the presence or absence of asbestos or lead prior to any renovation or demolition activities to prevent potential exposure to workers and/or building occupants.

## **Conclusions, Opinions and Recommendations**

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of 2311 North Hollywood Way in Burbank, Los Angeles County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed evidence of a REC, CREC and environmental issue in connection with the subject property. Based on the conclusions of this assessment, Partner recommends the following:

- Prior to any redevelopment activities and due to the presence of residual PCE-impacted soil in the subsurface, Partner recommends a soil vapor survey be conducted to evaluate potential vapor intrusion issues for any future onsite buildings. Additionally, if the redevelopment plan includes subterranean levels, Partner recommends implementing a Soil Management Plan (SMP).
- An Operations and Maintenance (O&M) Program should be implemented in order to safely manage the suspect ACMs and LBP located at the subject property.

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## 1.0 INTRODUCTION

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Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in conformance with the scope and limitations of ASTM Standard Practice E1527-13 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) for the property located at 2311 North Hollywood Way in Burbank, Los Angeles County, California (the "subject property"). Any exceptions to, or deletions from, this scope of work are described in the report.

### 1.1 Purpose

The purpose of this ESA is to identify existing or potential Recognized Environmental Conditions (as defined by ASTM Standard E1527-13) affecting the subject property that: 1) constitute or result in a material violation or a potential material violation of any applicable environmental law; 2) impose any material constraints on the operation of the subject property or require a material change in the use thereof; 3) require clean-up, remedial action or other response with respect to Hazardous Substances or Petroleum Products on or affecting the subject property under any applicable environmental law; 4) may affect the value of the subject property; and 5) may require specific actions to be performed with regard to such conditions and circumstances. The information contained in the ESA Report will be used by Client to: 1) evaluate its legal and financial liabilities for transactions related to foreclosure, purchase, sale, loan origination, loan workout or seller financing; 2) evaluate the subject property's overall development potential, the associated market value and the impact of applicable laws that restrict financial and other types of assistance for the future development of the subject property; and/or 3) determine whether specific actions are required to be performed prior to the foreclosure, purchase, sale, loan origination, loan workout or seller financing of the subject property.

This ESA was performed to permit the *User* to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) liability (hereinafter, the "*landowner liability protections*," or "*LLPs*"). ASTM Standard E1527-13 constitutes "*all appropriate inquiry* into the previous ownership and uses of the *property* consistent with good commercial or customary practice" as defined at 42 U.S.C. §9601(35)(B).

### 1.2 Scope of Work

The scope of work for this ESA is in accordance with the requirements of ASTM Standard E1527-13. This assessment included: 1) a property and adjacent site reconnaissance; 2) interviews with key personnel; 3) a review of historical sources; 4) a review of regulatory agency records; and 5) a review of a regulatory database report provided by a third-party vendor. Partner contacted local agencies, such as environmental health departments, fire departments and building departments in order to determine any current and/or former hazardous substances usage, storage and/or releases of hazardous substances on the subject property. Additionally, Partner researched information on the presence of activity and use limitations (AULs) at these agencies. As defined by ASTM E1527-13, AULs are the legal or physical restrictions or limitations on the use of, or access to, a site or facility: 1) to reduce or eliminate potential

exposure to hazardous substances or petroleum products in the soil or groundwater on the subject property; or 2) to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment. These legal or physical restrictions, which may include institutional and/or engineering controls (IC/ECs), are intended to prevent adverse impacts to individuals or populations that may be exposed to hazardous substances and petroleum products in the soil or groundwater on the property.

If requested by Client, this report may also include the identification, discussion of, and/or limited sampling of asbestos-containing materials (ACMs), lead-based paint (LBP), mold, and/or radon.

### **1.3 Limitations**

Partner warrants that the findings and conclusions contained herein were accomplished in accordance with the methodologies set forth in the Scope of Work. These methodologies are described as representing good commercial and customary practice for conducting an ESA of a property for the purpose of identifying recognized environmental conditions. There is a possibility that even with the proper application of these methodologies there may exist on the subject property conditions that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information. Partner believes that the information obtained from the record review and the interviews concerning the subject property is reliable. However, Partner cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete. The conclusions and findings set forth in this report are strictly limited in time and scope to the date of the evaluations. The conclusions presented in the report are based solely on the services described therein, and not on scientific tasks or procedures beyond the scope of agreed-upon services or the time and budgeting restraints imposed by the Client. No other warranties are implied or expressed.

Some of the information provided in this report is based upon personal interviews, and research of available documents, records, and maps held by the appropriate government and private agencies. This report is subject to the limitations of historical documentation, availability, and accuracy of pertinent records, and the personal recollections of those persons contacted.

This practice does not address requirements of any state or local laws or of any federal laws other than the all appropriate inquiry provisions of the LLPs. Further, this report does not intend to address all of the safety concerns, if any, associated with the subject property.

Environmental concerns, which are beyond the scope of a Phase I ESA as defined by ASTM include the following: ACMs, LBP, radon, and lead in drinking water. These issues may affect environmental risk at the subject property and may warrant discussion and/or assessment; however, are considered non-scope issues. If specifically requested by the Client, these non-scope issues are discussed in Section 6.3.

### **1.4 User Reliance**

LaTerra Development, LLC engaged Partner to perform this assessment in accordance with an agreement governing the nature, scope and purpose of the work as well as other matters critical to the engagement. All reports, both verbal and written, are for the sole use and benefit of LaTerra Development, LLC. Either

verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with Partner granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against Partner, its officers, employees, vendors, successors or assigns. Any such unauthorized user shall be responsible to protect, indemnify and hold Partner, Client and their respective officers, employees, vendors, successors and assigns harmless from any and all claims, damages, losses, liabilities, expenses (including reasonable attorneys' fees) and costs attributable to such Use. Unauthorized use of this report shall constitute acceptance of and commitment to these responsibilities, which shall be irrevocable and shall apply regardless of the cause of action or legal theory pled or asserted. Additional legal penalties may apply.

### **1.5 Limiting Conditions**

The findings and conclusions contain all of the limitations inherent in these methodologies that are referred to in ASTM E1527-13.

Specific limitations and exceptions to this ESA are more specifically set forth below:

- Interviews with past owners, operators and occupants were not reasonably ascertainable and thus constitute a data gap. Based on information obtained from other historical sources (as discussed in Section 3.0), this data gap is not expected to alter the findings of this assessment.
- Partner requested information relative to deed restrictions and environmental liens, a title search, and completion of a pre-survey questionnaire from the Report User. This information was not provided at the time of the assessment. Based on information obtained from other historical sources (as discussed in Section 3.0), this data gap is not expected to alter the findings of this assessment.
- Partner was unable to determine the property use at 5-year intervals, which constitutes a data gap. Except for property tax files and recorded land title records, which were not considered to be sufficiently useful, Partner reviewed all standard historical sources and conducted appropriate interviews.

## 2.0 SITE DESCRIPTION

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### 2.1 Site Location and Legal Description

The subject property at 2311 North Hollywood Way in Burbank, California is located on the northwestern corner of North Hollywood way and Valhalla Drive. According to the Los Angeles County Assessor, the subject property is legally described as "P M 269-99-100 LOT 1", and ownership is currently vested in GORT Limited since 1995.

Please refer to Figure 1: Site Location Map, Figure 2: Site Plan, Figure 3: Topographic Map, and Appendix A: Site Photographs for the location and site characteristics of the subject property.

### 2.2 Current Property Use

The subject property is currently occupied by Fry's Electronics for commercial storage and retail use. Onsite operations consist of electronic and miscellaneous product sales, storage, distribution, online pick-up, automotive stereo installation, delivery reception, and typical management and maintenance practices. The subject property consists of three one-story buildings. The main commercial building is located on the southern section of the property with the additional two buildings, one used for an abandoned HVAC system housing, and the other used as a currently non-operational automotive stereo installation garage, located on the western side of the primary structure. In addition to the current structures, the subject property is also improved with asphalt paved parking areas, concrete walkways, a caged delivery center, and associated landscaping.

The subject property is designated C-3 for Commercial General Business development by the City of Burbank.

The subject property was identified as a Resource Conservation Recovery Act (RCRA) site, Hazardous Waste Manifest Data (HAZNET) and Hazardous Waste Tracking Systems (HWTS) site, Clandestine Drug Lab (CDL) and Enforcement Action (EDL) site, CalEPA Hazardous Waste (CERS HAZ WASTE) site, Underground Storage Tank (SWEEPS UST) and Facility Inventory Database UST (FID UST) site, and Well Investigation Program (WIP) site in the regulatory database report, as further discussed in Section 4.2.

### 2.3 Current Use of Adjacent Properties

The subject property is located within a mixed commercial and industrial area of Los Angeles County. During the vicinity reconnaissance, Partner observed the following land use on properties in the immediate vicinity of the subject property:

#### ***Immediately Surrounding Properties***

- North:** Vanowen Street and Empire Avenue beyond which is Burbank Airport Rent-a-Car center (2501 North Hollywood Way)
- South:** Valhalla Drive beyond which is multi-tenant commercial/industrial (3520 Valhalla Drive and 2243 North Hollywood Way)
- Southwest** Valhalla Drive beyond which is the Army National Guard (3800 Valhalla Drive)
- Southeast** The intersection of North Hollywood Way and Valhalla Drive beyond which is Public Storage (2240 North Hollywood Way)

### **Immediately Surrounding Properties**

- East:** North Hollywood Way beyond which is Logix Smarter Banking (2328 North Hollywood Way)
- West:** Motion Picture Costume, Midnight Oil Agency, and ARRI Inc. (3811 Valhalla Drive, and 3800 and 3700 Vanowen Street)

Several adjacent properties were identified in the regulatory database report, as further discussed below in Section 4.2.

## **2.4 Physical Setting Sources**

### **2.4.1 Topography**

The United States Geological Survey (USGS) *Burbank, California* Quadrangle 7.5-minute series topographic map was reviewed for this ESA. According to the contour lines on the topographic map, the subject property is located at approximately 660 feet above mean sea level (MSL). The contour lines in the area of the subject property indicate the area is sloping gently toward the south-southeast. The subject property is depicted on the 2012 map as shaded indicating development,

A copy of the most recent topographic map is included as Figure 3 of this report.

### **2.4.2 Hydrology**

According to topographic map interpretation, the direction of groundwater flow in the vicinity of the subject property is inferred to be toward the southeast. The nearest surface water in the vicinity of the subject property is the Santa Ana Canal located approximately 300-feet to the northeast of the subject property. No settling ponds, lagoons, surface impoundments, wetlands or natural catch basins were observed at the subject property during this assessment.

According to available information, a public water system operated by the Burbank Department of Public Works and Engineering serves the subject property vicinity. The sources of public water for Burbank are surface water purchased from the Metropolitan Water District (MWD) that receives its water from the Northern Sierra Mountains in California and the Colorado River.

According to the Regional Water Quality Control Board (RWQCB) online database GeoTracker, a previous subsurface investigation conducted on the subject property (1995) indicates the depth to groundwater in the vicinity of the subject property is approximately 156 feet below ground surface (bgs).

### **2.4.3 Geology/Soils**

The subject property is situated within the southeastern portion of the San Fernando Valley in the Transverse Ranges physiographic province of the State of California. The San Fernando Valley is a sedimentary basin located between the Verdugo and San Gabriel Mountains to the northeast, Santa Monica Mountains to the south, Santa Susana Mountains to the north, and the Simi Hills to the west. The site vicinity is underlain by alluvial deposits of Holocene and Pleistocene age, comprised of unconsolidated to weakly lithified valley-fill sediments deposited as coalescing alluvial fans along the surrounding mountain fronts. The soils in the southeastern portion of the Valley are mainly gravel and

sand with localized lenses of clay and silt overlying sandstones and conglomerates of the Tertiary-aged Topanga Formation which overlies a basement complex of granitic and metamorphic rocks.

Soils encountered during onsite assessments in the 1990s were described as silty sand, sand, and sand with gravel to 85 feet bgs. Fine sands and lenses of silty sand were encountered at 10 and 30 feet bgs.

#### **2.4.4 Flood Zone Information**

Partner performed a review of the Flood Insurance Rate Map, published by the Federal Emergency Management Agency. According to Community Panel Number 06037C1328F, dated September 26, 2008, the subject property appears to be located in Zone X, an area located outside of the 100-year and 500-year flood plains.

### 3.0 HISTORICAL INFORMATION

Partner obtained historical use information about the subject property from a variety of sources. A chronological listing of the historical data found is summarized in the table below:

<b>Historical Use Information</b>		
<b>Period/Date</b>	<b>Source</b>	<b>Description/Use</b>
1894-1902	Topographic Maps	Undeveloped land
1928-circa 1962	Aerial Photographs, City Directories, Sanborn Maps, Topographic Maps	Developed with a Dairy
Circa 1966-1962	Aerial Photographs, City Directories, Sanborn Maps, Topographic Maps	Developed with a Store
1962-1992	Aerial Photographs, City Directories, Sanborn Maps, Topographic Maps	Commercial - Used as Administrative Offices, Gas Station and Maintenance
1995-Present	Aerial Photographs, City Directories, Sanborn Maps, Topographic Maps	Used as an Electronics Store

Based on review of historical sources, the subject property was formerly undeveloped land from as early as 1894; and developed as a dairy with associated residential structures and a store between circa-1928 and the early-1960s. By 1962, the subject property was redeveloped with the current commercial structure on the southern portion and Lockheed Martin (referred to as Plant A-1 South) occupied the property from 1969 to December 1995 for use as offices, a vehicle maintenance shop and parking. Additionally, a gasoline service station/automotive repair operation was developed on the northeastern portion of the subject property in 1962, which was acquired by Lockheed Martin in the mid-1960s and utilized as a gasoline service station/automotive repair operation for Lockheed fleet vehicles until closure in 1992. The subject property has been occupied by Fry's Electronics for retail use since at least 1995. Significant tenants at the subject property include Shoman Dairy (1950s), Lockheed Martin (1960s-1995), Unimart (1962-1986), and Fry's Electronics (1995-Present). Potential environmental concerns were identified in association with the USTs formerly located on the subject property, and a former occupied identified as a potentially responsible party (PRP) of known regional groundwater contamination as further discussed below and in Section 4.2.

- Based on review of historical sources, by 1962, the subject property was redeveloped with the current commercial structure on the southern portion and Lockheed Martin (referred to as Plant A-1 South) occupied the property from 1969 to December 1995 for use as offices, a vehicle maintenance shop and parking. Additionally, a gasoline service station/automotive repair operation was developed on the northeastern portion of the subject property in 1962, which was acquired by Lockheed Martin in the mid-1960s and utilized as a gasoline service station/automotive repair operation for Lockheed fleet vehicles until closure in 1992. The subject property has been occupied by Fry's Electronics for retail use since at least 1995.

The subject property at 2311 North Hollywood Way was identified in the regulatory database report under the names Lockheed Martin, Gort Limited and Fry's Electronics. Based on information provided in a previous Phase I ESA report (PSI, 1998) and from a file review, this former operation included four (4) 12,000-gallon gasoline/diesel/tetrachloroethylene (PCE) USTs,



one 550-gallon waste oil UST, one concrete 1,600-gallon clarifier and seven (7) dispensers. The UST containing PCE served as a central supply point for Lockheed's other plants in the Burbank area. The former gasoline service station/automotive repair operation was demolished in 1992 and the former underground storage tank (USTs) and clarifier were removed as part of the demolition. Additionally, other features including hydraulic lifts and storm drains were removed during this demolition under the supervision of the Burbank Fire Department. Following removal of the USTs and other associated features of potential concern, a total of twenty-one soil samples were collected from the excavated areas. According to the analytical results, subsurface soil was found to be impacted with PCE, diesel fuel and hydraulic oil.

Between 1992 and 1995, seven (7) subsurface investigations were conducted at the subject property in relation to this reported release to the subsurface as a result of the former operations, and a total of 426 soil samples were collected from the former service station during this period. The 1992 subsurface investigation included 78 soil borings to depths of 10 to 40 feet bgs, and soil samples collected from varying intervals were analyzed for VOCs, PCBs, and TPH. According to the analytical results, TPH impacts were generally confined to the upper 10 feet of soil. Elevated VOC impacts were also generally limited to the upper 10 feet of soil, with one boring noting PCE impacts extending to 25 feet bgs. In 1993, a Soil Gas Survey was conducted on the subject property to further evaluate the extent of the subsurface impacts. A total of 181 soil-gas samples were collected from 159 locations across the subject property at depths ranging from 5 to 25 feet bgs, and the samples were analyzed for VOCs. According to the analytical results, twelve of the sample collected from the 5-foot depth contained PCE in excess of 0.1 mg/L, with one sample exceeding 1.0 mg/L. None of the samples collected from the 20-foot depth contained concentrations of PCE above 1.0 mg/L. Additional site characterization was conducted in 1994/1995 which included additional soil borings and sampling and additional soil vapor sampling. A total of 18 of the 426 soil samples contained concentrations of PCE above 1 mg/kg.

Based on review of the Final Soil Remediation Report dated May 22, 1995 by Lockheed Martin Corporation, approximately 1,380 tons of PCE- and diesel/oil-impacted soil was excavated and removed from the subject property. Following removal, a total of 109 confirmation soil samples were collected from the base and sidewalls of the excavation and analyzed for VOCs, TPH, and lead. According to the analytical results, the confirmation soil samples all contained less than 150 ug/kg of PCE. As such, the excavations were backfilled with approved clean fill, and a request for closure was submitted with the report. Based on review of the 1995 final soil remediation report, in a letter dated July 5, 1995, the California Regional Water Quality Control Board (RWQCB) issued a No Further Action status to the subject property and indicated the subject property had been remediated in accordance with Cleanup and Abatement Order No. 87-161. As such, the subject property (former Lockheed Plant A-1 South) and current ownership (Gort Limited) were noted to be excluded from the requirements of the Cleanup and Abatement Order No. 87-161, which is associated with the cleanup of several Lockheed plants in the Burbank area. Based on the regulatory closure with residual PCE-impacted soil left in place, the historical usage of the subject property and associated closed release case are considered a CREC for the subject property. As

such, prior to any redevelopment activities and due to the presence of residual PCE-impacted soil in the subsurface, Partner recommends a soil vapor survey be conducted to evaluate potential vapor intrusion issues for any future onsite buildings. Additionally, if the redevelopment plan includes subterranean levels, Partner recommends implementing a Soil Management Plan (SMP).

- The subject property is located within the boundaries of the Burbank Operable Unit (BOU) of the San Fernando Valley North Hollywood National Priorities List (NPL) site, an area of known groundwater contamination. Constituents of Concern (COCs) that have been identified include semi-volatile organic compounds (SVOCs), Volatile Organic Compounds (VOCs) and chromium. The subject property was one of many sites investigated by RWQCB and USEPA as a potential responsible party (PRP) of the groundwater contamination. On July 6, 1995 a letter was issued to Lockheed by RWQCB indicating the subject property would no longer be under investigation for potential groundwater contamination for VOCs and the subject property (former Lockheed Plant A-1 South) and current ownership (Gort Limited) were noted to be excluded from the requirements of the Cleanup and Abatement Order No. 87-161, which is associated with the cleanup of several Lockheed plants in the Burbank area.

Former site occupant, Lockheed Martin, monitors groundwater within the BOU to comply with the provisions of a USEPA Consent Decree (#91-4527-MRP) filed March 1992, and the CRWQCB Cleanup and Abatement Order (#87-161) dated December 1987. As part of the NPL investigation, two groundwater monitoring wells, A-1-CW04 and A-1-CW09, were installed in the north and northeast portion of the subject property, respectively. A third well, monitoring well A-1-CW05 was co-located with monitoring well A-1-CW04 at a later date. Partner contacted Ms. Anita Fang with CRWQCB regarding the most recent groundwater monitoring results on file with the agency for the BOU. A review of an Annual Groundwater Monitoring Report, Second Quarter 2017 Burbank Operable Unit, provided by Ms. Fang indicates 1,2,3 Trichloropropane (1,2,3 TCP), 1,4 Dioxane, various other VOCs (including Tetrachloroethylene (PCE) and Trichloroethene (TCE), hexavalent chromium and chromium were detected in the onsite wells at levels above the reporting limit (RL), with an increasing trend of 1,2,3 TCP concentrations. Chromium was detected in well A-1-CW04 at 0.88 ug/L which exceeds the Maximum Contaminant Level (MCL).

Lockheed Martin has conducted groundwater monitoring of the onsite wells since approximately 1996 and has been identified as a potential contributor to the regional groundwater contamination. As discussed, the current property owner (Gort, Ltd) has not been identified as a potential responsible party (PRP) and it is unlikely the subject property owner would be responsible for future remediation activities since NFA was issued in 1995. Furthermore, based on the depth to groundwater, review of the most recent groundwater analytical results, and commercial usage of the subject property, a vapor intrusion condition (VIC) is unlikely to exist at the subject property. The location of the subject property within the Burbank Operable Unit of the San Fernando Valley NPL investigation, the identification of a former site occupant as a potential contributor to the regional impact, and the reported VOC and chromium groundwater contamination identified in onsite wells is considered a REC for the subject property; however,

based on the lack of an apparent VIC and issuance of an NFA letter with regards to the former subject property operations, Partner recommends no further investigation at this time with regards to this regional groundwater contamination case.

### 3.1 Aerial Photograph Review

Partner obtained available aerial photographs of the subject property and surrounding area from Environmental Data Resources (EDR) on April 9, 2020. The following was observed on the subject property and adjacent properties during the aerial photograph review:

<b>Date:</b> 1928,1938		<b>Scale:</b> 1"=500'
<b>Subject Property:</b>	Appears to be developed with a possible commercial dairy operation with several structures on the central and east portions of the property and two square enclosures. The south and west portions appear to be grassland undeveloped	
<b>North:</b>	Appears to be developed with a farmstead and agricultural fields across an unimproved road and railroad track in 1928. By 1938 the farmstead is no longer present and the property appears to be part of an airfield	
<b>South:</b>	Appears to be agricultural across an unimproved road	
<b>East:</b>	Appears to be developed with a farmstead and agricultural fields across an unimproved road	
<b>West:</b>	Appears to possibly be and agricultural field with an orchard. A possible cemetery is present further west	

<b>Date:</b> 1948,1952,1954		<b>Scale:</b> 1"=500'
<b>Subject Property:</b>	Several small structures are located on the central and southeast portion of the property. A paved parking area has been developed on the east side of the property. An unimproved parking area is located in the northwest portion of the property. The remainder of the site appears grass-covered.	
<b>North:</b>	A very large commercial complex has been developed across two paved roads and railroad tracks, as part of an airport	
<b>South:</b>	Developed with a commercial building, a baseball field and parking lot, across a paved road. By 1954 the baseball field had been developed as a parking lot	
<b>East:</b>	Developed with a paved parking lot, vacant filed and possible mobile home park to the southeast	
<b>West:</b>	Developed with a vacant land and a large paved parking lot	

<b>Date:</b> 1964		<b>Scale:</b> 1"=500'
<b>Subject Property:</b>	Developed with a large commercial building on the south portion of the property. A long, rectangular shaped building is present on the north portion of the site with the remainder of the property developed as a paved parking lot	
<b>North:</b>	No significant changes visible	
<b>South:</b>	No significant changes visible	
<b>East:</b>	Developed with a large parking lot and commercial buildings, and possible mobile homes to the southeast	
<b>West:</b>	Developed with a large parking lot and commercial building	

<b>Date:</b>	<b>1970</b>	<b>Scale:</b>	<b>1"=500'</b>
<b>Subject Property:</b>	No significant changes visible. The rectangular building on north portion of property appears to be fenced off from the rest of the property		
<b>North:</b>	No significant changes visible		
<b>South:</b>	No significant changes visible		
<b>East:</b>	Vacant land. North Hollywood Way appears to have been temporarily detoured or re-routed and is no longer present along the east property boundary		
<b>West:</b>	No significant changes visible		

<b>Date:</b>	<b>1977,1981</b>	<b>Scale:</b>	<b>1"=500'</b>
<b>Subject Property:</b>	No significant changes visible		
<b>North:</b>	No significant changes visible		
<b>South:</b>	Developed with three commercial buildings		
<b>East:</b>	North Hollywood Way has been redeveloped and is present along the east property boundary with a commercial building and parking lot beyond		
<b>West:</b>	No significant changes visible		

<b>Date:</b>	<b>1989</b>	<b>Scale:</b>	<b>1"=500'</b>
<b>Subject Property:</b>	A building addition has been constructed on the west side of the north rectangular building		
<b>North:</b>	No significant changes visible		
<b>South:</b>	No significant changes visible		
<b>East:</b>	Developed with two commercial buildings		
<b>West:</b>	No significant changes visible		

<b>Date:</b>	<b>1994</b>	<b>Scale:</b>	<b>1"=500'</b>
<b>Subject Property:</b>	The rectangular building on the north portion of the property has been razed and the area appears to have been graded excavated and graded. The remainder of the property is occupied by the large commercial building and paved parking		
<b>North:</b>	No significant changes visible		
<b>South:</b>	No significant changes visible		
<b>East:</b>	One commercial building has been razed		
<b>West:</b>	No significant changes visible		

<b>Date:</b>	<b>2002,2005</b>	<b>Scale:</b>	<b>1"=500'</b>
<b>Subject Property:</b>	The north portion of the property has been redeveloped as a parking lot		
<b>North:</b>	The large commercial/industrial complex has been razed and excavated and the entire area has been graded		
<b>South:</b>	No significant changes visible		
<b>East:</b>	No significant changes visible		
<b>West:</b>	A commercial building has been constructed on the former parking lot		

<b>Date:</b>	<b>2009,2012,2016</b>	<b>Scale:</b>	<b>1"=500'</b>
<b>Subject Property:</b>	No significant changes visible		
<b>North:</b>	Redeveloped as a large parking lot		
<b>South:</b>	No significant changes visible		



**Date:** 2009,2012,2016 **Scale:** 1"=500'

**East:** No significant changes visible

**West:** No significant changes visible

Copies of select aerial photographs are included in Appendix B of this report.

### 3.2 Fire Insurance Maps

Partner reviewed the collection of Sanborn Fire insurance maps from Environmental Data Resources (EDR) on April 9, 2020. The following was observed on the subject property and adjacent properties during the fire insurance map review:

**Date:** 1953

**Subject Property:** The subject property was occupied by a dairy which included a milking shed, storage area, milk house, two storage shed, two wood silos and four dwellings

**North:** Appears occupied with an industrial type facility across West Vanowen Street, a railroad track and West Empire Avenue. The facility includes a plate shop, extrusion area, transfer switch yard, medical storage with acetylene, and a paint shop

**South:** A softball field and National Guard Armory are depicted across West Valhalla Drive

**East:** North Hollywood Way is depicted. The east side of North Hollywood Boulevard is not depicted on this map

**West:** No development depicted

**Date:** 1954,1956,1960

**Subject Property:** No significant changes depicted

**North:** No significant changes depicted

**South:** A National Guard Armory and a parking lot are depicted across West Valhalla Drive

**East:** A house trailer park is depicted to the southeast across North Hollywood Way

**West:** No significant changes depicted

**Date:** 1966,1968

**Subject Property:** The property has been redeveloped and a store constructed of reinforced concrete with steel columns and beams has been developed on the south portion of the property. A rectangular feature labelled as "gas & oil" is depicted in the northeast corner of the property. A parking lot is depicted north of the building

**North:** No significant changes depicted

**South:** No significant changes depicted

**East:** No significant changes depicted

**West:** No significant changes depicted

**Date:** 1969

**Subject Property:** The subject property is occupied by Lockheed Aircraft Corporate Offices. The gas and oil area is depicted in the northeast corner of the property with parking north of the building

**North:** No significant changes depicted

**South:** No significant changes depicted

**East:** No significant changes depicted

**West:** No significant changes depicted

Copies of reviewed Sanborn Maps are included in Appendix B of this report.

### 3.3 City Directories

Partner reviewed historical city directories obtained from Environmental Data Resources (EDR) on April 14, 2020 for past names and businesses that were listed for the subject property and adjacent properties. The findings are presented in the following table:

<b>City Directory Search for 2311 North Hollywood Way (Subject Property)</b>	
<b>Year(s)</b>	<b>Occupant Listed</b>
1950	Shoman Dairy
1956	Shoman Dairy, Manuel Rocha, Wayne Dennis
1967	W G Products Inc Shoes
1970	Lockheed-California Company Corporation, Federal Credit Union and Employee Recreation Club
1971	Lockheed California Company, Employees Credit Union, Group Insurance
1975,1980	Employees Credit Union, Group Insurance
1985	Administrative Offices, Certificate Rates Recording, Collection Department, Lockheed Air Terminal Inc., Lockheed Aircraft Employees Federal Credit Union and Administrative Offices
1999,2004,2006	Frys Electronics
2009,2015	Frys Electronics

According to the city directory review, the subject property was occupied by a dairy and an office building. The historical usage of the subject property is discussed further in Section 3.0.

<b>City Directory Search for Adjacent Properties</b>	
<b>Year(s)</b>	<b>Occupant Listed</b>
1950,1956	Multiple Individual Tenant Names (2240 N. Hollywood Way)
1962	Multiple Individual Tenant Names (2240 N. Hollywood Way)
1970	Multiple Individual Tenant Names (2240 N. Hollywood Way) Polich Benedict Construction (2340 N. Hollywood Way)
1975	Sale & Service (2231 N. Hollywood Way) Multiple individual tenant names (2240 N. Hollywood Way)
1976	Westinghouse Elevator (2231 N. Hollywood Way) Multiple Individual Tenant Names (2240 N. Hollywood Way)
1980	Barrow Fabrics Inc. (3520 W. Valhalla Dr.) Westinghouse Elevator (2231 N. Hollywood Way) Multiple Individual Tenant Names (2240 N. Hollywood Way)
1981	Barrow Fabrics Inc. (3520 W. Valhalla Dr.) Westinghouse Elevator Co (2231 N. Hollywood Way)
1985	Westinghouse Elevator Co, Construction Business Development (2231 N. Hollywood Way) Multiple Individual Tenant Names (2240 N. Hollywood Way) Lockheed Federal Credit Union, Loan Department, Weber Aircraft Co (2340 N. Hollywood Way)
1986	Barrow Fabrics Inc. (3520 W. Valhalla Dr.) Westinghouse Elevator Co (2311 N. Hollywood Way)
1990	Barrow Fabrics Inc (3520 W. Valhalla Dr.)



### City Directory Search for Adjacent Properties

Year(s)	Occupant Listed
1991	Unitel Mobile (2231 N. Hollywood Way) Multiple Individual Tenant Names (2240 N. Hollywood Way) University of Laverne, B&P The Spaceconnection, Daniell Engineering, Que (2340 N. Hollywood Way)
1994	Barrow Fabrics Inc (3520 W. Valhalla Dr.) Sonic Edge, Unitel Mobile (2231 N. Hollywood Way) Multiple Individual Tenant Names (2240 N. Hollywood Way) Lockheed Federal Credit Union (2340 N. Hollywood Way)
1995	Unitel Mobile, Sonic Edge (2231 N. Hollywood Way) Multiple Individual Tenant Names (2240 N. Hollywood Way)
1999	Ampex, Quantegy Inc. (3520 W. Valhalla Dr.) Sling Shot Records (2231 N. Hollywood Way) Pacific Radio Electronics Inc (2243 N. Hollywood Way) Multiple Individual Tenant Names (2240 N. Hollywood Way)
2001	Quantegy Inc. (3520 W. Valhalla Dr.) Pacific Radio Electronics (2243 N. Hollywood Way)
2004	Quantegy Inc. (3520 W. Valhalla Dr.) Sonic Atmospheres Inc., Craig Huxley (2231 N. Hollywood Way) Pacific Radio Electronics (2243 N. Hollywood Way) Irene Hidalgo (2240 N. Hollywood Way) Lockheed Martin (2340 N. Hollywood Way)
2006	Archives, Pactitle (3520 W. Valhalla Dr.) Omegacase Company Inc (2231 N. Hollywood Way) Pac Radio Electronics Inc (2243 N. Hollywood Way) CTGY (2340 N. Hollywood Way)
2009	Pacific Title Archives (3520 W. Valhalla Dr.) Omega Case Co Inc (2231 N. Hollywood Way) Pacific Radio Exchange Inc (2243 N. Hollywood Way) Lockheed Federal Credit Union, University of Laverne, LFCU Brokerage Inc, (2340 N. Hollywood Way)
2015	Flashpoint Graphix (3520 W. Valhalla Dr.) Omega Case Company Inc (2231 N. Hollywood Way) Trew Audio LA, Pacific Radio Electronics (2243 N. Hollywood Way) Public Storage (2240 N. Hollywood Way) CTGY (2340 N Hollywood Way)

Based on the city directory review, no environmentally sensitive listings (such as dry cleaners, automotive facilities, etc.) were identified for the adjacent property addresses; however, listings identified in the regulatory database report are discussed further in Section 4.2.3.

Copies of reviewed city directories are included in Appendix B of this report.

### 3.4 Historical Topographic Maps

Partner reviewed historical topographic maps obtained from Environmental Data Resources (EDR) on April 9, 2020. The following was observed on the subject property and adjacent properties during the topographic map review:

**Date:** 1894,1896,1898,1900,1902

**Subject Property:** No development depicted. A sandy area, possibly part of a stream bed, is indicated in the northeast portion of the property  
**North:** No development depicted across a roadway  
**South:** No development depicted  
**East:** A small residential-type structure is depicted across a roadway  
**West:** No development depicted

**Date:** 1920,1921

**Subject Property:** A small residential-like structure is depicted in the east portion of the subject property  
**North:** Developed with a railroad track and roadway. An intermittent stream is depicted adjacent to the northeast of the subject property and across the roadway  
**South:** No significant changes depicted  
**East:** An intermittent stream and railroad tracks are depicted  
**West:** No significant changes depicted

**Date:** 1926

**Subject Property:** Two small residential-type structures are depicted on the south portion of the property  
**North:** The intermittent stream is no longer depicted across Empire Avenue and the Southern and Pacific Railroad  
**South:** No development depicted across a roadway or driveway  
**East:** No development depicted across Hollywood Way  
**West:** No development depicted. A cemetery is depicted further west

**Date:** 1948

**Subject Property:** Five small structures are depicted on the south and east portion of the property  
**North:** A large commercial building and numerous smaller buildings are depicted as part of Lockheed Air Terminal. Runways are depicted further northwest  
**South:** No development depicted across a roadway or driveway  
**East:** Three small structures are depicted to the southeast  
**West:** No development depicted. Two small structures and Valhalla Memorial Park are depicted further west

**Date:** 1953

**Subject Property:** No significant changes depicted  
**North:** No significant changes depicted  
**South:** Three commercial buildings are depicted  
**East:** The Providence School is depicted to the further east and southeast  
**West:** No significant changes depicted



**Date:** 1966,1972,1994

**Subject Property:** The subject property is in an area referred to as Vega. A large commercial building is depicted on the south portion of the property. A small rectangular structure is depicted in the northeast corner of the property.

**North:** No significant changes depicted

**South:** An Armory is depicted across a driveway

**East:** No significant changes visible

**West:** A commercial structure is depicted

**Date:** 2012

**Subject Property:** No manmade structures other than roadways, governmental, academic and religious institutions are depicted on this map

**North:** No manmade structures other than roadways, governmental, academic and religious institutions are depicted on this map

**South:** No manmade structures other than roadways, governmental, academic and religious institutions are depicted on this map

**East:** No manmade structures other than roadways, governmental, academic and religious institutions are depicted on this map

**West:** No manmade structures other than roadways, governmental, academic and religious institutions are depicted on this map

Copies of reviewed topographic maps are included in Appendix B of this report.

## 4.0 REGULATORY RECORDS REVIEW

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### 4.1 Regulatory Agencies

#### 4.1.1 State Department

##### *Regulatory Agency Data*

<b>Name of Agency:</b>	California Environmental Protection Agency (Cal/EPA)
<b>Agency Website:</b>	<a href="https://calepa.ca.gov/">https://calepa.ca.gov/</a>
<b>Agency Address:</b>	1001 I Street, Sacramento, California 95814
<b>Agency Phone Number:</b>	(916) 323-2514
<b>Date of Contact:</b>	April 10, 2020
<b>Method of Communication:</b>	Online
<b>Summary of Communication:</b>	Information is on file with Cal/EPA for former site occupant Lockheed Martin, as further discussed below in Section 4.2.2.

#### 4.1.2 Fire Department

##### *Regulatory Agency Data*

<b>Name of Agency:</b>	Burbank Fire Department (BFD)
<b>Agency Address:</b>	311 East Orange Grove, Burbank, California 91502
<b>Agency Phone Number:</b>	(818) 238-3458
<b>Date of Contact:</b>	April 10, 2020
<b>Method of Communication:</b>	Telephone Request (April 10 and 20), Email Request (April 13)
<b>Summary of Communication:</b>	Records provided by BFD indicated the subject property utilized small quantities of hazardous substances and has submitted numerous hazardous materials inventory forms under Fry's Electronics. A Business Activities Declaration form dated 2006 indicates no USTs or ASTs were located on the subject property at that time.

Partner also reviewed online information with RWQCB and Los Angeles County Fire Department for any available UST information. In addition to the site address, a search was also conducted under three other possible historic addresses that could have been associated with the subject property. No UST information was available with BFD for any of the addresses searched.

#### 4.1.3 Air Pollution Control Agency

##### *Regulatory Agency Data*

<b>Name of Agency:</b>	South Coast Air Quality Management District (SCAQMD)
<b>Agency Website:</b>	<a href="http://www.aqmd.gov/webappl/fim/default.htm">http://www.aqmd.gov/webappl/fim/default.htm</a>
<b>Agency Address:</b>	21865 Copley Drive, Diamond Bar, California 91765
<b>Agency Phone Number:</b>	(909) 396-2000
<b>Name of Agency:</b>	South Coast Air Quality Management District (SCAQMD)
<b>Method of Communication:</b>	Online
<b>Summary of Communication:</b>	No Permits to Operate (PTO), Notices of Violation (NOV), or Notices

#### Regulatory Agency Data

to Comply (NTC) or the presence of AULs, dry cleaning machines, or USTs were on file for the subject property in the SCAQMD online database.

#### 4.1.4 Regional Water Quality Agency

##### Regulatory Agency Data

**Name of Agency:** California Regional Water Quality Control Board (CRWQCB) – Los Angeles, Region 4

**Agency Website:** <http://geotracker.waterboards.ca.gov/>

**Agency Address:** 320 West 4<sup>th</sup> Street, Los Angeles, California 90013

**Agency Phone Number:** (213) 576-6600

**Date of Contact:** April 14, 2020

**Method of Communication:** Online

**Summary of Communication** The subject property has conducted soil cleanup activities associated with four USTs, and asbestos cleanup activities. The subject property is also located within the San Fernando Valley NPL site boundaries. Partner conducted a regulatory file review with regards to the subject property release case, which is described further in Section 3.0.

Copies of the CRWQCB file and associated cleanup reports are provided in Appendix B.

#### 4.1.5 Department of Toxic Substances Control

##### Regulatory Agency Data

**Name of Agency:** California Department of Toxic Substances Control (DTSC)

**Agency Websites:** <http://www.envirostor.dtsc.ca.gov/public/>  
[http://hwts.dtsc.ca.gov/report\\_list.cfm](http://hwts.dtsc.ca.gov/report_list.cfm)

**Agency Address:** 1001 I Street, Sacramento, California 95814

**Agency Phone Number:** (916) 255-3687

**Date of Contact:** April 14, 2020

**Method of Communication:** Online

**Summary of Communication:** According to the records reviewed, the subject property, identified as Lockheed Martin Corporation at 2311 North Hollywood Way, is listed in the Hazardous Waste Tracking System (HWTS) online database under EPA ID No. CAD982504052. A hazardous waste manifest record was recorded in June 1990, listed as inactive in June 1998 and was last updated in August 2004. Manifests were reported in 1993, 1994, and 1995 as a generator.

#### 4.1.6 Building Department

##### Regulatory Agency Data

**Name of Agency:** Burbank Building Department (BBD)

**Agency Address:** 150 North 3<sup>rd</sup> Street, Burbank, California 91502

#### **Regulatory Agency Data**

**Agency Phone Number:** (818) 238-5564  
**Date of Contact:** July 23, 2018  
**Method of Communication:** In Person  
**Summary of Communication:** Due to Covid-19 the public is not allowed access to BBD to view historical building permits on file with the agency. A review conducted of the BBD online database indicates three records are on file for the subject property; a Conditional Use permit (#PL0801916) dated February 2008 for installation of a wireless communication monopole; Building Permit #BS1214071 dated December 2012 for new roof installation for Fry's Electronics; and, Building Permit #BS1303664 dated March 2013 for relocation of accessible parking stalls.

#### **4.1.7 Planning Department**

#### **Regulatory Agency Data**

**Name of Agency:** Burbank Planning Department (BPD)  
**Agency Address:** 150 North 3<sup>rd</sup> Street, Burbank, California 91502  
**Agency Phone Number:** (818) 238-5250  
**Date of Contact:** April 18, 2020  
**Method of Communication:** Online  
**Summary of Communication:** According to records reviewed, the subject property is zoned C-3 for Commercial General Business Development by the City of Burbank.

#### **4.1.8 Oil & Gas Exploration**

#### **Regulatory Agency Data**

**Name of Agency:** California Department of Conservation Division of Oil, Gas and Geothermal Resources (DOGGR) – Southern District  
**Agency Website:** <https://maps.conservation.ca.gov/doggr/wellfinder/#close>  
**Agency Address:** 5816 Corporate Avenue, Suite 100, Cypress, California 90630  
**Agency Phone Number:** (916) 324-0850  
**Date of Contact:** April 18, 2020  
**Method of Communication:** Online  
**Summary of Communication:** According to DOGGR, no oil or gas wells are located on or adjacent to the subject property.

#### **4.1.9 Assessor's Office**

#### **Regulatory Agency Data**

**Name of Agency:** Los Angeles County Office of the Assessor (LACOA)  
**Agency Website:** <http://maps.assessor.lacounty.gov>  
**Agency Address:** 500 West Temple Street, Room 225, Los Angeles, California 90012  
**Agency Phone Number:** (213) 974-2111  
**Date of Contact:** April 16, 2020  
**Method of Communication:** Online  
**Summary of Communication:** According to records reviewed, the subject property is identified by

## Regulatory Agency Data

Assessor's Parcel Number (APN) 2463-001-019. The current building was constructed in 1962 on a 10.43-acre lot.

Copies of pertinent documents obtained from the above-referenced regulatory agencies (if available) are included in Appendix B of this report.

## 4.2 Mapped Database Records Search

Information from standard federal, state, county, and city environmental record sources was provided by Environmental Data Resources, Inc. (EDR). Data from governmental agency lists are updated and integrated into one database, which is updated as these data are released. The information contained in this report was compiled from publicly available sources and the locations of the sites are plotted utilizing a geographic information system, which geocodes the site addresses. The accuracy of the geocoded locations is approximately +/-300 feet.

Using the ASTM definition of migration, Partner considers the migration of hazardous substances or petroleum products in any form onto the subject property during the evaluation of each site listed on the radius report, which includes solid, liquid, and vapor.

### 4.2.1 Regulatory Database Summary

#### Radius Report Data

Database	Search Radius (mile)	Subject Property	Adjacent Properties	Sites of Concern
Federal NPL or Delisted NPL Site	1.00	N	N	Y
Federal CERCLIS Site	0.50	N	N	N
Federal CERCLIS-NFRAP Site	0.50	N	N	N
Federal RCRA CORRACTS Facility	1.00	N	N	N
Federal RCRA TSD Facility	0.50	N	N	N
Federal RCRA Generators Site (LQG, SQG, CESQG)	0.25	Y	Y	N
Federal IC/EC Registries	0.50	N	N	N
Federal ERNS Site	Subject Property	N	N	N
State/Tribal Equivalent NPL	1.00	N	N	N
State/Tribal Equivalent CERCLIS	1.00	N	N	N
State/Tribal Landfill/Solid Waste Disposal Site	0.50	N	N	N
State/Tribal Leaking Storage Tank Site	0.50	Y/N	N	N
State/Tribal Registered Storage Tank Sites (UST/AST)	0.25	Y	Y	N
State/Tribal Voluntary Cleanup Sites (VCP)	0.50	N	N	N
State/Tribal Spills	0.50	N	N	N
Federal Brownfield Sites	0.50	N	N	N
State Brownfield Sites	0.50	N	N	N
EDR MGP	Varies	N	N	N
EDR US Hist Auto Station	Varies	N	N	N
EDR US Hist Cleaners	Varies	N	N	N

#### 4.2.2 Subject Property Listings

The subject property is identified as a CA CERS, CA WIP, CA FID UST, CA SWEEPS UST, CA CERS HAZ WASTE, CA CPS-SLIC, CA HWTS, CA HAZNET, CA CDL, CA ENF, RCRA NonGen/NLR, FINSD and ECHO site in the regulatory database report. Several of the databases including FINDS and ECHO are cross-referenced database listings, as discussed below:

- The subject property is identified on the RCRA non-generator and CA CERS HAZ Waste database as a non-generator of hazardous waste, no longer required to report. A form was filed in 1992 and 1996 as a large quantity generator, and in 1998 as a non-generator of hazardous waste under Lockheed Martin. A form was filed in 2019 under Fry's Electronics as a RCRA non-generator. No violations have been reported. Based on the nature of the listing and lack of violations, this listing is not expected to represent a REC for the subject property.
- The subject property at 2311 North Hollywood Way was identified in the regulatory database report under the names Lockheed Martin, Gort Limited and Fry's Electronics. Based on information provided in a previous Phase I ESA report (PSI, 1998) and from a file review, this former operation included four (4) 12,000-gallon gasoline/diesel/tetrachloroethylene (PCE) USTs, one 550-gallon waste oil UST, one concrete 1,600-gallon clarifier and seven (7) dispensers. The UST containing PCE served as a central supply point for Lockheed's other plants in the Burbank area. The former gasoline service station/automotive repair operation was demolished in 1992 and the former underground storage tank (USTs) and clarifier were removed as part of the demolition. Additionally, other features including hydraulic lifts and storm drains were removed during this demolition under the supervision of the Burbank Fire Department. Following removal of the USTs and other associated features of potential concern, a total of twenty-one soil samples were collected from the excavated areas. According to the analytical results, subsurface soil was found to be impacted with PCE, diesel fuel and hydraulic oil.

Between 1992 and 1995, seven (7) subsurface investigations were conducted at the subject property in relation to this reported release to the subsurface as a result of the former operations, and a total of 426 soil samples were collected from the former service station during this period. The 1992 subsurface investigation included 78 soil borings to depths of 10 to 40 feet bgs, and soil samples collected from varying intervals were analyzed for VOCs, PCBs, and TPH. According to the analytical results, TPH impacts were generally confined to the upper 10 feet of soil. Elevated VOC impacts were also generally limited to the upper 10 feet of soil, with one boring noting PCE impacts extending to 25 feet bgs. In 1993, a Soil Gas Survey was conducted on the subject property to further evaluate the extent of the subsurface impacts. A total of 181 soil-gas samples were collected from 159 locations across the subject property at depths ranging from 5 to 25 feet bgs, and the samples were analyzed for VOCs. According to the analytical results, twelve of the sample collected from the 5-foot depth contained PCE in excess of 0.1 mg/L, with one sample exceeding 1.0 mg/L. None of the samples collected from the 20-foot depth contained concentrations of PCE above 1.0 mg/L. Additional site characterization was conducted in

1994/1995 which included additional soil borings and sampling and additional soil vapor sampling. A total of 18 of the 426 soil samples contained concentrations of PCE above 1 mg/kg.

Based on review of the Final Soil Remediation Report dated May 22, 1995 by Lockheed Martin Corporation, approximately 1,380 tons of PCE- and diesel/oil-impacted soil was excavated and removed from the subject property. Following removal, a total of 109 confirmation soil samples were collected from the base and sidewalls of the excavation and analyzed for VOCs, TPH, and lead. According to the analytical results, the confirmation soil samples all contained less than 150 ug/kg of PCE. As such, the excavations were backfilled with approved clean fill, and a request for closure was submitted with the report. Based on review of the 1995 final soil remediation report, in a letter dated July 5, 1995, the California Regional Water Quality Control Board (RWQCB) issued a No Further Action status to the subject property and indicated the subject property had been remediated in accordance with Cleanup and Abatement Order No. 87-161. As such, the subject property (former Lockheed Plant A-1 South) and current ownership (Gort Limited) were noted to be excluded from the requirements of the Cleanup and Abatement Order No. 87-161, which is associated with the cleanup of several Lockheed plants in the Burbank area. Based on the regulatory closure with residual PCE-impacted soil left in place, the historical usage of the subject property and associated closed release case are considered a CREC for the subject property. As such, prior to any redevelopment activities and due to the presence of residual PCE-impacted soil in the subsurface, Partner recommends a soil vapor survey be conducted to evaluate potential vapor intrusion issues for any future onsite buildings. Additionally, if the redevelopment plan includes subterranean levels, Partner recommends implementing a Soil Management Plan (SMP).

- The subject property was identified on the CA CDL and CA ENF databases as a clandestine mobile lab site. In 2003 illegal drug lab equipment and materials were found in a vehicle parked on the subject property. The car was removed, and cleanup was conducted by local authorities. Based on the nature of the database and lack of reported releases to the subsurface, these listings are not expected to represent a REC for the subject property.
- The subject property is located within the boundaries of the Burbank Operable Unit (BOU) of the San Fernando Valley North Hollywood National Priorities List (NPL) site, an area of known groundwater contamination. Constituents of Concern (COCs) that have been identified include semi-volatile organic compounds (SVOCs), Volatile Organic Compounds (VOCs) and chromium. The subject property was one of many sites investigated by RWQCB and USEPA as a potential responsible party (PRP) of the groundwater contamination. On July 6, 1995 a letter was issued to Lockheed by RWQCB indicating the subject property would no longer be under investigation for potential groundwater contamination for VOCs and the subject property (former Lockheed Plant A-1 South) and current ownership (Gort Limited) were noted to be excluded from the requirements of the Cleanup and Abatement Order No. 87-161, which is associated with the cleanup of several Lockheed plants in the Burbank area.

Former site occupant, Lockheed Martin, monitors groundwater within the BOU to comply with the provisions of a USEPA Consent Decree (#91-4527-MRP) filed March 1992, and the CRWQCB



Cleanup and Abatement Order (#87-161) dated December 1987. As part of the NPL investigation, two groundwater monitoring wells, A-1-CW04 and A-1-CW09, were installed in the north and northeast portion of the subject property, respectively. A third well, monitoring well A-1-CW05 was co-located with monitoring well A-1-CW04 at a later date. Partner contacted Ms. Anita Fang with CRWQCD regarding the most recent groundwater monitoring results on file with the agency for the BOU. A review of an Annual Groundwater Monitoring Report, Second Quarter 2017 Burbank Operable Unit, provided by Ms. Fang indicates 1,2,3 Trichloropropane (1,2,3 TCP), 1,4 Dioxane, various other VOCs (including Tetrachloroethylene (PCE) and Trichloroethene (TCE), hexavalent chromium and chromium were detected in the onsite wells at levels above the reporting limit (RL), with an increasing trend of 1,2,3 TCP concentrations. Chromium was detected in well A-1-CW04 at 0.88 ug/L which exceeds the Maximum Contaminant Level (MCL).

Lockheed Martin has conducted groundwater monitoring of the onsite wells since approximately 1996 and has been identified as a potential contributor to the regional groundwater contamination. As discussed, the current property owner (Gort, Ltd) has not been identified as a potential responsible party (PRP) and it is unlikely the subject property owner would be responsible for future remediation activities since NFA was issued in 1995. Furthermore, based on the depth to groundwater, review of the most recent groundwater analytical results, and commercial usage of the subject property, a vapor intrusion condition (VIC) is unlikely to exist at the subject property. The location of the subject property within the Burbank Operable Unit of the San Fernando Valley NPL investigation, the identification of a former site occupant as a potential contributor to the regional impact, and the reported VOC and chromium groundwater contamination identified in onsite wells is considered a REC for the subject property; however, based on the lack of an apparent VIC and issuance of an NFA letter with regards to the former subject property operations, Partner recommends no further investigation at this time with regards to this regional groundwater contamination case.

The subject property is identified as a WIP (Well Investigation Program) site on the database report and the status of the site is listed as "Active". The subject property was investigated by either having been sent a questionnaire or having a walk-through inspection conducted by RWQCB personnel. As discussed, the subject property was issued an NFA in 1995. Therefore, the WIP listing is not considered a REC.

#### **4.2.3 Adjacent Property Listings**

Several adjacent properties were identified in the regulatory database report, as discussed below:

- A property identified as Quantegy Inc. at 3800 West Valhalla Drive is located adjacent to the south, down and cross gradient of the subject property. This site is identified as a LA CO HMS (Industrial Waste and Underground Storage Tank Site) under Quantegy Inc. and a CA WIP site under Barrow Fabrics Inc. and is located within the San Fernando Valley NPL site currently under investigation and remediation. This site has not been identified as having had a release. There is no information on file for this site address with RWQCB or BFD. According to the WIP listing the



status of this site is listed as "Historical". As referenced above, RWQCB locates and abates sources of pollutants affecting these wells and oversees remediation. To identify the sources or responsible parties, this site was investigated by either having been sent a questionnaire or a walk-through inspection was conducted by RWQCB personnel. RWQCB did not identify this as an active site. No additional information was provided in the database report and this facility is not listed on any regulatory release database that would indicate an unauthorized release or compliance violations. Based on the above information, and location with regard to groundwater flow direction, this facility is not expected to represent a REC for the subject property.

- A property identified as National Guard Repair Garage FMS #13 / Organizational Maintenance Shop / Burbank OMS 13 at 3800 Valhalla Drive is located adjacent to the southwest portion of the subject property, down and cross gradient. This site is listed on several databases including CA CERS HAZ WASTE, CA HIST UST, CA SWEEPS UST, RCRA NonGen/NLR, and CA WIP. This facility is listed on the CA HIST UST database as having had three USTs and on the CA SWEEPS database as having two active USTs containing diesel and unleaded gasoline. A review of UST information on file with RWQCB indicates the tanks were installed in the 1950s. No additional information was provided in the database report and no information was discovered in Geotracker. In addition, this site is not listed on any regulatory release database that would indicate an unauthorized release or compliance violations.

This facility also filed a form in 1986 as a small quantity generator of hazardous waste and in 1987 as a non-generator of hazardous waste, no longer required to report. No violations have been reported on the RCRA database. Numerous compliance inspections have been conducted of the facility and one violation was noted on the CERS database for failure to dispose of hazardous waste within a 90-day period. This facility is also listed on the WIP database as an historical site. Based on the above information and location with regard to groundwater flow direction, this facility is not expected to represent a REC for the subject property.

- A property identified as Calstart at 3601 Empire Avenue is located adjacent to the north, up and cross gradient of the subject property. This facility filed a form in 1996 as a small quantity generator of hazardous waste. Wastes identified included alkaline solution with metals which were recycled. No violations have been noted and no further information was provided in the database report. Based on the nature of the listing, lack of a documented release, and location with regard to groundwater flow direction, this facility is not expected to represent a REC for the subject property.
- A property identified as Vega Aircraft is located north of the subject property, on the north side of Empire Avenue, up and cross gradient of the subject property. This site is listed as a Formerly Used Defense Site (FUDS) in the database report. FUDS sites are former defense properties which the US Army Corps of Engineers was formerly or is actively working on cleanup actions. This area was formerly occupied by a large industrial complex associated with the airport and was razed between 1994 and 2002. The entire area has been redeveloped. Based on this information,

identification of the source, and location with regard to estimated groundwater flow, this site is not expected to represent a REC for the subject property.

- A property identified as Tylie Jones and Associates is located at 2240 Screenland Drive, adjacent to the south, down and cross gradient of the subject property. This facility is listed as a CA WIP site. The file status is listed as "Historical". As referenced above, RWQCB locates and abates sources of pollutants affecting these wells and oversees remediation. RWQCB did not identify this as an active site. No additional information was provided in the database report and this site is not listed on any regulatory release database that would indicate an unauthorized release or compliance violations. Based on the above information, and location with regard to groundwater flow direction, this facility is not expected to represent a REC for the subject property.
- A property identified as Lockheed Federal Credit Union at 2340 N Hollywood Way, is located adjacent to the east across North Hollywood Way, down gradient of the subject property. This site is listed on the CA CERS TANKS, CA HAZNET, CA CERS, and CA HWTS databases. A UST is identified on this property. Routine inspections are completed by Burbank Fire Department and compliance violations have been issued for failure to submit a UST permit, and the presence of water in the UST sump. The violations were corrected, and the facility returned to compliance.

This facility was identified on the RCRA-SQG and HAZNET databases for producing wastes listed as unspecified solvent mixture. A form was filed in 1980 as a large quantity generator and in 1996 as a small quantity generator. No violations have been reported. No additional information was provided in the database report and this site is not listed on any regulatory release database that would indicate an unauthorized release has occurred. Based on lack of a documented release and down gradient location with regard to groundwater flow, this site is not expected to represent a REC for the subject property.

- A property identified as Midnight Oil Agency at 3800 Vanowen Street, is located adjacent to the west and up-gradient of the subject property. This facility is listed as a CA CERS HAZ Waste, CA EMI and CA CERS site in the database report. This facility is listed as a hazardous waste generator and chemical storage facility and has reported air emissions with SCAQMD. Compliance inspections has been conducted by the Burbank and Los Angeles County Fire Department. Violations have been issued by the fire departments for failure to label hazardous waste containers. Forms were filed between 1995 and 2003 as a RCRA hazardous waste generator. Wastes listed included ignitable, corrosive, silver, and spent nonhalogenated wastes. No violations were reported on the RCRA database. This site is not listed on any regulatory release database that would indicate an unauthorized release has occurred. Based on lack of a documented release, this site is not expected to represent a REC for the subject property.

Based on the findings, vapor migration is not expected to represent a significant environmental concern at this time.

#### **4.2.4 Sites of Concern Listings**

The following potential site of concern is identified in the regulatory database report:

- The subject property is located within the boundaries of the Burbank Operable Unit (BOU) of the San Fernando Valley North Hollywood National Priorities List (NPL) site, an area of known groundwater contamination. Constituents of Concern (COCs) that have been identified include semi-volatile organic compounds (SVOCs), Volatile Organic Compounds (VOCs) and chromium. The subject property was one of many sites investigated by RWQCB and USEPA as a potential responsible party (PRP) of the groundwater contamination. On July 6, 1995 a letter was issued to Lockheed by RWQCB indicating the subject property would no longer be under investigation for potential groundwater contamination for VOCs and the subject property (former Lockheed Plant A-1 South) and current ownership (Gort Limited) were noted to be excluded from the requirements of the Cleanup and Abatement Order No. 87-161, which is associated with the cleanup of several Lockheed plants in the Burbank area.

Former site occupant, Lockheed Martin, monitors groundwater within the BOU to comply with the provisions of a USEPA Consent Decree (#91-4527-MRP) filed March 1992, and the CRWQCB Cleanup and Abatement Order (#87-161) dated December 1987. As part of the NPL investigation, two groundwater monitoring wells, A-1-CW04 and A-1-CW09, were installed in the north and northeast portion of the subject property, respectively. A third well, monitoring well A-1-CW05 was co-located with monitoring well A-1-CW04 at a later date. Partner contacted Ms. Anita Fang with CRWQCD regarding the most recent groundwater monitoring results on file with the agency for the BOU. A review of an Annual Groundwater Monitoring Report, Second Quarter 2017 Burbank Operable Unit, provided by Ms. Fang indicates 1,2,3 Trichloropropane (1,2,3 TCP), 1,4 Dioxane, various other VOCs (including Tetrachloroethylene (PCE) and Trichloroethene (TCE), hexavalent chromium and chromium were detected in the onsite wells at levels above the reporting limit (RL), with an increasing trend of 1,2,3 TCP concentrations. Chromium was detected in well A-1-CW04 at 0.88 ug/L which exceeds the Maximum Contaminant Level (MCL).

Lockheed Martin has conducted groundwater monitoring of the onsite wells since approximately 1996 and has been identified as a potential contributor to the regional groundwater contamination. As discussed, the current property owner (Gort, Ltd) has not been identified as a potential responsible party (PRP) and it is unlikely the subject property owner would be responsible for future remediation activities since NFA was issued in 1995. Furthermore, based on the depth to groundwater, review of the most recent groundwater analytical results, and commercial usage of the subject property, a vapor intrusion condition (VIC) is unlikely to exist at the subject property. The location of the subject property within the Burbank Operable Unit of the San Fernando Valley NPL investigation, the identification of a former site occupant as a potential contributor to the regional impact, and the reported VOC and chromium groundwater contamination identified in onsite wells is considered a REC for the subject property; however, based on the lack of an apparent VIC and issuance of an NFA letter with regards to the former subject property operations, Partner recommends no further investigation at this time with regards to this regional groundwater contamination case.

No other sites of concern are identified in the regulatory database report. Listed sites within the specified search radius of the subject property which appeared on local, State, or Federally published lists of sites that have had releases of hazardous substances, have been granted regulatory closure, were determined to be of sufficient distance, and/or are situated hydrologically cross- or down-gradient such that impact to the subject property is unlikely. Based on the findings, vapor migration is not expected to represent a significant environmental concern at this time.

#### **4.2.5 Orphan Listings**

The San Fernando Valley Groundwater Basin is identified as a CA CHMIRS, CA BOND EXP. PLAN site in the orphan summary of the regulatory database report, as previously discussed in Sections 4.2.2, 4.2.3 and 4.2.4.

A copy of the regulatory database report is included in Appendix C of this report.

## 5.0 USER PROVIDED INFORMATION AND INTERVIEWS

In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the *Brownfields Amendments*), the *User* must conduct the following inquiries required by 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31. The *User* should provide the following information to the *environmental professional*. Failure to provide this information could result in a determination that *all appropriate inquiries* is not complete. The *User* is asked to provide information or knowledge of the following:

- Review Title and Judicial Records for Environmental Liens and AULs
- Specialized Knowledge or Experience of the User
- Actual Knowledge of the User
- Reason for Significantly Lower Purchase Price
- Commonly Known or *Reasonably Ascertainable* information
- Degree of Obviousness
- Reason for Preparation of this Phase I ESA

Fulfillment of these user responsibilities is key to qualification for the identified defenses to CERCLA liability. Partner requested our Client to provide information to satisfy User Responsibilities as identified in Section 6 of the ASTM guidance.

Pursuant to ASTM E1527-13, Partner requested the following site information from LaTerra Development, LLC (User of this report).

### User Responsibilities

Item	Provided By User	Not Provided By User	Discussed Below	Does Not Apply
Environmental Pre-Survey Questionnaire			X	
Title Records, Environmental Liens, and AULs			X	
Specialized Knowledge			X	
Actual Knowledge			X	
Valuation Reduction for Environmental Issues			X	
Identification of Key Site Manager	<b>Section 5.1.3</b>			
Reason for Performing Phase I ESA	<b>Section 1.1</b>			
Prior Environmental Reports	X		X	
Other				X

## **5.1 Interviews**

### **5.1.1 Interview with Owner**

The owner of the subject property identified as Gort, A California Limited Partnership, was not available to be interviewed at the time of the assessment. Mr. Kevin Robins, representative for the subject property owner, was not aware of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the subject property; any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property; or any notices from a governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

### **5.1.2 Interview with Report User**

Please refer to Section 5.2 below for information requested from the Report User.

### **5.1.3 Interview with Key Site Manager**

Mr. Caesar Perez , key site manager, indicated that he had no information pertaining to any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the subject property; any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property; or any notices from a governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

### **5.1.4 Interviews with Past Owners, Operators and Occupants**

Interviews with past owners, operators and occupants were not conducted since information regarding the potential for contamination at the subject property was obtained from other sources.

### **5.1.5 Interview with Others**

As the subject property is not an abandoned property as defined in ASTM 1527-13, interview with others were not performed.

## **5.2 User Provided Information**

### **5.2.1 Title Records, Environmental Liens, and AULs**

Partner was not provided with title records or environmental lien and AUL information for review as part of this assessment.

### **5.2.2 Specialized Knowledge**

No specialized knowledge of environmental conditions associated with the subject property was provided by the User at the time of the assessment.

### **5.2.3 Actual Knowledge of the User**

No actual knowledge of any environmental lien or AULs encumbering the subject property or in connection with the subject property was provided by the User at the time of the assessment.

#### **5.2.4 Valuation Reduction for Environmental Issues**

No knowledge of valuation reductions associated with the subject property was provided by the User at the time of the assessment.

#### **5.2.5 Commonly Known or Reasonably Ascertainable Information**

The User did not provide information that is commonly known or *reasonably ascertainable* within the local community about the subject property at the time of the assessment.

#### **5.2.6 Previous Reports and Other Provided Documentation**

The following information was provided to Partner for review during the course of this assessment:

*Phase I Environmental Site Assessment, Professional Service Industries, Inc. (November 9, 1998)*

Professional Service Industries, Inc. (PSI) prepared this report on behalf of Gort LTD., LP and USG Annuity & Life Company c/o ING Investment Management, LLC. The assessment was performed in accordance with ASTM Standard E1527-97. The assessment consisted of a site reconnaissance, interviews with knowledgeable personnel, review of historical information, and a review of federal, state and local regulatory databases. This assessment included an extra parcel to the west. Pertinent information contained in this report is summarized below:

- At the time of the 1998 assessment, the subject property consisted of two parcels of land totaling 12.21-acres in size and developed with an approximately 97,405 square-foot commercial building occupied by Fry's Electronics.
- According to the report, the subject property was formerly undeveloped land from as early as 1894; and developed as a dairy with associated residential structures and a store between circa-1928 and the early-1960s. By 1962, the subject property was redeveloped with the current commercial structure on the southern portion and Lockheed Martin (referred to as Plant A-1 South) occupied the property from 1969 to December 1995 for use as offices, a vehicle maintenance shop and parking. Additionally, a gasoline service station/automotive repair operation was developed on the northeastern portion of the subject property in 1962, which was acquired by Lockheed Martin in the mid-1960s and utilized as a gasoline service station/automotive repair operation for Lockheed fleet vehicles until closure in 1992. The subject property had been occupied by Fry's Electronics for retail use since at least 1995.
- Based on information provided in the report, this former operation included four (4) 12,000-gallon gasoline/diesel/tetrachloroethylene (PCE) USTs, one 550-gallon waste oil UST, one concrete 1,600-gallon clarifier and seven (7) dispensers. The UST containing PCE served as a central supply point for Lockheed's other plants in the Burbank area. The former gasoline service station/automotive repair operation was demolished in 1992 and the former underground storage tank (USTs) and clarifier were removed as part of the demolition. Additionally, other features including hydraulic lifts and storm drains were removed during this demolition under the supervision of the Burbank Fire Department. Following removal of the USTs and other associated



features of potential concern, a total of twenty-one soil samples were collected from the excavated areas. According to the analytical results, subsurface soil was found to be impacted with PCE, diesel fuel and hydraulic oil.

Between 1992 and 1995, seven (7) subsurface investigations were conducted at the subject property in relation to this reported release to the subsurface as a result of the former operations, and a total of 426 soil samples were collected from the former service station during this period. A total of 18 of the 426 soil samples contained concentrations of PCE above 1 mg/kg. As such, approximately 1,380 tons of PCE-impacted soil was excavated and removed from the subject property, and confirmation soil samples collected from the base and sidewalls of the excavation contained less than 150 ug/kg of PCE. As such, in a letter dated July 5, 1995, the California Regional Water Quality Control Board (RWQCB) issued a No Further Action status to the subject property and indicated the subject property had been remediated in accordance with Cleanup and Abatement Order No. 87-161. As such, PSI concluded the historical use of the subject property was not a REC.

PSI identified no RECs and recommended no further investigation.

Copies of pertinent pages reviewed are included in Appendix B of this report.

## 6.0 SITE RECONNAISSANCE

The weather at the time of the site visit was sunny and clear. Refer to Section 1.5 for limitations encountered during the field reconnaissance and Sections 2.1 and 2.2 for subject property operations. The table below provides the site assessment details:

### **Site Assessment Data**

**Site Assessment Performed By:** Claudia Cook  
**Site Assessment Conducted On:** April 16, 2020

The table below provides the subject property personnel interviewed during the field reconnaissance:

### **Site Visit Personnel for 2311 North Hollywood Way (Subject Property)**

<b>Name</b>	<b>Title/Role</b>	<b>Contact Number</b>	<b>Site Walk* Yes/No</b>
Mr. Cesar Perez	Store General Manager	(818) 524-0423	Yes

\* Accompanied Partner during the field reconnaissance activities and provided information pertaining to the current operations and maintenance of the subject property

Environmental concerns were identified during the onsite reconnaissance related to indications of former subsurface investigations, etc., as further discussed in Sections 6.1 and 6.2.

## 6.1 General Site Characteristics

### 6.1.1 Solid Waste Disposal

Solid waste generated at the subject property is disposed of in commercial dumpsters located on the southeastern section of the subject property on the subject property. An independent solid waste disposal contractor, Burbank Refuse, removes solid waste from the subject property. According to property personnel, only household and office-type trash is collected in the on-site solid waste dumpsters. No evidence of illegal dumping of solid waste was observed during the Partner site reconnaissance.

### 6.1.2 Sewage Discharge and Disposal

Sanitary discharges on the subject property are directed into the municipal sanitary sewer system. The City of Burbank services the subject property vicinity. No wastewater treatment facilities or septic systems were observed or reported on the subject property.

### 6.1.3 Surface Water Drainage

Storm water is removed from the subject property primarily by sheet flow action across the paved surfaces towards storm water drains located throughout the subject property and in the public right of way. The subject property is connected to a municipal owned and maintained sewer system.

The subject property does not appear to be a designated wetland area, based on information obtained from the United States Department of Agriculture; however, a comprehensive wetlands survey would be required in order to formally determine actual wetlands on the subject property. No surface impoundments, wetlands, natural catch basins, settling ponds, or lagoons are located on the subject property. No drywells were identified on the subject property.

#### **6.1.4 Source of Heating and Cooling**

Heating and cooling systems as well as domestic hot water equipment are fueled by electricity and natural gas provided by Southern California Edison and the Southern California Gas Company. Heating and cooling are provided by HVAC packaged units. There are three pad-mounted units at grade along the east elevation of the building and ten units mounted on the roof. Cooling is provided by direct expansion and appears to utilize R-410A refrigerant while heating is provided by gas-fired heating coils. The car audio installation building contains one roof-mounted evaporative swamp cooler unit.

#### **6.1.5 Wells and Cisterns**

No aboveground evidence of wells or cisterns was observed during the site reconnaissance.

#### **6.1.6 Wastewater**

Domestic wastewater generated at the subject property is disposed by means of the sanitary sewer system. No industrial process is currently performed at the subject property.

#### **6.1.7 Septic Systems**

No septic systems were observed or reported on the subject property.

#### **6.1.8 Additional Site Observations**

Partner observed at least one groundwater monitoring well on the northeastern corner of the subject property. This well appeared to be in good operating condition. The site contact was unaware of the nature of the well and or current operations. This feature is further discussed in Sections 4.2.2 and 4.2.4.

### **6.2 Potential Environmental Hazards**

#### **6.2.1 Hazardous Substances and Petroleum Products Used or Stored at the Site**

No evidence of the use of reportable quantities of hazardous substances was observed on the subject property. Small quantities of general maintenance supplies were found to be properly labeled and stored at the time of the assessment with no signs of leaks, stains, or spills. The storage and use of maintenance supplies does not appear to pose a significant threat to the environmental integrity of the subject property at this time.

#### **6.2.2 Aboveground & Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs/USTs)**

No evidence of current or former ASTs or USTs was observed during the site reconnaissance.

#### **6.2.3 Evidence of Releases**

No spills, stains or other indications that a surficial release has occurred at the subject property were observed.

#### **6.2.4 Polychlorinated Biphenyls (PCBs)**

Older transformers and other electrical equipment could contain PCBs at a level that subjects them to regulation by the U.S. EPA. PCBs in electrical equipment are controlled by United States Environmental

Protection Agency regulations 40 CFR, Part 761. Under the regulations, there are three categories into which electrical equipment can be classified: 1) Less than 50 parts per million (ppm) of PCBs – “Non-PCB;” 2) 50 ppm-500 ppm – “PCB-Contaminated;” and, 3) Greater than 500 ppm – “PCB-Containing.” The manufacture, process, or distribution in commerce or use of any PCB in any manner other than in a totally enclosed manner was prohibited after July 2, 1979.

The on-site reconnaissance addressed indoor and outdoor transformers that may contain PCBs. Two pad-mounted transformers, and three dry interior transformers were observed on the subject property. The transformers are not labeled indicating PCB content. No staining or leakage was observed in the vicinity of the transformers. Based on the good condition of the equipment, the transformers are not expected to represent a significant environmental concern.

The subject property is equipped with three dock levelers along the cargo loading bay on the southeastern corner of the subject property. The levelers appear to be in good condition, undergoing annual inspections and repairs by the ownership, with no signs of leaks or staining; therefore, they are not expected to represent a significant environmental concern.

Additionally, no other potential PCB-containing equipment (interior transformers, oil-filled switches, hoists, lifts, dock levelers, hydraulic elevators, balers, etc.) was observed on the subject property during Partner’s reconnaissance.

#### **6.2.5 Strong, Pungent or Noxious Odors**

No strong, pungent or noxious odors were evident during the site reconnaissance.

#### **6.2.6 Pools of Liquid**

No pools of liquid were observed on the subject property during the site reconnaissance.

#### **6.2.7 Drains, Sumps and Clarifiers**

No drains, sumps, or clarifiers, other than those associated with storm water removal, were observed on the subject property during the site reconnaissance.

#### **6.2.8 Pits, Ponds and Lagoons**

No pits, ponds or lagoons were observed on the subject property.

#### **6.2.9 Stressed Vegetation**

No stressed vegetation was observed on the subject property.

#### **6.2.10 Additional Potential Environmental Hazards**

No additional environmental hazards, including landfill activities or radiological hazards, were observed.

### **6.3 Non-ASTM Services**

#### **6.3.1 Asbestos-Containing Materials (ACMs)**

Asbestos is the name given to a number of naturally occurring, fibrous silicate minerals mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. The

Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1926.1101 requires certain construction materials to be presumed to contain asbestos, for purposes of this regulation. All thermal system insulation (TSI), surfacing material, and asphalt/vinyl flooring that are present in a building that have not been appropriately tested are "presumed asbestos-containing material" (PACM).

The subject property buildings were constructed in 1962. A limited, visual evaluation of accessible areas for the presence of suspect ACMs at the subject property was conducted. The objective of this visual survey was to note the presence and condition of suspect ACM observed. Please refer to the table below for identified suspect ACMs:

<b>Suspect ACMs</b>			
<b>Suspect ACM</b>	<b>Location</b>	<b>Friable Yes/No</b>	<b>Physical Condition</b>
Drywall Systems	Throughout Building Interior	No	Good
Floor Tiles	Throughout Building Interior	No	Good
Floor Tile Mastic	Throughout Building Interior	No	Good

The limited visual survey consisted of noting observable materials (materials which were readily accessible and visible during the course of the site reconnaissance) that are commonly known to potentially contain asbestos. This activity was not designed to discover all sources of suspect ACM, PACM, or asbestos at the site; or to comply with any regulations and/or laws relative to planned disturbance of building materials such as renovation or demolition, or any other regulatory purpose. Rather, it is intended to give the User an indication if significant (significant due to quantity, accessibility, or condition) potential sources of ACM or PACM are present at the subject property. Additional sampling, assessment, and evaluation will be warranted for any other use.

Partner was not provided building plans or specifications for review, which may have been useful in determining areas likely to have used ACM.

According to the US EPA, ACM and PACM that is intact and in good condition can, in general, be managed safely in-place under an Operations and Maintenance (O&M) Program until removal is dictated by renovation, demolition, or deteriorating material condition. Prior to any disturbance of the construction materials within this facility, a comprehensive ACM survey is recommended.

**6.3.2 Lead-Based Paint (LBP)**

Lead is a highly toxic metal that affects virtually every system of the body. LBP is defined as any paint, varnish, stain, or other applied coating that has 1 mg/cm<sup>2</sup> (or 5,000 ug/g or 0.5% by weight) or more of lead. Congress passed the Residential Lead-Based Paint Hazard Reduction Act of 1992, also known as "Title X", to protect families from exposure to lead from paint, dust, and soil. Under Section 1017 of Title X, intact LBP on most walls and ceilings is not considered a "hazard," although the condition of the paint should be monitored and maintained to ensure that it does not become deteriorated. Further, Section 1018 of this law directed the Housing and Urban Development (HUD) and the US EPA to require the disclosure of known information on LBP and LBP hazards before the sale or lease of most housing built before 1978.

Based on the age of the subject property buildings (pre-1978), there is a potential that LBP is present. Interior and exterior painted surfaces were observed in good condition and therefore not expected to represent a "hazard," although the condition of the paint should be monitored and maintained to ensure that it does not become deteriorated.

Actual material samples would need to be collected in order to determine if LBP is present.

### **6.3.3 Radon**

Radon is a colorless, odorless, naturally occurring, radioactive, inert, gaseous element formed by radioactive decay of radium (Ra) atoms. The US EPA has prepared a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three Radon Zones, according to the table below:

<b>EPA Radon Zones</b>		
<b>EPA Zones</b>	<b>Average Predicted Radon Levels</b>	<b>Potential</b>
Zone 1	Exceed 4.0 pCi/L	Highest
Zone 2	Between 2.0 and 4.0 pCi/L	Moderate
Zone 3	Less than 2.0 pCi/L	Low

It is important to note that the EPA has found homes with elevated levels of radon in all three zones, and the US EPA recommends site-specific testing in order to determine radon levels at a specific location. However, the map does give a valuable indication of the propensity of radon gas accumulation in structures.

Radon sampling was not conducted as part of this assessment. Review of the US EPA Map of Radon Zones places the subject property in Zone 2. Based upon the radon zone classification, radon is not considered to be a significant environmental concern.

### **6.3.4 Lead in Drinking Water**

According to available information, a public water system operated by the Burbank Department of Public Works and Engineering serves the subject property vicinity. The sources of public water for Burbank are surface water purchased from the Metropolitan Water District (MWD) that received its water from the Northern Sierra Mountains in California and the Colorado River. According to the Burbank and the 2018 Annual Water Quality Report, water supplied to the subject property is in compliance with all State and Federal regulations pertaining to drinking water standards, including lead and copper. Water sampling was not conducted to verify water quality.

### **6.3.5 Mold**

Molds are microscopic organisms found virtually everywhere, indoors and outdoors. Mold will grow and multiply under the right conditions, needing only sufficient moisture (e.g. in the form of very high humidity, condensation, or water from a leaking pipe, etc.) and organic material (e.g., ceiling tile, drywall, paper, or natural fiber carpet padding).

Partner observed accessible, interior areas for the subject property buildings for significant evidence of mold growth with the exceptions detailed in Section 1.5 of this report; however, this ESA should not be

used as a mold survey or inspection. Additionally, this limited assessment was not designed to assess all areas of potential mold growth that may be affected by mold growth on the subject property. Rather, it is intended to give the client an indication as to whether or not conspicuous (based on observed areas) mold growth is present at the subject property. This evaluation did not include a review of pipe chases, mechanical systems, or areas behind enclosed walls and ceilings.

No obvious indications of water damage or mold growth were observed during Partner's visual assessment.

## **6.4 Adjacent Property Reconnaissance**

The adjacent property reconnaissance consisted of observing the adjacent properties from the subject property premises.

### **6.4.1 PCBs**

Two pole-mounted transformers and at least three pad-mounted transformers were observed on the adjacent properties. No staining or leakage was observed in the vicinity of the transformers. Based on these observations, the presence of adjacent transformers is not expected to represent a significant environmental concern.

No additional items of environmental concern were identified on the adjacent properties during the site assessment, including hazardous substances, petroleum products, ASTs, USTs, evidence of releases, PCBs, strong or noxious odors, pools of liquids, sumps or clarifiers, pits or lagoons, stressed vegetation, or any other potential environmental hazards



## 7.0 FINDINGS AND CONCLUSIONS

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### Findings

A *recognized environmental condition (REC)* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment. The following was identified during the course of this assessment:

- The subject property is located within the boundaries of the Burbank Operable Unit (BOU) of the San Fernando Valley North Hollywood National Priorities List (NPL) site, an area of known groundwater contamination. Constituents of Concern (COCs) that have been identified include semi-volatile organic compounds (SVOCs), Volatile Organic Compounds (VOCs) and chromium. The subject property was one of many sites investigated by RWQCB and USEPA as a potential responsible party (PRP) of the groundwater contamination. On July 6, 1995 a letter was issued to Lockheed by RWQCB indicating the subject property would no longer be under investigation for potential groundwater contamination for VOCs and the subject property (former Lockheed Plant A-1 South) and current ownership (Gort Limited) were noted to be excluded from the requirements of the Cleanup and Abatement Order No. 87-161, which is associated with the cleanup of several Lockheed plants in the Burbank area.

Former site occupant, Lockheed Martin, monitors groundwater within the BOU to comply with the provisions of a USEPA Consent Decree (#91-4527-MRP) filed March 1992, and the CRWQCB Cleanup and Abatement Order (#87-161) dated December 1987. As part of the NPL investigation, two groundwater monitoring wells, A-1-CW04 and A-1-CW09, were installed in the north and northeast portion of the subject property, respectively. A third well, monitoring well A-1-CW05 was co-located with monitoring well A-1-CW04 at a later date. Partner contacted Ms. Anita Fang with CRWQCD regarding the most recent groundwater monitoring results on file with the agency for the BOU. A review of an Annual Groundwater Monitoring Report, Second Quarter 2017 Burbank Operable Unit, provided by Ms. Fang indicates 1,2,3 Trichloropropane (1,2,3 TCP), 1,4 Dioxane, various other VOCs (including Tetrachloroethylene (PCE) and Trichloroethene (TCE), hexavalent chromium and chromium were detected in the onsite wells at levels above the reporting limit (RL), with an increasing trend of 1,2,3 TCP concentrations. Chromium was detected in well A-1-CW04 at 0.88 ug/L which exceeds the Maximum Contaminant Level (MCL).

Lockheed Martin has conducted groundwater monitoring of the onsite wells since approximately 1996 and has been identified as a potential contributor to the regional groundwater contamination. As discussed, the current property owner (Gort, Ltd) has not been identified as a potential responsible party (PRP) and it is unlikely the subject property owner would be responsible for future remediation activities since NFA was issued in 1995. Furthermore, based on the depth to groundwater, review of the most recent groundwater analytical results, and commercial usage of the subject property, a vapor intrusion condition (VIC) is unlikely to exist at the subject property. The location of the subject property within the Burbank Operable Unit of the

San Fernando Valley NPL investigation, the identification of a former site occupant as a potential contributor to the regional impact, and the reported VOC and chromium groundwater contamination identified in onsite wells is considered a REC for the subject property; however, based on the lack of an apparent VIC and issuance of an NFA letter with regards to the former subject property operations, Partner recommends no further investigation at this time with regards to this regional groundwater contamination case.

A *controlled recognized environmental condition (CREC)* refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. The following was identified during the course of this assessment:

- Based on review of historical sources, by 1962, the subject property was redeveloped with the current commercial structure on the southern portion and Lockheed Martin (referred to as Plant A-1 South) occupied the property from 1969 to December 1995 for use as offices, a vehicle maintenance shop and parking. Additionally, a gasoline service station/automotive repair operation was developed on the northeastern portion of the subject property in 1962, which was acquired by Lockheed Martin in the mid-1960s and utilized as a gasoline service station/automotive repair operation for Lockheed fleet vehicles until closure in 1992. The subject property has been occupied by Fry's Electronics for retail use since at least 1995.

The subject property at 2311 North Hollywood Way was identified in the regulatory database report under the names Lockheed Martin, Gort Limited and Fry's Electronics. Based on information provided in a previous Phase I ESA report (PSI, 1998) and from a file review, this former operation included four (4) 12,000-gallon gasoline/diesel/tetrachloroethylene (PCE) USTs, one 550-gallon waste oil UST, one concrete 1,600-gallon clarifier and seven (7) dispensers. The UST containing PCE served as a central supply point for Lockheed's other plants in the Burbank area. The former gasoline service station/automotive repair operation was demolished in 1992 and the former underground storage tank (USTs) and clarifier were removed as part of the demolition. Additionally, other features including hydraulic lifts and storm drains were removed during this demolition under the supervision of the Burbank Fire Department. Following removal of the USTs and other associated features of potential concern, a total of twenty-one soil samples were collected from the excavated areas. According to the analytical results, subsurface soil was found to be impacted with PCE, diesel fuel and hydraulic oil.

Between 1992 and 1995, seven (7) subsurface investigations were conducted at the subject property in relation to this reported release to the subsurface as a result of the former operations, and a total of 426 soil samples were collected from the former service station during this period. The 1992 subsurface investigation included 78 soil borings to depths of 10 to 40 feet bgs, and soil samples collected from varying intervals were analyzed for VOCs, PCBs, and TPH. According to the analytical results, TPH impacts were generally confined to the upper 10 feet of soil. Elevated VOC impacts were also generally limited to the upper 10 feet of soil, with one boring noting PCE

impacts extending to 25 feet bgs. In 1993, a Soil Gas Survey was conducted on the subject property to further evaluate the extent of the subsurface impacts. A total of 181 soil-gas samples were collected from 159 locations across the subject property at depths ranging from 5 to 25 feet bgs, and the samples were analyzed for VOCs. According to the analytical results, twelve of the sample collected from the 5-foot depth contained PCE in excess of 0.1 mg/L, with one sample exceeding 1.0 mg/L. None of the samples collected from the 20-foot depth contained concentrations of PCE above 1.0 mg/L. Additional site characterization was conducted in 1994/1995 which included additional soil borings and sampling and additional soil vapor sampling. A total of 18 of the 426 soil samples contained concentrations of PCE above 1 mg/kg.

Based on review of the Final Soil Remediation Report dated May 22, 1995 by Lockheed Martin Corporation, approximately 1,380 tons of PCE- and diesel/oil-impacted soil was excavated and removed from the subject property. Following removal, a total of 109 confirmation soil samples were collected from the base and sidewalls of the excavation and analyzed for VOCs, TPH, and lead. According to the analytical results, the confirmation soil samples all contained less than 150 ug/kg of PCE. As such, the excavations were backfilled with approved clean fill, and a request for closure was submitted with the report. Based on review of the 1995 final soil remediation report, in a letter dated July 5, 1995, the California Regional Water Quality Control Board (RWQCB) issued a No Further Action status to the subject property and indicated the subject property had been remediated in accordance with Cleanup and Abatement Order No. 87-161. As such, the subject property (former Lockheed Plant A-1 South) and current ownership (Gort Limited) were noted to be excluded from the requirements of the Cleanup and Abatement Order No. 87-161, which is associated with the cleanup of several Lockheed plants in the Burbank area. Based on the regulatory closure with residual PCE-impacted soil left in place, the historical usage of the subject property and associated closed release case are considered a CREC for the subject property. As such, prior to any redevelopment activities and due to the presence of residual PCE-impacted soil in the subsurface, Partner recommends a soil vapor survey be conducted to evaluate potential vapor intrusion issues for any future onsite buildings. Additionally, if the redevelopment plan includes subterranean levels, Partner recommends implementing a Soil Management Plan (SMP).

A *historical recognized environmental condition (HREC)* refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. The following was identified during the course of this assessment:

- Partner did not identify any HRECs during the course of this assessment.

An *environmental issue* refers to environmental concerns identified by Partner, which do not qualify as RECs; however, warrant further discussion. The following was identified during the course of this assessment:

- Due to the age of the subject property buildings, there is a potential that asbestos-containing material (ACM) and/or lead-based paint (LBP) are present. Readily visible suspect ACMs and painted surfaces were observed in good condition. The identified suspect ACMs and LBPs would need to be sampled to confirm the presence or absence of asbestos or lead prior to any renovation or demolition activities to prevent potential exposure to workers and/or building occupants.

### **Conclusions, Opinions and Recommendations**

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of 2311 North Hollywood Way in Burbank, Los Angeles County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed evidence of a REC, CREC and environmental issue in connection with the subject property. Based on the conclusions of this assessment, Partner recommends the following:

- Prior to any redevelopment activities and due to the presence of residual PCE-impacted soil in the subsurface, Partner recommends a soil vapor survey be conducted to evaluate potential vapor intrusion issues for any future onsite buildings. Additionally, if the redevelopment plan includes subterranean levels, Partner recommends implementing a Soil Management Plan (SMP).
- An Operations and Maintenance (O&M) Program should be implemented in order to safely manage the suspect ACMs and LBP located at the subject property.

## 8.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

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Partner has performed a Phase I Environmental Site Assessment of the property located at 2311 North Hollywood Way in Burbank, Los Angeles County, California in conformance with the scope and limitations of the protocol and the limitations stated earlier in this report. Exceptions to or deletions from this protocol are discussed earlier in this report.

By signing below, Partner declares that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR §312. Partner has the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the subject *property*. Partner has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared By:



Claudia Cook  
Environmental Professional



Louis Mowers  
Environmental Scientist

Reviewed By:



David Boyce  
Senior Author

## 9.0 REFERENCES

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### Reference Documents

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United States Geological Survey, accessed via the Internet, April 2020

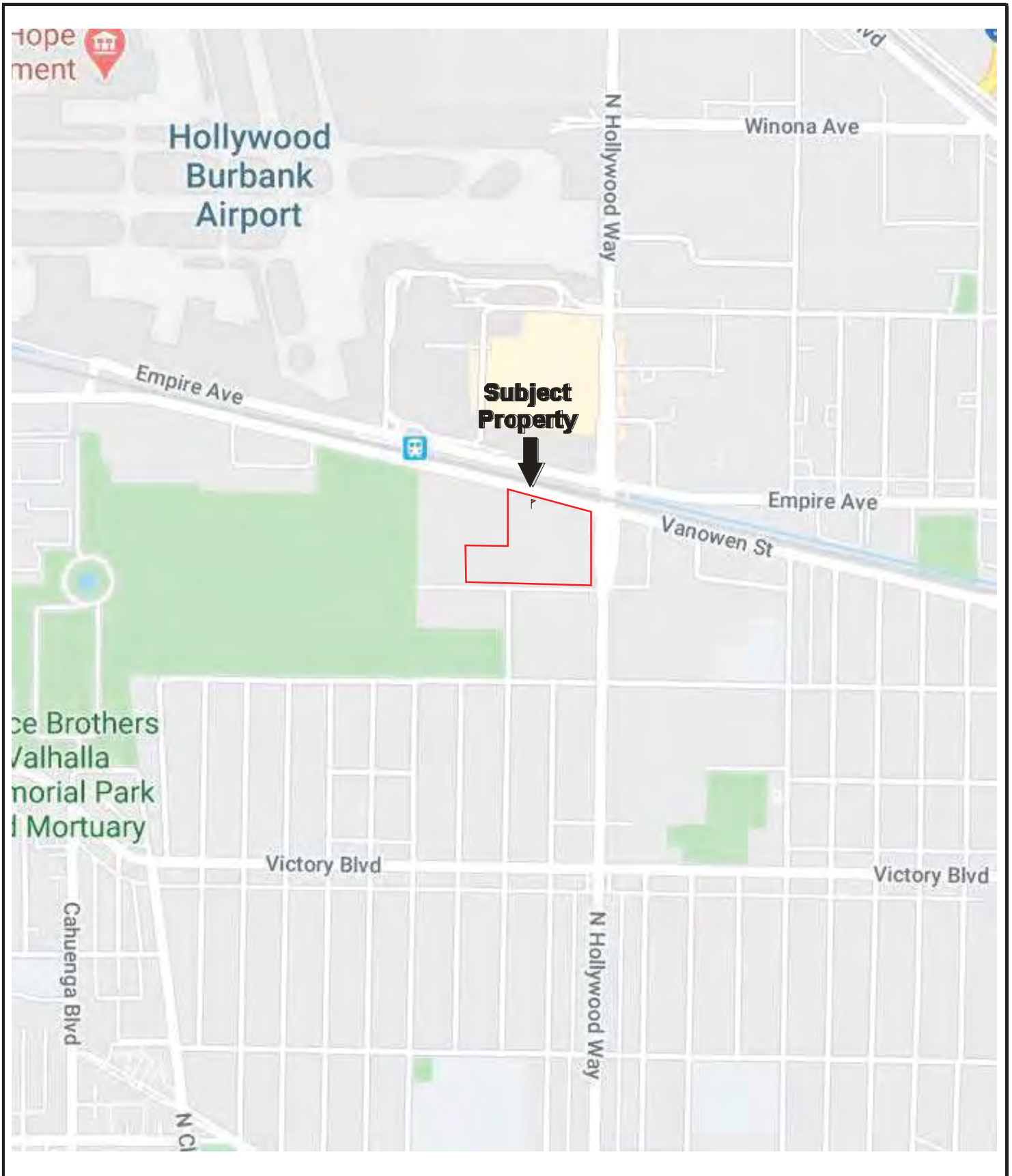
United States Geological Survey Topographic Map 1995, 7.5-minute series, accessed via internet, April 2020

## **FIGURES**

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- 1 SITE LOCATION MAP**
- 2 SITE PLAN**
- 3 TOPOGRAPHIC MAP**





Drawing Not To Scale

KEY:  
Subject Property 

**FIGURE 1: SITE LOCATION MAP**  
Project No. 20-279443.1



**GROUNDWATER FLOW**



GW Monitoring Well 

KEY:  
Subject Property 

**FIGURE 2: SITE PLAN**  
Project No. 20-279443.1





## **APPENDIX A: SITE PHOTOGRAPHS**

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1. View of the northern side of the subject property, facing southwest on Vanowen Street



2. View of the western side of the subject property, facing south from the parking lot



3. View of the eastern side of the subject property, facing north from Valhalla Drive



4. View of the southern side of the subject property, facing northeast from Valhalla Drive



5. View of the subject property electrical panels



6. View of the inoperable automotive stereo installation garage





7. View of a typical storm water drain



8. View of the southeastern corner of the subject property loading and distribution area



9. View of the subject property parking lot



10. View of the groundwater monitoring well on the northeastern corner of the subject property



11. View of the entrance to the subject property



12. View of the checkout area of the subject property



13. View of the internals of the electrical panel



14. View of a not in use air compressor within the automotive stereo installation garage



15. View of the automotive stereo installation garage



16. View of the main floor area of the subject property



17. View of an employee breakroom



18. View of the central data center and fire sprinkler computer equipment





19. View of the maintenance closet



20. View of the subject property restroom area



21. View of the three leveling docks on the subject property



22. View of the subject property café area



23. View of a typical dry-transformer in the subject property



24. View of the two outdoor pad-mounted transformers



25. View of the northern adjacent property



26. View of the western adjacent property



27. View of the eastern adjacent property



28. View of the southwestern adjacent property



29. View of the southern adjacent property



30. View of the southeastern adjacent property

## **APPENDIX B: HISTORICAL/REGULATORY DOCUMENTATION**



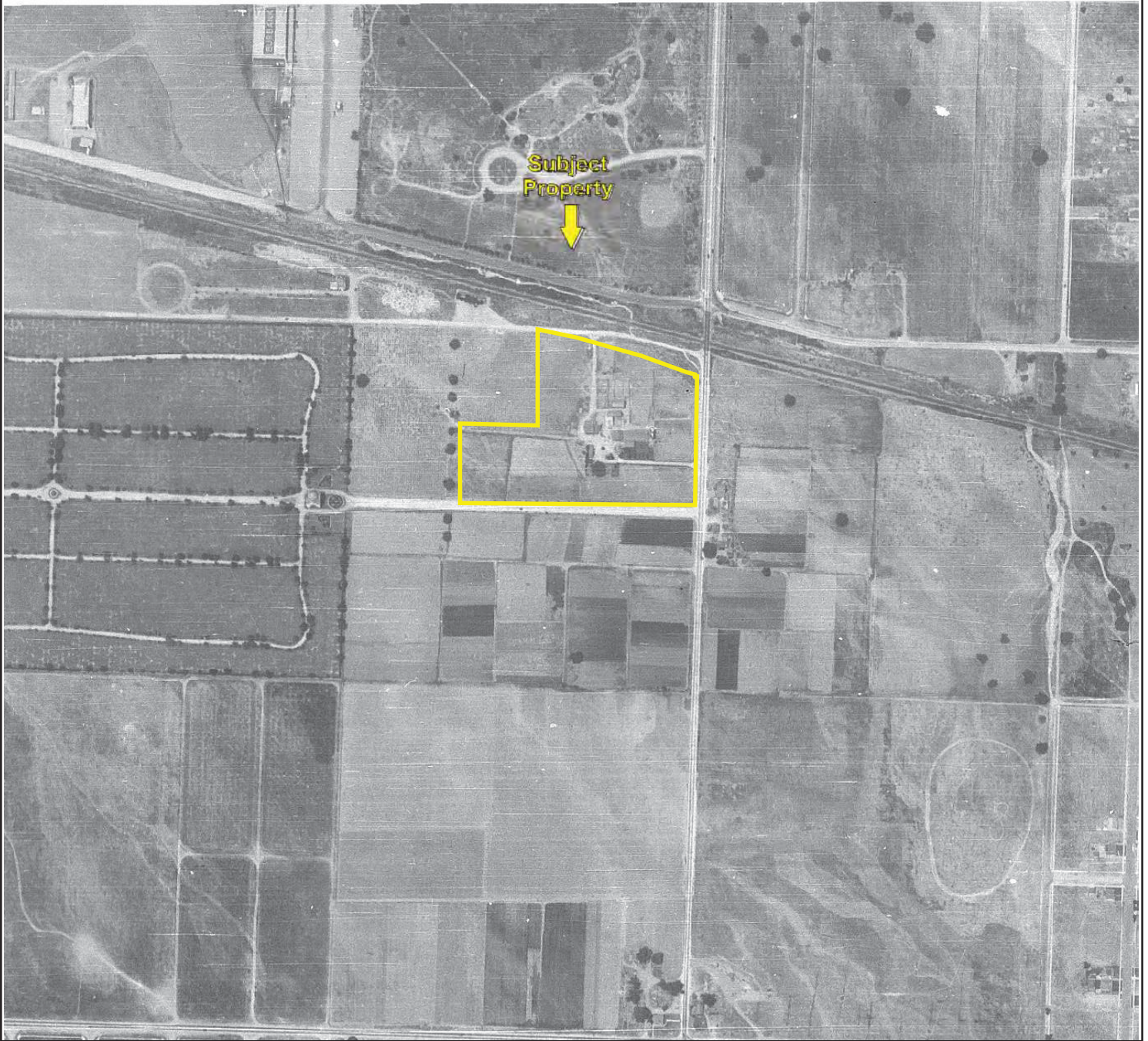


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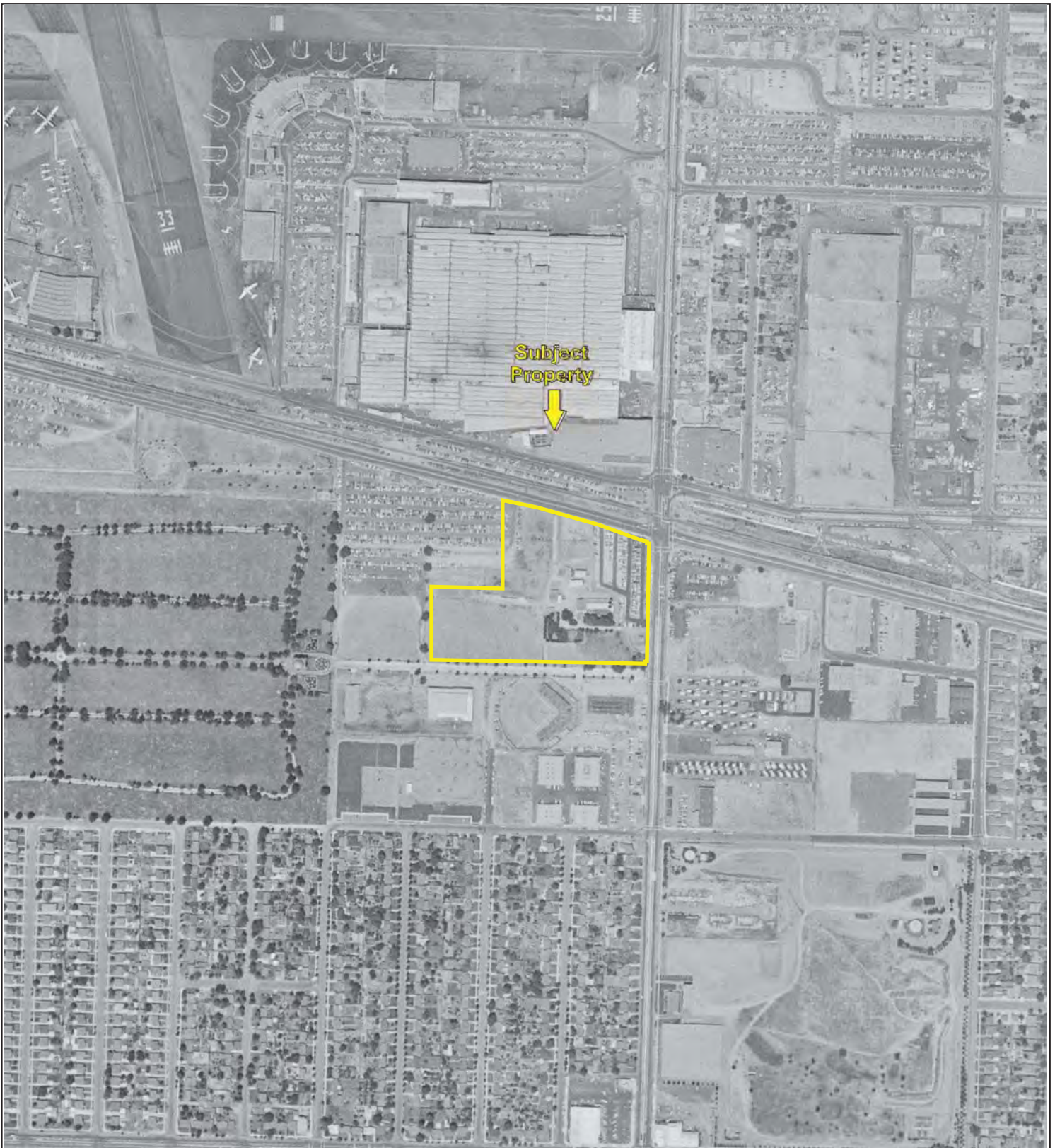
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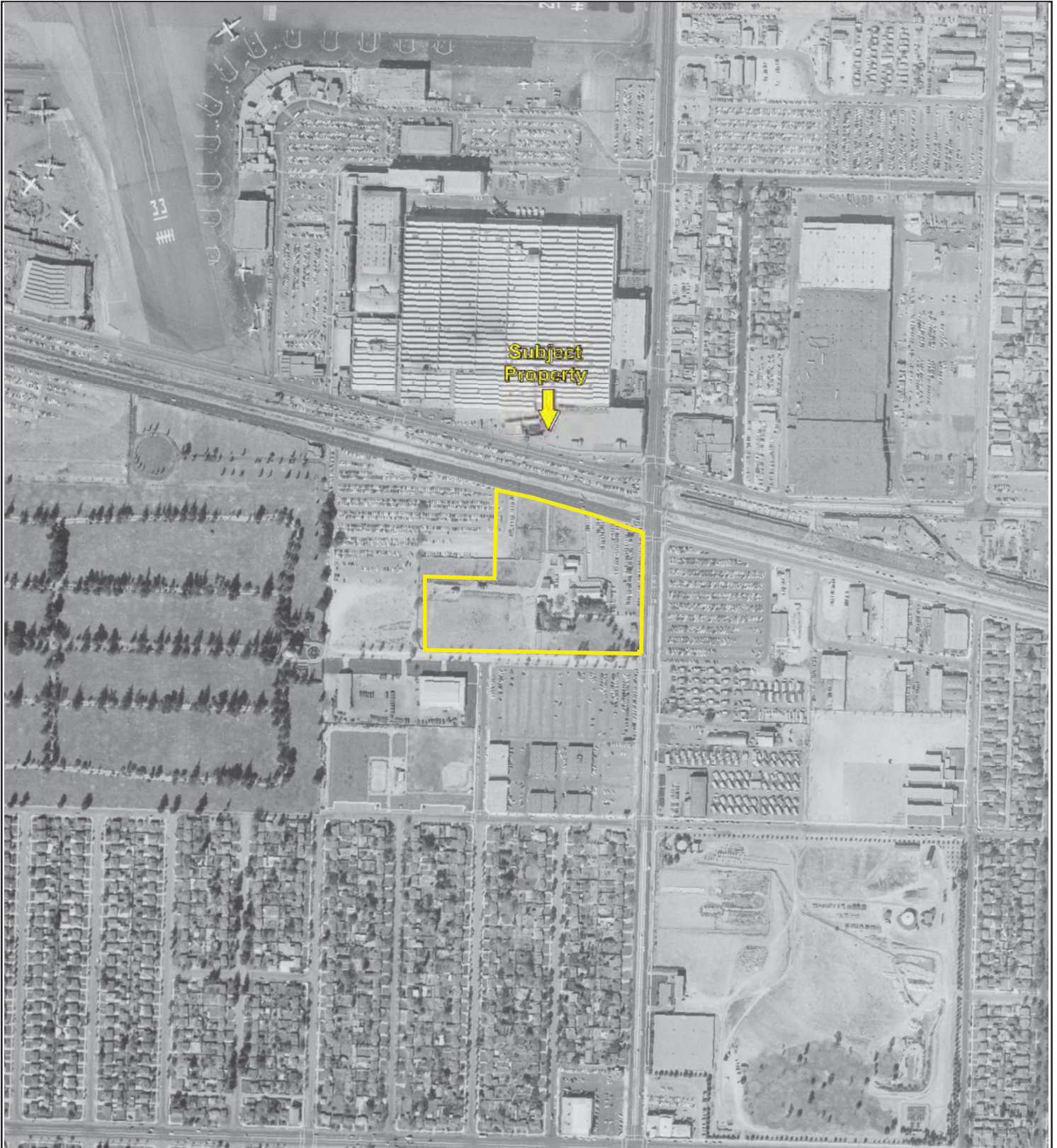
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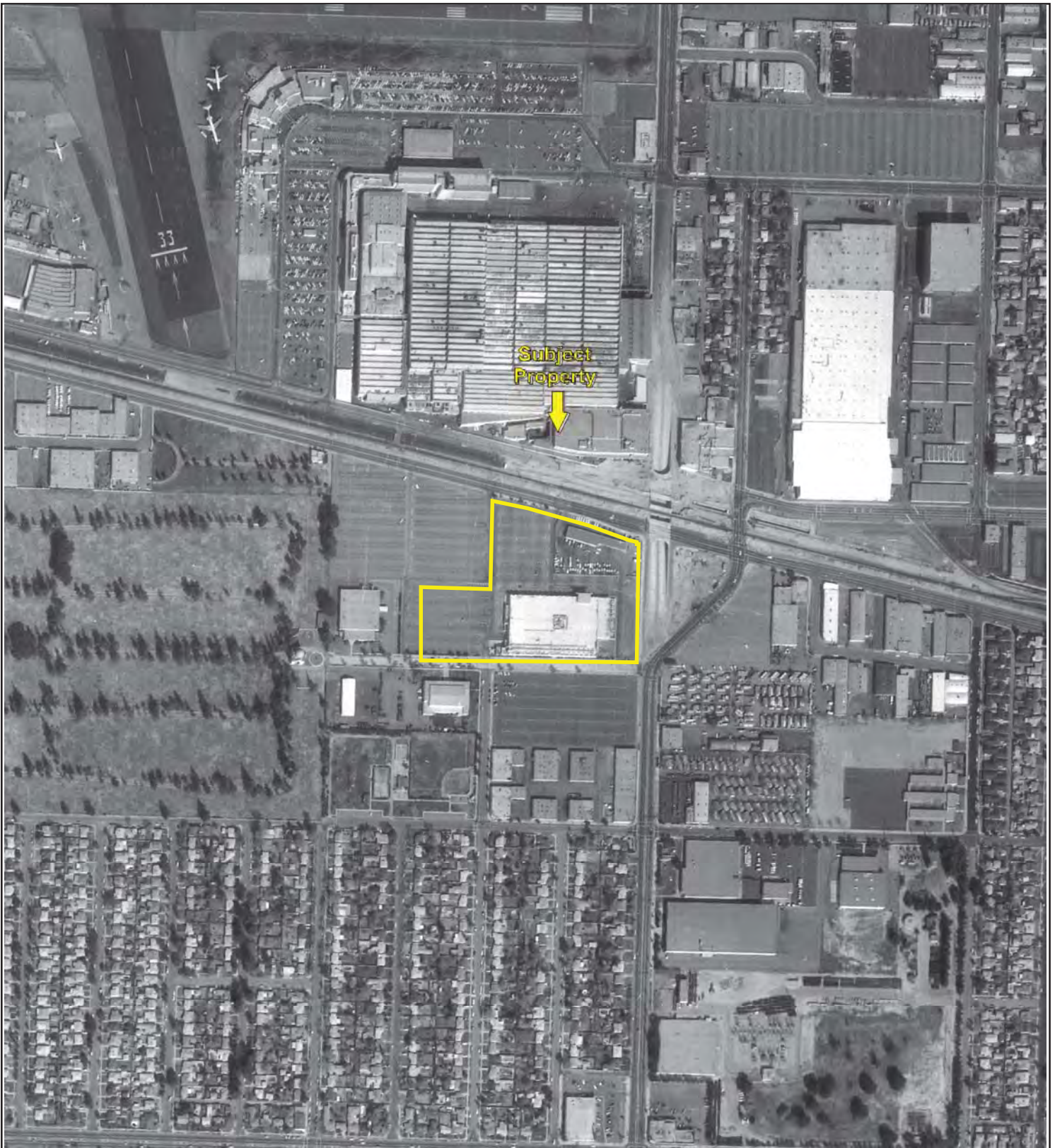


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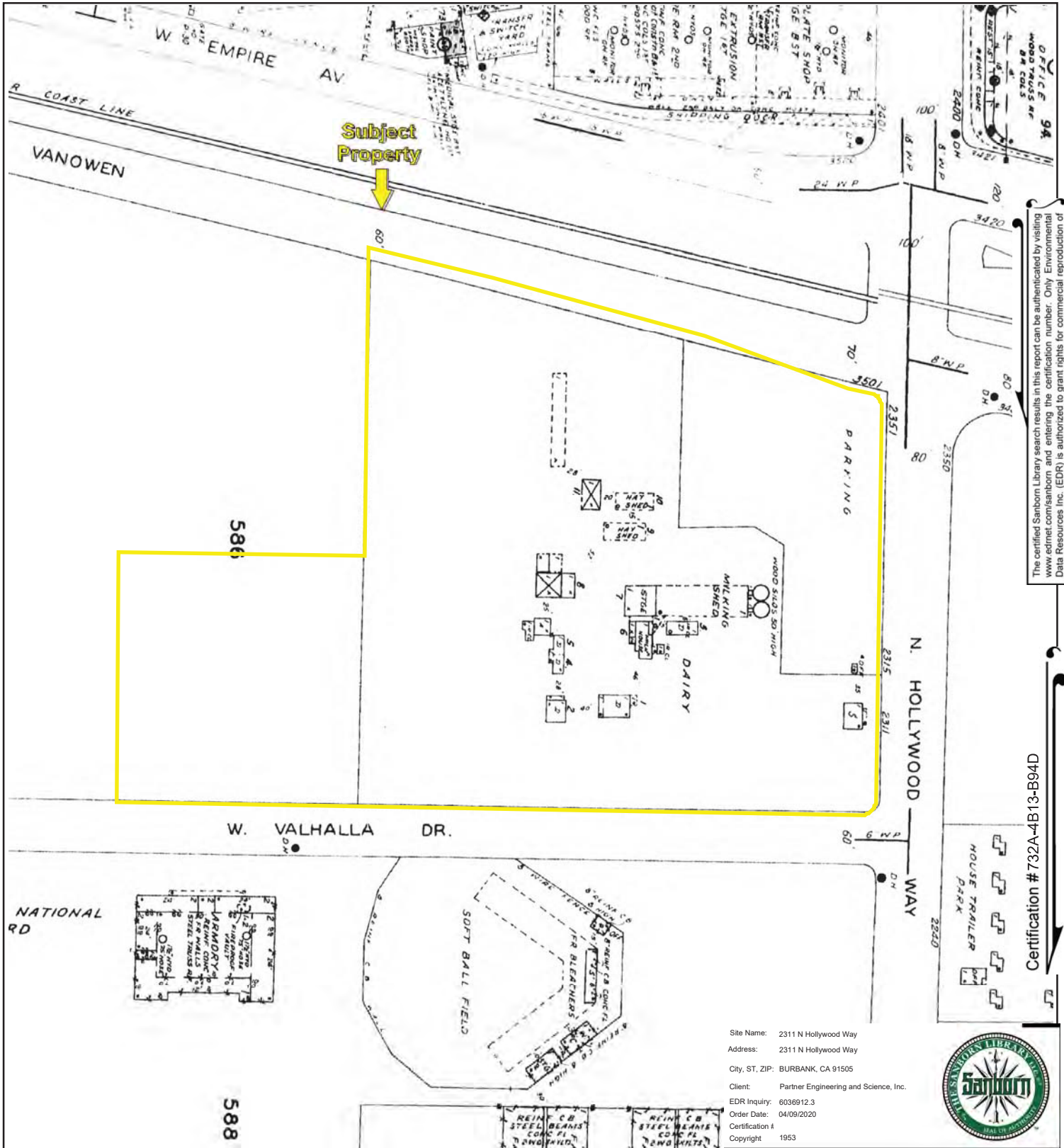


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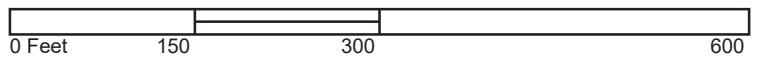
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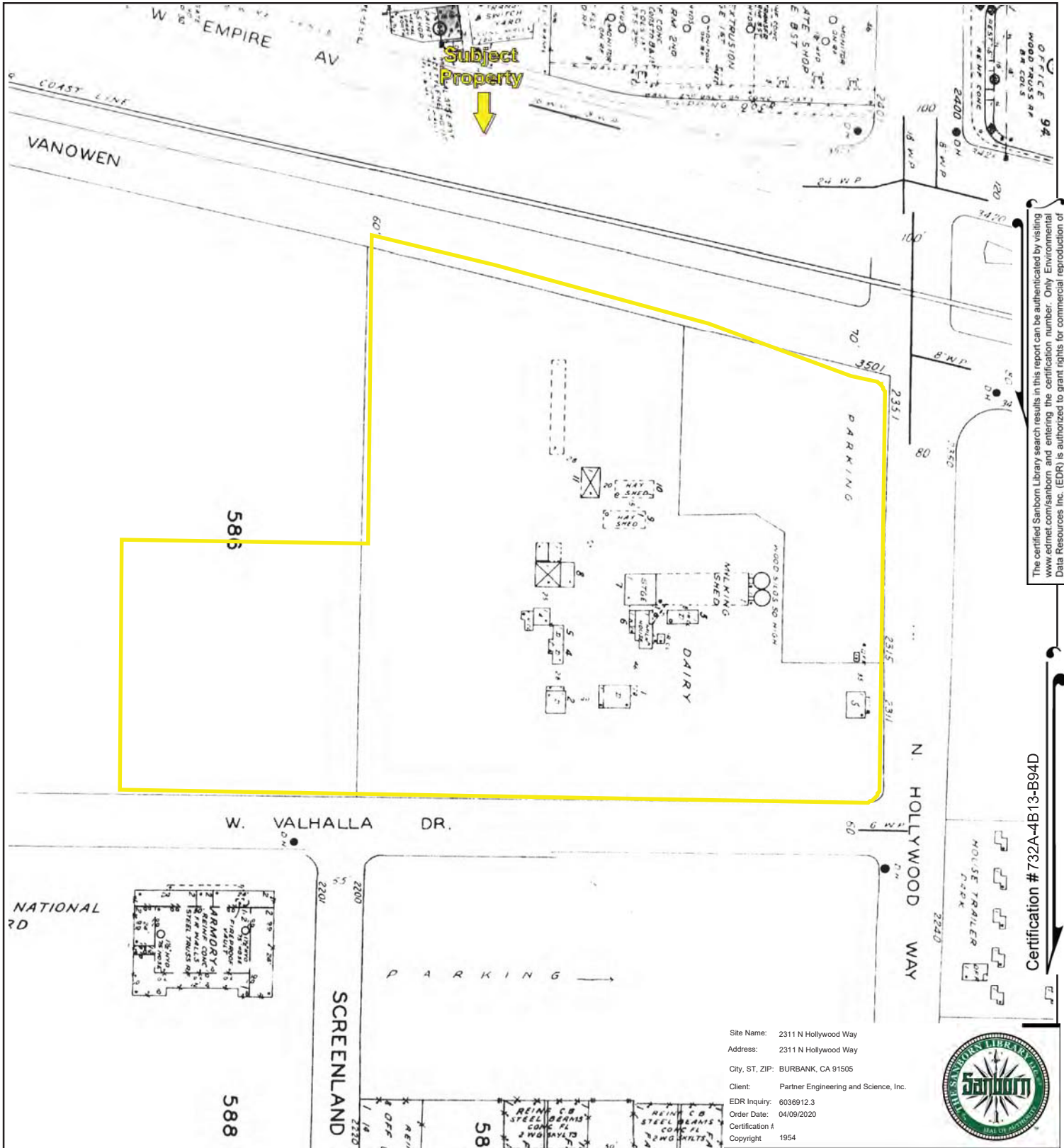
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 Address: 2311 N Hollywood Way  
 City, ST, ZIP: BURBANK, CA 91505  
 Client: Partner Engineering and Science, Inc.  
 EDR Inquiry: 6036912.3  
 Order Date: 04/09/2020  
 Certification #:   
 Copyright: 1953



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Key: Subject Property



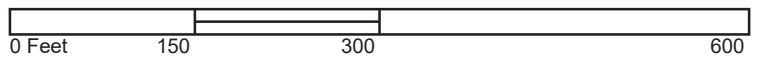
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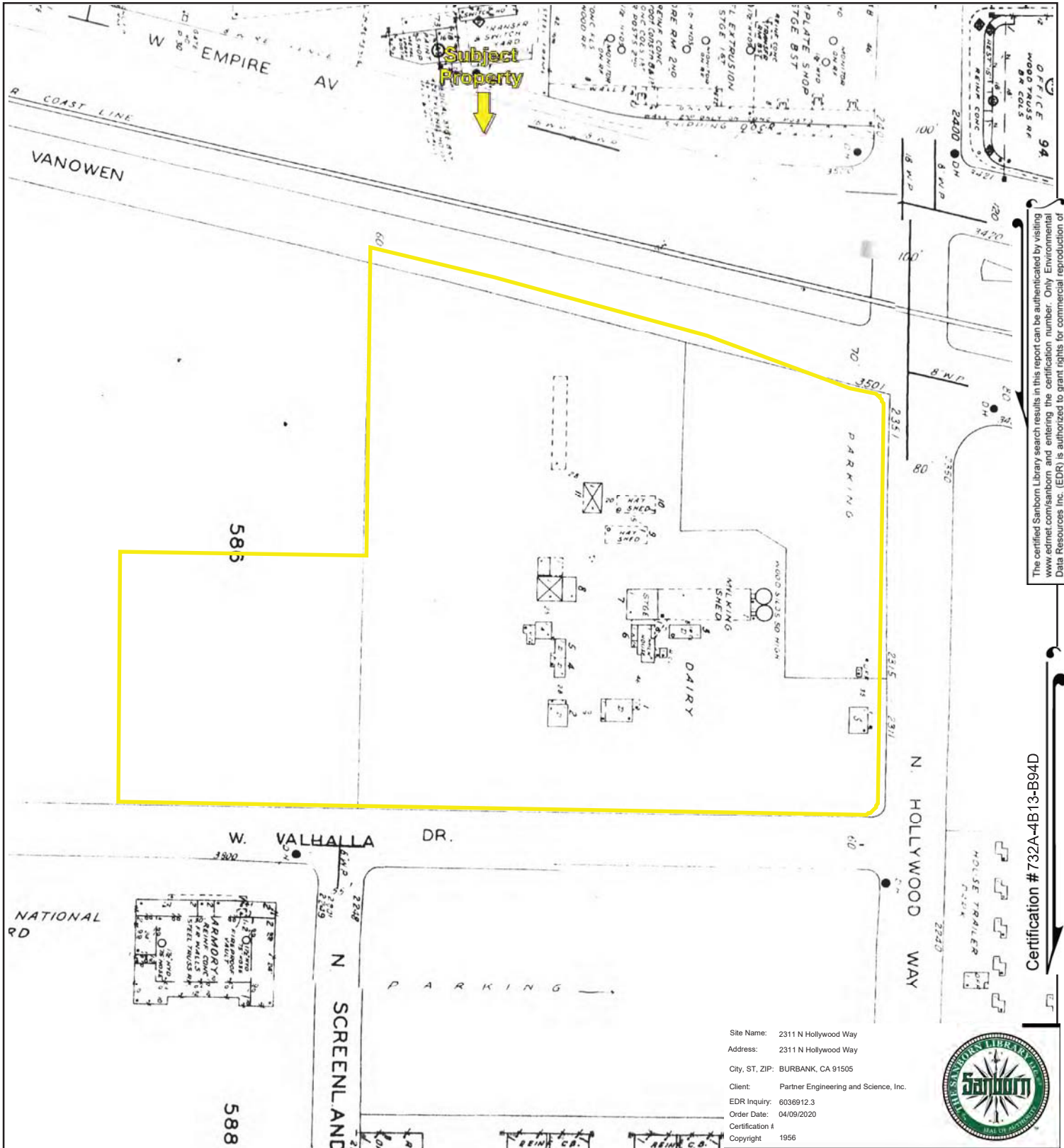
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 City, ST, ZIP: BURBANK, CA 91505  
 Client: Partner Engineering and Science, Inc.  
 EDR Inquiry: 6036912.3  
 Order Date: 04/09/2020  
 Certification #:   
 Copyright: 1954



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Key: Subject Property



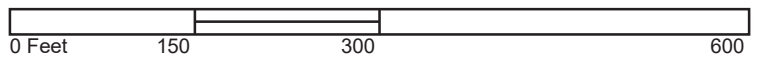
The certified Sanborn Library search results in this report can be authenticated by visiting [www.edrnet.com/sanborn](http://www.edrnet.com/sanborn) and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by The Sanborn Library LLC, the copyright holder for the collection.

Certification # 732A-4B13-B94D

Site Name: 2311 N Hollywood Way  
 Address: 2311 N Hollywood Way  
 City, ST, ZIP: BURBANK, CA 91505  
 Client: Partner Engineering and Science, Inc.  
 EDR Inquiry: 6036912.3  
 Order Date: 04/09/2020  
 Certification #  
 Copyright: 1956

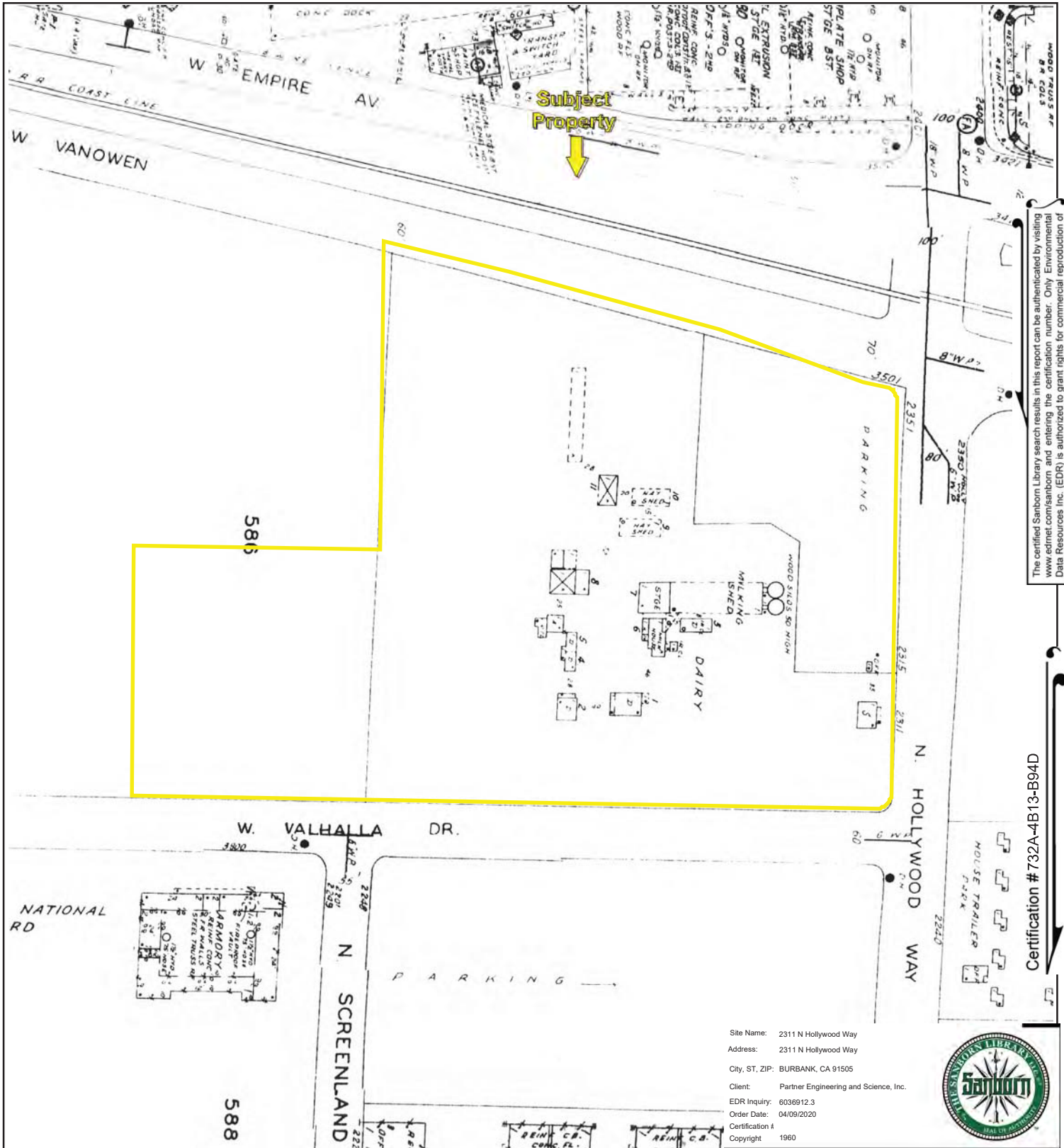


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Key: Subject Property





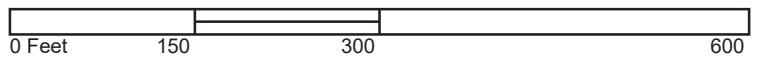
The certified Sanborn Library search results in this report can be authenticated by visiting [www.edrnet.com/sanborn](http://www.edrnet.com/sanborn) and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by The Sanborn Library LLC, the copyright holder for the collection.

Certification # 732A-4B13-B94D

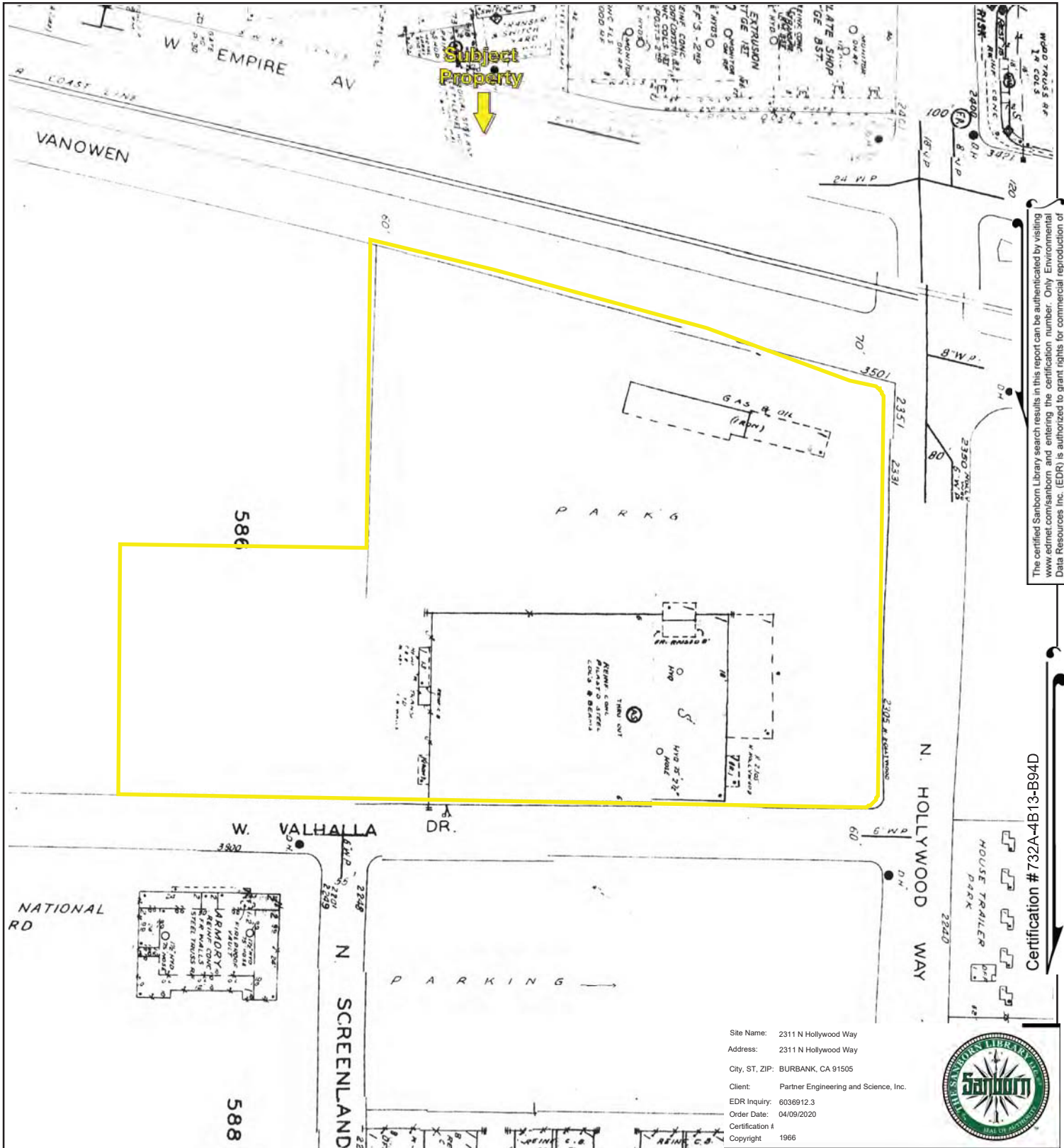
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 Address: 2311 N Hollywood Way  
 City, ST, ZIP: BURBANK, CA 91505  
 Client: Partner Engineering and Science, Inc.  
 EDR Inquiry: 6036912.3  
 Order Date: 04/09/2020  
 Certification #  
 Copyright: 1960



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Key: Subject Property



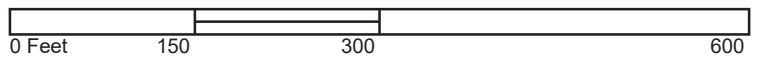
The certified Sanborn Library search results in this report can be authenticated by visiting [www.edrnet.com/sanborn](http://www.edrnet.com/sanborn) and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by The Sanborn Library LLC, the copyright holder for the collection.

Certification # 732A-4B13-B94D

Site Name: 2311 N Hollywood Way  
 Address: 2311 N Hollywood Way  
 City, ST, ZIP: BURBANK, CA 91505  
 Client: Partner Engineering and Science, Inc.  
 EDR Inquiry: 6036912.3  
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 Certification #: 732A-4B13-B94D  
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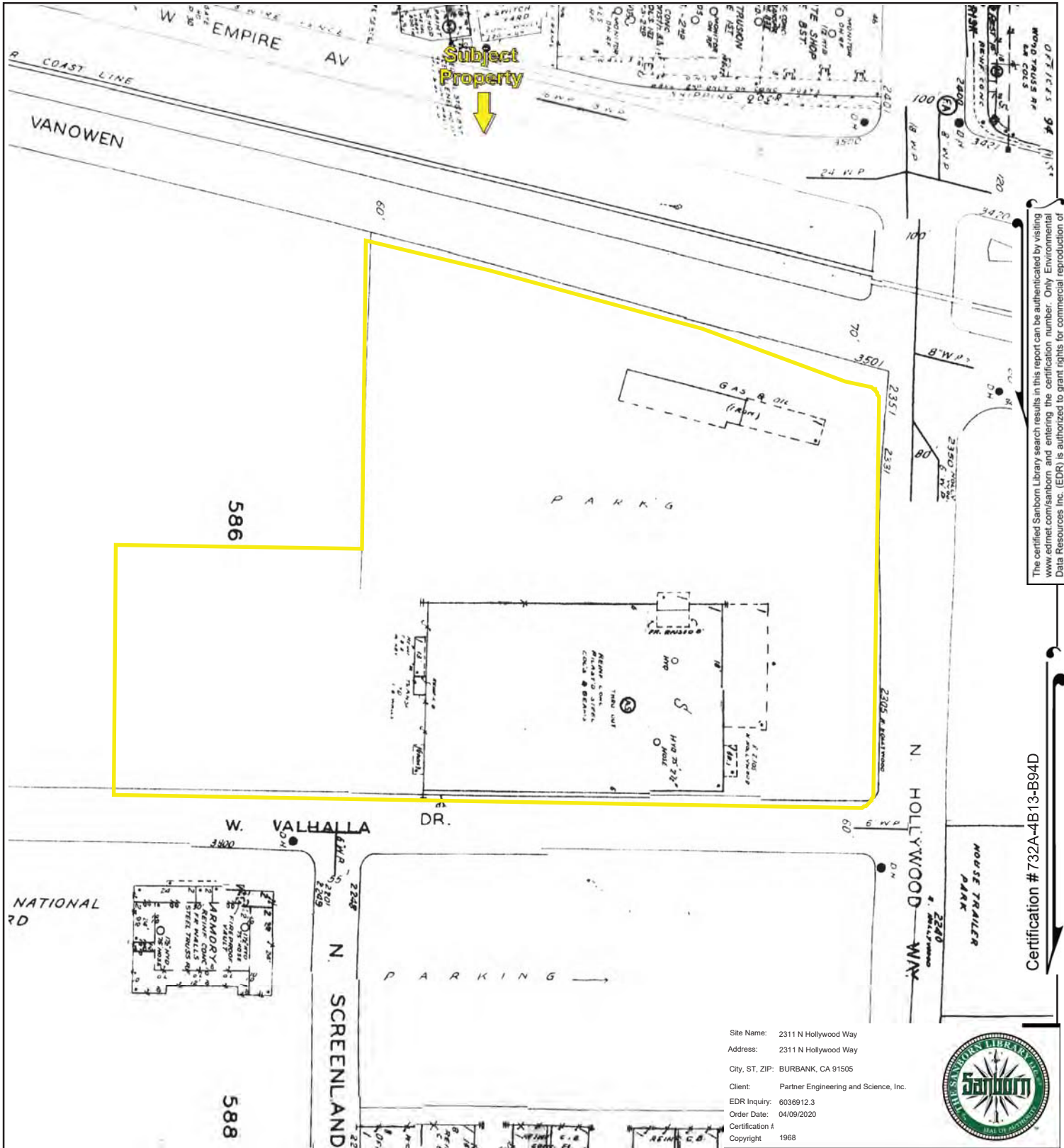


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Key: Subject Property

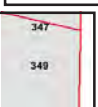




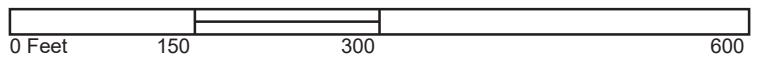
The certified Sanborn Library search results in this report can be authenticated by visiting [www.edrnet.com/sanborn](http://www.edrnet.com/sanborn) and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by The Sanborn Library LLC, the copyright holder for the collection.

Certification # 732A-4B13-B94D

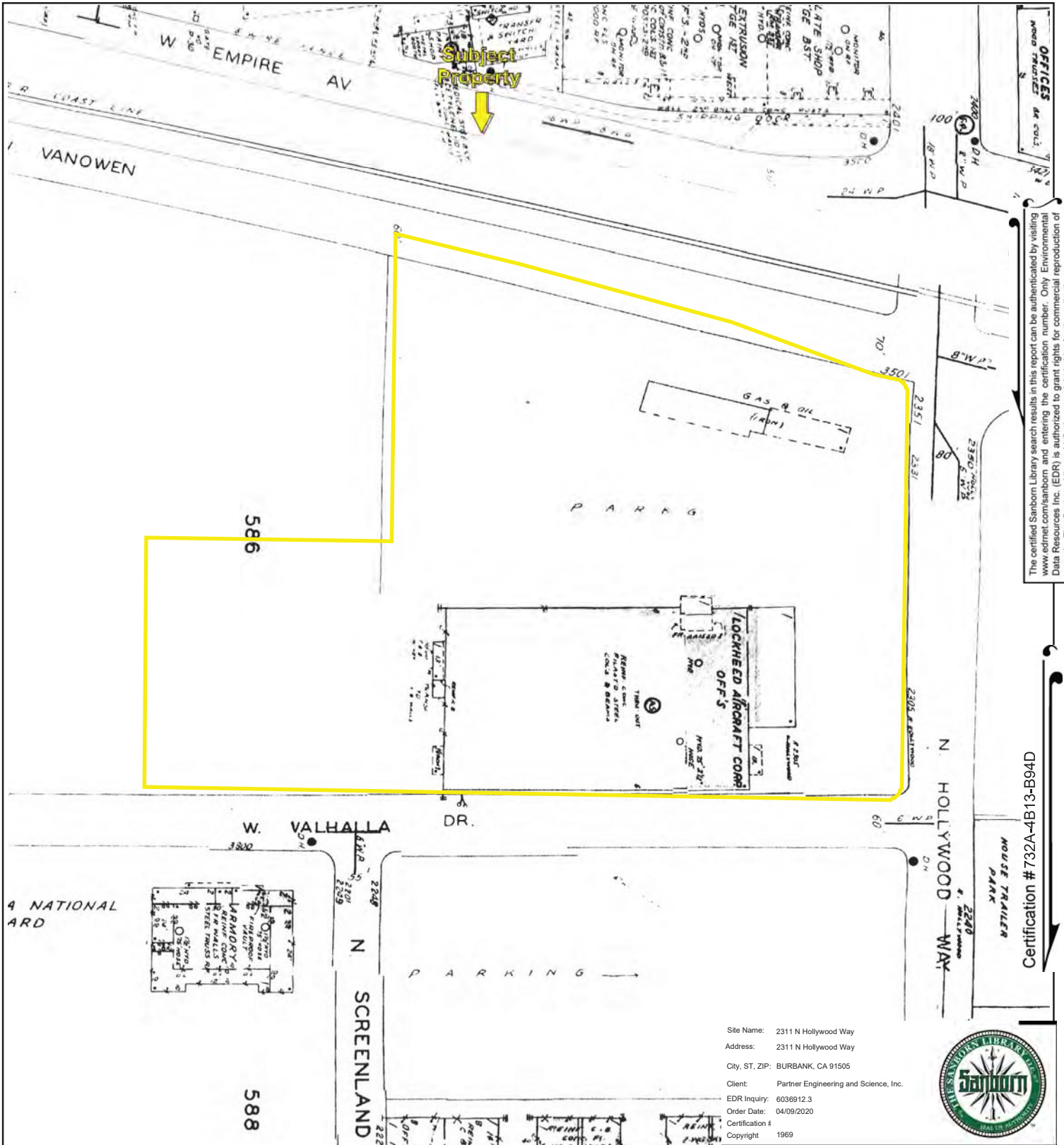
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 EDR Inquiry: 6036912.3  
 Order Date: 04/09/2020  
 Certification #: [blank]  
 Copyright: 1968



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Key: Subject Property



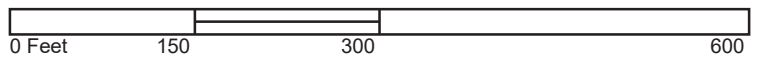
The certified Sanborn Library search results in this report can be authenticated by visiting [www.edrnet.com/sanborn](http://www.edrnet.com/sanborn) and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by The Sanborn Library LLC, the copyright holder for the collection.

Certification # 732A-4B13-B94D

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 Address: 2311 N Hollywood Way  
 City, ST, ZIP: BURBANK, CA 91505  
 Client: Partner Engineering and Science, Inc.  
 EDR Inquiry: 6036912.3  
 Order Date: 04/09/2020  
 Certification #:   
 Copyright: 1969

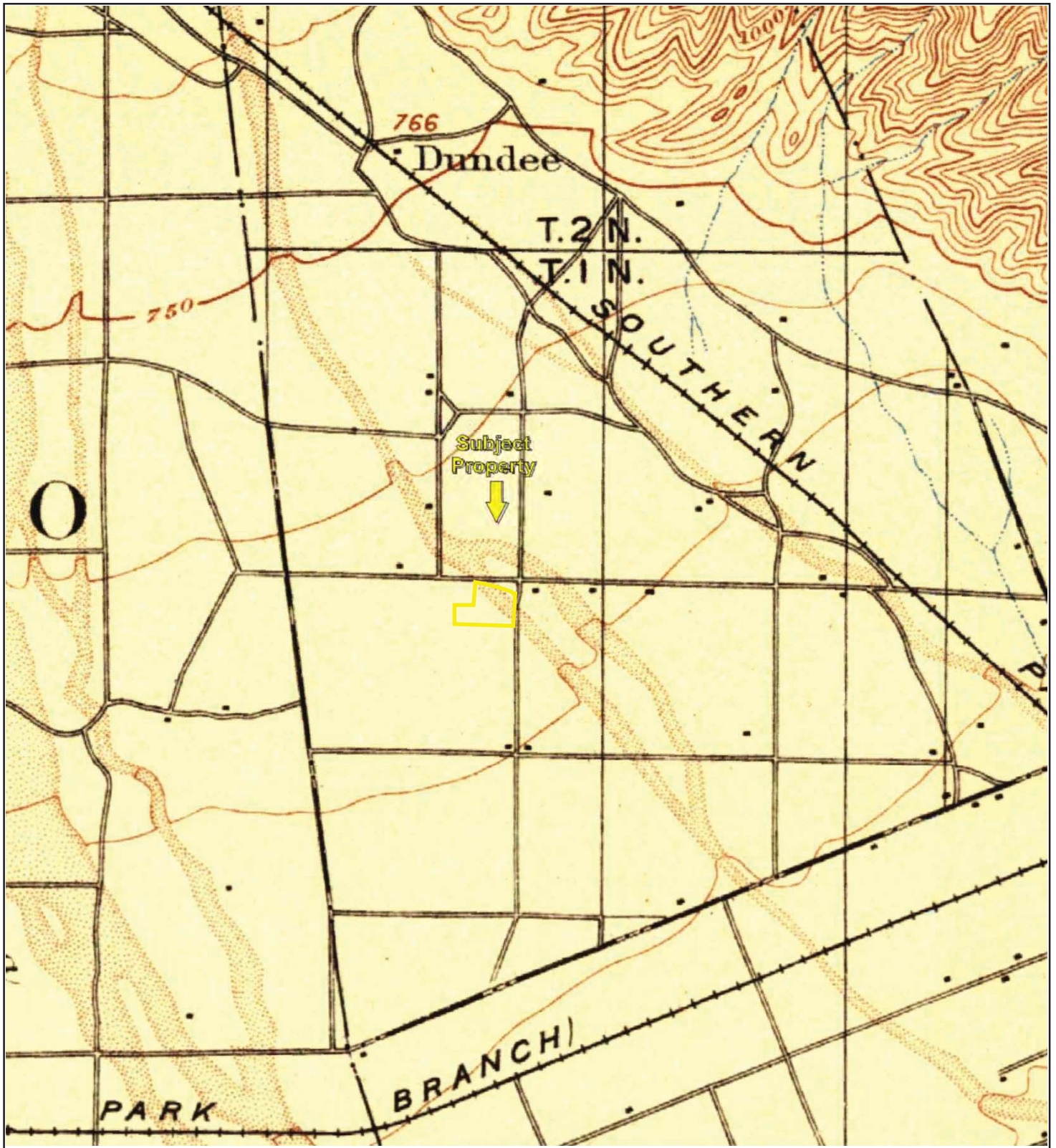


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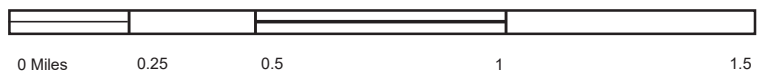


Key: Subject Property



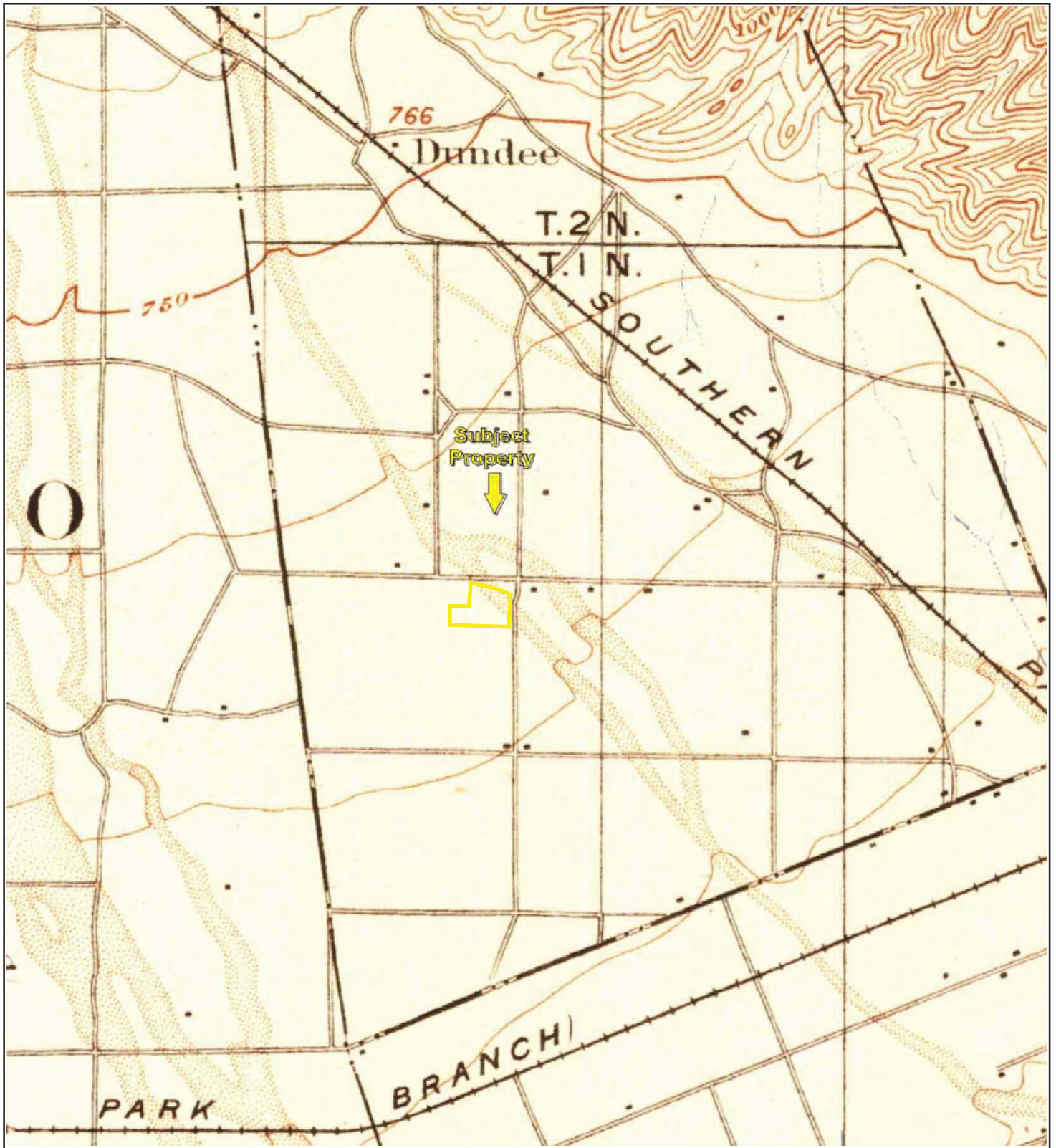


TP, Los Angeles, 1894, 15-minute

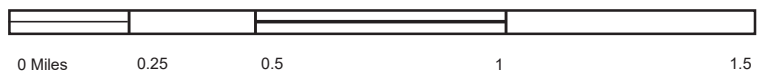


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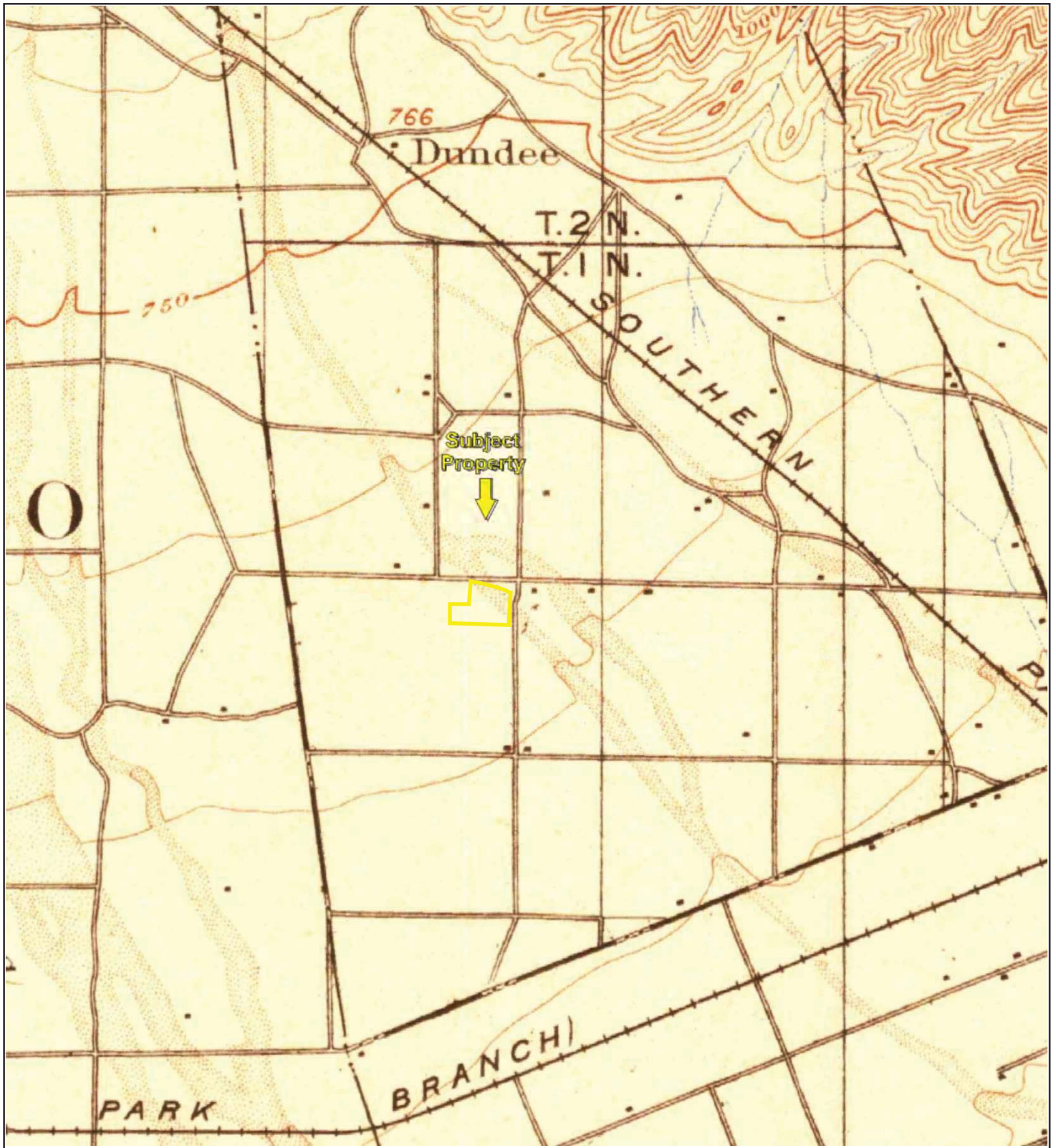


TP, Santa Monica, 1896, 15-minute

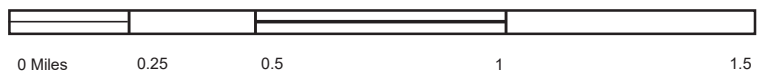


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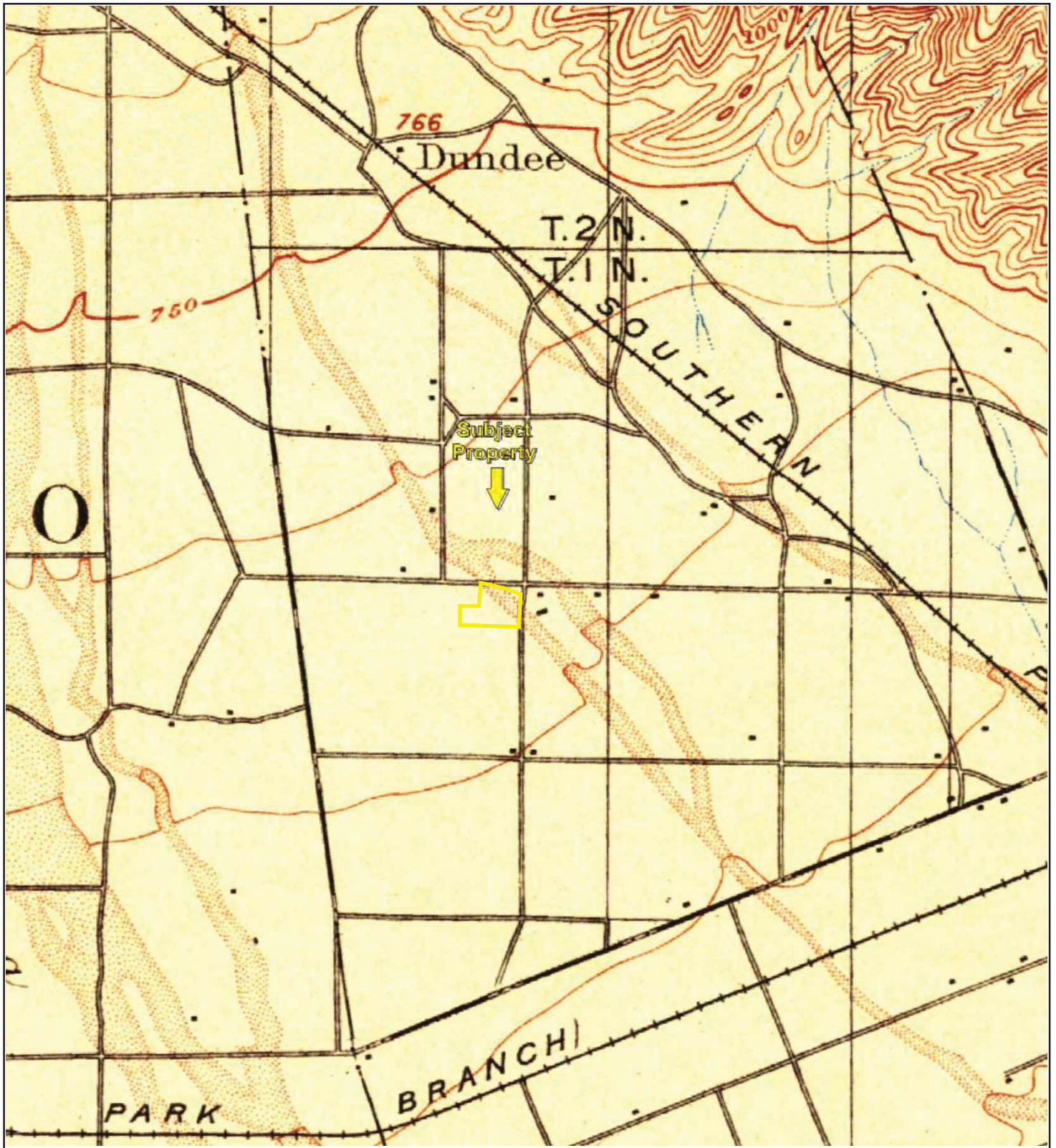


TP, Santa Monica, 1898, 15-minute

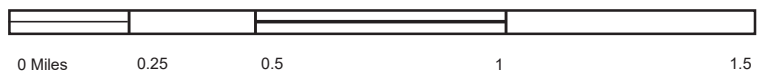


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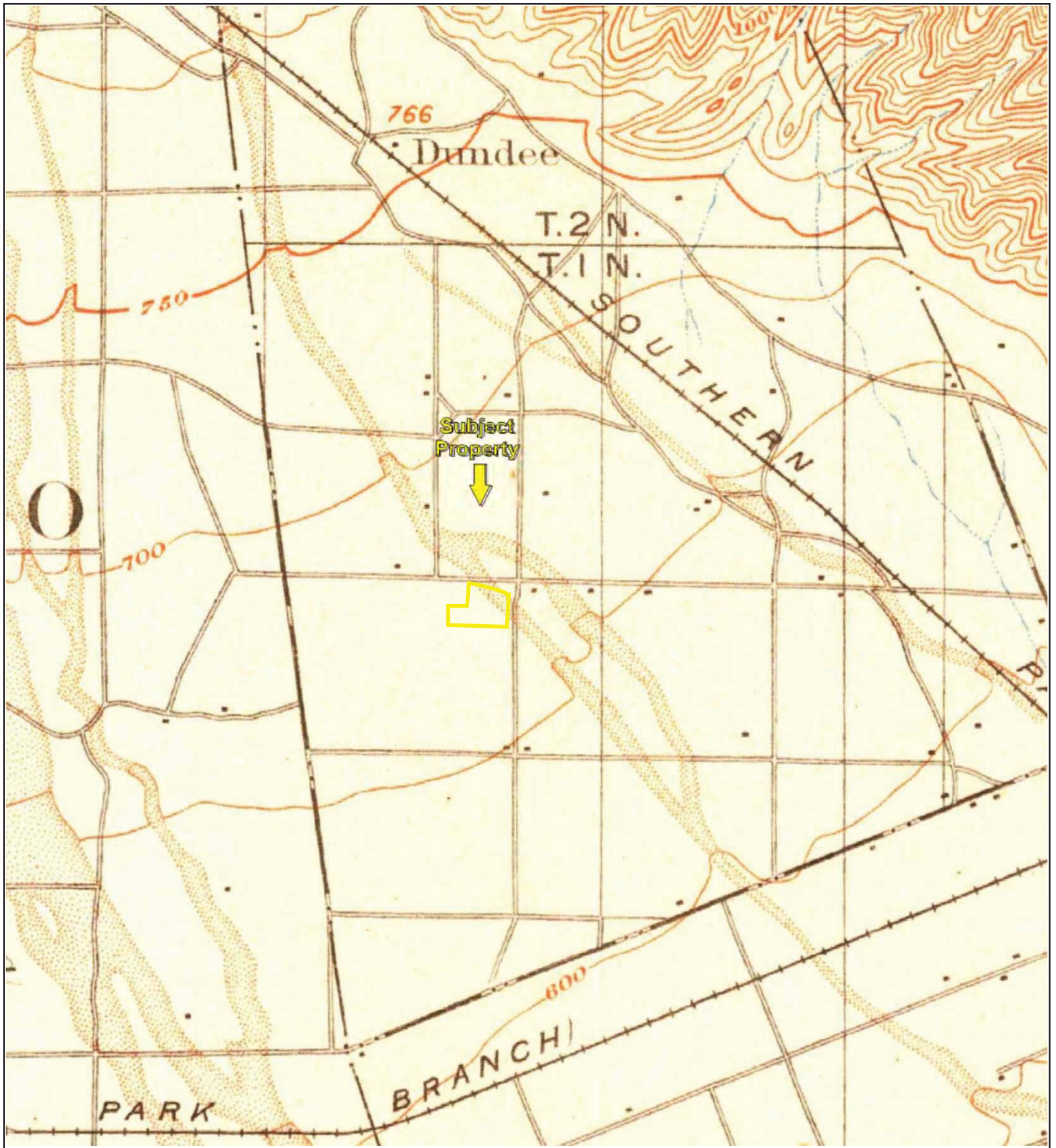


TP, Los Angeles, 1900, 15-minute

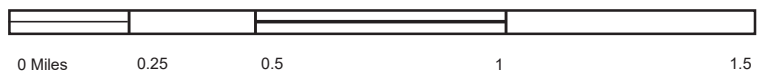


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TP, Santa Monica, 1902, 15-minute

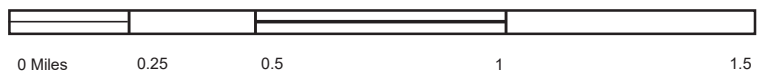


Key: Subject Property 





TP, SANTA MONICA, 1920, 15-minute

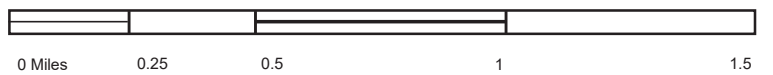


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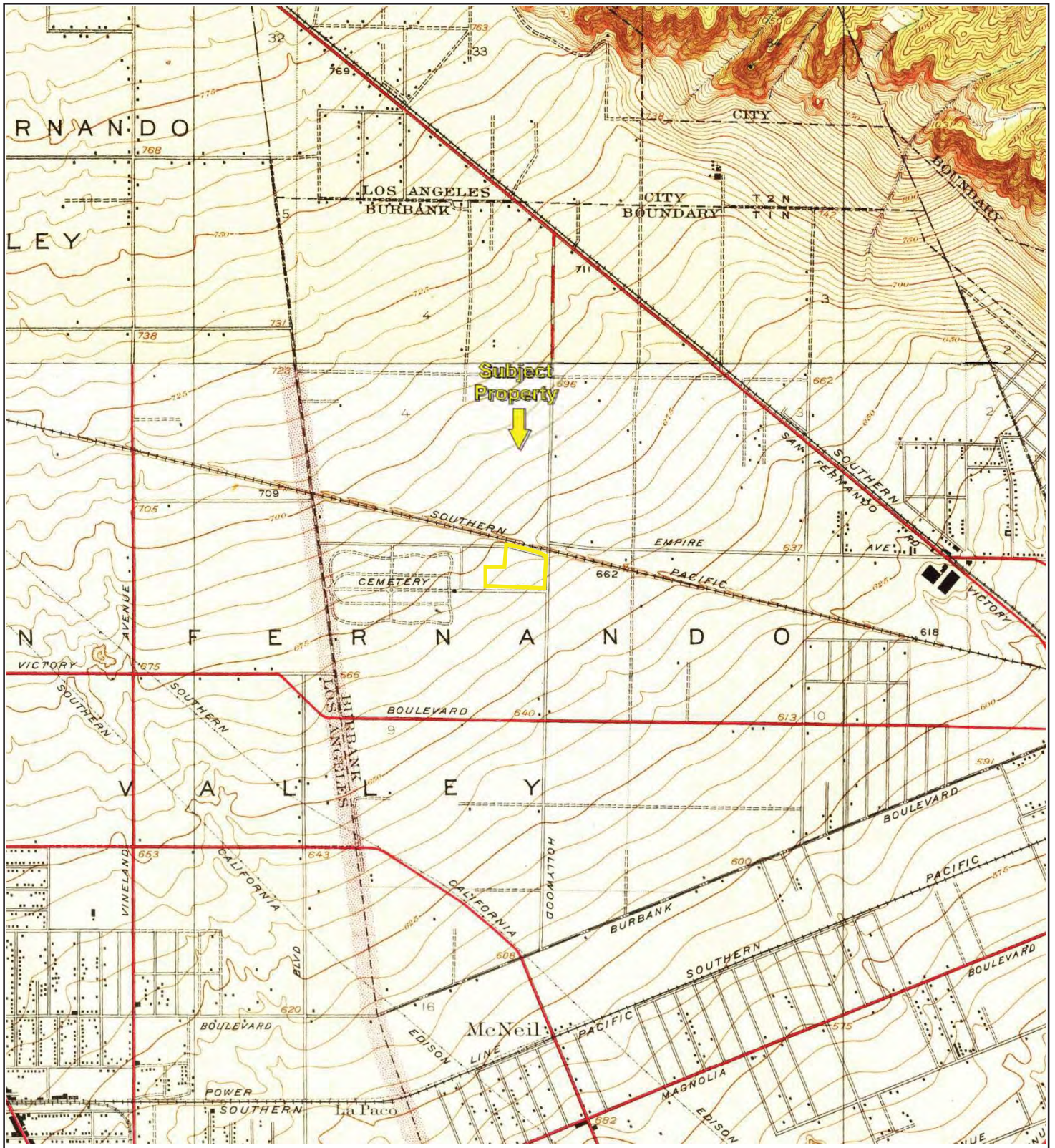


TP, Santa Monica, 1921, 15-minute

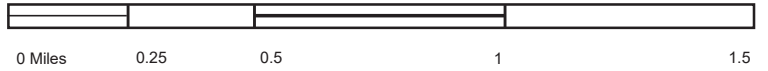


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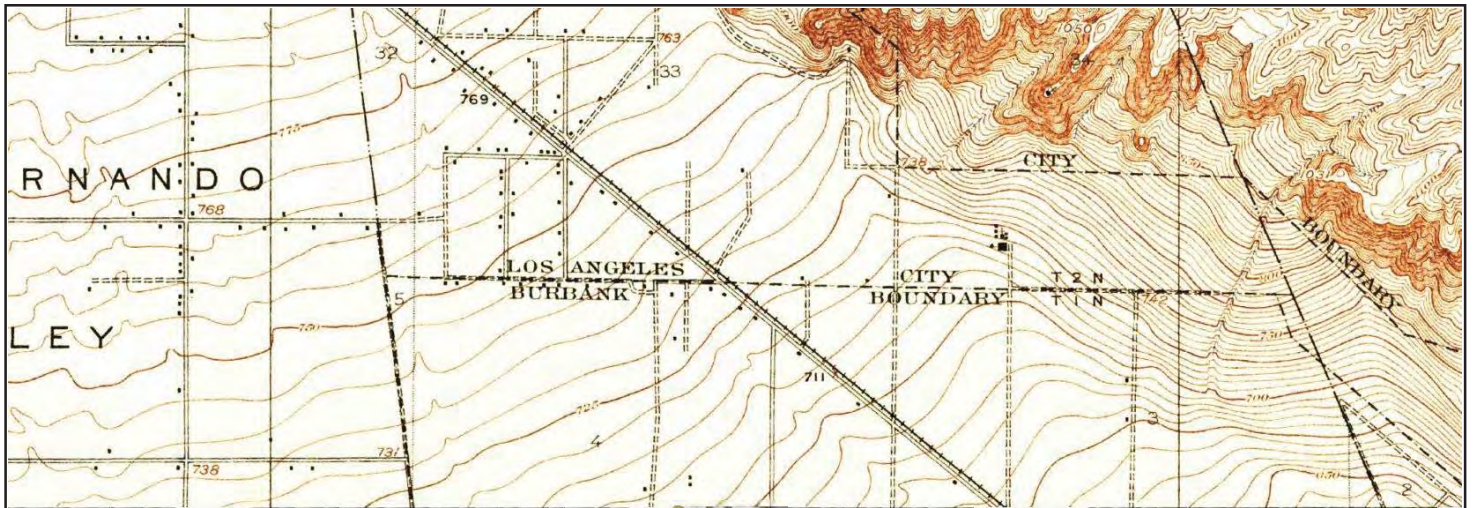


TP, Burbank, 1926, 7.5-minute  
N, Sunland, 1926, 7.5-minute

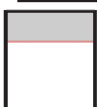
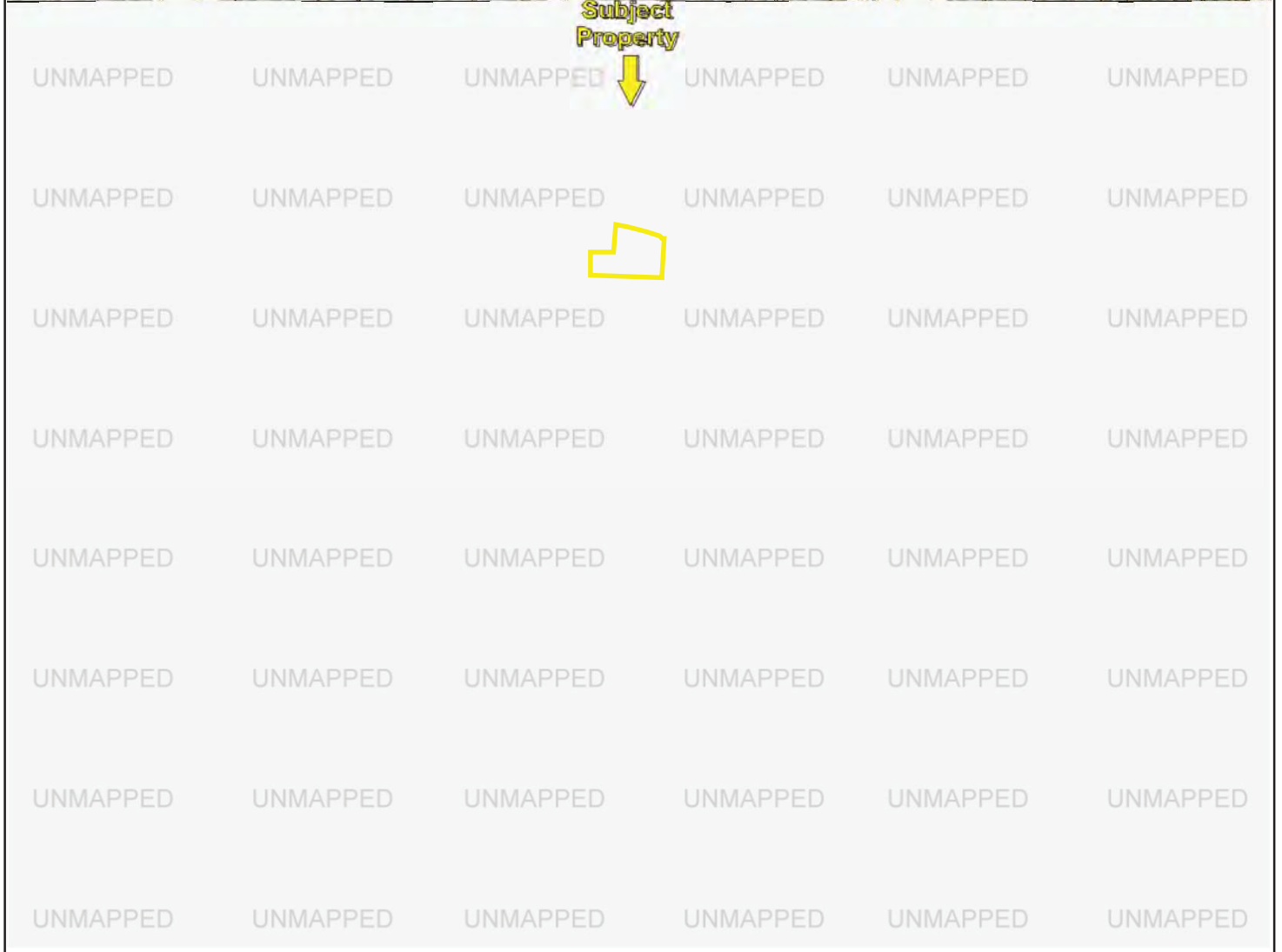


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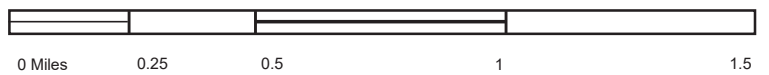




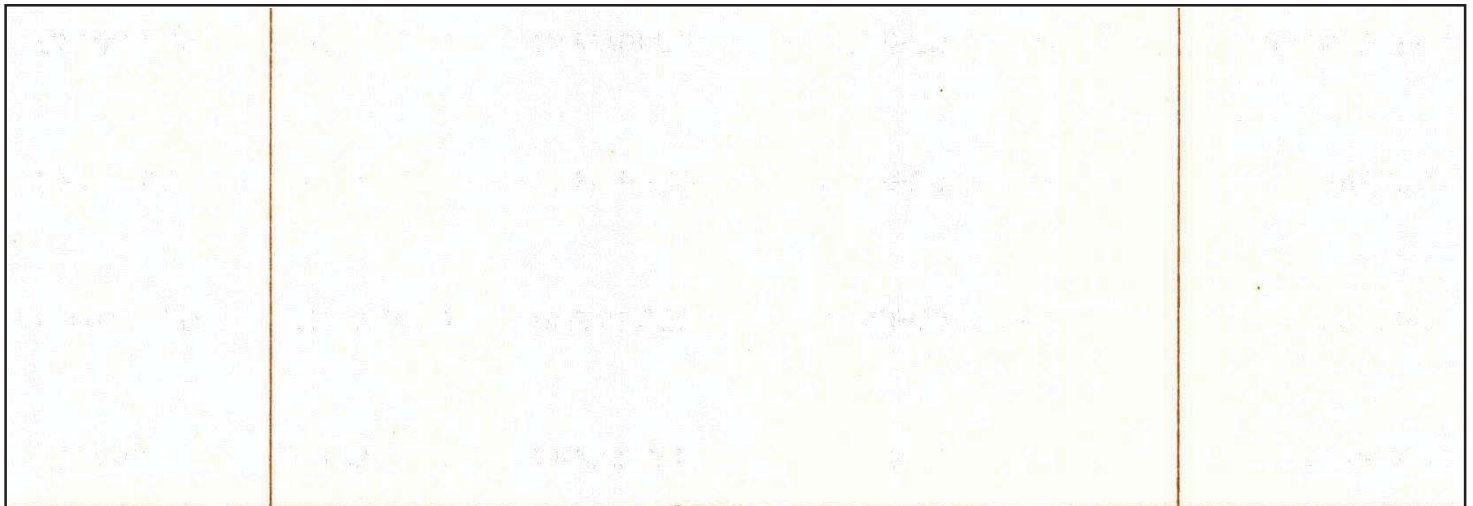
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N, Sunland, 1932, 7.5-minute



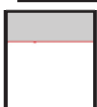
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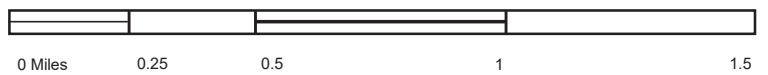
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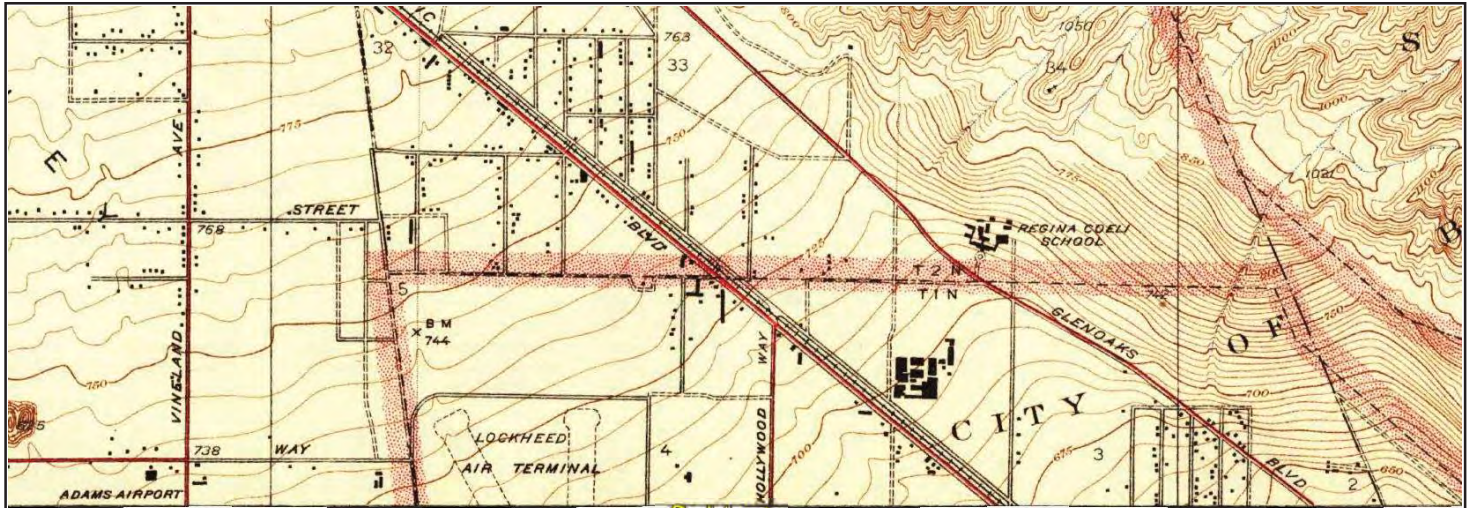


N, Sunland, 1933, 7.5-minute

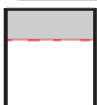
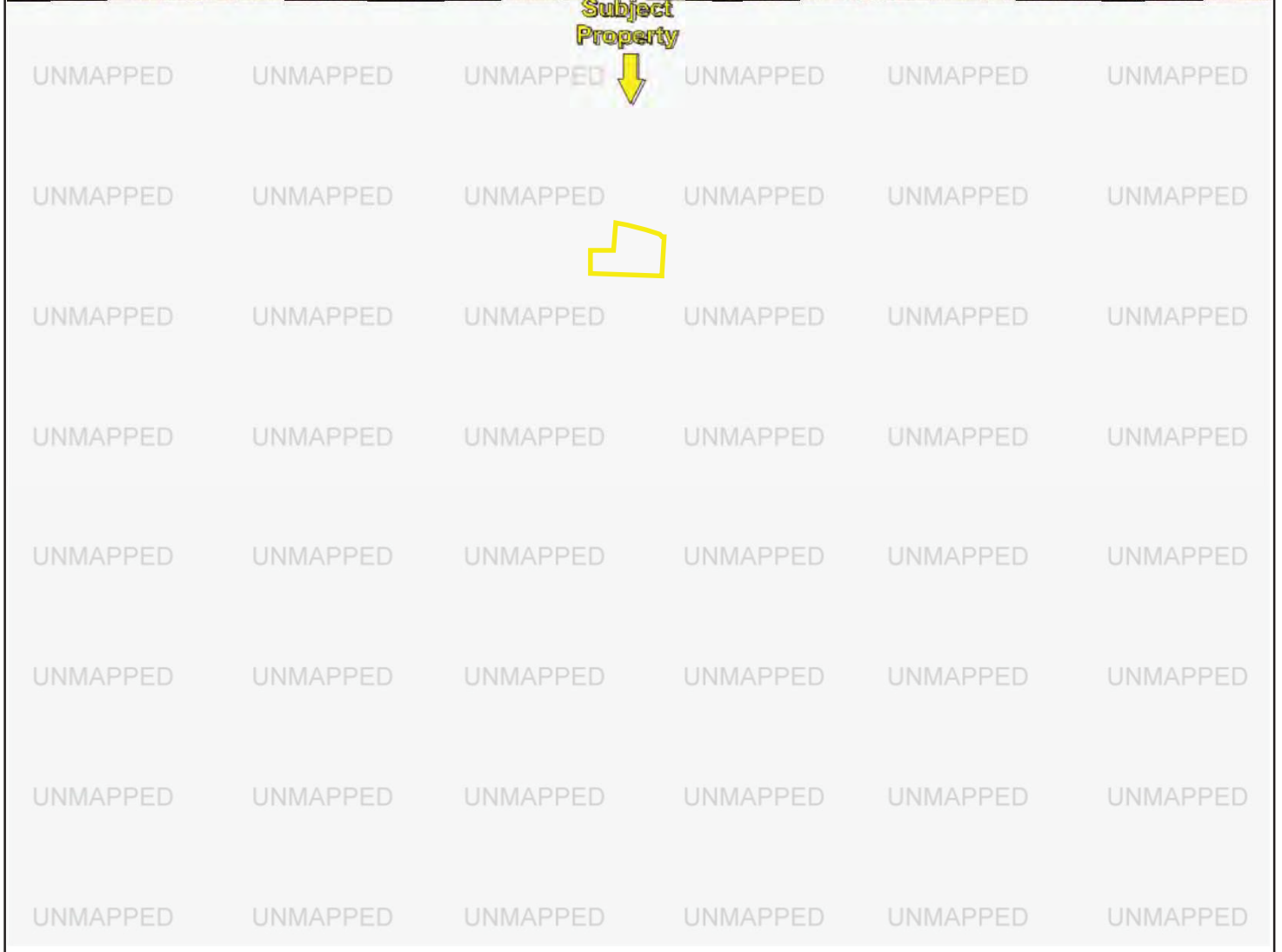


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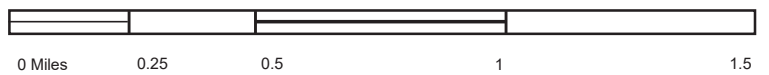




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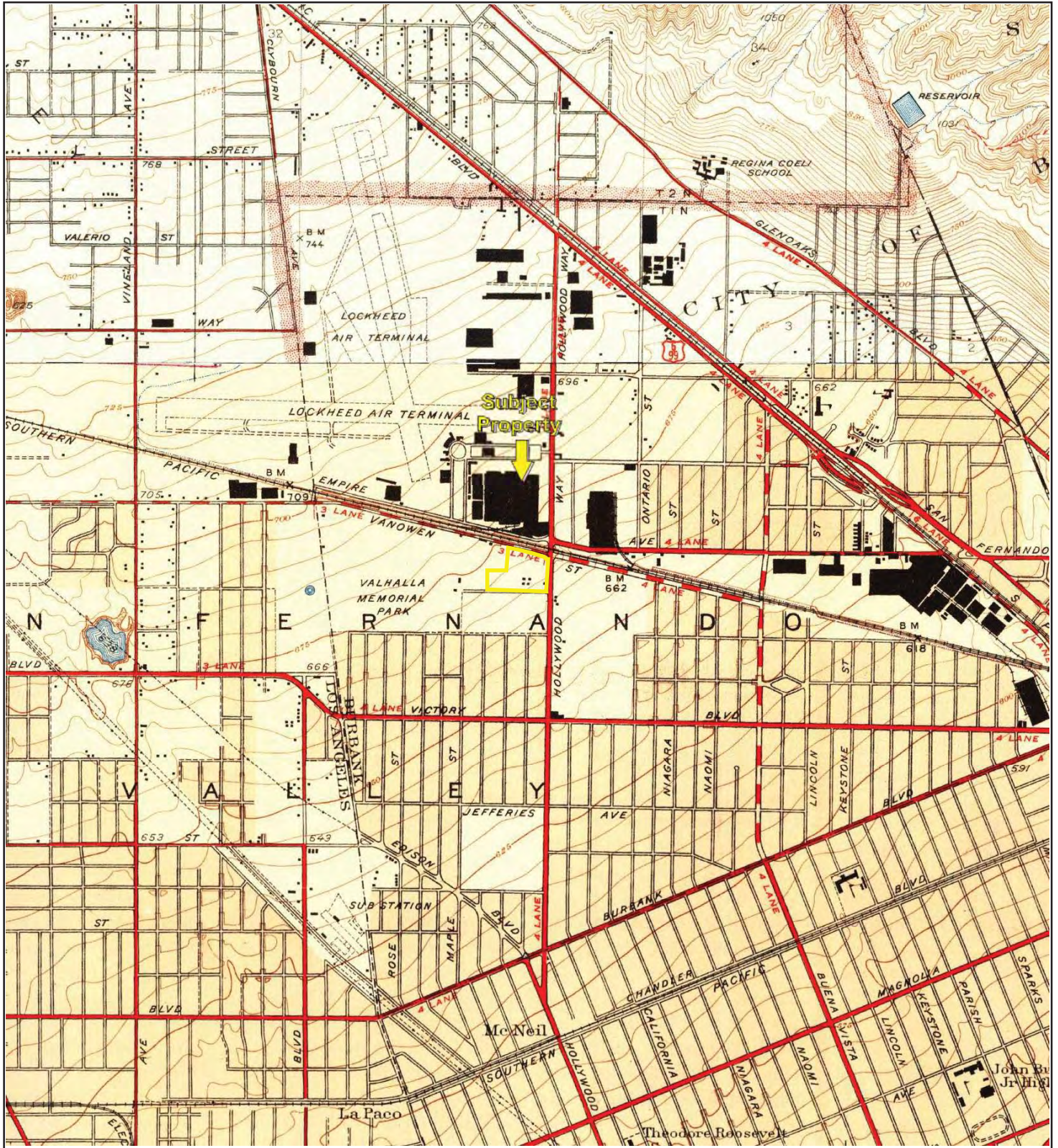
N, Sunland, 1942, 7.5-minute



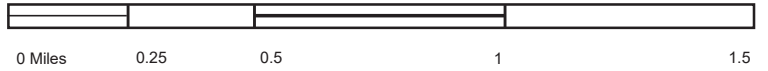
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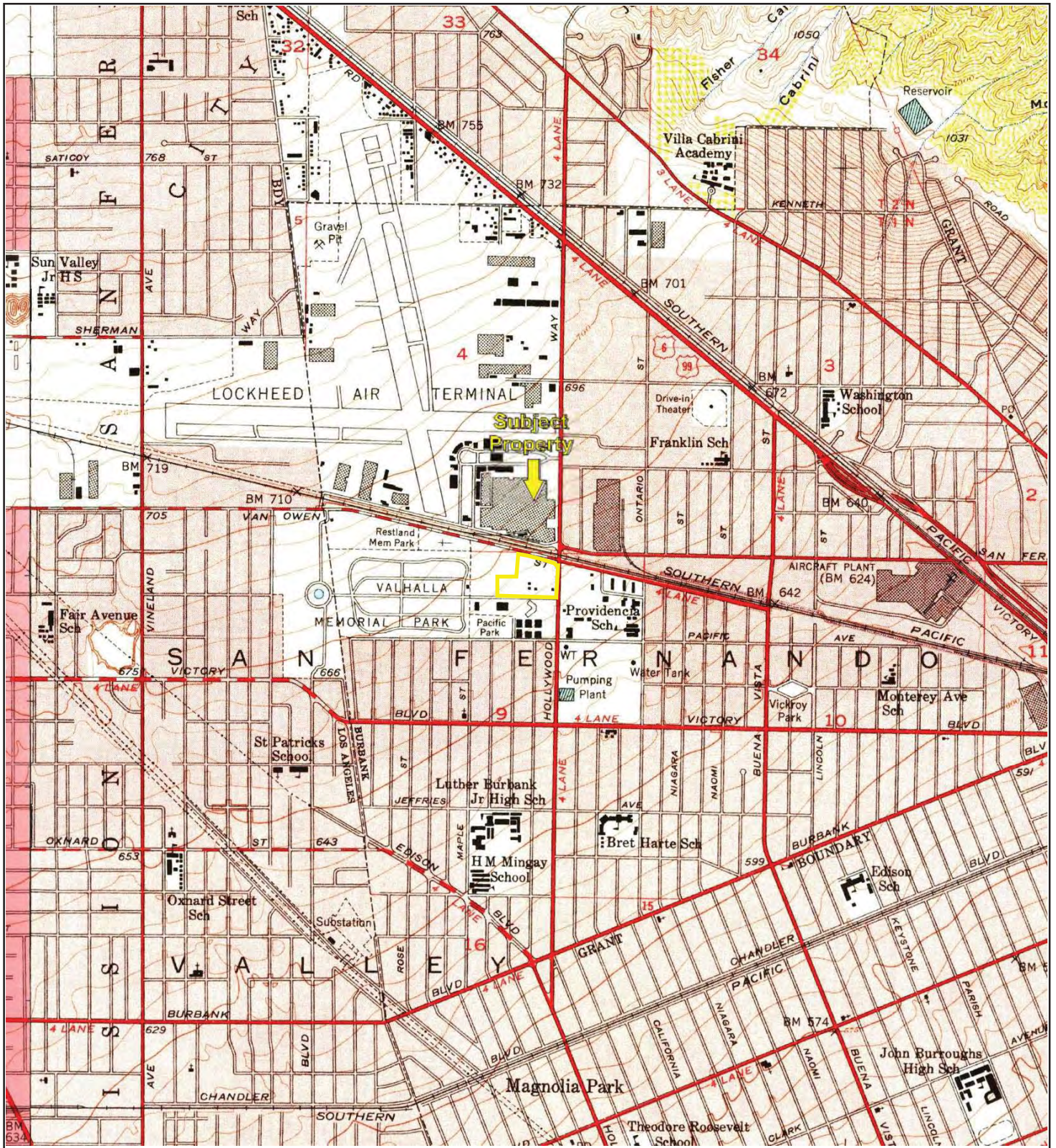


TP, Burbank, 1948, 7.5-minute  
N, Sunland, 1948, 7.5-minute

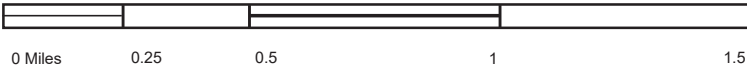


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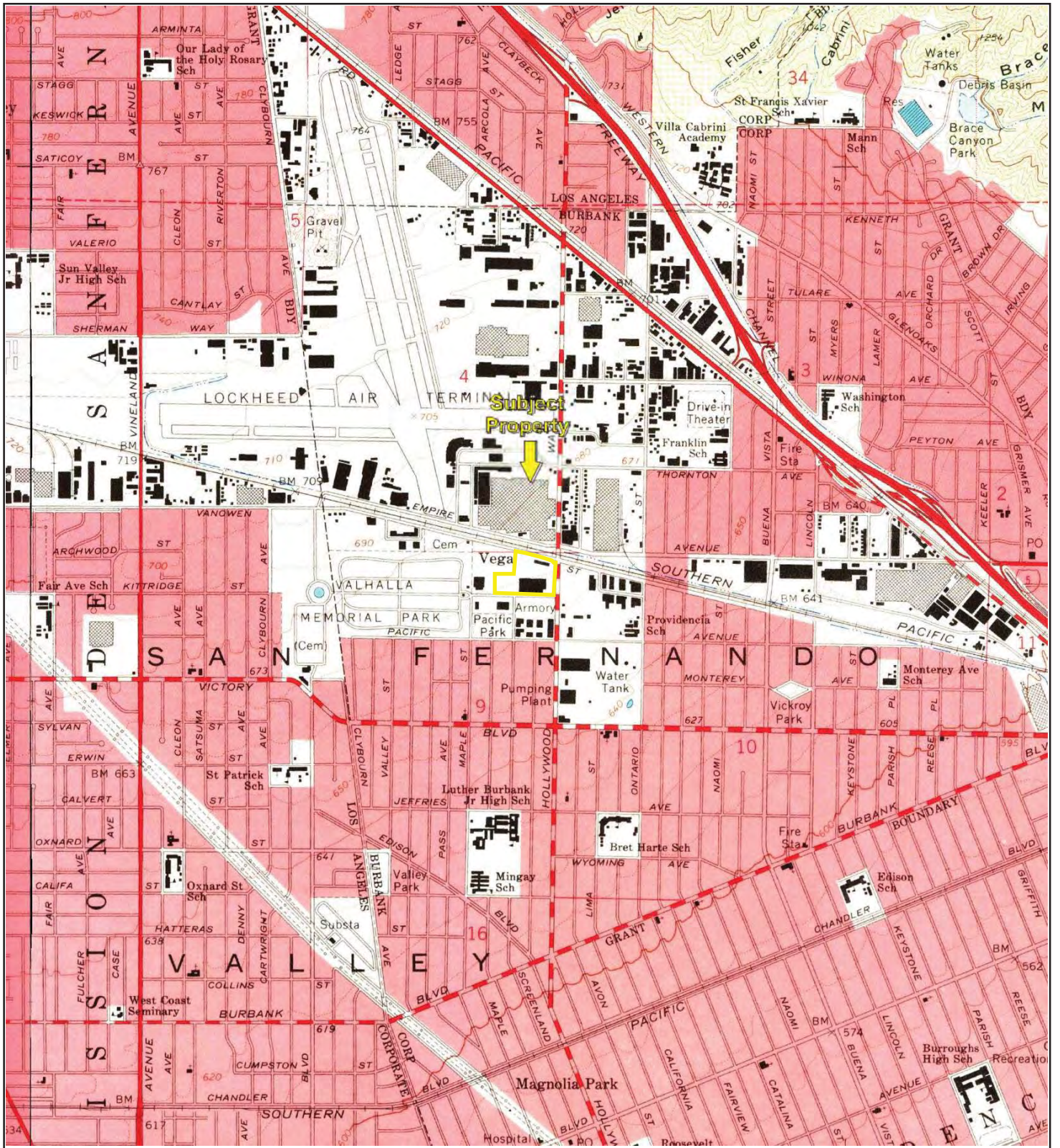


TP, Burbank, 1953, 7.5-minute  
W, Van Nuys, 1953, 7.5-minute



Key: Subject Property



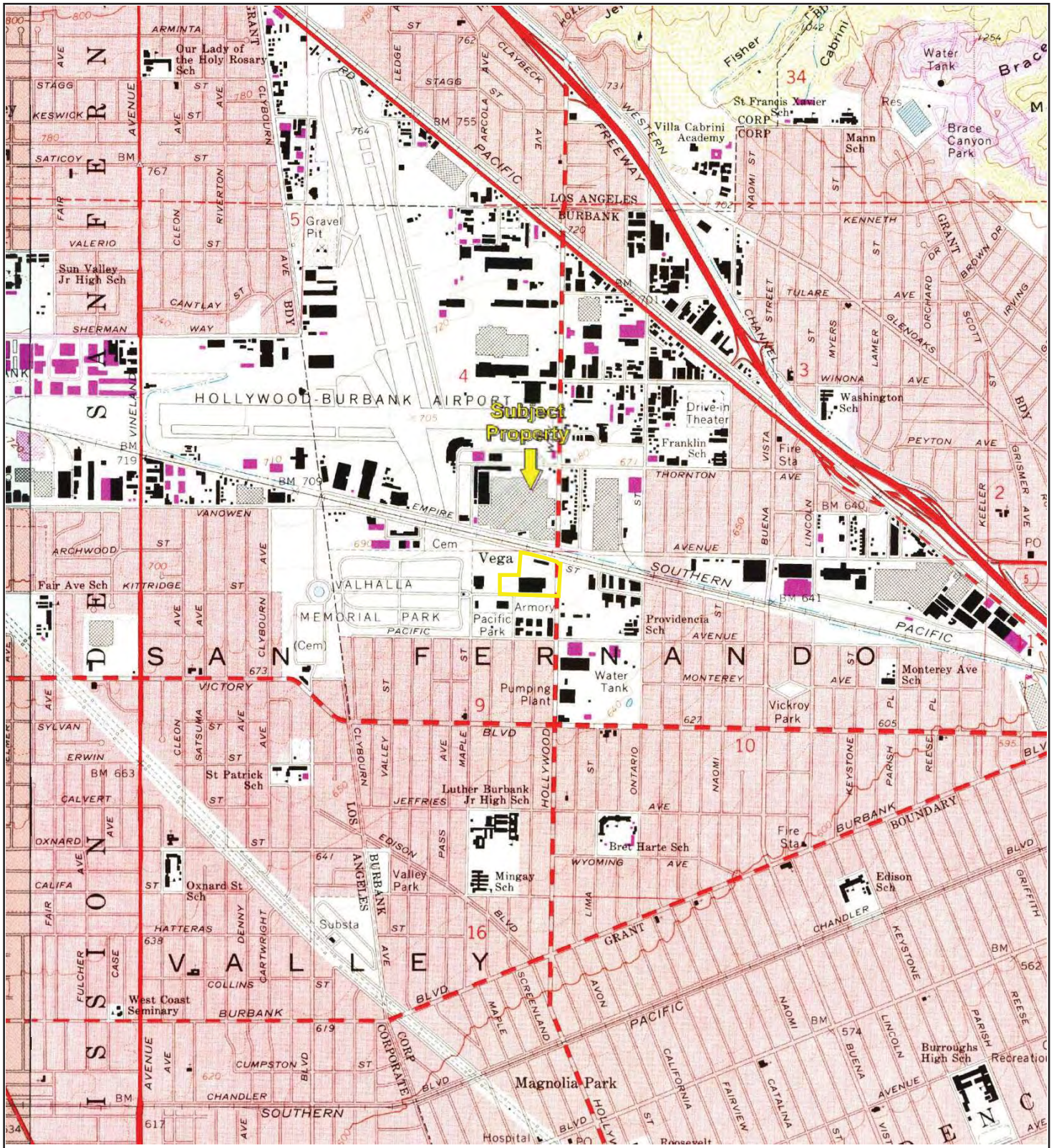


TP, Burbank, 1966, 7.5-minute  
W, Van Nuys, 1966, 7.5-minute

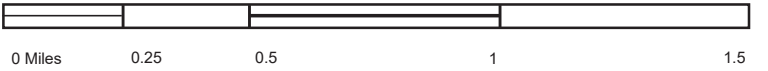


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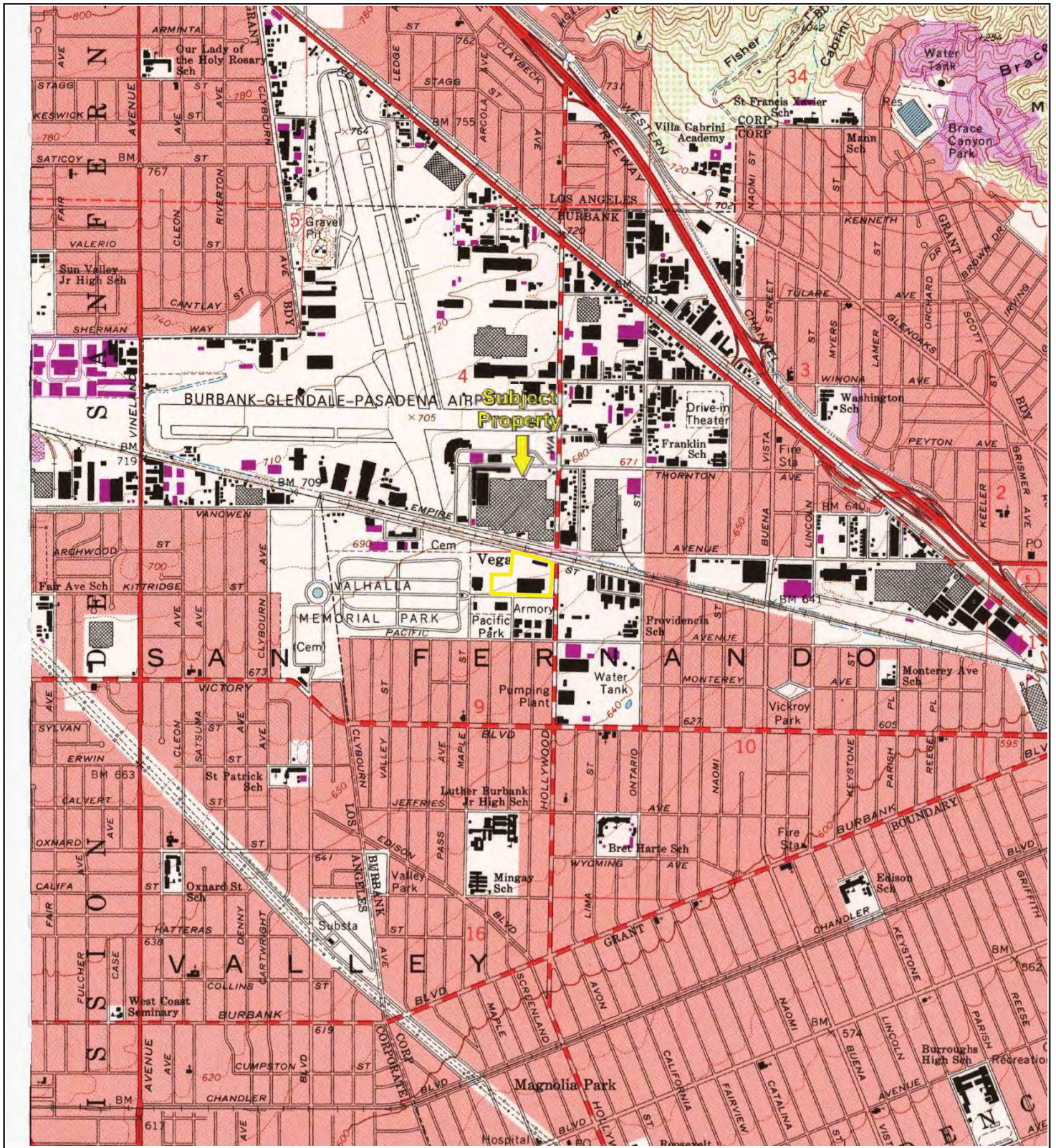


TP, Burbank, 1972, 7.5-minute  
W, Van Nuys, 1972, 7.5-minute

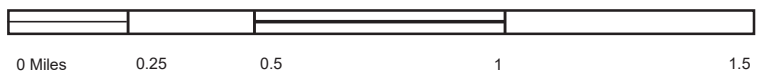


Key: Subject Property



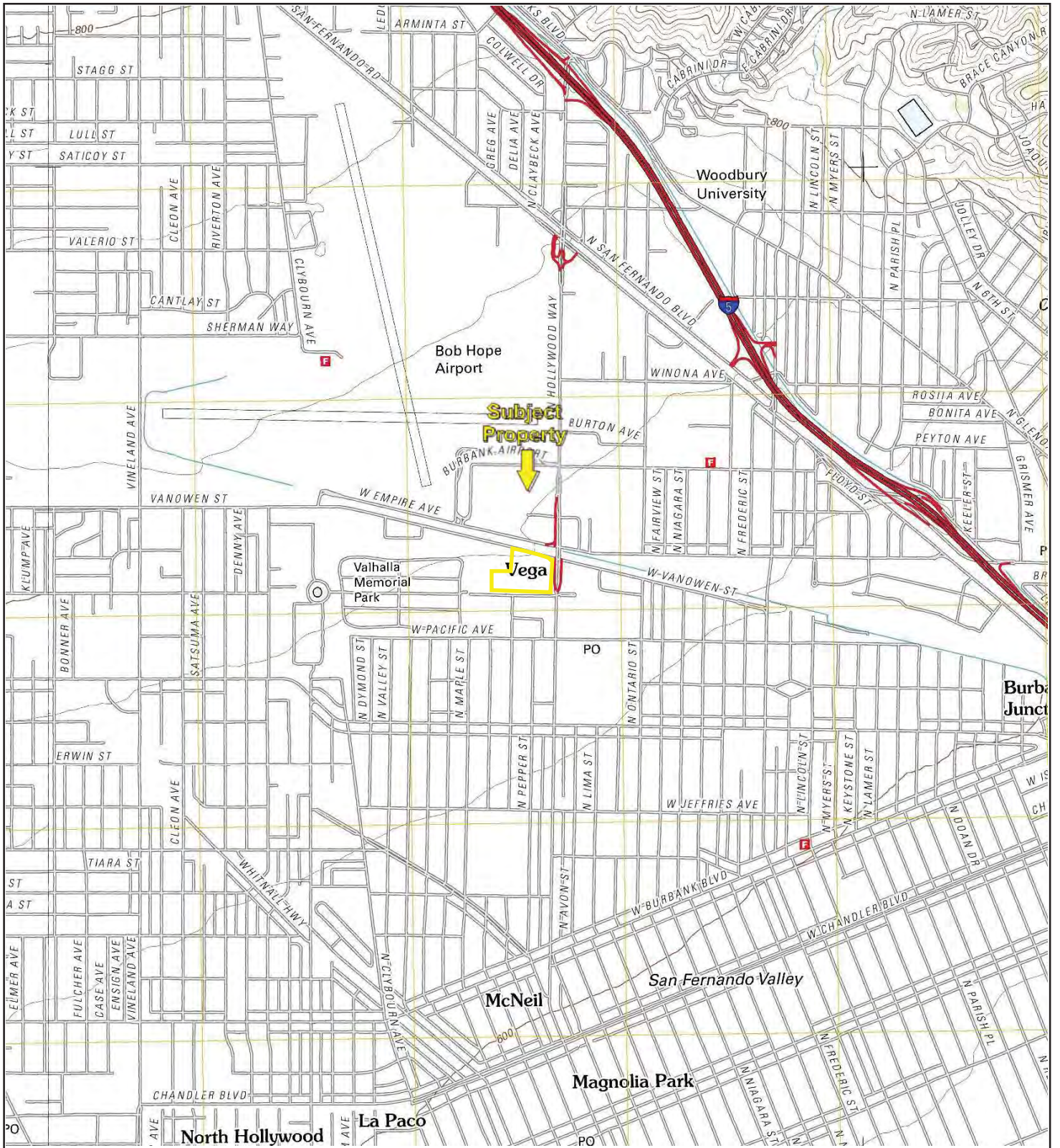


TP, Burbank, 1994, 7.5-minute

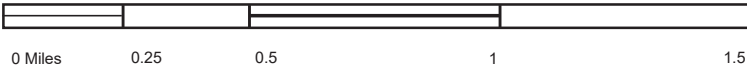


Key: Subject Property





TP, Burbank, 2012, 7.5-minute  
W, Van Nuys, 2012, 7.5-minute



Key: Subject Property

**2311 N Hollywood Way**

2311 N Hollywood Way  
BURBANK, CA 91505

Inquiry Number: 6036912.5

April 14, 2020

# The EDR-City Directory Abstract



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### SECTION

Executive Summary

Findings

City Directory Images

***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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## EXECUTIVE SUMMARY

### DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2015. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

### RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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### RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
2015	Cole Information Services	X	X	X	-
2009	Cole Information Services	X	X	X	-
2006	Haines Company, Inc.	-	X	X	-
	Haines Company, Inc.	X	X	X	-
2004	Cole Information Services	-	X	X	-
	Cole Information Services	X	X	X	-
	Haines Company	-	-	-	-
	Haines Company	X	-	X	-
2003	Haines & Company	-	-	-	-
2001	Haines & Company, Inc.	-	X	X	-
	Haines & Company, Inc.	X	X	X	-
2000	Pacific Bell Telephone	-	-	-	-



## EXECUTIVE SUMMARY

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
1999	Cole Information Services	-	X	X	-
	Cole Information Services	X	X	X	-
	Haines Company	-	-	-	-
	Haines Company	X	-	X	-
1996	GTE	-	-	-	-
1995	Pacific Bell	-	X	X	-
1994	Cole Information Services	-	X	X	-
1992	PACIFIC BELL WHITE PAGES	-	-	-	-
1991	Pacific Bell	-	X	X	-
1990	Pacific Bell	-	X	X	-
1986	Pacific Bell	-	X	X	-
1985	Pacific Bell	-	X	X	-
	Pacific Bell	X	X	X	-
1981	Pacific Telephone	-	X	X	-
1980	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
1976	Pacific Telephone	-	X	X	-
1975	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
1972	R. L. Polk & Co.	-	-	-	-
1971	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
1970	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
	R. L. Polk & Co.	-	X	X	-
	R. L. Polk & Co.	X	X	X	-
1969	Pacific Telephone	-	-	-	-
1967	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
1966	Pacific Telephone	-	-	-	-
1965	GTE	-	-	-	-
1964	Pacific Telephone	-	-	-	-
1963	Pacific Telephone	-	-	-	-
1962	Pacific Telephone	-	X	X	-
1961	R. L. Polk & Co.	-	-	-	-
1960	Pacific Telephone	-	X	X	-
1958	Pacific Telephone	-	X	X	-
1957	Pacific Telephone	-	X	X	-
1956	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
1955	R. L. Polk & Co.	-	-	-	-
1954	R. L. Polk & Co.	-	-	-	-

## EXECUTIVE SUMMARY

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
1952	Los Angeles Directory Co.	-	X	X	-
	Los Angeles Directory Co.	X	X	X	-
1951	Los Angeles Directory Co Publishers	-	-	-	-
1950	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
1949	Los Angeles Directory Co.	-	-	-	-
1948	Los Angeles Directory Co.	-	-	-	-
1947	Pacific Directory Co.	-	-	-	-
1946	Los Angeles Directory Co.	-	X	X	-
	Los Angeles Directory Co.	X	X	X	-
1945	The Glendale Directory Co.	-	-	-	-
1944	R. L. Polk & Co.	-	-	-	-
1942	Los Angeles Directory Co.	-	X	X	-
	Los Angeles Directory Co.	X	X	X	-
1940	Los Angeles Directory Co.	-	-	-	-
1939	Los Angeles Directory Co.	-	-	-	-
1938	Los Angeles Directory Company Publishers	-	-	-	-
1937	Los Angeles Directory Co.	-	X	X	-
1936	Los Angeles Directory Co.	-	-	-	-
1935	Los Angeles Directory Co.	-	-	-	-
1934	Los Angeles Directory Co.	-	-	-	-
1933	Los Angeles Directory Co.	-	-	-	-
1932	Los Angeles Directory Co.	-	-	-	-
1931	Los Angeles Directory Company Publishers	-	-	-	-
1930	Los Angeles Directory Co.	-	-	-	-
1929	Los Angeles Directory Co.	-	-	-	-
1928	Los Angeles Directory Co.	-	-	-	-
1927	Los Angeles Directory Co.	-	-	-	-
1926	Los Angeles Directory Co.	-	-	-	-
1925	Los Angeles Directory Co.	-	-	-	-
1924	Los Angeles Directory Co.	-	-	-	-
1923	Los Angeles Directory Co.	-	-	-	-
1921	Los Angeles Directory Co.	-	-	-	-
1920	Los Angeles Directory Co.	-	-	-	-



# FINDINGS

## TARGET PROPERTY INFORMATION

### ADDRESS

2311 N Hollywood Way  
BURBANK, CA 91505

### FINDINGS DETAIL

Target Property research detail.

## HOLLYWOOD WAY N

### 2311 HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	FRYS ELECTRONICS	Haines & Company, Inc.
1970	VACANT	R. L. Polk & Co.
1952	Shoman P M dairy Ch	Los Angeles Directory Co.
1946	AShoman F M dairy	Los Angeles Directory Co.
1942	AThompson W S dairy	Los Angeles Directory Co.

## N HOLLYWOOD WAY

### 2311 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2015	FRYS ELECTRONICS	Cole Information Services
2009	FRYS ELECTRONICS INC	Cole Information Services
2006	FRYS ELECTRONICS	Haines Company, Inc.
2004	FRYS ELECTRONICS	Cole Information Services
1999	FRYS ELECTRONICS	Cole Information Services
1985	Administrative Offices	Pacific Bell
	Certificate Rates Recording	Pacific Bell
	Collection Department	Pacific Bell
	Lockheed Air Terminal Inc Administrative Offices PO Box 7229 Brb	Pacific Bell
	Lockheed Aircraft Employees Federal Credit Union	Pacific Bell
	Lockheed California Company Administrative Offices	Pacific Bell
	Main Office	Pacific Bell
1980	LOCKHEED AIRCRAFT EMPLOYEES FEDERAL CREDIT UNION	Pacific Telephone
	LOCKHEED CORPORATION LOCKHEED CALIFORNIA COMPANY	Pacific Telephone

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	Employees Credit Union	Pacific Telephone
	Group Insurance	Pacific Telephone
1971	Employees Credit Union	Pacific Telephone
	Group Insurance	Pacific Telephone
	LOCKHED CALIFORNIA COMPANY	Pacific Telephone
1970	LOCKHEED AIRCRAFT CORPORATION	Pacific Telephone
	LOCKHEED AIRCRAFT CORPORATION	Pacific Telephone
	LOCKHEED CALIFORNIA COMPANY	Pacific Telephone
	LOCKHEED AIRCRAFT EMPLOYEES FEDERAL CREDIT UNION	Pacific Telephone
	LOCKHEED-CALIFORNIA COMPANY EMPLOYEE RECREATION CLUB	Pacific Telephone
1967	W G Products Inc shoes	Pacific Telephone
1956	DENNIS WAYNE L	Pacific Telephone
	ROCHA MANUEL P	Pacific Telephone
	SHOMAN S DAIRY	Pacific Telephone
1950	SHOMAN S DAIRY	Pacific Telephone



## FINDINGS

### ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

#### H HOLLYWOOD WAY

##### 2240 H HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	LIPTAK J J	Pacific Telephone

#### HOLLYWOOD BOWL RD

##### 2205 HOLLYWOOD BOWL RD

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	GRIMES WALKER	Pacific Telephone
	GRIMES WALKER	Pacific Telephone

#### HOLLYWOOD WAY

##### 2231 HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1981	WESTINGHOUSE ELECTRIC CORPORATION	Pacific Telephone

#### HOLLYWOOD WAY N

##### 2205 HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	BUILD REHABILITATION INDUSTRY	Haines & Company, Inc.
1970	LEE ENGINEERING MACH SHOP	R. L. Polk & Co.
	TRIG MFG CO MACH SHOP	R. L. Polk & Co.
	JOHNSON F VINCENT & TECHNICAL ASSOCIATES MFRS REP CASTINGS	R. L. Polk & Co.
	GRIMES WALKER MACH SHOP	R. L. Polk & Co.

##### 2207 HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	XXXX	Haines & Company, Inc.

## FINDINGS

### 2211 HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	A T K AUDIOTEK CORP	Haines & Company, Inc.
1970	BELL HELICOPTER CO AIRCRAFT EQUIP DIRS	R. L. Polk & Co.

### 2220 HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	BUDGET CAR & TRUCK RENTAL	Haines & Company, Inc.
1970	CARDIN CECIL CARTERS NICK TRAILER PARK TRAILER PARK REALTY CO REAL EST	R. L. Polk & Co. R. L. Polk & Co. R. L. Polk & Co.
1952	Wilson W D Ch Carter S F Ri Ch	Los Angeles Directory Co. Los Angeles Directory Co.

### 2228 HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	JENSEN Lynn COLOR WEST INC DIE WEST INC	Haines & Company, Inc. Haines & Company, Inc. Haines & Company, Inc.

### 2230 HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ALFORD BEN MID-VALLEY CATERERS INC CATERING SERV	R. L. Polk & Co. R. L. Polk & Co.

### 2231 HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	ENTERPRISE IMAGE	Haines & Company, Inc.

### 2237 HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	LEE FILTERS DVSN OF PANAVISION	Haines & Company, Inc.

### 2240 HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	XXXX	Haines & Company, Inc.
1970	RICE AL TILLOTSON FRANCIS J HOLLYWOODWAY TRAILER PARK	R. L. Polk & Co. R. L. Polk & Co. R. L. Polk & Co.
1952	Rice A T Ch	Los Angeles Directory Co.



## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1952	Davis D D Ch	Los Angeles Directory Co.

### 2243 HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	PACIFIC RADIO ELECTRONICS INC	Haines & Company, Inc.

### 2248 HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1946	Albers H G	Los Angeles Directory Co.
1942	Osito T	Los Angeles Directory Co.
	Fujikawa Kiso	Los Angeles Directory Co.
1937	Takashaki T	Los Angeles Directory Co.
	Osito T	Los Angeles Directory Co.
	Fujikawa Kiso o	Los Angeles Directory Co.

### 2249 HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	WESTERN CYTOPATHOLOGY LABS INC	Haines & Company, Inc.

### 2250 HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	XXXX	Haines & Company, Inc.

### 2268 HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	XXXX	Haines & Company, Inc.

### 2280 HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	XXXX	Haines & Company, Inc.

### 2315 HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1946	Clough H	Los Angeles Directory Co.

### 2316 HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1952	Dels Auto Park	Los Angeles Directory Co.
1946	ATrout D C auto pk	Los Angeles Directory Co.

## FINDINGS

### 2331 HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1952	Black Clarence	Los Angeles Directory Co.
1946	Shoman F M	Los Angeles Directory Co.
1942	I AThompson W S	Los Angeles Directory Co.
1937	Williams Fred	Los Angeles Directory Co.
	Thompson W S dairy	Los Angeles Directory Co.

### 2228A HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	KELLY-JENNINGS MRS MFRS AIRCRAFT	R. L. Polk & Co.

### 2228B HOLLYWOOD WAY N

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	G M NEON CORP MFRS	R. L. Polk & Co.

### N HOLLYWOOD WAY

#### 2201 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2015	PRO HD HOLDINGS INC	Cole Information Services
	A20 TECHNOLOGIES	Cole Information Services
	PRO HD RENTALS	Cole Information Services
2009	JUDYS CAROUSEL CRAFT WAREHOUSE	Cole Information Services
	PRO HD RENTALS	Cole Information Services
	ROSSINI VIDEO GROUP	Cole Information Services
2006	COMTELPROMEDIA	Haines Company, Inc.
2004	COMTEL PRO MEDIA	Cole Information Services
1999	COMTEL VIDEO PRODUCTS	Cole Information Services
	ROBERT ROSSINI	Cole Information Services
1994	SIMCO ELECTRONICS INC	Cole Information Services

#### 2205 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2009	BUILD REHABILITATION INDUSTRIES	Cole Information Services
2006	BUILD INDUSTRIES	Haines Company, Inc.
2004	BUILD REHABILITATION INDSTRY	Cole Information Services
1999	BUILD REHABILITATION INDUSTRIES	Cole Information Services
1995	Build Rehabilitation Industries	Pacific Bell

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1994	BUILD REHABILITATION INDSTRS	Cole Information Services
1991	Build Rehabilitation Industries	Pacific Bell
1986	NOVA OPPORTUNITY CENTER INC BURBANK	Pacific Bell
1985	From Los Angeles Telephones Call	Pacific Bell
1976	Westlake Mfg Inc	Pacific Telephone
1975	WESTLAKE MFG INC	Pacific Telephone
1970	JOHNSON F VINCENT & TECHNICAL ASSOCIATES	Pacific Telephone
	TRIG MANUFACTURING CO	Pacific Telephone
	LEE ENGINEERING	Pacific Telephone
	JOHNSON F VINCENT & TECHNICAL ASSOCIATES	Pacific Telephone
	LEE ENGINEERING	Pacific Telephone
	TRIG MANUFACTURING CO	Pacific Telephone
1967	Macklin Machining & Mfg	Pacific Telephone
1962	CAPTIVE AIR	Pacific Telephone
1958	Century Engineers Inc See Electrosystems Inc	Pacific Telephone
	Electrosystems Inc	Pacific Telephone

### 2210 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	Griffen M BI	Pacific Bell

### 2211 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2009	INTER VIDEO	Cole Information Services
	C G W ENTERPRISES INC	Cole Information Services
	AUDIOTEK CORP	Cole Information Services
2006	ALTERNATIVES	Haines Company, Inc.
	VISTA MFG	Haines Company, Inc.
	CORP AUDIOTEK CORP	Haines Company, Inc.
	ATK AUDIOTEK	Haines Company, Inc.
2004	ATK/AUDIOTEK CORP	Cole Information Services
	JOHN STEWART	Cole Information Services
1994	ATK AUDIOTEK CORP	Cole Information Services
	ASSOCTD PRODUCTS	Cole Information Services
1991	Associated Products	Pacific Bell
	From Los Angeles Telephones Call	Pacific Bell
	Zipco	Pacific Bell



## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Zipco Metal Fabrication Machining & Welding	Pacific Bell
	Zipco Precision Metal Fabrication Machining & Welding	Pacific Bell
1990	ZIPCO PRECISION METAL FABRICATION MACHINING & WELDING BURBANK	Pacific Bell
	ASSOCIATED PRODUCTS BURBANK	Pacific Bell
1986	ASSOCIATED PRODUCTS BURBANK	Pacific Bell
	ZIPCO PRECISION METAL FABRICATION MACHINING & WELDING BURBANK	Pacific Bell
1985	Associated Products	Pacific Bell
	From Los Angeles Telephones Call	Pacific Bell
	Zip Co	Pacific Bell
	Zipco Precision Metal Fabrication Machining & Welding	Pacific Bell
1981	SOUTHWEST PARTITION CO INC BURBANK	Pacific Telephone
1980	SOUTHWEST PARTITION CO INC BURBANK	Pacific Telephone
1976	SOUTHWEST PARTITION CO INC	Pacific Telephone
1975	SOUTHWEST PARTITION CO INC	Pacific Telephone
1971	Bell Helicopter Co Div Of Bell Aerospace Corp	Pacific Telephone
1970	BELL HELICOPTER CO DIV OF BELL AEROSPACE CORP	Pacific Telephone
	BELL HELICOPTER CO DIV OF BELL AEROSPACE CORP	Pacific Telephone
1967	Bell Helicopter Co Div of Bell Aerospace Corp	Pacific Telephone
1962	Bell Helicopter Co Div of Bell Aerospace Corp	Pacific Telephone
	BELL HELICOPTER CO DIV OF BELL AEROSPACE CORP	Pacific Telephone
1958	Bell Helicopter Corp Western Div	Pacific Telephone

### 2220 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2015	BUDGET	Cole Information Services
2009	BUDGET RENT A CAR	Cole Information Services
	BUDGET	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
	BUDGET RENT A CAR	Cole Information Services

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1999	BUDGET CAR AND TRUCK RENTAL	Cole Information Services
	BGT CAR & TRCK RENT STHRN	Cole Information Services
	CALIFORNIA RENTALS	
1995	Burbank Airport	Pacific Bell
1994	BUDGET RENT A CAR	Cole Information Services
	SEARS RENT A TRUCK	Cole Information Services
1991	Burbank Airport	Pacific Bell
	Encino	Pacific Bell
	Hollywood Burbank Airport	Pacific Bell
	Hollywood Burbank Airport	Pacific Bell
	Hollywood Burbank Airport	Pacific Bell
	Hollywood Burbank Airport	Pacific Bell
1990	BUDGET RENT-A-CAR RENT-A-CAR STATIONS	Pacific Bell
1985	BUDGET RENT-A- CAR HOLLYWOOD-BURBANK AIRPORT	Pacific Bell
	Burbank Airport	Pacific Bell
	Encino	Pacific Bell
	Hollywood Burbank Airport	Pacific Bell
	Hollywood Burbank Airport	Pacific Bell
1981	BUDGET RENT-A-CAR RENT-A-CAR STATIONS	Pacific Telephone
1980	CANN R F	Pacific Telephone
	KUREK JOS M BURBANK	Pacific Telephone
	MIKELK MABEL E	Pacific Telephone
	MIKELK WALTER R	Pacific Telephone
	PATER WM	Pacific Telephone
	RADIO AMATEUR KH6IAF	Pacific Telephone
1976	Brewton Shirley	Pacific Telephone
	Burns J F	Pacific Telephone
	Evans Roy J	Pacific Telephone
	Evans Tracy	Pacific Telephone
1975	Allen Francis E	Pacific Telephone
	Borneman Naomi Mrs	Pacific Telephone
	Brewton Shirley	Pacific Telephone
	Brown Clara M	Pacific Telephone
	Carters Trailer Park	Pacific Telephone
	Corral G	Pacific Telephone
	De Grazzio Florence C	Pacific Telephone
	Eils C M	Pacific Telephone

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	Evans Roy J	Pacific Telephone
	Evans Tracy	Pacific Telephone
	Gauwain W M	Pacific Telephone
	Geisler Alvin E	Pacific Telephone
	Graham Dal Mont E	Pacific Telephone
	Grimm Frank L	Pacific Telephone
	Haberman Helen H	Pacific Telephone
	Huston Fred F	Pacific Telephone
	Jones Lon	Pacific Telephone
	Juntunen Emilie	Pacific Telephone
	Kaikainahaolei Kuulei Makahanoleia	Pacific Telephone
	Kaikainahaolei Kuulei Nakakohekau	Pacific Telephone
	Kelsey Robt L	Pacific Telephone
	King H Le Roy	Pacific Telephone
	Kontos Jas Alex	Pacific Telephone
	Kuenle Donald L	Pacific Telephone
	Lampman G	Pacific Telephone
	Lewis Earl L	Pacific Telephone
	Lewis Lucille L	Pacific Telephone
	Mathis Marguerite J	Pacific Telephone
	Mc Coy Calvin J	Pacific Telephone
	Mc Kenzie W Donald	Pacific Telephone
	Meinicke A R	Pacific Telephone
	Merideth Janette	Pacific Telephone
	Mikelk Mabel E	Pacific Telephone
	Mikelk Walter R	Pacific Telephone
	Miller Glenn	Pacific Telephone
	Mueller Ervin O	Pacific Telephone
	Owens Russell	Pacific Telephone
	Porter Sylvia C	Pacific Telephone
	Quigley Robt A	Pacific Telephone
	Robison Julia E	Pacific Telephone
	Rohlfen Margaret E	Pacific Telephone
	Sansgaard E M	Pacific Telephone
	Schafer Pearl B	Pacific Telephone
	Simon Jas B	Pacific Telephone
	Simpson La Vaughn E	Pacific Telephone
	Still Custer	Pacific Telephone



## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	Thomas Josie M	Pacific Telephone
	Waldron Roy C	Pacific Telephone
	Ward Landis J	Pacific Telephone
	Winslow Geo	Pacific Telephone
	Winslow Wm G	Pacific Telephone
1971	Brewton Shirley	Pacific Telephone
1970	MILLER GLENN BURBANK	Pacific Telephone
	ASBURY EARL E	Pacific Telephone
	ASHER ETHEL	Pacific Telephone
	BLACK MILDRED	Pacific Telephone
	BORNEMAN NAOMI MRS	Pacific Telephone
	BREWTON SHIRLEY	Pacific Telephone
	CARTERS TRAILER PARK	Pacific Telephone
	CONAWAY RUBY	Pacific Telephone
	DE GRAZZIO FLORENCE C	Pacific Telephone
	DREW ZULA MARIE	Pacific Telephone
	EILS JOHN B	Pacific Telephone
	EILS JOHN B WATCH REPRNG	Pacific Telephone
	FAUS PEARL B	Pacific Telephone
	GRAHAM DAL MONT E	Pacific Telephone
	HABERMAN HELEN H	Pacific Telephone
	HANLON RUTH	Pacific Telephone
	HENSON RUTH J	Pacific Telephone
	HOSTETTLER J E	Pacific Telephone
	JONES LON	Pacific Telephone
	JUNTUNEN EMILLE	Pacific Telephone
	KELSEN ROBT L	Pacific Telephone
	KLEIN EDW	Pacific Telephone
	KLUTSENBAKER DALE	Pacific Telephone
	LEWIS EARL L	Pacific Telephone
	LEWIS LUCILLE L	Pacific Telephone
	MATHIS MARGUERITE J	Pacific Telephone
	METEYER ALICE MRS	Pacific Telephone
MIKELK MABEL E	Pacific Telephone	
MIKELK WALTER R	Pacific Telephone	
OLSSON S TED	Pacific Telephone	
OSTEEN M J	Pacific Telephone	
OWENS RUSSELL	Pacific Telephone	

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	PATRICK BENJAMIN	Pacific Telephone
	PATTEN VERNE V	Pacific Telephone
	PERKINS ALMA	Pacific Telephone
	PERRY L R	Pacific Telephone
	PORTER SYLVIA C	Pacific Telephone
	RIOS RICHARD	Pacific Telephone
	ROBISON JULIA E	Pacific Telephone
	ROHLFSEN MARGARET E	Pacific Telephone
	SANSGAARD E M	Pacific Telephone
	SIMON JAS B	Pacific Telephone
	SMITH MAUDE MRS	Pacific Telephone
	STITT CARTER H	Pacific Telephone
	TEN EYCK BARRY	Pacific Telephone
	THOMAS JOHN R	Pacific Telephone
	THOMAS JOSIE M	Pacific Telephone
	TRAILER PARK REALTY CO	Pacific Telephone
	TROUT DAISY A	Pacific Telephone
	WILSON BILLIE L	Pacific Telephone
	WINSLOW WM G	Pacific Telephone
	ASBURY EARL E	Pacific Telephone
	ASHER ETHEL	Pacific Telephone
	BLACK MILDRED	Pacific Telephone
	BORNEMAN NAOMI MRS	Pacific Telephone
	BREWTON SHIRLEY	Pacific Telephone
	CARTERS TRAILER PARK	Pacific Telephone
	CONAWAY RUBY	Pacific Telephone
	DE GRAZZIO FLORENCE C	Pacific Telephone
	DREW ZULA MARIE	Pacific Telephone
	EILS JOHN B	Pacific Telephone
	EILS JOHN B WATCH REPRNG	Pacific Telephone
	FAUS PEARL B	Pacific Telephone
	GRAHAM DAL MONT E	Pacific Telephone
	HABERMAN HELEN H	Pacific Telephone
	HANLON RUTH	Pacific Telephone
	HENSON RUTH J	Pacific Telephone
	HOSTETTLER J E	Pacific Telephone
	JONES LON	Pacific Telephone
	JUNTUNEN EMILLE	Pacific Telephone

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	KELSEN ROBT L	Pacific Telephone
	KLEIN EDW	Pacific Telephone
	KLUTSENBAKER DALE	Pacific Telephone
	LEWIS EARL L	Pacific Telephone
	LEWIS LUCILLE L	Pacific Telephone
	MATHIS MARGUERITE J	Pacific Telephone
	METEYER ALICE MRS	Pacific Telephone
	MIKELK MABEL E	Pacific Telephone
	MIKELK WALTER R	Pacific Telephone
	OLSSON S TED	Pacific Telephone
	OSTEEN M J	Pacific Telephone
	OWENS RUSSELL	Pacific Telephone
	PATRICK BENJAMIN	Pacific Telephone
	PATTEN VERNE V	Pacific Telephone
	PERKINS ALMA	Pacific Telephone
	PERRY L R	Pacific Telephone
	PORTER SYLVIA C	Pacific Telephone
	RIOS RICHARD	Pacific Telephone
	ROBISON JULIA E	Pacific Telephone
	ROHLFSEN MARGARET E	Pacific Telephone
	SANSGAARD E M	Pacific Telephone
	SIMON JAS B	Pacific Telephone
	SMITH MAUDE MRS	Pacific Telephone
	STITT CARTER H	Pacific Telephone
	TEN EYCK BARRY	Pacific Telephone
	THOMAS JOHN R	Pacific Telephone
	THOMAS JOSIE M	Pacific Telephone
	TRAILER PARK REALTY CO	Pacific Telephone
	TROUT DAISY A	Pacific Telephone
	WILSON BILLIE L	Pacific Telephone
	WINSLOW WM G	Pacific Telephone
1967	Brewton Shirley	Pacific Telephone
1962	ATWOOD WALTER H	Pacific Telephone
	BECK W W	Pacific Telephone
	BLACK MILDRED	Pacific Telephone
	BRUCE ALBERT D	Pacific Telephone
	CARTER S NICK TRAILER PARK	Pacific Telephone
	COCKBURN SAML J	Pacific Telephone



## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	CONAWAY RUBY	Pacific Telephone
	CONYERS RALPH E	Pacific Telephone
	CORWIN GLADYS	Pacific Telephone
	CORWIN JOHN V	Pacific Telephone
	COX CASSIE L	Pacific Telephone
	DAVIS FRED B SR	Pacific Telephone
	DIETZ FRANK W	Pacific Telephone
	DIRK LAWRENCE O	Pacific Telephone
	EILS JOHN B	Pacific Telephone
	EILS JOHN B WATCH REPRNG	Pacific Telephone
	FLANINGAM WALTER L	Pacific Telephone
	GRAHAM D E	Pacific Telephone
	HABERMAN HELEN H	Pacific Telephone
	HAMILTON EDW RAY	Pacific Telephone
	HEINZ L E MRS	Pacific Telephone
	HENSON JAY	Pacific Telephone
	KEMPF GLEN M	Pacific Telephone
	LEWIS EARL L	Pacific Telephone
	LEWIS LUCILLE L	Pacific Telephone
	LUTHER R V MRS	Pacific Telephone
	MAGISEN IRWIN	Pacific Telephone
	MARVIN ROBT S	Pacific Telephone
	MATHIS EDW	Pacific Telephone
	MCBRIDE FRED B	Pacific Telephone
	MELANSON LOUIS	Pacific Telephone
	MULLENS DAVID H	Pacific Telephone
	NORREGAARD SOREN	Pacific Telephone
	NUCKLES RAY	Pacific Telephone
	OLSSON S TED	Pacific Telephone
	PAPKE EMIL	Pacific Telephone
	PERKINS ALMA	Pacific Telephone
	PORTER SYLVIA C	Pacific Telephone
	POSSEHL ARTHUR A	Pacific Telephone
	ROBERTSON PHYLLIS F	Pacific Telephone
	ROGERS BEN	Pacific Telephone
	SANSGAARD EUNICE	Pacific Telephone
	SATTLER MAY D MRS	Pacific Telephone
	SCHERER L M MRS	Pacific Telephone

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	SIMON JOS B	Pacific Telephone
	SMITH MARY MRS	Pacific Telephone
	SNYDER FRED W	Pacific Telephone
	STRAW RAY W	Pacific Telephone
	TRAILER PARK REALTY CO	Pacific Telephone
	TROUT L G	Pacific Telephone
	VINNEDGE ANN	Pacific Telephone
	WALBERT LYNDELL	Pacific Telephone
1956	STANLEY ROBT E	Pacific Telephone
	STRAW RAY W	Pacific Telephone
	TRAILER PARK REALTY CO	Pacific Telephone
	TREFSGER KENNETH R	Pacific Telephone
	TURNER H J	Pacific Telephone
	UNCKLES F G	Pacific Telephone
	WILSON A HERBERT SR	Pacific Telephone
	BARTLETT CHARLIE JOE	Pacific Telephone
	BEAULIEU OMER	Pacific Telephone
	BRUCE ALBERT D	Pacific Telephone
	BURCH CARL L	Pacific Telephone
	BURRITT BURT N	Pacific Telephone
	CARTERS NICK TRAILER PARK	Pacific Telephone
	COCKBURN SAML J	Pacific Telephone
	CORNFORD BABE	Pacific Telephone
	CORNFORD W E	Pacific Telephone
	DICK CLAUS G	Pacific Telephone
	DIXON LLOYD F	Pacific Telephone
	DULANEY LLOYD K	Pacific Telephone
	ELLIOTT JOHN CHAS	Pacific Telephone
	GARNETT PAUL	Pacific Telephone
	HAFNER WM	Pacific Telephone
	HARPER J E	Pacific Telephone
	HELWIG ROBT M	Pacific Telephone
	IOTT CRAIG	Pacific Telephone
	JOANIS MELVINA	Pacific Telephone
	LAMSON WALTER E	Pacific Telephone
	LUCHT W F	Pacific Telephone
LUTHER R V MRS	Pacific Telephone	
MANLEY S B	Pacific Telephone	

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1956	MARKHAM WM J	Pacific Telephone
	MINSKE WILLARD F	Pacific Telephone
	MOSCONI CAMILLE	Pacific Telephone
	MOSCONI IRENE MRS	Pacific Telephone
	NUCKLES RAY	Pacific Telephone
	PAC TRAILER PARKS INC	Pacific Telephone
	PENNINGTON LEE	Pacific Telephone
	REED GLENN	Pacific Telephone
	ROBERTSON PHYLLIS F	Pacific Telephone
	STANCHFIELD LEE	Pacific Telephone
1950	STANLEY HAZEL F	Pacific Telephone
	GRAVES HELEN E MISS R	Pacific Telephone
	SALVESON LEONA R	Pacific Telephone
	GRAVES HELEN E MISS R	Pacific Telephone
	SALVESON LEONA R	Pacific Telephone

### 2226 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1956	STEWART MARGARET	Pacific Telephone

### 2228 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2015	COLORWEST	Cole Information Services
2006	DIWESTINC	Haines Company, Inc.
	COLOR WEST INC	Haines Company, Inc.
	COLOR WEST INC	Haines Company, Inc.
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	DIE WEST INCORPORATED	Cole Information Services
	COLOR WEST INCORPORATED	Cole Information Services
1995	Color West Inc	Pacific Bell
	Heywood & Heywood Printing	Pacific Bell
1994	HEYWOOD & HEYWOOD PRINTING	Cole Information Services
1991	Color West Inc	Pacific Bell
	From Los Angeles Telephones Call	Pacific Bell
	Color World TV Service 742 Andover Dr Brb	Pacific Bell
	Color 1 colrcinsltut	Pacific Bell
	Calabasas Calbt	Pacific Bell
1990	COLOR WEST INC BURBANK	Pacific Bell



## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	THOUGHT FACTORY BURBANK	Pacific Bell
1986	COLOR WEST INC BURBANK	Pacific Bell
	THOUGHT FACTORY BURBANK	Pacific Bell
1985	Color West Inc	Pacific Bell
	From Los Angeles Telephones Call	Pacific Bell
1980	COLOR WEST	Pacific Telephone
1976	G M SIGNS	Pacific Telephone
	Spiegel Publishing Co	Pacific Telephone
1975	Color West	Pacific Telephone
	G M Signs	Pacific Telephone
	G M SIGNS INC	Pacific Telephone
	Litho Prep	Pacific Telephone
	Spiegel Publishing Co	Pacific Telephone
1971	G M SIGNS	Pacific Telephone
1970	JENNINGS KELLY	Pacific Telephone
	KELLY-JENNINGS	Pacific Telephone
	JENNINGS KELLY	Pacific Telephone
	KELLY-JENNINGS	Pacific Telephone
	PLATT LORETTA J	Pacific Telephone
	PLATT LORETTA J	Pacific Telephone
1967	G M NEON CORP	Pacific Telephone
1962	Hieatt Engineering Co	Pacific Telephone
	Hyatt Engineering Co	Pacific Telephone
	HIEATT ENGNERG CO	Pacific Telephone
	HYATT ENGINEERING CO	Pacific Telephone
	HIEATT ENGINEERING CO	Pacific Telephone
1960	HIEATT ENGINEERING CO	Pacific Telephone
1958	Hieatt Engnrng Co	Pacific Telephone
	Hyatt Engineering Co	Pacific Telephone
	HIEATT ENGINEERING CO	Pacific Telephone
1957	HIEATT ENGINEERING CO	Pacific Telephone
1956	HIEATT ENGNRNG CO	Pacific Telephone
	HYATT ENGINEERING CO	Pacific Telephone
1950	CARENT CO AUTO RENTL	Pacific Telephone
	CONSUMERS HOME PRODUCTS INC	Pacific Telephone
	EASE QUALITY DETERGENTS	Pacific Telephone
	CARENT CO AUTO RENTL	Pacific Telephone
	CONSUMERS HOME PRODUCTS INC	Pacific Telephone

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	EASE QUALITY DETERGENTS	Pacific Telephone

### 2230 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1981	MID-VALLEY CATERERS BURBANK	Pacific Telephone
	OWENS GEORGE CATERING BURBANK	Pacific Telephone
1980	MID VALLEY CATERERS	Pacific Telephone
1976	Mid Valley Caterers Inc	Pacific Telephone
1975	Mid Valley Caterers Inc	Pacific Telephone
1971	Mid Valley Caterers Inc	Pacific Telephone
1970	MID-VALLEY CATERERS INC	Pacific Telephone
	MID-VALLEY CATERERS INC	Pacific Telephone
1967	Mid Valley Caterers Inc	Pacific Telephone
1962	Mid Valley Caterers Inc	Pacific Telephone
	MID-VALLEY CATERERS INC	Pacific Telephone
1958	Jim & Ken Caterers	Pacific Telephone
1956	JIM & KEN CATERERS	Pacific Telephone
	JIM & KEN CATERERS	Pacific Telephone

### 2231 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2015	OMEGA CASE COMPANY INC	Cole Information Services
2009	OMEGA CASE CO INC	Cole Information Services
2006	OMEGACASE COMPANY INC	Haines Company, Inc. Haines Company, Inc.
2004	SONIC ATMOSPHERES INC	Cole Information Services
	CRAIG HUXLEY	Cole Information Services
1999	SLING SHOT RECORDS	Cole Information Services
1995	Unitel Mobile	Pacific Bell
	Sonic Edge	Pacific Bell
1994	SONIC EDGE	Cole Information Services
	UNITEL MOBILE	Cole Information Services
1991	Unitel Moble	Pacific Bell
1986	WESTINGHOUSE ELEVATOR CO	Pacific Bell
	WESTINGHOUSE ELEVATOR CO	Pacific Bell
	WESTINGHOUSE ELECTRIC CORPORATION	Pacific Bell
1985	Service	Pacific Bell
	Sales	Pacific Bell

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	Construction Business Development	Pacific Bell
	WESTINGHOUSE ELEVATOR CO	Pacific Bell
	WESTINGHOUSE ELEVATOR CO	Pacific Bell
	WESTINGHOUSE ELEVATOR CO	Pacific Bell
	WESTINGHOUSE ELEVATOR CO	Pacific Bell
	WESTINGHOUSE ELECTRIC CORPORATION	Pacific Bell
1981	WESTINGHOUSE ELEVATOR CO	Pacific Telephone
	WESTINGHOUSE ELEVATOR CO	Pacific Telephone
1980	Sales	Pacific Telephone
	Service	Pacific Telephone
	WESTINGHOUSE ELEVATOR CO	Pacific Telephone
	WESTINGHOUSE ELEVATOR CO	Pacific Telephone
1976	Service	Pacific Telephone
	Westinghouse Elevator Co	Pacific Telephone
	Sales	Pacific Telephone
	Westinghouse Elevator Co	Pacific Telephone
1975	Sales	Pacific Telephone
	Service	Pacific Telephone
	Sales	Pacific Telephone
	Service	Pacific Telephone

### 2232 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2015	ELKS BPOE BURBANK LODGE	Cole Information Services
2009	BURBANK ELKS LODGE	Cole Information Services
	BURBANK CA LODGE 1497	Cole Information Services
2006	BURBANK LODGE	Haines Company, Inc.
	ELKSBPOE	Haines Company, Inc.
2004	BURBANK ELKS LODGE	Cole Information Services

### 2235 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	ATKINS PARK	Pacific Telephone
1950	ATKINS PARK	Pacific Telephone
	BURBANK AUCTION PALACE	Pacific Telephone
	ATKINS PARK	Pacific Telephone
	BURBANK AUCTION PALACE	Pacific Telephone



## FINDINGS

### 2237 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2015	LEE FILTERS DIVISION OF PANAVISION	Cole Information Services
2009	LEE FILTERS	Cole Information Services
2006	OF PANAVISION	Haines Company, Inc.
	LEEFILTERSDVSN	Haines Company, Inc.
1999	LEE FILTERS DIVISION OF PANAVISION	Cole Information Services
	ZIP COMPANY HYDRAULICS	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
1995	Associated Podiatrists Group Of San Fernando Valley	Pacific Bell
	L Associated Products	Pacific Bell
	Zipco	Pacific Bell
1994	ZIPCO	Cole Information Services
	ASSOCIATED PRODUCTS	Cole Information Services
	ZIPCO PRECISION METAL	Cole Information Services
1985	Accratronics Of California Inc	Pacific Bell
1981	PRO LITHO GRAPHICS BURBANK	Pacific Telephone
1976	American Printing & Stationary Co See Westland Graphics	Pacific Telephone
	Westland Graphics	Pacific Telephone
1975	American Printing & Stationary Co See Westland Graphics	Pacific Telephone
	Westland Graphics	Pacific Telephone

### 2240 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2015	PUBLIC STORAGE	Cole Information Services
2004	IRENE HIDALGO	Cole Information Services
1999	HOLLYWOODWAY TRAILER COURT	Cole Information Services
	SHARON MARTIN	Cole Information Services
1995	Bishop James	Pacific Bell
	Cline J	Pacific Bell
	Herrera John	Pacific Bell
	I Lumley John E	Pacific Bell
	Lumley G	Pacific Bell
	Martin MA Sun	Pacific Bell
	i Martin MC	Pacific Bell
	Peterson E A	Pacific Bell

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Price C C	Pacific Bell
	i Roland Ella Mrs	Pacific Bell
	Roland Carl	Pacific Bell
	Roman Ruben	Pacific Bell
	Soils Rodrigo	Pacific Bell
	Tilley Bob	Pacific Bell
	i Tilley Brick	Pacific Bell
	Tucker Chaz	Pacific Bell
	Wilkus Ted	Pacific Bell
	Yost Bernice	Pacific Bell
1994	BAXLEY, J	Cole Information Services
	DELESLEY, JOHN JR	Cole Information Services
	GOLDEN, NEAL	Cole Information Services
	ROLAND, ELLA	Cole Information Services
	YOST, BERNICE	Cole Information Services
	PRICE, C C	Cole Information Services
	HOLLYWOODWAY TRAILER COURT	Cole Information Services
	MARTIN, M C	Cole Information Services
	HERRERA, JOHN	Cole Information Services
	WILKUS, TED	Cole Information Services
	TUCKER, CHAZ	Cole Information Services
	MOORE, JAMES	Cole Information Services
	CLINE, J	Cole Information Services
	PETERSON, E A	Cole Information Services
	TILLEY, BRICK	Cole Information Services
	SILVA, ELIAS P	Cole Information Services
	STANDARD, BUD M	Cole Information Services
BISHOP, JAMES	Cole Information Services	
LUMLEY, JOHN E	Cole Information Services	
1991	Bishop James	Pacific Bell
	Cline J	Pacific Bell
	Cline J&C GHis	Pacific Bell
	De Lesley John Jr	Pacific Bell
	De Leston E	Pacific Bell
	Deo etran Nenette	Pacific Bell
	Firebaugh Carl	Pacific Bell
	Golden Neal	Pacific Bell
	Ho Uywoodway Trailer Court	Pacific Bell

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Lumley John E	Pacific Bell
	Martin MC	Pacific Bell
	Martinez Librada	Pacific Bell
	Mc Adams Jim	Pacific Bell
	Mc Adams Jimmy & Patricia	Pacific Bell
	Moore James	Pacific Bell
	Peterson E A	Pacific Bell
	Peterson E M	Pacific Bell
	Price CC	Pacific Bell
	Price CJ	Pacific Bell
	Roland Ella Mrs	Pacific Bell
	Rudy Paul	Pacific Bell
	Rudy Prince Motors	Pacific Bell
	Silva Elias P	Pacific Bell
	Stackhouse Jesse L	Pacific Bell
	Wilkus Ted	Pacific Bell
	Yost Bernice	Pacific Bell
Yost C	Pacific Bell	
1985	Benander Elmer N	Pacific Bell
	Clark Leonard	Pacific Bell
	Closson Robt	Pacific Bell
	De Lesley John Jr	Pacific Bell
	De Leston E	Pacific Bell
	Denopolos Ernest	Pacific Bell
	Dunwoody Ron	Pacific Bell
	Dyess I A	Pacific Bell
	Firebaugh Carl	Pacific Bell
	Gaghagen Dean C	Pacific Bell
	Garrett E H	Pacific Bell
	Hogan Hurst	Pacific Bell
	Hollywoodway Trailer Court	Pacific Bell
	Hunt J W	Pacific Bell
	Liptak J J	Pacific Bell
	Martin M C	Pacific Bell
	Peterfy M	Pacific Bell
Peterson E A	Pacific Bell	
Peterson E L	Pacific Bell	
Price C C	Pacific Bell	



## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	Price C J	Pacific Bell
	Rivera Victor Corey	Pacific Bell
	Roland Ella Mrs	Pacific Bell
	Rudy Paul	Pacific Bell
	RUDY PRIN CE MOTORS	Pacific Bell
	Rust Gary A	Pacific Bell
	Schwarzbeck Frederick	Pacific Bell
	Schwarzbein Z E GHIs	Pacific Bell
	Schwarzberg Katy Van Nuys	Pacific Bell
	Schwarze M	Pacific Bell
	Schwarzer R	Pacific Bell
	Snow Jos	Pacific Bell
	Snow Joyce	Pacific Bell
	Snow LF	Pacific Bell
	Stackhouse Jesse L	Pacific Bell
	Unac Industrial Systems	Pacific Bell
	Unatin Morley	Pacific Bell
	Wilkus Ted	Pacific Bell
	Williams Vernon R	Pacific Bell
	1980	ADAMS CARL E BURBANK
AYERS MARILYN K		Pacific Telephone
BENANDER ELMER N		Pacific Telephone
BRAY ROBT		Pacific Telephone
BRYSON CLAYTON		Pacific Telephone
BUTLER B MRS		Pacific Telephone
CROWDER LINDA		Pacific Telephone
DE LESLEY JOHN JR		Pacific Telephone
DOANE G H		Pacific Telephone
DUNWOODY GERALD G		Pacific Telephone
FIREBAUGH CARL		Pacific Telephone
HENDERSON DAVID R		Pacific Telephone
HOGAN HURST		Pacific Telephone
HOLLYWOODWAY TRAILER COURT		Pacific Telephone
HUNT J W		Pacific Telephone
HUNTER ROBT A		Pacific Telephone
KELSEY C S		Pacific Telephone
LEVINSON SANFORD		Pacific Telephone
LIPTAK M J	Pacific Telephone	

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	LUCAS ROBT A	Pacific Telephone
	LYON G N	Pacific Telephone
	MAC DONALD RICHARD H	Pacific Telephone
	MARTIN M C	Pacific Telephone
	MCKENZIE W DONALD	Pacific Telephone
	MINTER BILLIE P	Pacific Telephone
	PENNEY BEA	Pacific Telephone
	PETERSON E A	Pacific Telephone
	PRICE C C	Pacific Telephone
	RAMIREZ CARLOS	Pacific Telephone
	ROLAND ELLA MRS	Pacific Telephone
	ROLAND PAUL	Pacific Telephone
	STACKHOUSE JESSE L	Pacific Telephone
WILKUS TED	Pacific Telephone	
1976	Mc Kenny Walter F	Pacific Telephone
	Wilkus Ted	Pacific Telephone
1975	Adams Carl E	Pacific Telephone
	Alford F Z	Pacific Telephone
	Benander Elmer N	Pacific Telephone
	Callahan E A	Pacific Telephone
	Clark Harry M	Pacific Telephone
	De Cleene E J	Pacific Telephone
	De Lesley John Jr	Pacific Telephone
	Derry Wm	Pacific Telephone
	Diamond Belle	Pacific Telephone
	Dickson Martha C	Pacific Telephone
	Doane G H	Pacific Telephone
	Dunwoody Gerald G	Pacific Telephone
	Gray Scott C	Pacific Telephone
	Hollywoodway Trailer Court	Pacific Telephone
	Jacobs G	Pacific Telephone
	Kelsey C S	Pacific Telephone
	Kennedy Earl	Pacific Telephone
	Liptak J J	Pacific Telephone
	Martin Mary C	Pacific Telephone
Minter Billie P	Pacific Telephone	
Music Z S	Pacific Telephone	
Myers Betty De Buhr	Pacific Telephone	

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	Newman Paul	Pacific Telephone
	Penney Bea	Pacific Telephone
	Rice Alexander T	Pacific Telephone
	Roland Ella Mrs	Pacific Telephone
	Scheer Edw	Pacific Telephone
	Shinbloom J M	Pacific Telephone
	Stackhouse Jesse L	Pacific Telephone
	Swartz Frank L	Pacific Telephone
	Westmore Iva L	Pacific Telephone
	Wharff Bernard	Pacific Telephone
Wilkus Ted	Pacific Telephone	
1970	LOWELL WAITER R BURBANK	Pacific Telephone
	MINTER BILLIE P BURBANK	Pacific Telephone
	ADAMS CARL E	Pacific Telephone
	ALFORD F Z	Pacific Telephone
	ALLEN V E	Pacific Telephone
	BAYERLE M	Pacific Telephone
	BENANDER ELMER N	Pacific Telephone
	BOGATTO JOHN	Pacific Telephone
	BROWN ELIZABETH I	Pacific Telephone
	CALLAHAN ELIZABETH A	Pacific Telephone
	CLARK HARRY	Pacific Telephone
	CURTIS HAROLD L	Pacific Telephone
	DIAMOND BELLE	Pacific Telephone
	DOANE G H	Pacific Telephone
	EVANS ROY J	Pacific Telephone
	FOGELSON R L	Pacific Telephone
	GAINES FRANK B	Pacific Telephone
	GLASER JOHN H MRS	Pacific Telephone
	GUY MELVIN	Pacific Telephone
	HOLLYWOODWAY TRAILER COURT	Pacific Telephone
	KOMM WM R	Pacific Telephone
	KUHLENKAMP FLOY	Pacific Telephone
	LIPTAK J J	Pacific Telephone
	LITTLE BUFFALO GEO	Pacific Telephone
	LOEWENGUTH W R	Pacific Telephone
	LYON PAUL	Pacific Telephone
MARTIN MARY C	Pacific Telephone	



## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MUSIC Z S	Pacific Telephone
	NIENSTEDT ANNA	Pacific Telephone
	OZANICH J E	Pacific Telephone
	PENNEY BEA	Pacific Telephone
	RICE ALEX T	Pacific Telephone
	SCOTT CHAS L	Pacific Telephone
	SHARP CLAIR L	Pacific Telephone
	SHERBESMAN KATHERINE	Pacific Telephone
	SHINBLOOM J M	Pacific Telephone
	SIDEBOTHAM HAZEL U	Pacific Telephone
	SMITH PAULINE MARGARET	Pacific Telephone
	SOCKWELL D K	Pacific Telephone
	STEIN BERTHA L	Pacific Telephone
	SWARTZ FRANK L	Pacific Telephone
	TILLOTSON FRANCIS J	Pacific Telephone
	WHARFF BERNARD	Pacific Telephone
	ADAMS CARL E	Pacific Telephone
	ALFORD F Z	Pacific Telephone
	ALLEN V E	Pacific Telephone
	BAYERLE M	Pacific Telephone
	BENANDER ELMER N	Pacific Telephone
	BOGATTO JOHN	Pacific Telephone
	BROWN ELIZABETH I	Pacific Telephone
	CALLAHAN ELIZABETH A	Pacific Telephone
	CLARK HARRY	Pacific Telephone
	CURTIS HAROLD L	Pacific Telephone
	DIAMOND BELLE	Pacific Telephone
	DOANE G H	Pacific Telephone
	EVANS ROY J	Pacific Telephone
	FOGELSON R L	Pacific Telephone
	GAINES FRANK B	Pacific Telephone
	GLASER JOHN H MRS	Pacific Telephone
	GUY MELVIN	Pacific Telephone
	HOLLYWOODWAY TRAILER COURT	Pacific Telephone
	KOMM WM R	Pacific Telephone
	KUHLENKAMP FLOY	Pacific Telephone
	LIPTAK J J	Pacific Telephone
	LITTLE BUFFALO GEO	Pacific Telephone

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LOEWENGUTH W R	Pacific Telephone
	LYON PAUL	Pacific Telephone
	MARTIN MARY C	Pacific Telephone
	MUSIC Z S	Pacific Telephone
	NIENSTEDT ANNA	Pacific Telephone
	OZANICH J E	Pacific Telephone
	PENNEY BEA	Pacific Telephone
	RICE ALEX T	Pacific Telephone
	SCOTT CHAS L	Pacific Telephone
	SHARP CLAIR L	Pacific Telephone
	SHERBESMAN KATHERINE	Pacific Telephone
	SHINBLOOM J M	Pacific Telephone
	SIDEBOTHAM HAZEL U	Pacific Telephone
	SMITH PAULINE MARGARET	Pacific Telephone
	SOCKWELL D K	Pacific Telephone
	STEIN BERTHA L	Pacific Telephone
	SWARTZ FRANK L	Pacific Telephone
	TILLOTSON FRANCIS J	Pacific Telephone
	WHARFF BERNARD	Pacific Telephone
	1962	ALEXANDER ROY
ALLEN ROBT H SR		Pacific Telephone
ANDERSON CORRINE		Pacific Telephone
BENDER HELEN C		Pacific Telephone
BERKOWITZ PAULINE R		Pacific Telephone
BLOHM RICHARD G		Pacific Telephone
CHAPMAN C M		Pacific Telephone
CORDES A L		Pacific Telephone
CRIVYEA ROSS D		Pacific Telephone
DAVIS DONALD D		Pacific Telephone
DOANE G H		Pacific Telephone
DYKE WALTER ROY		Pacific Telephone
GEER FRANK		Pacific Telephone
GEER MARY		Pacific Telephone
HARTMAN WANDA J		Pacific Telephone
HEATER ROLLIN A		Pacific Telephone
HOLLYWOODWAY TRAILER COURT		Pacific Telephone
INFANTE FRANCES		Pacific Telephone
JENSEN GEO		Pacific Telephone

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	JOHNSON EARL L	Pacific Telephone
	JONES LEON A	Pacific Telephone
	KLAWITTER LOUISE	Pacific Telephone
	KOMM WM R	Pacific Telephone
	LOEWENGUTH W R	Pacific Telephone
	MILLER GLENN	Pacific Telephone
	MILLER OLIVE	Pacific Telephone
	MOTT E A	Pacific Telephone
	MUSIC ROBT E	Pacific Telephone
	PROBST FRANK A	Pacific Telephone
	RICE ALEX T	Pacific Telephone
	SCHMIDT EVELYN	Pacific Telephone
	SCHMIDT FREDRIC	Pacific Telephone
	SELBY FLOSSIE H	Pacific Telephone
	SHEARER LESLIE J	Pacific Telephone
	SHERBESMAN KATHERINE	Pacific Telephone
	SHINBLOOM J M	Pacific Telephone
	SHULER MARJORIE MRS	Pacific Telephone
	SIDEBOTHAM WM	Pacific Telephone
	SMITH PAULINE MARGARET	Pacific Telephone
	STEVENS EARL A BURBANK	Pacific Telephone
	STEVENSON BYRLE A	Pacific Telephone
	SUMMERS GUY	Pacific Telephone
	SWARTZ FRANK L	Pacific Telephone
	TWERP JOE	Pacific Telephone
	WHEELESS ODELL C	Pacific Telephone
WILEY J ALBERT	Pacific Telephone	
1956	ALEXANDER ROY	Pacific Telephone
	BERKOWITZ PAULINE R	Pacific Telephone
	CONYERS RALPH E	Pacific Telephone
	COOMBES FRANCIS C	Pacific Telephone
	CROWE WALLACE	Pacific Telephone
	DAVIS DONALD D	Pacific Telephone
	DOANE G H	Pacific Telephone
	EVANS EVAN	Pacific Telephone
	GERBER ARTHUR J	Pacific Telephone
HOLLYWOODWAY TRAILER COURT	Pacific Telephone	
KLAWITTER LOUISE	Pacific Telephone	



## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1956	MOORE PAULINE K	Pacific Telephone
	MOORE RAY	Pacific Telephone
	MOTT E A	Pacific Telephone
	OLSEN VIOLA	Pacific Telephone
	PAYTON ALFRED	Pacific Telephone
	PRATT HENRY L JR	Pacific Telephone
	ROBERTS JAS E	Pacific Telephone
	ROSENTHAL CHAS H	Pacific Telephone
	ROULSTON WM A	Pacific Telephone
	RUSH LEON L	Pacific Telephone
	SHINBLOOM SHIRLEY	Pacific Telephone
	SHOEMAKER H R	Pacific Telephone
	SHORTMAN JOHN R	Pacific Telephone
	SINCLAIR LA VERNE	Pacific Telephone
	SMITH PAULINE MARGARET	Pacific Telephone
	TED S IDEAL CLEANERS	Pacific Telephone
	THOMPSON F J	Pacific Telephone
	TWERP JOE	Pacific Telephone
	WILLIAMS HELEN M	Pacific Telephone
	WILLIAMS TED R	Pacific Telephone
1950	STANDEFER G K R BURBANK	Pacific Telephone
	STANDEFER G K R BURBANK	Pacific Telephone
	ALEXANDER ROY R	Pacific Telephone
	HOEFER WM F R	Pacific Telephone
	LONGFIELD MAY H R	Pacific Telephone
	MOORE RAY R	Pacific Telephone
	RICE ALEX T R	Pacific Telephone
	SMITH PAULINE MARGARET R	Pacific Telephone
	ALEXANDER ROY R	Pacific Telephone
	HOEFER WM F R	Pacific Telephone
	LONGFIELD MAY H R	Pacific Telephone
	MOORE RAY R	Pacific Telephone
RICE ALEX T R	Pacific Telephone	
SMITH PAULINE MARGARET R	Pacific Telephone	

### 2243 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2015	TREW AUDIO LOS ANGELES	Cole Information Services
	PACIFIC RADIO ELECTRONICS INC	Cole Information Services

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2009	PACIFIC RADIO EXCHANGE INC	Cole Information Services
2006	PAC RADIO ELECTRONICS INC	Haines Company, Inc.
	PAC RADIO ELECTRONICS INC	Haines Company, Inc.
2004	PACIFIC RADIO ELECTRONICS INC	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
1999	PACIFIC RADIO ELECTRONICS INCORPORATED	Cole Information Services

### 2249 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2009	MATRIX MEDICAL LABS	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
	LAB1 MEDICAL LAB INC	Cole Information Services
1999	WESTERN CYTOPATHOLOGY LABORATORIES INCORPORATED	Cole Information Services
1994	NOBART INC	Cole Information Services
	DANOART INC	Cole Information Services

### 2268 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	HOLMES WM B	Pacific Telephone
1956	MCCARTNEY HENRIETTA	Pacific Telephone

### 2288 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	LORIMER E	Pacific Telephone
	LORIMER E	Pacific Telephone

### 2331 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	SHOMAN S DAIRY	Pacific Telephone
	SHOMAN S DAIRY	Pacific Telephone

### 2340 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2015	CTGY	Cole Information Services
2009	LFCU BROKERAGE INC	Cole Information Services
	LOCKHEED MARTIN CORP	Cole Information Services
	UNIV OF LAVERNE SCHOOL OF CONTINUING	Cole Information Services
	UNIVERSITY OF LAVERNE	Cole Information Services

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2009	LOCKHEED FEDERAL CREDIT UNION	Cole Information Services
2006	CTGY	Haines Company, Inc.
2004	OCCUPANT UNKNOWN	Cole Information Services
	LOCKHEED MARTIN CORP	Cole Information Services
1994	LOCKHEED FEDERAL CREDIT UNION	Cole Information Services
1991	University Of Laverne	Pacific Bell
	B &P The Spaceconnection Inc	Pacific Bell
	Daniell JR Engineering Co	Pacific Bell
	Main Office	Pacific Bell
	No Charge To Calling Party	Pacific Bell
	QUE	Pacific Bell
	Spaceconnection Inc The	Pacific Bell
1985	Lockheed Federal Credit Union Contd Operations Offhce	Pacific Bell
	Loan Department	Pacific Bell
	New Accounts	Pacific Bell
	QUE	Pacific Bell
	Share Drafts Tellers	Pacific Bell
	Statements	Pacific Bell
	Weber Aircraft Co Employees	Pacific Bell
1970	POLICH BENEDICT CONSTRUCTION CO INC	Pacific Telephone
	POLICH BENEDICT CONSTRUCTION CO INC	Pacific Telephone

### 2341 N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Queirolo David	Pacific Bell
	Queiros G	Pacific Bell
	Quelch Y	Pacific Bell

### 2228B N HOLLYWOOD WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	G M SIGNS	Pacific Telephone
	G M SIGNS INC	Pacific Telephone

### N LIMA ST

#### 2015 N LIMA ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Original Heidelberg Pretzel Co	Pacific Bell



## FINDINGS

### N SCREENLAND DR

#### 2220 N SCREENLAND DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	JOHANSON MONOLITHIC DIELECTRICS INC	Pacific Telephone

#### 2240 N SCREENLAND DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2015	PACIFIC TITLE ARCHIVES	Cole Information Services
2009	TYLIE JONES & ASSOCIATES INC	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	JONES TYLIE & ASSOCIATES	Cole Information Services
1980	AUTOMOTIVE JOBBER SUPPLY INC	Pacific Telephone

### SCREENLAND DR

#### 2240 SCREENLAND DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Century Council The	Pacific Bell
1985	From Van Nuys Telephones Call	Pacific Bell
1975	Automotive Jobber Supply Inc	Pacific Telephone

### VALHALLA DR

#### 3520 VALHALLA DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	QUANTEGY INC	Haines & Company, Inc.
	QUANTEGY INC	Haines & Company, Inc.
	AMPEX	Haines & Company, Inc.
1990	BARROW FABRICS INC OF CALIF BURBANK	Pacific Bell
1986	BARROW FABRICS INC OF CALIF BURBANK	Pacific Bell
1981	BARROW FABRICS INC OF CALIF BURBANK	Pacific Telephone
1980	BARROW FABRICS INC OF CALIF	Pacific Telephone
	BARROW FABRICS INC OF CALIF	Pacific Telephone

#### 3540 VALHALLA DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	ORGATECH OMEGALUX	Haines & Company, Inc.

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1986	STOR-WEL SYSTEMS BURBANK	Pacific Bell
1985	LB Industries plastic hdwe	Pacific Bell
	Stor Wel Systems	Pacific Bell
1981	STOR- WEL SYSTEMS BURBANK	Pacific Telephone
1980	STOR-WEL SYSTEMS	Pacific Telephone
	L B INDUSTRIES PLASTC HDWE	Pacific Telephone

### 3620 VALHALLA DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	XXXX	Haines & Company, Inc.

### VANOWEN PL

#### 3714 VANOWEN PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1956	V CAFE	Pacific Telephone

### VANOWEN ST

#### 3310 VANOWEN ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2001	INSURANCE COURIER SERVICES	Haines & Company, Inc.
1991	cuae Leak Dtection	Pacific Bell
	Accurate Lazer Graphics 84	Pacific Bell
	Accurate Laser Internat I	Pacific Bell
1980	SEATON-WILSON DIV OF SYSTRON-DONNER CORP CPLNG	Pacific Telephone
	FILTRACO DIV SEATON WILSON INC	Pacific Telephone
1976	Seaton Wilson Inc Subsidiary Of Systron Donner Corp cplngs	Pacific Telephone
	Filtraco Div Seaton Wilson Inc	Pacific Telephone
1975	Filtraco Div Seaton Wilson Inc	Pacific Telephone
	Seaton Wilson Inc Subsidiary Of Systron Donner Corp cplngs	Pacific Telephone
1970	SIERRA SCHROEDER CONTROLS A DIV OF CAL-VAL RESEARCH & DEVELOPMENT CORP	Pacific Telephone
	ROBINTECH INC	Pacific Telephone
	ROBINSON TECHNICAL PRODUCTS	Pacific Telephone
	SIERRA SCHROEDER CONTROLS A DIV OF CAL-VAL RESEARCH & DEVELOPMENT CORP	Pacific Telephone

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ROBINTECH INC	Pacific Telephone
	ROBINSON TECHNICAL PRODUCTS	Pacific Telephone
1962	PESCO PRODUCTS DIV OF BORGWARNER CORP	Pacific Telephone
	BORG-WARNER CORP PESCO PRODUCTS DIV PESCO PRODUCTS DIVISION OF BORG-WARNER	Pacific Telephone
	PESCO PRODUCTS DIV OF BORG- ARNER CORP	Pacific Telephone
1960	PESCO PRODUCTS DIV OF BORG- WARNER CORP	Pacific Telephone

### 3714 VANOWEN ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	H & H AUTO WRECKERS	Pacific Telephone
	V CAFE	Pacific Telephone

### VANOWEN ST W

#### 3310 VANOWEN ST W

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	ROBINTECH INC ELECTRO MECHANICAL DIV PARTS MFR	R. L. Polk & Co.

### W PACIFIC AVE

#### 3513 W PACIFIC AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1981	STEPHENS ELECTRONICS INC BURBANK	Pacific Telephone
1980	STEPHENS ELECTRONICS INC	Pacific Telephone
1976	Stephens Electronics Inc	Pacific Telephone

#### 3519 W PACIFIC AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Jones Tylie & Associates Inc	Pacific Bell
1985	Artisan Brass Products	Pacific Bell
1980	ARTISAN BRASS PRODUCTS	Pacific Telephone

#### 3521 W PACIFIC AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	REINER DOROTHY B COURT REPORTING	Pacific Telephone



## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	BURBANK COLLEGE OF COURT REPORTING BURBANK	Pacific Telephone

### W PACIFIC LN

#### 3513 W PACIFIC LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1971	STEPHENS ELECTRONICS INC	Pacific Telephone
1970	SAV-ON ASSEMBLY CO	Pacific Telephone
	SAV-ON ASSEMBLY CO	Pacific Telephone
1967	SAV ON ASSEMBLY CO	Pacific Telephone
1962	B & M ENGINEERING CO TOOL DESGNRS	Pacific Telephone
1956	B & M ENGINEERING CO TOOL DESGNRS	Pacific Telephone

#### 3519 W PACIFIC LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	KINDRED AVIATION & AIRCRAFT ENGINE SUPPLY CO	Pacific Telephone
	KINDRED AVIATION & AIRCRAFT ENGINE SUPPLY CO	Pacific Telephone
1958	Kindred Aviation & Aircraft Engine Supply Co	Pacific Telephone
1956	KINDRED AVIATION CO	Pacific Telephone

### W VALHALLA DR

#### 3520 W VALHALLA DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2015	FLASHPOINT GRAPHIX	Cole Information Services
2009	PACIFIC TITLE ARCHIVES	Cole Information Services
2006	ARCHIVES	Haines Company, Inc.
	PACTITLE	Haines Company, Inc.
2004	QUANTEGY INC	Cole Information Services
1999	AMPEX	Cole Information Services
	QUANTEGY INCORPORATED	Cole Information Services
1994	BARROW FABRICS INC OF CALIF	Cole Information Services

#### 3540 W VALHALLA DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1999	ORGATECH OMEGALUX	Cole Information Services

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1994	ORGATECH AMERICA	Cole Information Services
	WESTERN LIGHTING INDUSTRIES	Cole Information Services

### 3620 W VALHALLA DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2015	DIGITAL 2 VISUAL	Cole Information Services
1994	VISTA SCENERY INC	Cole Information Services
	VISTA ELECTRONICS INC	Cole Information Services
	4 WARD PRODUCTION INC	Cole Information Services

### 3640 W VALHALLA DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2015	PACIFIC TITLE ARCHIVES	Cole Information Services

### W VANOWEN ST

#### 3310 W VANOWEN ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2015	EVOLUTION FILM	Cole Information Services
2009	EVOLUTION MEDICAL	Cole Information Services
	EVOLUTION FILM & TAPE INC	Cole Information Services
2006	EVOLUTION FILM	Haines Company, Inc.
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	INSURANCE COURIER SERVICES	Cole Information Services
1994	ACCURATE LASER INTL	Cole Information Services

## FINDINGS

### ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
2015 N LIMA ST	2015, 2009, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1994, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
2201 N HOLLYWOOD WAY	2015, 2009, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1994, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
2201 N HOLLYWOOD WAY	2006, 2003, 2001, 2000, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
2205 HOLLYWOOD BOWL RD	2015, 2009, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1994, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
2205 HOLLYWOOD WAY N	2015, 2009, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1994, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
2205 N HOLLYWOOD WAY	2015, 2009, 2004, 2003, 2001, 2000, 1999, 1996, 1994, 1992, 1990, 1981, 1980, 1972, 1971, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
2205 N HOLLYWOOD WAY	2015, 2006, 2003, 2001, 2000, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
2207 HOLLYWOOD WAY N	2015, 2009, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1994, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920





















## FINDINGS

### Address Researched

3714 VANOWEN PL

3714 VANOWEN ST

### Address Not Identified in Research Source

2015, 2009, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1994, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

2015, 2009, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1994, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

**TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE**

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

**Address Researched**

2311 N Hollywood Way

**Address Not Identified in Research Source**

2003, 2000, 1996, 1995, 1994, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1951, 1949, 1948, 1947, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920



# **BURBANK FIRE DEPT**

**2311 N Hollywood Way**



2311 N Hollywood Way



**BURBANK FIRE DEPARTMENT**  
**HAZARDOUS MATERIALS DIVISION**  
 311 East Orange Grove Avenue, Burbank CA 91502-1221

00745

**BUSINESS PLAN ANNUAL RENEWAL CERTIFICATION**

**Hazardous Materials Inventory**

I have reviewed my inventory and certify the following:

- Add:** Complete one **Hazardous Materials Inventory—Chemical Description Form** checking the “Add” box to add each hazardous material that you have not previously disclosed. Submit one form per chemical.
- Delete:** Write “delete” across the **Hazardous Materials Inventory—Chemical Description Form** checking the “Delete” box to delete any previously disclosed hazardous material that is no longer used. Submit one form per chemical.
- Revise:** Write the correct amounts, locations, or container type that has changed checking the “Revise” box to reflect the accuracy of any previously reported hazardous material on each **Hazardous Materials Inventory—Chemical Description Form**. Submit one form per chemical.
- EPCRA Compliance:** Fill in the EPCRA field on the **Hazardous Materials Inventory—Chemical Description Form** and sign for any hazardous material type and quantity identified on 40 CFR Part 355, Appendix A—The List of Extremely Hazardous Substances and Their Threshold Planning Quantities.
- No Change:** The previously submitted inventory is accurate.

**Consolidated Contingency Plan (CCP)**

I have reviewed the CCP and certify that the CCP on file with your agency is accurate and current in accordance with the following conditions:

- Modification:** Significant changes in facility personnel or operations required a revision of the CCP. Complete, sign, and submit a new CCP with this form.
- No Change:** There have not been any significant changes in the facility’s personnel and operations that require a revision to the current CCP.

**Cal-ARP Program**

I reviewed the threshold quantities in Section 2770.5 of Title 19 of the California Code of Regulations and certify that any regulated substance complies with the following registration requirement:

- Add:** Complete the **Cal-ARP Program Regulated Substance Registration form** only if the regulated substance is at or above the threshold quantity (TQ). Submit one form per chemical.
- No Change:** The previously submitted registration for regulated substance(s) is accurate.

**ANNUAL CERTIFICATION**

I certify under penalty of law that I have personally examined the information submitted herein and believe the submitted information is complete, accurate, and up to date. Also, no hazardous materials subject to the inventory requirements of this Chapter, (California Health & Safety Code Chapter 6.95) are being handled that are not listed on the most recently submitted annual inventory form.

Ricardo Castriello  
 Print Name of Document Preparer

Kathryn J. Kolder  
 Print Name of Owner/Operator

[Signature]  
 Signature of Owner/Operator

Fry's Electronics Inc  
 Business Name

2311 N Hollywood WAY  
 Site Address

2/18/08  
 Date

**Submit this packet to the above address before March 1, 2008 to avoid penalties or other enforcement options.**

Obtain additional forms from our website at <http://www.burbankfire.us/mainpage.htm>.  
 or from the Burbank Fire Department at (818) 238-3473.



**UNIFIED PROGRAM (UP) FORM  
BUSINESS OWNER / OPERATOR IDENTIFICATION**

00745

NEW BUSINESS  OUT OF BUSINESS  REVISE/UPDATE (EFFECTIVE 01/01/2008) PAGE 1 OF 2

**I. IDENTIFICATION**

FACILITY ID# (CUPA #)	<b>AR0013833</b>	BEGINNING DATE	<b>1/1/2008</b>	ENDING DATE	<b>12/31/2008</b>
BUSINESS NAME (Same as FACILITY NAME or DBA - Doing Business As)			BUSINESS PHONE		
<b>Fry's Electronics Inc</b>			<b>818-526-8100</b>		
BUSINESS SITE ADDRESS					
<b>2311 N Hollywood WAY</b>					
CITY	STATE	ZIP CODE			
<b>Burbank</b>	<b>CA</b>	<b>91505</b>			
DUN & BRADSTREET NUMBER			SIC CODE (4 DIGIT #)		
COUNTY	UNINCORPORATED				
<b>Los Angeles</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
BUSINESS OPERATOR			BUSINESS OPERATOR PHONE		
<b>John Goyette</b>			<b>818-526-8159</b>		

**II. BUSINESS OWNER**

OWNER NAME	OWNER PHONE	
<b>Fry's Electronics Inc</b>	<b>408-487-4500</b>	
OWNER MAILING ADDRESS		
<b>600 E. Brokaw Rd.</b>		
CITY	STATE	ZIP CODE
<b>San Jose</b>	<b>CA</b>	<b>95112</b>

**III. ENVIRONMENTAL CONTACT**

CONTACT NAME	CONTACT PHONE	
<b>Kevin Robins</b>	<b>408-487-4500</b>	
CONTACT MAILING ADDRESS		
<b>600 E. Brokaw Rd.</b>		
CITY	STATE	ZIP CODE
<b>San Jose</b>	<b>CA</b>	<b>95112</b>

**IV. EMERGENCY CONTACTS**

-PRIMARY-	IV. EMERGENCY CONTACTS	-SECONDARY-
NAME	NAME	NAME
<b>John Goyette</b>	<b>Everett Martinez</b>	<b>Javier Arellano</b>
TITLE	TITLE	TITLE
<b>Store Manager</b>	<b>Loss Prevention Manager</b>	<b>Carmen Barragan</b>
BUSINESS PHONE	BUSINESS PHONE	BUSINESS PHONE
<b>818-526-8159</b>	<b>818-526-8155</b>	<b>818-526-8155</b>
24-HOUR PHONE	24-HOUR PHONE	24-HOUR PHONE
<b>818-526-8159</b>	<b>818-526-8155</b>	<b>818-526-8155</b>
CELL #	CELL #	CELL #
<b>818-318-2488</b>	<b>(310) 493-0241</b>	<b>323-273-8204 (818) 415-6169</b>

**V. ADDITIONAL LOCALLY COLLECTED INFORMATION**

NUMBER OF EMPLOYEES	FEDERAL TAX IDENTIFICATION NUMBER
	<b>77-0062030</b>

**VI. MAILING / BILLING INFORMATION**

NAME	CONTACT	PHONE NUMBER	
<b>Fry's Electronics Inc</b>	<b>Ricardo Castrillo</b>	<b>408-487-4702</b>	
ADDRESS	CITY	STATE	ZIP CODE
<b>600 E Brokaw Rd</b>	<b>San Jose</b>	<b>CA</b>	<b>95112</b>

**CERTIFICATION**

Certification: Based on my inquiry of those individuals responsible for obtaining the information, I certify under penalty of law that I have personally examined and am familiar with the information submitted and believe the information is true, accurate, and complete.

SIGNATURE OF OWNER/OPERATOR OR DESIGNATED REPRESENTATIVE	DATE	NAME OF DOCUMENT PREPARER
<i>[Signature]</i>	<b>2/18/08</b>	<b>Ricardo Castrillo</b>
NAME OF SIGNER (PRINT)	TITLE OF SIGNER	
<b>Kathryn J. Kolder</b>	<b>Executive Vice President</b>	





**UNIFIED PROGRAM (UP) FORM  
BUSINESS ACTIVITIES**

00745

YEAR 2008

PAGE 2 OF 2

**I. FACILITY IDENTIFICATION**

FACILITY ID # (CUPA #)	<b>AR0013833</b>	EPA ID # (Hazardous Waste Only)
BUSINESS NAME (Same as Facility Name of DBA-Doing Business As)		
<b>Fry's Electronics Inc</b>		

**II. ACTIVITIES DECLARATION**

**NOTE: Please submit the Business Owner/Operator Identification Form with this Page**

Does your facility . . .	If Yes, please complete these pages of the UPCF. . .
<p><b>A. HAZARDOUS MATERIALS</b> Have on site (for any purpose) hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in ASTs and USTs); or the applicable Federal threshold quantity for an extremely hazardous substance specified in 40 CFR Part 355, Appendix A or B; or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70?</p>	<p><input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> NO 4</p> <p>✓ HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESC ✓ CONSOLIDATED CONTINGENCY PLAN (Section I and Site Map(s)) ✓ TRAINING PLAN</p>
<p><b>B. UNDERGROUND STORAGE TANKS (USTs)</b> 1. Own or operate underground storage tanks? 2. Intend to upgrade existing or install new USTs?  3. Need to report closing a UST?</p>	<p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 5 <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 6  <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 7</p> <p>✓ UST FACILITY ✓ UST TANK (one page per tank) ✓ UST FACILITY ✓ UST TANK (one per tank) ✓ UST INSTALLATION - CERTIFICATE OF COMPLIANCE (one page per tank) ✓ UST TANK (closure portion –one page per tank)</p>
<p><b>C. ABOVE GROUND PETROLEUM STORAGE TANKS (ASTs)</b> Own or operate ASTs above these thresholds: any tank capacity is greater than 660 gallons, or the total capacity for the facility is greater than 1,320 gallons?</p>	<p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 8</p> <p>NO FORM REQUIRED TO CUPA's</p>
<p><b>D. HAZARDOUS WASTE</b> 1. Generate hazardous waste?  2. Recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC 25143.2)? 3. Treat hazardous waste on site?  4. Treatment subject to financial assurance requirements (for Permit by Rule and Conditional Authorization)? 5. Consolidate hazardous waste generated at a remote site? 6. Need to report the closure/removal of a tank that was classified as hazardous waste and cleaned on-site?</p>	<p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 9 <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 10 <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 11 <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 12 <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 13 <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 14</p> <p>✓ EPA ID NUMBER – provide at the top of this page. ✓ As a generator, answer YES to Item E2b and complete Waste Generator Form. ✓ RECYCLABLE MATERIALS REPORT ✓ ON-SITE HAZARDOUS WASTE TREATMENT – FACILITY ✓ ON-SITE HAZARDOUS WASTE TREATMENT – UNIT (one page per unit) ✓ CERTIFICATION OF FINANCIAL ASSURANCE ✓ REMOTE WASTE / CONSOLIDATION SITE ANNUAL NOTIFICATION ✓ HAZARDOUS WASTE TANK CLOSURE CERTIFICATION</p>
<p><b>E. LOCAL REQUIREMENTS</b> 1. REGULATED SUBSTANCES Have Regulated Substances (RS) including Extremely Hazardous Substances (EHS) stored on site at greater than the threshold planning quantities established by the California Accidental Release Program (CalARP)?  2. OTHER REQUIREMENTS a. Have hazardous materials stored on site at or above a threshold amount established by a CUPA's or PA's local ordinance? b. Required by a CUPA or PA to provide other information?</p>	<p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 15a <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 15b <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 15c</p> <p>In addition to Hazardous Materials requirements, complete: ✓ REGULATED SUBSTANCE REGISTRATION ✓ RISK MANAGEMENT PLAN (when required)  ✓ Consult local CUPA or PA for added reporting requirements. ✓ WASTE GENERATOR FORM (LA County)</p>



CITY OF BURBANK  
311 ORANGE GROVE AVENUE, BURBANK CALIFORNIA 91502-1221  
(818) 238-3473  
FAX (818) 238-3479

FIRE DEPARTMENT

January 10, 2008

RICARDO CASTRILLO  
FRY'S ELECTRONICS INC  
600 E BROKAW RD  
SAN JOSE CA 95112

Subject: **00745 – FRY'S ELECTRONICS INC  
2311 N HOLLYWOOD WAY**

California Health & Safety Code, Chapter 6.95, Article 1 and Burbank Municipal Code §15-1-2701-5.1 require all businesses that store, use, or handle hazardous materials in quantities that meet or exceed the thresholds established in Health & Safety Code §25503.6 (as indicated below), to submit a completed Hazardous Materials Inventory Disclosure Statement annually. Our records indicate that you meet these requirements.

The established thresholds are a hazardous material or a mixture containing a hazardous material in an aggregate quantity at any one time during the reporting year equal to or greater than a **TOTAL weight of 500 pounds**, or a **TOTAL volume of 55 gallons**, or a **TOTAL volume of 200 cubic feet** at standard temperature and pressure for compressed gas, or the threshold quantity (if less than 500 pounds) for regulated substances. A mixture that contains one percent (1%) or more of a hazardous ingredient is a hazardous material. A mixture that contains one tenth of one percent (.1%) or more of a carcinogen is a hazardous material. The *California Accidental Release Prevention (CalARP) Program* requires all regulated substance handlers to register with the Burbank Fire Department. Our records indicate that you meet these requirements.

These Hazardous Materials Inventory Disclosure forms are currently part of a Consolidated Permit Package issued by the Los Angeles County Certified Unified Program Agency (LACoCUPA). Please carefully read the instructions, complete the enclosed forms, and sign where indicated. Return **ORIGINAL** forms to the Burbank Fire Department with original signatures by **March 1, 2008**. Failure to submit a properly completed and signed Business Plan Annual Renewal Certification statement, signed Business Owner / Operator Identification page, and Business Activities page by the due date could result in civil penalties. A self-addressed envelope is enclosed for your convenience.


**BE SURE TO RETAIN A COPY FOR YOUR RECORDS.**

See attached schedule for your submittal requirements.

If you have ...	Then complete, sign, and submit the following forms:
no changes to your inventory or Consolidated Contingency Plan,	<ol style="list-style-type: none"> <li>1. Business Plan Annual Renewal Certification Form – signed;</li> <li>2. HazMat Owner and Operator Identification page – signed; and</li> <li>3. HazMat Business Activities page</li> </ol>
no changes to your inventory or Consolidated Contingency Plan, but you are subject to EPCRA,	<ol style="list-style-type: none"> <li>1. Business Plan Annual Renewal Certification Form – signed;</li> <li>2. HazMat Owner and Operator Identification page – signed;</li> <li>3. HazMat Business Activities page; and</li> <li>4. Hazardous Materials Inventory Statement — sign each hazardous material being reported as an extremely hazardous substance.</li> </ol>
changes to your inventory,	<ol style="list-style-type: none"> <li>1. Business Plan Annual Renewal Certification Form – signed;</li> <li>2. HazMat Owner and Operator Identification page – signed;</li> <li>3. HazMat Business Activities page; and</li> <li>4. Hazardous Materials Inventory — Chemical Description Form to add new reportable hazardous materials. Make as many copies as you need to disclose each reportable hazardous material that you will handle in 2008;</li> </ol>
changes to your Consolidated Contingency Plan,	<ol style="list-style-type: none"> <li>1. Business Plan Annual Renewal Certification Form – signed;</li> <li>2. HazMat Owner and Operator Identification page – signed;</li> <li>3. HazMat Business Activities page; and</li> <li>4. A revised Consolidated Contingency Plan form.</li> </ol>
a chemical that is at or above the threshold quantity for a regulated substance.	<ol style="list-style-type: none"> <li>1. Business Plan Annual Renewal Certification Form – signed;</li> <li>2. HazMat Owner and Operator Identification page – signed;</li> <li>3. HazMat Business Activities page; and</li> <li>4. A Cal-ARP Program Regulated Substances Registration form.</li> </ol>

**Forms can now be downloaded from our website at <http://www.Burbankfire.US/Mainpage.Htm>. These forms may be completed on your computer by using Microsoft Word. If you are unable to download the required forms from our website, or have questions, or need assistance, please contact the Fire Prevention Bureau at (818) 238-3473.**

Thank you for your cooperation.

  
Jorge Martinez, Fire Safety Analyst

/md





**HAZARDOUS MATERIALS REPORTING FORMS**

Enclosed is your most recent Hazardous Materials Inventory Statement based on the latest information available. Please carefully review it for accuracy. The requirements for submitting a consolidated Contingency Plan have changed (see \* on page 1). If you require assistance in completing these forms, please feel free to contact the Burbank Fire Department, Hazardous Materials Division, at (818) 238-3475, Monday through Friday 7:30 to 9:00 AM and 1:00 to 4:00 PM.

Return to the Burbank Fire Department this Re-Certification Procedure Page signed and dated along with a newly completed and signed Business Activities Form, Business Owner/Operator Identification Form, and any other appropriate and/or requested forms on or before March 1. Failure to complete and return these forms by March 1 may result in fines and penalties. Keep a copy of the entire package for your records. To avoid late penalties, this Department recommends use of CERTIFIED MAIL to ensure delivery of these forms before the March 1 deadline.

**RE-CERTIFICATION PROCEDURE**

Please check the appropriate box(es)

**HAZARDOUS MATERIALS:**

- Delete:** If you no longer handle a material on the Inventory Statement provided, draw a line through the discontinued material, and complete a Chemical Description form writing "DELETE" across the form for each material you no longer handle.
- Add:** If you are handling materials not previously disclosed, make copies of Chemical Description form and complete all information on the form (one form per material).
- Revise/Update:** Cross out any errors on the Inventory Statement and Clearly Print the correct information. Make copies of Chemical Description form and complete all information on the form indicating "REVISE" (one form per material).
- No Change:** There has been no change in the quantity of any hazardous material as reported, return the Inventory Statement we provided along with a newly completed and signed Business Activities Form, Business Owner/Operator Identification Form, and this Re-Certification Procedure page signed and dated.

**CONSOLIDATED CONTINGENCY PLAN:**

- Change:** Mark this Box if you are updating the Consolidated Contingency Plan.
- No Change:** Mark this box if the Consolidated Contingency Plan on file is correct and complete.

**REGULATED SUBSTANCE REGISTRATION:**

- Regulated Substance Registration:** If you are handling a Regulated Substance not previously disclosed, you must also complete the Regulated Substance Registration Form. Complete only if substance is at or above threshold Quantity (TQ). A list of Regulated Substances is attached for reference.

BURBANK FIRE DEPT  
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THE SUBMITTAL OF THE HAZARDOUS MATERIALS BURBANK REPORTING FORMS CONTAIN ALL OF THE REQUIRED STATE & FEDERAL INVENTORY INFORMATION AND SATIFIES THE REQUIREMENTS OF BOTH STATE & FEDERAL REGULATIONS.

**ANNUAL CERTIFICATION**

I certify under penalty of law that I have personally examined the information submitted herein and believe the submitted information is complete, accurate, and up to date. Also, no hazardous materials subject to the inventory requirements of this chapter, (California Health & Safety Code Chapter 6.95) are being handled that are not listed on the most recently submitted annual inventory form.

Ricardo Castrillo  
 Print Name of Document Preparer

Kathryn J. Kolder  
 Print Name of Owner/Operator

Signature of Owner/Operator

Fry's Electronics Inc  
 Business Name

2311 N Hollywood Way  
 Facility/Site Address

\_\_\_\_\_  
 Date



**UNIFIED PROGRAM (UP) FORM  
BUSINESS OWNER / OPERATOR IDENTIFICATION**

00745

NEW BUSINESS  OUT OF BUSINESS  REVISE/UPDATE (EFFECTIVE \_\_/\_\_/\_\_) PAGE 1 OF 2

**I. IDENTIFICATION**

FACILITY ID# (CUPA #)	<b>AR0013833</b>	BEGINNING DATE	<b>1/1/2007</b>	ENDING DATE	<b>12/31/2007</b>
BUSINESS NAME (Same as FACILITY NAME or DBA - Doing Business As)			BUSINESS PHONE		
<b>Fry's Electronics Inc</b>			<b>818-526-8100</b>		
BUSINESS SITE ADDRESS					
<b>2311 N Hollywood Way</b>					
CITY	<b>Burbank</b>	STATE	<b>CA</b>	ZIP CODE	<b>91505</b>
DUN & BRADSTREET NUMBER			SIC CODE (4 DIGIT #)		
COUNTY	<b>Los Angeles</b>	UNINCORPORATED		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
BUSINESS OPERATOR			BUSINESS OPERATOR PHONE		
<b>John Goyette</b>			<b>818-526-8159</b>		

**II. BUSINESS OWNER**

OWNER NAME	<b>Fry's Electronics Inc</b>	OWNER PHONE	<b>408-487-4500</b>
OWNER MAILING ADDRESS			
<b>600 E Brokaw Rd</b>			
CITY	<b>San Jose</b>	STATE	<b>CA</b>
		ZIP CODE	<b>95112</b>

**III. ENVIRONMENTAL CONTACT**

CONTACT NAME	<b>Kevin Robins</b>	CONTACT PHONE	<b>408-487-4500</b>
CONTACT MAILING ADDRESS			
<b>600 E. Brokaw Rd</b>			
CITY	<b>San Jose</b>	STATE	<b>Ca</b>
		ZIP CODE	<b>95112</b>

**IV. EMERGENCY CONTACTS**

-PRIMARY-	IV. EMERGENCY CONTACTS	-SECONDARY-	
NAME	<b>John Goyette</b>	NAME	<b>Oscar Servellen Javier Arellano</b>
TITLE	<b>Store Manager</b>	TITLE	<b>Loss Prevention Manager</b>
BUSINESS PHONE	<b>818-526-8159</b>	BUSINESS PHONE	<b>*818-562-8155* (818) 526-8155</b>
24-HOUR PHONE	<b>818-526-8159</b>	24-HOUR PHONE	<b>818-562-8155 (818) 526-8155</b>
PAGER #	<b>818-318-2480</b>	PAGER #	<b>848-294-6759 (323) 273-3201</b>

**V. ADDITIONAL LOCALLY COLLECTED INFORMATION**

NUMBER OF EMPLOYEES	133b	FEDERAL TAX IDENTIFICATION NUMBER	133c
		<b>77-0062030</b>	

**MAILING / BILLING INFORMATION**

NAME	<b>Fry's Electronics Inc</b>	CONTACT	<b>Ricardo Castrillo</b>	PHONE NUMBER	<b>4084874702</b>
ADDRESS	<b>600 E Brokaw Rd</b>	CITY	<b>San Jose</b>	STATE	<b>CA</b>
		ZIP CODE	<b>95112</b>		

**CERTIFICATION**

Certification: Based on my inquiry of those individuals responsible for obtaining the information, I certify under penalty of law that I have personally examined and am familiar with the information submitted and believe the information is true, accurate, and complete.			
SIGNATURE OF OWNER/OPERATOR OR DESIGNATED REPRESENTATIVE	DATE	NAME OF DOCUMENT PREPARER	
	<b>4/4/07</b>	<b>Ricardo Castrillo</b>	
NAME OF SIGNER (PRINT)	TITLE OF SIGNER		
<b>Kathryn J. Kolder</b>	<b>Executive Vice President</b>		



**UNIFIED PROGRAM (UP) FORM  
BUSINESS ACTIVITIES**

00745

YEAR 2007

PAGE 2 OF 2

**I. FACILITY IDENTIFICATION**

FACILITY ID # (CUPA #)	<b>AR0013833</b>	EPA ID # (Hazardous Waste Only)
BUSINESS NAME (Same as Facility Name of DBA-Doing Business As)		
<b>Fry's Electronics Inc</b>		

**II. ACTIVITIES DECLARATION**

**NOTE: Please submit the Business Owner/Operator Identification Form with this Page**

Does your facility . . .	If Yes, please complete these pages of the UPCF . . .
<b>A. HAZARDOUS MATERIALS</b> Have on site (for any purpose) hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in ASTs and USTs); or the applicable Federal threshold quantity for an extremely hazardous substance specified in 40 CFR Part 355, Appendix A or B; or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 4 <input checked="" type="checkbox"/> HAZARDOUS MATERIALS INVENTORY - CHEMICAL DESC <input checked="" type="checkbox"/> CONSOLIDATED CONTINGENCY PLAN (Section I and Site Map(s)) <input checked="" type="checkbox"/> TRAINING PLAN
<b>B. UNDERGROUND STORAGE TANKS (USTs)</b> 1. Own or operate underground storage tanks? 2. Intend to upgrade existing or install new USTs? 3. Need to report closing a UST?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 5 <input checked="" type="checkbox"/> UST FACILITY <input checked="" type="checkbox"/> UST TANK (one page per tank) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 6 <input checked="" type="checkbox"/> UST FACILITY <input checked="" type="checkbox"/> UST TANK (one per tank) <input checked="" type="checkbox"/> UST INSTALLATION - CERTIFICATE OF COMPLIANCE (one page per tank) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 7 <input checked="" type="checkbox"/> UST TANK (closure portion -one page per tank)
<b>C. ABOVE GROUND PETROLEUM STORAGE TANKS (ASTs)</b> Own or operate ASTs above these thresholds: any tank capacity is greater than 660 gallons, or the total capacity for the facility is greater than 1,320 gallons?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 8 NO FORM REQUIRED TO CUPA's
<b>D. HAZARDOUS WASTE</b> 1. Generate hazardous waste? 2. Recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC 25143.2)? 3. Treat hazardous waste on site? 4. Treatment subject to financial assurance requirements (for Permit by Rule and Conditional Authorization)? 5. Consolidate hazardous waste generated at a remote site? 6. Need to report the closure/removal of a tank that was classified as hazardous waste and cleaned on-site?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 9 <input checked="" type="checkbox"/> EPA ID NUMBER - provide at the top of this page. <input checked="" type="checkbox"/> As a generator, answer YES to Item E2b and complete Waste Generator Form. <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 10 <input checked="" type="checkbox"/> RECYCLABLE MATERIALS REPORT <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 11 <input checked="" type="checkbox"/> ON-SITE HAZARDOUS WASTE TREATMENT - FACILITY <input checked="" type="checkbox"/> ON-SITE HAZARDOUS WASTE TREATMENT - UNIT (one page per unit) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 12 <input checked="" type="checkbox"/> CERTIFICATION OF FINANCIAL ASSURANCE <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 13 <input checked="" type="checkbox"/> REMOTE WASTE / CONSOLIDATION SITE ANNUAL NOTIFICATION <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 14 <input checked="" type="checkbox"/> HAZARDOUS WASTE TANK CLOSURE CERTIFICATION
<b>E. LOCAL REQUIREMENTS</b> 1. REGULATED SUBSTANCES Have Regulated Substances (RS) including Extremely Hazardous Substances (EHS) stored on site at greater than the threshold planning quantities established by the California Accidental Release Program (CalARP)? 2. OTHER REQUIREMENTS a. Have hazardous materials stored on site at or above a threshold amount established by a CUPA's or PA's local ordinance? b. Required by a CUPA or PA to provide other information?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 15a <input checked="" type="checkbox"/> In addition to Hazardous Materials requirements, complete: <input checked="" type="checkbox"/> REGULATED SUBSTANCE REGISTRATION <input checked="" type="checkbox"/> RISK MANAGEMENT PLAN (when required) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 15b <input checked="" type="checkbox"/> Consult local CUPA or PA for added reporting requirements. <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 15c <input checked="" type="checkbox"/> WASTE GENERATOR FORM (LA County)





Corporate Office  
600 E. Brokaw Road  
San Jose, CA 95112  
Phone 408-487-4743  
Fax 408-487-4741

BURBANK FIRE DEPT.

11 APR 07 15 57

Golden State Overnight

March 24, 2004

Burbank Fire Department  
Hazardous Materials Specialist  
**Attn Devin Burns**  
311 East Orange Grove Ave.  
Burbank, CA 91502 - 1221

**Re: Hazardous Materials Consolidated Contingency Plan and Inventory  
Disclosure Statement: 2311 Hollywood Way Burbank, CA 91505**

Dear Mr. Burns:

Enclosed please find the above-referenced documents for our Burbank location, site #00745. As per you office instruction I am forwarding the executed and signed copy of the **CONSOLIDATED CONTINGENCY PLAN**.

Should you have any questions or need additional information, please do not hesitate to call me at (408) 487-4702.

Respectfully,

Ricardo Castrillo  
Paralegal

RPC/rpc  
Enclosure

BURBANK FIRE DEPT.  
12 APR 07 06 59



FIRE DEPARTMENT

CITY OF BURBANK  
311 ORANGE GROVE AVENUE, BURBANK CALIFORNIA 91502-1221  
(818) 238-3473  
FAX (818) 238-3479

January 10, 2007

Ricardo Castrillo  
Fry's Electronics Inc  
600 E Brokaw Rd  
San Jose CA 95112-

**SUBJECT: 00745 - FRY'S ELECTRONICS INC  
2311 N HOLLYWOOD WAY**

In July 1997, the City of Burbank became part of the Los Angeles County Certified Unified Program Agency (LACoCUPA). The LACoCUPA consolidates six environmental programs. The City of Burbank is responsible for the management of four of these six programs. They include Underground Storage Tanks, Hazardous Materials Disclosure and Response, Risk Management, and enforcement of the Hazardous Materials Management requirements of the Fire Code.

California Health & Safety Code, Chapter 6.95, Article 1 and Burbank Municipal Code §15-1-8001-3.3 require all businesses that store, use, or handle hazardous materials in quantities that meet or exceed the thresholds established in Health & Safety Code §25503.6, must submit a completed Hazardous Materials Inventory Disclosure Statement annually. Our records indicate that you meet these requirements.

Enclosed you will find the following forms which you are required to complete and submit to us by March 1, 2007:

✓ **The Hazardous Materials Annual Re-Certification Procedure**

A list of the hazardous materials identified at your facility may be included in the package. Review it carefully. You may complete and sign and submit the Annual Re-Certification Procedure for the Hazardous Materials Disclosure Report only, provided you can attest to the following:

- The most recent information submitted to the Burbank Fire Department is complete, accurate and up to date. (See attached list)
- There have been no changes in the quantities of hazardous materials as reported in the most recent submittal.
- No hazardous materials subject to the inventory reporting requirements are being handled that are not listed in the most recently submitted inventory report.
- The most recently submitted annual inventory report contains information required by Section 11022 of Title 42 of the United States Code.

FH

HAZARDOUS MATERIALS INVENTORY DISCLOSURE STATEMENT

00745 - 2311 N Hollywood Way

January 10, 2007

Page 2

✓ **The Facility Information Section**

Everyone is required to submit their signed Facility Information for 2007. This form has been filled out with the information we currently have on file. If there are any blanks, please complete this information. If there are any changes, please cross out the filled in information and write in your new information.

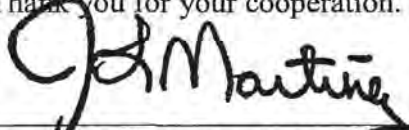
✓ **The Hazardous Materials Section**

These forms are provided for your convenience to be completed if you have added any new Hazardous Materials, deleted any Hazardous Materials, or if there are any changes in quantities or substances to be reported.

These Hazardous Materials Inventory Disclosure forms are currently part of a Consolidated Permit Package issued by the Los Angeles County Certified Unified Program Agency (LACoCUPA). Please carefully read the instructions, complete the appropriate forms, and sign where indicated. Return **ORIGINAL** forms to the Burbank Fire Department by **March 1, 2007**. Failure to submit a properly completed Inventory or signed Annual Re-Certification Statement by the due date could result in civil penalties. A self-addressed envelope is enclosed for your convenience. **BE SURE TO RETAIN A COPY FOR YOUR RECORDS.**

You can now request the Hazardous Materials and the Consolidated Contingency Plan forms to be sent to you by Email. These forms may be completed on your computer by using Microsoft Word. If you have any questions, or if we can be of any assistance, please contact the Fire Prevention Bureau at (818) 238-3475.

Thank you for your cooperation.



Jorge Martinez, Fire Safety Analyst

/md





**UNIFIED PROGRAM (UP) FORM  
BUSINESS OWNER / OPERATOR IDENTIFICATION**

00745

NEW BUSINESS  OUT OF BUSINESS  REVISE/UPDATE (EFFECTIVE \_\_/\_\_/\_\_) PAGE 1 OF 2

**I. IDENTIFICATION**

FACILITY ID# (CUPA #)	<b>AR0013833</b>	BEGINNING DATE	<b>1/1/2006</b>	ENDING DATE	<b>12/31/2006</b>
BUSINESS NAME (Same as FACILITY NAME or DBA - Doing Business As)			BUSINESS PHONE		
<b>Fry's Electronics Inc</b>			<b>8185268100</b>		
BUSINESS SITE ADDRESS					
<b>2311 N Hollywood Way</b>					
CITY	<b>Burbank</b>	STATE	<b>CA</b>	ZIP CODE	<b>91505</b>
DUN & BRADSTREET NUMBER			SIC CODE (4 DIGIT #)		
COUNTY	<b>Los Angeles</b>	UNINCORPORATED		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
BUSINESS OPERATOR			BUSINESS OPERATOR PHONE		
<b>John Goyette</b>			<b>8185268159</b>		

**II. BUSINESS OWNER**

OWNER NAME	<b>Fry's Electronics Inc</b>	OWNER PHONE	<b>4084874500</b>
OWNER MAILING ADDRESS			
<b>600 E Brokaw Rd</b>			
CITY	<b>San Jose</b>	STATE	<b>CA</b>
		ZIP CODE	<b>95112</b>

**III. ENVIRONMENTAL CONTACT**

CONTACT NAME	<b>Kevin Robins</b>	CONTACT PHONE	<b>408 487-4500</b>
CONTACT MAILING ADDRESS			
<b>600 E. Brokaw Rd</b>			
CITY	<b>San Jose</b>	STATE	<b>CA</b>
		ZIP CODE	<b>95112</b>

**IV. EMERGENCY CONTACTS**

-PRIMARY-		IV. EMERGENCY CONTACTS		-SECONDARY-	
NAME	<b>John Goyette</b>	NAME	<b>Oscar Servellon</b>	28	28
TITLE	<b>Store Manager</b>	TITLE	<b>Loss Prevention Manager</b>	FEB	29
BUSINESS PHONE	<b>818-526-8159</b>	BUSINESS PHONE	<b>818-562-8155</b>	CG	30
24-HOUR PHONE	<b>818-526-8159</b>	24-HOUR PHONE	<b>818-562-8155</b>	13	31
PAGER #	<b>818-318-2480</b>	PAGER #	<b>818-204-6759</b>		32

**V. ADDITIONAL LOCALLY COLLECTED INFORMATION**

NUMBER OF EMPLOYEES	133b	FEDERAL TAX IDENTIFICATION NUMBER	133c
		<b>77-0062030</b>	

**MAILING / BILLING INFORMATION**

NAME	<b>Fry's Electronics Inc</b>	CONTACT	<b>Ricardo Castrillo</b>	PHONE NUMBER	<b>4084874702</b>
ADDRESS	<b>600 E Brokaw Rd</b>	CITY	<b>San Jose</b>	STATE	<b>CA</b>
		ZIP CODE	<b>95112</b>		

**CERTIFICATION**

Certification: Based on my inquiry of those individuals responsible for obtaining the information, I certify under penalty of law that I have personally examined and am familiar with the information submitted and believe the information is true, accurate, and complete.

SIGNATURE OF OWNER/OPERATOR OR DESIGNATED REPRESENTATIVE	DATE	NAME OF DOCUMENT PREPARER
<i>[Signature]</i>	<b>2/14/06</b>	<b>LISA SOUZA</b>
NAME OF SIGNER (PRINT)	TITLE OF SIGNER	
<b>Kathryn J. Kolder</b>	<b>Executive Vice President</b>	



**UNIFIED PROGRAM (UP) FORM  
BUSINESS ACTIVITIES**

00745

YEAR 2006

PAGE 2 OF 2

**I. FACILITY IDENTIFICATION**

FACILITY ID # (CUPA #)	<b>AR0013833</b>	EPA ID # (Hazardous Waste Only)
BUSINESS NAME (Same as Facility Name of DBA-Doing Business As)		
<b>Fry's Electronics Inc</b>		

**II. ACTIVITIES DECLARATION**

**NOTE: Please submit the Business Owner/Operator Identification Form with this Page**

Does your facility . . .	If Yes, please complete these pages of the UPCF. . .
<p><b>A. HAZARDOUS MATERIALS</b></p> <p>Have on site (for any purpose) hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in ASTs and USTs); or the applicable Federal threshold quantity for an extremely hazardous substance specified in 40 CFR Part 355, Appendix A or B; or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70?</p>	<p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 4</p> <p> <input type="checkbox"/> HAZARDOUS MATERIALS INVENTORY - CHEMICAL DESC  <input type="checkbox"/> CONSOLIDATED CONTINGENCY PLAN (Section I and Site Map(s))  <input type="checkbox"/> TRAINING PLAN         </p>
<p><b>B. UNDERGROUND STORAGE TANKS (USTs)</b></p> <p>1. Own or operate underground storage tanks?</p> <p>2. Intend to upgrade existing or install new USTs?</p> <p>3. Need to report closing a UST?</p>	<p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 5</p> <p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 6</p> <p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 7</p> <p> <input type="checkbox"/> UST FACILITY  <input type="checkbox"/> UST TANK (one page per tank)  <input type="checkbox"/> UST FACILITY  <input type="checkbox"/> UST TANK (one per tank)  <input type="checkbox"/> UST INSTALLATION - CERTIFICATE OF COMPLIANCE (one page per tank)  <input type="checkbox"/> UST TANK (closure portion - one page per tank)         </p>
<p><b>C. ABOVE GROUND PETROLEUM STORAGE TANKS (ASTs)</b></p> <p>Own or operate ASTs above these thresholds: any tank capacity is greater than 660 gallons, or the total capacity for the facility is greater than 1,320 gallons?</p>	<p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 8</p> <p>NO FORM REQUIRED TO CUPA's</p>
<p><b>D. HAZARDOUS WASTE</b></p> <p>1. Generate hazardous waste?</p> <p>2. Recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC 25143.2)?</p> <p>3. Treat hazardous waste on site?</p> <p>4. Treatment subject to financial assurance requirements (for Permit by Rule and Conditional Authorization)?</p> <p>5. Consolidate hazardous waste generated at a remote site?</p> <p>6. Need to report the closure/removal of a tank that was classified as hazardous waste and cleaned on-site?</p>	<p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 9</p> <p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 10</p> <p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 11</p> <p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 12</p> <p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 13</p> <p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 14</p> <p> <input type="checkbox"/> EPA ID NUMBER - provide at the top of this page.  <input type="checkbox"/> As a generator, answer YES to Item E2b and complete Waste Generator Form.  <input type="checkbox"/> RECYCLABLE MATERIALS REPORT  <input type="checkbox"/> ON-SITE HAZARDOUS WASTE TREATMENT - FACILITY  <input type="checkbox"/> ON-SITE HAZARDOUS WASTE TREATMENT - UNIT (one page per unit)  <input type="checkbox"/> CERTIFICATION OF FINANCIAL ASSURANCE  <input type="checkbox"/> REMOTE WASTE / CONSOLIDATION SITE ANNUAL NOTIFICATION  <input type="checkbox"/> HAZARDOUS WASTE TANK CLOSURE CERTIFICATION         </p>
<p><b>E. LOCAL REQUIREMENTS</b></p> <p>1. REGULATED SUBSTANCES Have Regulated Substances (RS) including Extremely Hazardous Substances (EHS) stored on site at greater than the threshold planning quantities established by the California Accidental Release Program (CalARP)?</p> <p>2. OTHER REQUIREMENTS</p> <p>a. Have hazardous materials stored on site at or above a threshold amount established by a CUPA's or PA's local ordinance?</p> <p>b. Required by a CUPA or PA to provide other information?</p>	<p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 15a</p> <p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 15b</p> <p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 15c</p> <p>           In addition to Hazardous Materials requirements, complete:  <input type="checkbox"/> REGULATED SUBSTANCE REGISTRATION  <input type="checkbox"/> RISK MANAGEMENT PLAN (when required)  <input type="checkbox"/> Consult local CUPA or PA for added reporting requirements.  <input type="checkbox"/> WASTE GENERATOR FORM (L.A County)         </p>



# UNIFIED PROGRAM (UP) FORM HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

ADD     DELETE     REVISE    REPORTING YEAR **2006**    200    PAGE **1** OF **7**

## I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) <span style="float: right;">3</span>		
<b>Fry's Electronics, Inc.</b>		
CHEMICAL LOCATION <span style="float: right;">201</span>	CHEMICAL LOCATION CONFIDENTIAL (EPCRA) <span style="float: right;">202</span>	
<b>Cafe</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
FACILITY ID #	MAP# (optional) <span style="float: right;">203</span>	GRID# (optional) <span style="float: right;">204</span>
- 0 0 7 4 5		

## II. CHEMICAL INFORMATION

CHEMICAL NAME <span style="float: right;">205</span>	TRADE SECRET (If Subject to EPCRA, refer to instructions) <span style="float: right;">206</span>		
<b>Co2-Carbon Dioxide</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
COMMON NAME <span style="float: right;">207</span>	EHS (RS)* <span style="float: right;">208</span>		
<b>Co2-For Soda Fountain</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
CAS# <span style="float: right;">209</span>	*If EHS (RS) is "Yes", all amounts below must be in Lbs.		
<b>N/A</b>			
FIRE CODE HAZARD CLASSES (Complete if required by CUPA) <span style="float: right;">210</span>			
HAZARDOUS MATERIAL TYPE (Check one item only) <span style="float: right;">211</span>	RADIOACTIVE <span style="float: right;">212</span>	CURIES <span style="float: right;">213</span>	
<input type="checkbox"/> a. PURE <input type="checkbox"/> b. MIXTURE <input type="checkbox"/> c. WASTE	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
PHYSICAL STATE (Check one item only) <span style="float: right;">214</span>	LARGEST CONTAINER <span style="float: right;">215</span>		
<input type="checkbox"/> a. SOLID <input type="checkbox"/> b. LIQUID <input checked="" type="checkbox"/> c. GAS	<b>20 lbs.</b>		
FED HAZARD CATEGORIES (Check all that apply) <span style="float: right;">216</span>			
<input type="checkbox"/> a. FIRE <input type="checkbox"/> b. REACTIVE <input checked="" type="checkbox"/> c. PRESSURE RELEASE <input type="checkbox"/> d. ACUTE HEALTH <input type="checkbox"/> e. CHRONIC HEALTH			
AVERAGE DAILY AMOUNT <span style="float: right;">217</span>	MAXIMUM DAILY AMOUNT <span style="float: right;">218</span>	ANNUAL WASTE AMOUNT <span style="float: right;">219</span>	STATE WASTE CODE <span style="float: right;">220</span>
<b>4/20 lbs.</b>	<b>4/20 lbs.</b>	<b>N/A</b>	<b>N/A</b>
UNITS* (Check one item only)    * If EHS (RS), amount must be in pounds. <span style="float: right;">221</span>			DAYS ON SITE: <span style="float: right;">222</span>
<input type="checkbox"/> a. GALLONS <input type="checkbox"/> b. CUBIC FEET <input checked="" type="checkbox"/> c. POUNDS <input type="checkbox"/> d. TONS			<b>365</b>
STORAGE CONTAINER <span style="float: right;">223</span>			
<input type="checkbox"/> a. ABOVE GROUND TANK <input type="checkbox"/> e. PLASTIC/NONMETALLIC DRUM <input type="checkbox"/> i. FIBER DRUM <input type="checkbox"/> m. GLASS BOTTLE <input type="checkbox"/> q. RAIL CAR <input type="checkbox"/> b. UNDERGROUND TANK <input type="checkbox"/> f. CAN <input type="checkbox"/> j. BAG <input type="checkbox"/> n. PLASTIC BOTTLE <input type="checkbox"/> r. OTHER <input checked="" type="checkbox"/> c. TANK INSIDE BUILDING <input type="checkbox"/> g. CARBOY <input type="checkbox"/> k. BOX <input type="checkbox"/> o. TOTE BIN <input type="checkbox"/> d. STEEL DRUM <input type="checkbox"/> h. SILO <input type="checkbox"/> l. CYLINDER <input type="checkbox"/> p. TANK WAGON			
STORAGE PRESSURE <span style="float: right;">224</span>			
<input type="checkbox"/> a. AMBIENT <input type="checkbox"/> b. ABOVE AMBIENT <input type="checkbox"/> c. BELOW AMBIENT			
STORAGE TEMPERATURE <span style="float: right;">225</span>			
<input type="checkbox"/> a. AMBIENT <input type="checkbox"/> b. ABOVE AMBIENT <input type="checkbox"/> c. BELOW AMBIENT <input type="checkbox"/> d. CRYOGENIC			
%WT <span style="float: right;">226</span>	HAZARDOUS COMPONENT (For mixture or waste only) <span style="float: right;">227</span>	EHS (RS) <span style="float: right;">228</span>	CAS# <span style="float: right;">229</span>
1 <b>N/A</b>		<input type="checkbox"/> Yes <input type="checkbox"/> No	<b>28 FEB 05 13</b>
2		<input type="checkbox"/> Yes <input type="checkbox"/> No	<b>28 FEB 05 13</b>
3		<input type="checkbox"/> Yes <input type="checkbox"/> No	<b>28 FEB 05 13</b>
4		<input type="checkbox"/> Yes <input type="checkbox"/> No	<b>28 FEB 05 13</b>
5		<input type="checkbox"/> Yes <input type="checkbox"/> No	<b>28 FEB 05 13</b>
If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.			
ADDITIONAL LOCALLY COLLECTED INFORMATION <span style="float: right;">246</span>			
If EPCRA, Please Sign Here _____ (Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)			

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# UNIFIED PROGRAM (UP) FORM HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

ADD     DELETE     REVISE    REPORTING YEAR **2006**    200    PAGE **2** OF **7**

## I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) <span style="float: right;">3</span>									
<b>Fry's Electronics, Inc.</b>									
CHEMICAL LOCATION <span style="float: right;">201</span>					CHEMICAL LOCATION CONFIDENTIAL (EPCRA) <span style="float: right;">202</span>				
<b>Customer Service Return Cage with Chains</b>					<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
FACILITY ID #					MAP# (optional) <span style="float: right;">203</span>		GRID# (optional) <span style="float: right;">204</span>		

## II. CHEMICAL INFORMATION

CHEMICAL NAME <span style="float: right;">205</span>		TRADE SECRET (If Subject to EPCRA, refer to instructions) <span style="float: right;">206</span>	
<b>Helium Tank</b>		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
COMMON NAME <span style="float: right;">207</span>		EHS (RS)* <span style="float: right;">208</span>	
<b>Helium Tank</b>		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
CAS# <span style="float: right;">209</span>		*If EHS (RS) is "Yes", all amounts below must be in Lbs.	
<b>N/A</b>			
FIRE CODE HAZARD CLASSES (Complete if required by CUPA) <span style="float: right;">210</span>			
HAZARDOUS MATERIAL TYPE (Check one item only) <span style="float: right;">211</span>		RADIOACTIVE <span style="float: right;">212</span>	
<input checked="" type="checkbox"/> a. PURE <input type="checkbox"/> b. MIXTURE <input type="checkbox"/> c. WASTE		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
PHYSICAL STATE (Check one item only) <span style="float: right;">214</span>		LARGEST CONTAINER <span style="float: right;">215</span>	
<input type="checkbox"/> a. SOLID <input type="checkbox"/> b. LIQUID <input checked="" type="checkbox"/> c. GAS		<b>291 cubic feet</b>	
FED HAZARD CATEGORIES (Check all that apply) <span style="float: right;">216</span>			
<input type="checkbox"/> a. FIRE <input type="checkbox"/> b. REACTIVE <input checked="" type="checkbox"/> c. PRESSURE RELEASE <input type="checkbox"/> d. ACUTE HEALTH <input type="checkbox"/> e. CHRONIC HEALTH			
AVERAGE DAILY AMOUNT <span style="float: right;">217</span>		MAXIMUM DAILY AMOUNT <span style="float: right;">218</span>	
<b>291 cubic feet</b>		<b>291 cubic feet</b>	
ANNUAL WASTE AMOUNT <span style="float: right;">219</span>		STATE WASTE CODE <span style="float: right;">220</span>	
<b>N/A</b>		<b>N/A</b>	
UNITS* (Check one item only)    * If EHS (RS), amount must be in pounds. <span style="float: right;">221</span>			DAYS ON SITE: <span style="float: right;">222</span>
<input type="checkbox"/> a. GALLONS <input checked="" type="checkbox"/> b. CUBIC FEET <input type="checkbox"/> c. POUNDS <input type="checkbox"/> d. TONS			
STORAGE CONTAINER <span style="float: right;">223</span>			
<input type="checkbox"/> a. ABOVE GROUND TANK <input type="checkbox"/> e. PLASTIC/NONMETALLIC DRUM <input type="checkbox"/> i. FIBER DRUM <input type="checkbox"/> m. GLASS BOTTLE <input type="checkbox"/> q. RAIL CAR <input type="checkbox"/> b. UNDERGROUND TANK <input type="checkbox"/> f. CAN <input type="checkbox"/> j. BAG <input type="checkbox"/> n. PLASTIC BOTTLE <input type="checkbox"/> r. OTHER <input checked="" type="checkbox"/> c. TANK INSIDE BUILDING <input type="checkbox"/> g. CARBOY <input type="checkbox"/> k. BOX <input type="checkbox"/> o. TOTE BIN <input type="checkbox"/> d. STEEL DRUM <input type="checkbox"/> h. SILO <input type="checkbox"/> l. CYLINDER <input type="checkbox"/> p. TANK WAGON			
STORAGE PRESSURE <span style="float: right;">224</span>			
<input type="checkbox"/> a. AMBIENT <input type="checkbox"/> b. ABOVE AMBIENT <input type="checkbox"/> c. BELOW AMBIENT			
STORAGE TEMPERATURE <span style="float: right;">225</span>			
<input type="checkbox"/> a. AMBIENT <input type="checkbox"/> b. ABOVE AMBIENT <input type="checkbox"/> c. BELOW AMBIENT <input type="checkbox"/> d. CRYOGENIC			
%WT <span style="float: right;">226</span>	HAZARDOUS COMPONENT (For mixture or waste only) <span style="float: right;">227</span>		EHS (RS) <span style="float: right;">228</span>
<b>1 N/A</b>			<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>2</b>			<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>3</b>			<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>4</b>			<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>5</b>			<input type="checkbox"/> Yes <input type="checkbox"/> No
If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.			
ADDITIONAL LOCALLY COLLECTED INFORMATION <span style="float: right;">246</span>			
If EPCRA, Please Sign Here _____ (Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)			

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# UNIFIED PROGRAM (UP) FORM HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

ADD     DELETE     REVISE    REPORTING YEAR **2006**    200    PAGE **3** OF **7**

## I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) <span style="float: right;">3</span>	
<b>Fry's Electronics, Inc.</b>	
CHEMICAL LOCATION <span style="float: right;">201</span>	CHEMICAL LOCATION CONFIDENTIAL (EPCRA) <span style="float: right;">202</span>
<b>Maintenance Room-North East Corner</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
FACILITY ID #	MAP# (optional) <span style="float: right;">203</span> GRID# (optional) <span style="float: right;">204</span>
-    -    0 0 7 4 5	

## II. CHEMICAL INFORMATION

CHEMICAL NAME <span style="float: right;">205</span>	TRADE SECRET (If Subject to EPCRA, refer to instructions) <span style="float: right;">206</span>		
<b>Did ecyl Dimethyl Ammonium Chloride</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
COMMON NAME <span style="float: right;">207</span>	EHS (RS)* <span style="float: right;">208</span>		
<b>Lemon Clean Disinfectant</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
CAS# <span style="float: right;">209</span>	*If EHS (RS) is "Yes", all amounts below must be in Lbs.		
FIRE CODE HAZARD CLASSES (Complete if required by CUPA) <span style="float: right;">210</span>			
HAZARDOUS MATERIAL TYPE (Check one item only) <span style="float: right;">211</span>	RADIOACTIVE <span style="float: right;">212</span>	CURIES <span style="float: right;">213</span>	
<input checked="" type="checkbox"/> a. PURE <input type="checkbox"/> b. MIXTURE <input type="checkbox"/> c. WASTE	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
PHYSICAL STATE (Check one item only) <span style="float: right;">214</span>	LARGEST CONTAINER <span style="float: right;">215</span>		
<input type="checkbox"/> a. SOLID <input checked="" type="checkbox"/> b. LIQUID <input type="checkbox"/> c. GAS	<b>Gallon</b>		
FED HAZARD CATEGORIES (Check all that apply) <span style="float: right;">216</span>			
<input type="checkbox"/> a. FIRE <input type="checkbox"/> b. REACTIVE <input type="checkbox"/> c. PRESSURE RELEASE <input type="checkbox"/> d. ACUTE HEALTH <input type="checkbox"/> e. CHRONIC HEALTH			
AVERAGE DAILY AMOUNT <span style="float: right;">217</span>	MAXIMUM DAILY AMOUNT <span style="float: right;">218</span>	ANNUAL WASTE AMOUNT <span style="float: right;">219</span> STATE WASTE CODE <span style="float: right;">220</span>	
<b>Gallon</b>	<b>Gallon</b>	<b>N/A</b> <b>N/A</b>	
UNITS* (Check one item only)    * If EHS (RS), amount must be in pounds. <span style="float: right;">221</span>		DAYS ON SITE: <span style="float: right;">222</span>	
<input checked="" type="checkbox"/> a. GALLONS <input type="checkbox"/> b. CUBIC FEET <input type="checkbox"/> c. POUNDS <input type="checkbox"/> d. TONS			
STORAGE CONTAINER <span style="float: right;">223</span>			
<input type="checkbox"/> a. ABOVE GROUND TANK <input type="checkbox"/> e. PLASTIC/NONMETALLIC DRUM <input type="checkbox"/> i. FIBER DRUM <input type="checkbox"/> m. GLASS BOTTLE <input type="checkbox"/> q. RAIL CAR			
<input type="checkbox"/> b. UNDERGROUND TANK <input type="checkbox"/> f. CAN <input type="checkbox"/> j. BAG <input checked="" type="checkbox"/> n. PLASTIC BOTTLE <input type="checkbox"/> r. OTHER			
<input type="checkbox"/> c. TANK INSIDE BUILDING <input type="checkbox"/> g. CARBOY <input type="checkbox"/> k. BOX <input type="checkbox"/> o. TOTE BIN			
<input type="checkbox"/> d. STEEL DRUM <input type="checkbox"/> h. SILO <input type="checkbox"/> l. CYLINDER <input type="checkbox"/> p. TANK WAGON			
STORAGE PRESSURE <span style="float: right;">224</span>			
<input type="checkbox"/> a. AMBIENT <input type="checkbox"/> b. ABOVE AMBIENT <input type="checkbox"/> c. BELOW AMBIENT			
STORAGE TEMPERATURE <span style="float: right;">225</span>			
<input type="checkbox"/> a. AMBIENT <input type="checkbox"/> b. ABOVE AMBIENT <input type="checkbox"/> c. BELOW AMBIENT <input type="checkbox"/> d. CRYOGENIC			
%WT <span style="float: right;">226</span>	HAZARDOUS COMPONENT (For mixture or waste only) <span style="float: right;">227</span>	EHS (RS) <span style="float: right;">228</span>	CAS # <span style="float: right;">229</span>
1 <b>N/A</b>		<input type="checkbox"/> Yes <input type="checkbox"/> No	
2		<input type="checkbox"/> Yes <input type="checkbox"/> No	
3		<input type="checkbox"/> Yes <input type="checkbox"/> No	
4		<input type="checkbox"/> Yes <input type="checkbox"/> No	
5		<input type="checkbox"/> Yes <input type="checkbox"/> No	
If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.			
ADDITIONAL LOCALLY COLLECTED INFORMATION <span style="float: right;">246</span>			
If EPCRA, Please Sign Here _____ (Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)			

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# UNIFIED PROGRAM (UP) FORM HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

ADD     DELETE     REVISE    REPORTING YEAR **2006**    200    PAGE **4** OF **7**

## I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) <span style="float: right;">3</span>	
<b>Fry's Electronics, Inc.</b>	
CHEMICAL LOCATION <span style="float: right;">201</span>	CHEMICAL LOCATION CONFIDENTIAL (EPCRA) <span style="float: right;">202</span>
<b>Maintenance Room North East Corner</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
FACILITY ID #	MAP# (optional) <span style="float: right;">203</span> GRID# (optional) <span style="float: right;">204</span>
- 0 0 7 4 5	

## II. CHEMICAL INFORMATION

CHEMICAL NAME <span style="float: right;">205</span>	TRADE SECRET (If Subject to EPCRA, refer to instructions) <span style="float: right;">206</span>	
<b>Pink Station Hand Soap</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
COMMON NAME <span style="float: right;">207</span>	EHS (RS)* <span style="float: right;">208</span>	
<b>Hand Soap</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
CAS# <span style="float: right;">209</span>	*If EHS (RS) is "Yes", all amounts below must be in Lbs. <span style="float: right;">210</span>	
<b>N/A</b>		
FIRE CODE HAZARD CLASSES (Complete if required by CUPA)		
HAZARDOUS MATERIAL TYPE (Check one item only) <span style="float: right;">211</span>	RADIOACTIVE <span style="float: right;">212</span>	CURIES <span style="float: right;">213</span>
<input checked="" type="checkbox"/> a. PURE <input type="checkbox"/> b. MIXTURE <input type="checkbox"/> c. WASTE	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
PHYSICAL STATE (Check one item only) <span style="float: right;">214</span>	LARGEST CONTAINER <span style="float: right;">215</span>	
<input checked="" type="checkbox"/> a. SOLID <input type="checkbox"/> b. LIQUID <input type="checkbox"/> c. GAS	<b>Gallon</b>	
FED HAZARD CATEGORIES (Check all that apply) <span style="float: right;">216</span>		
<input type="checkbox"/> a. FIRE <input type="checkbox"/> b. REACTIVE <input type="checkbox"/> c. PRESSURE RELEASE <input checked="" type="checkbox"/> d. ACUTE HEALTH <input type="checkbox"/> e. CHRONIC HEALTH		
AVERAGE DAILY AMOUNT <span style="float: right;">217</span>	MAXIMUM DAILY AMOUNT <span style="float: right;">218</span>	ANNUAL WASTE AMOUNT <span style="float: right;">219</span> STATE WASTE CODE <span style="float: right;">220</span>
<b>Gallon</b>	<b>Gallon</b>	<b>N/A</b> <b>N/A</b>
UNITS* (Check one item only)    * If EHS (RS), amount must be in pounds. <span style="float: right;">221</span>	DAYS ON SITE: <span style="float: right;">222</span>	
<input checked="" type="checkbox"/> a. GALLONS <input type="checkbox"/> b. CUBIC FEET <input type="checkbox"/> c. POUNDS <input type="checkbox"/> d. TONS	<b>365</b>	
STORAGE CONTAINER <span style="float: right;">223</span>		
<input type="checkbox"/> a. ABOVE GROUND TANK <input type="checkbox"/> e. PLASTIC/NONMETALLIC DRUM <input type="checkbox"/> i. FIBER DRUM <input type="checkbox"/> m. GLASS BOTTLE <input type="checkbox"/> q. RAIL CAR		
<input type="checkbox"/> b. UNDERGROUND TANK <input type="checkbox"/> f. CAN <input type="checkbox"/> j. BAG <input checked="" type="checkbox"/> n. PLASTIC BOTTLE <input type="checkbox"/> r. OTHER		
<input type="checkbox"/> c. TANK INSIDE BUILDING <input type="checkbox"/> g. CARBOY <input type="checkbox"/> k. BOX <input type="checkbox"/> o. TOTE BIN		
<input type="checkbox"/> d. STEEL DRUM <input type="checkbox"/> h. SILO <input type="checkbox"/> l. CYLINDER <input type="checkbox"/> p. TANK WAGON		
STORAGE PRESSURE <span style="float: right;">224</span>		
<input type="checkbox"/> a. AMBIENT <input type="checkbox"/> b. ABOVE AMBIENT <input type="checkbox"/> c. BELOW AMBIENT		
STORAGE TEMPERATURE <span style="float: right;">225</span>		
<input type="checkbox"/> a. AMBIENT <input type="checkbox"/> b. ABOVE AMBIENT <input type="checkbox"/> c. BELOW AMBIENT <input type="checkbox"/> d. CRYOGENIC		
%WT <span style="float: right;">226</span>	HAZARDOUS COMPONENT (For mixture or waste only) <span style="float: right;">227</span>	EHS (RS) <span style="float: right;">228</span> CAS # <span style="float: right;">229</span>
<b>1 N/A</b>		<input type="checkbox"/> Yes <input type="checkbox"/> No
2 <span style="float: right;">230</span>	231	232 <span style="float: right;">233</span>
3 <span style="float: right;">234</span>	235	236 <span style="float: right;">237</span>
4 <span style="float: right;">238</span>	239	240 <span style="float: right;">241</span>
5 <span style="float: right;">242</span>	243	244 <span style="float: right;">245</span>
		<input type="checkbox"/> Yes <input type="checkbox"/> No

**If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.**

ADDITIONAL LOCALLY COLLECTED INFORMATION <span style="float: right;">246</span>

If EPCRA, Please Sign Here \_\_\_\_\_  
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

OFFICIAL USE ONLY	DATE RECEIVED	REVIEWED BY		
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# UNIFIED PROGRAM (UP) FORM HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

 ADD

 DELETE

 REVISE

 REPORTING YEAR **2006**

200

 PAGE **5** OF **7**

## I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) <span style="float: right;">3</span>											
<b>Fry's Electronics, Inc.</b>											
CHEMICAL LOCATION <span style="float: right;">201</span>						CHEMICAL LOCATION CONFIDENTIAL <span style="float: right;">202</span>					
<b>Maintenance Room North East Corner</b>						<b>(EPCRA)</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
FACILITY ID #		-		-		0		0		7 4 5	
MAP# (optional) <span style="float: right;">203</span>						GRID# (optional) <span style="float: right;">204</span>					

## II. CHEMICAL INFORMATION

CHEMICAL NAME <span style="float: right;">205</span>				TRADE SECRET (If Subject to EPCRA, refer to instructions) <span style="float: right;">206</span>			
<b>Comet Cleaner</b>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
COMMON NAME <span style="float: right;">207</span>				EHS (RS)* <span style="float: right;">208</span>			
<b>Comet</b>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
CAS# <span style="float: right;">209</span>				*If EHS (RS) is "Yes", all amounts below must be in Lbs.			
<b>N/A</b>							
FIRE CODE HAZARD CLASSES (Complete if required by CUPA) <span style="float: right;">210</span>							
HAZARDOUS MATERIAL TYPE (Check one item only) <span style="float: right;">211</span>				RADIOACTIVE <span style="float: right;">212</span>		CURIES <span style="float: right;">213</span>	
<input checked="" type="checkbox"/> a. PURE <input type="checkbox"/> b. MIXTURE <input type="checkbox"/> c. WASTE				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
PHYSICAL STATE (Check one item only) <span style="float: right;">214</span>				LARGEST CONTAINER <span style="float: right;">215</span>			
<input checked="" type="checkbox"/> a. SOLID <input type="checkbox"/> b. LIQUID <input type="checkbox"/> c. GAS							
FED HAZARD CATEGORIES (Check all that apply) <span style="float: right;">216</span>							
<input type="checkbox"/> a. FIRE <input type="checkbox"/> b. REACTIVE <input type="checkbox"/> c. PRESSURE RELEASE <input type="checkbox"/> d. ACUTE HEALTH <input type="checkbox"/> e. CHRONIC HEALTH							
AVERAGE DAILY AMOUNT <span style="float: right;">217</span>		MAXIMUM DAILY AMOUNT <span style="float: right;">218</span>		ANNUAL WASTE AMOUNT <span style="float: right;">219</span>		STATE WASTE CODE <span style="float: right;">220</span>	
<b>42oz.</b>		<b>42oz.</b>		<b>N/A</b>		<b>N/A</b>	
UNITS* (Check one item only) <span style="float: right;">221</span>				DAYS ON SITE: <span style="float: right;">222</span>			
<input type="checkbox"/> a. GALLONS <input type="checkbox"/> b. CUBIC FEET <input type="checkbox"/> c. POUNDS <input type="checkbox"/> d. TONS				<b>365</b>			
STORAGE CONTAINER <span style="float: right;">223</span>							
<input type="checkbox"/> a. ABOVE GROUND TANK <input type="checkbox"/> e. PLASTIC/NONMETALLIC DRUM <input type="checkbox"/> i. FIBER DRUM <input type="checkbox"/> m. GLASS BOTTLE <input type="checkbox"/> q. RAIL CAR <input type="checkbox"/> b. UNDERGROUND TANK <input type="checkbox"/> f. CAN <input type="checkbox"/> j. BAG <input checked="" type="checkbox"/> n. PLASTIC BOTTLE <input type="checkbox"/> r. OTHER <input type="checkbox"/> c. TANK INSIDE BUILDING <input type="checkbox"/> g. CARBOY <input type="checkbox"/> k. BOX <input type="checkbox"/> o. TOTE BIN <input type="checkbox"/> d. STEEL DRUM <input type="checkbox"/> h. SILO <input type="checkbox"/> l. CYLINDER <input type="checkbox"/> p. TANK WAGON							
STORAGE PRESSURE <span style="float: right;">224</span>							
<input type="checkbox"/> a. AMBIENT <input type="checkbox"/> b. ABOVE AMBIENT <input type="checkbox"/> c. BELOW AMBIENT							
STORAGE TEMPERATURE <span style="float: right;">225</span>							
<input type="checkbox"/> a. AMBIENT <input type="checkbox"/> b. ABOVE AMBIENT <input type="checkbox"/> c. BELOW AMBIENT <input type="checkbox"/> d. CRYOGENIC							
%WT <span style="float: right;">226</span>	HAZARDOUS COMPONENT (For mixture or waste only) <span style="float: right;">227</span>			EHS (RS) <span style="float: right;">228</span>		CAS # <span style="float: right;">229</span>	
1 <b>N/A</b> <span style="float: right;">230</span>				<input type="checkbox"/> Yes <input type="checkbox"/> No			
2 <span style="float: right;">234</span>				<input type="checkbox"/> Yes <input type="checkbox"/> No			
3 <span style="float: right;">238</span>				<input type="checkbox"/> Yes <input type="checkbox"/> No			
4 <span style="float: right;">242</span>				<input type="checkbox"/> Yes <input type="checkbox"/> No			
5 <span style="float: right;">246</span>				<input type="checkbox"/> Yes <input type="checkbox"/> No			
If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.							
ADDITIONAL LOCALLY COLLECTED INFORMATION <span style="float: right;">246</span>							
If EPCRA, Please Sign Here _____ (Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)							
OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY			



# UNIFIED PROGRAM (UP) FORM HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

ADD     DELETE     REVISE    REPORTING YEAR **2006**    200    PAGE **6** OF **7**

## I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) <span style="float: right;">3</span>									
<b>Fry's Electronics, Inc.</b>									
CHEMICAL LOCATION <span style="float: right;">201</span>					CHEMICAL LOCATION CONFIDENTIAL (EPCRA) <span style="float: right;">202</span>				
<b>Car Stereo Department - Bar BQ Grill</b>					<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
FACILITY ID #		-		-		0 0 7 4 5		MAP# (optional) <span style="float: right;">203</span>	GRID# (optional) <span style="float: right;">204</span>

## II. CHEMICAL INFORMATION

CHEMICAL NAME <span style="float: right;">205</span>		TRADE SECRET (If Subject to EPCRA, refer to instructions) <span style="float: right;">206</span>	
<b>Propane</b>		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
COMMON NAME <span style="float: right;">207</span>		EHS (RS)* <span style="float: right;">208</span>	
<b>Propane</b>		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
CAS# <span style="float: right;">209</span>		<b>*If EHS (RS) is "Yes", all amounts below must be in Lbs.</b>	
<b>N/A</b>			
FIRE CODE HAZARD CLASSES (Complete if required by CUPA) <span style="float: right;">210</span>			
HAZARDOUS MATERIAL TYPE (Check one item only) <span style="float: right;">211</span>		RADIOACTIVE <span style="float: right;">212</span>	
<input checked="" type="checkbox"/> a. PURE <input type="checkbox"/> b. MIXTURE <input type="checkbox"/> c. WASTE		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
PHYSICAL STATE (Check one item only) <span style="float: right;">214</span>		LARGEST CONTAINER <span style="float: right;">215</span>	
<input type="checkbox"/> a. SOLID <input type="checkbox"/> b. LIQUID <input checked="" type="checkbox"/> c. GAS		<b>Gallon</b>	
FED HAZARD CATEGORIES (Check all that apply) <span style="float: right;">216</span>			
<input type="checkbox"/> a. FIRE <input type="checkbox"/> b. REACTIVE <input checked="" type="checkbox"/> c. PRESSURE RELEASE <input type="checkbox"/> d. ACUTE HEALTH <input type="checkbox"/> e. CHRONIC HEALTH			
AVERAGE DAILY AMOUNT <span style="float: right;">217</span>		MAXIMUM DAILY AMOUNT <span style="float: right;">218</span>	
<b>Eight Gallons</b>		<b>Eight Gallons</b>	
ANNUAL WASTE AMOUNT <span style="float: right;">219</span>		STATE WASTE CODE <span style="float: right;">220</span>	
<b>N/A</b>		<b>N/A</b>	
UNITS* (Check one item only)    * If EHS (RS), amount must be in pounds. <span style="float: right;">221</span>			DAYS ON SITE: <span style="float: right;">222</span>
<input checked="" type="checkbox"/> a. GALLONS <input type="checkbox"/> b. CUBIC FEET <input type="checkbox"/> c. POUNDS <input type="checkbox"/> d. TONS			<b>365</b>
STORAGE CONTAINER <span style="float: right;">223</span>			
<input checked="" type="checkbox"/> a. ABOVE GROUND TANK <input type="checkbox"/> e. PLASTIC/NONMETALLIC DRUM <input type="checkbox"/> i. FIBER DRUM <input type="checkbox"/> m. GLASS BOTTLE <input type="checkbox"/> q. RAIL CAR			
<input type="checkbox"/> b. UNDERGROUND TANK <input type="checkbox"/> f. CAN <input type="checkbox"/> j. BAG <input type="checkbox"/> n. PLASTIC BOTTLE <input type="checkbox"/> r. OTHER			
<input type="checkbox"/> c. TANK INSIDE BUILDING <input type="checkbox"/> g. CARBOY <input type="checkbox"/> k. BOX <input type="checkbox"/> o. TOTE BIN			
<input type="checkbox"/> d. STEEL DRUM <input type="checkbox"/> h. SILO <input checked="" type="checkbox"/> l. CYLINDER <input type="checkbox"/> p. TANK WAGON			
STORAGE PRESSURE <span style="float: right;">224</span>			
<input type="checkbox"/> a. AMBIENT <input type="checkbox"/> b. ABOVE AMBIENT <input type="checkbox"/> c. BELOW AMBIENT			
STORAGE TEMPERATURE <span style="float: right;">225</span>			
<input type="checkbox"/> a. AMBIENT <input type="checkbox"/> b. ABOVE AMBIENT <input type="checkbox"/> c. BELOW AMBIENT <input type="checkbox"/> d. CRYOGENIC			
%WT <span style="float: right;">226</span>	HAZARDOUS COMPONENT (For mixture or waste only) <span style="float: right;">227</span>	EHS (RS) <span style="float: right;">228</span>	CAS # <span style="float: right;">229</span>
1 <b>N/A</b>		<input type="checkbox"/> Yes <input type="checkbox"/> No	
2		<input type="checkbox"/> Yes <input type="checkbox"/> No	
3		<input type="checkbox"/> Yes <input type="checkbox"/> No	
4		<input type="checkbox"/> Yes <input type="checkbox"/> No	
5		<input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.</b>			
ADDITIONAL LOCALLY COLLECTED INFORMATION <span style="float: right;">246</span>			
If EPCRA, Please Sign Here _____ (Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)			
OFFICIAL USE ONLY	DATE RECEIVED	REVIEWED BY	



# UNIFIED PROGRAM (UP) FORM HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

ADD     DELETE     REVISE    REPORTING YEAR **2006**    200    PAGE **7** OF **7**

## I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) <span style="float: right;">3</span>	
<b>Fry's Electronics, Inc.</b>	
CHEMICAL LOCATION <span style="float: right;">201</span>	CHEMICAL LOCATION CONFIDENTIAL (EPCRA) <span style="float: right;">202</span>
<b>Maintenance Room North East Corner</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
FACILITY ID #	MAP# (optional) <span style="float: right;">203</span> GRID# (optional) <span style="float: right;">204</span>
-    -    0 0 7 4 5	

## II. CHEMICAL INFORMATION

CHEMICAL NAME <span style="float: right;">205</span>	TRADE SECRET (If Subject to EPCRA, refer to instructions) <span style="float: right;">206</span>		
<b>Propylene Glycol-Ethylene Glycol</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
COMMON NAME <span style="float: right;">207</span>	EHS (RS)* <span style="float: right;">208</span>		
<b>Interior</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
CAS# <span style="float: right;">209</span>	*If EHS (RS) is "Yes", all amounts below must be in Lbs.		
N/A			
FIRE CODE HAZARD CLASSES (Complete if required by CUPA) <span style="float: right;">210</span>			
HAZARDOUS MATERIAL TYPE (Check one item only) <span style="float: right;">211</span>			
<input checked="" type="checkbox"/> a. PURE <input type="checkbox"/> b. MIXTURE <input type="checkbox"/> c. WASTE			
RADIOACTIVE <span style="float: right;">212</span>		CURIES <span style="float: right;">213</span>	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
PHYSICAL STATE (Check one item only) <span style="float: right;">214</span>			
<input checked="" type="checkbox"/> a. SOLID <input type="checkbox"/> b. LIQUID <input type="checkbox"/> c. GAS			
LARGEST CONTAINER <span style="float: right;">215</span>			
<b>Gallon</b>			
FED HAZARD CATEGORIES (Check all that apply) <span style="float: right;">216</span>			
<input type="checkbox"/> a. FIRE <input type="checkbox"/> b. REACTIVE <input type="checkbox"/> c. PRESSURE RELEASE <input checked="" type="checkbox"/> d. ACUTE HEALTH <input type="checkbox"/> e. CHRONIC HEALTH			
AVERAGE DAILY AMOUNT <span style="float: right;">217</span>	MAXIMUM DAILY AMOUNT <span style="float: right;">218</span>	ANNUAL WASTE AMOUNT <span style="float: right;">219</span> STATE WASTE CODE <span style="float: right;">220</span>	
<b>Four Gallons</b>	<b>Four Gallons</b>	<b>N/A</b> <b>N/A</b>	
UNITS* (Check one item only)    * If EHS (RS), amount must be in pounds. <span style="float: right;">221</span>		DAYS ON SITE: <span style="float: right;">222</span>	
<input checked="" type="checkbox"/> a. GALLONS <input type="checkbox"/> b. CUBIC FEET <input type="checkbox"/> c. POUNDS <input type="checkbox"/> d. TONS		<b>365</b>	
STORAGE CONTAINER <span style="float: right;">223</span>			
<input type="checkbox"/> a. ABOVE GROUND TANK <input type="checkbox"/> e. PLASTIC/NONMETALLIC DRUM <input type="checkbox"/> i. FIBER DRUM <input type="checkbox"/> m. GLASS BOTTLE <input type="checkbox"/> q. RAIL CAR			
<input type="checkbox"/> b. UNDERGROUND TANK <input type="checkbox"/> f. CAN <input type="checkbox"/> j. BAG <input checked="" type="checkbox"/> n. PLASTIC BOTTLE <input type="checkbox"/> r. OTHER			
<input type="checkbox"/> c. TANK INSIDE BUILDING <input type="checkbox"/> g. CARBOY <input type="checkbox"/> k. BOX <input type="checkbox"/> o. TOTE BIN			
<input type="checkbox"/> d. STEEL DRUM <input type="checkbox"/> h. SILO <input type="checkbox"/> l. CYLINDER <input type="checkbox"/> p. TANK WAGON			
STORAGE PRESSURE <span style="float: right;">224</span>			
<input type="checkbox"/> a. AMBIENT <input type="checkbox"/> b. ABOVE AMBIENT <input type="checkbox"/> c. BELOW AMBIENT			
STORAGE TEMPERATURE <span style="float: right;">225</span>			
<input type="checkbox"/> a. AMBIENT <input type="checkbox"/> b. ABOVE AMBIENT <input type="checkbox"/> c. BELOW AMBIENT <input type="checkbox"/> d. CRYOGENIC			
%WT <span style="float: right;">226</span>	HAZARDOUS COMPONENT (For mixture or waste only) <span style="float: right;">227</span>	EHS (RS) <span style="float: right;">228</span>	CAS # <span style="float: right;">229</span>
1 <b>N/A</b>		<input type="checkbox"/> Yes <input type="checkbox"/> No	
2		<input type="checkbox"/> Yes <input type="checkbox"/> No	
3		<input type="checkbox"/> Yes <input type="checkbox"/> No	
4		<input type="checkbox"/> Yes <input type="checkbox"/> No	
5		<input type="checkbox"/> Yes <input type="checkbox"/> No	
If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.			
ADDITIONAL LOCALLY COLLECTED INFORMATION <span style="float: right;">246</span>			
If EPCRA, Please Sign Here _____ (Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)			
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**UNIFIED PROGRAM (UP) FORM  
CONSOLIDATED CONTINGENCY PLAN**

**COVER PAGE**

**For Year 2006**

**FACILITY IDENTIFICATION**

BUSINESS NAME		3	FACILITY ID #		1
<b>Fry's Electronics, Inc.</b>			<b>00745</b>		
SITE ADDRESS		103	CITY	104	ZIP CODE
<b>2311 No. Hollywood Way</b>			<b>Burbank</b>		<b>91505</b>

The Consolidated Contingency Plan provides businesses a format to comply with the emergency planning requirements of the following three written hazardous materials emergency response plans required in California:

- ❖ Hazardous Materials Business Plan (HSC Chapter 6.95 Section 25504 (b) and 19 CCR Sections 2729-2732),
- ❖ Hazardous Waste Generator Contingency Plan (22 CCR Section 66264.52), and,
- ❖ Underground Storage Tank Emergency Response Plan and Monitoring Program (23 CCR Sections 2632 and 2641).

This format is designed to reduce duplication in the preparation and use of emergency response plans at the same facility, and to improve the coordination between facility response personnel and local, state, and federal emergency responders during an emergency. Use the chart below to determine which sections of the Consolidated Contingency Plan need to be completed for your facility. If you are unsure as to which programs your facility is subject to, refer to the Business Activities Page.

PROGRAMS	SECTION(S) TO BE COMPLETED
Hazardous Materials Business Plan (HMBP)	Cover Page, Section I, and Site Map(s)
Hazardous Waste Generator (HWG)	Cover Page, Section I, and Site Map(s)
Underground Storage Tank (UST)	Cover Page, Sections I and II, and Site Map(s)
HMBP, HWG, UST	Cover Page, Sections I and II, and Site Map(s)

**A copy of the plan shall be submitted to your local CUPA and at least one copy of the plan shall be maintained at the facility for use in the event of an emergency and for inspection by the local agency.** Describe below where a copy of your Contingency Plan, including the hazardous material inventories and Site Map(s), is located at your business:

**PLAN CERTIFICATION**

*I certify under penalty of law that I have personally examined and I am familiar with the information provided by this plan and to the best of my knowledge the information is accurate, complete, and true.*

PRINTED NAME OF OWNER/ OPERATOR <b>KATHRYN J. KOLDER</b>	TITLE OF OWNER/OPERATOR <b>EXECUTIVE VICE PRESIDENT</b>
SIGNATURE OF OWNER/ OPERATOR 	DATE <b>2/27/06</b>

We appreciate the effort of local businesses in completing these plans and will assist in every possible way. If you have any questions, please contact your local CUPA or PA.

OFFICIAL USE ONLY	DATE RECEIVED	REVIEWED BY		
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# UNIFIED PROGRAM (UP) FORM CONSOLIDATED CONTINGENCY PLAN

## SECTION I: BUSINESS PLAN AND CONTINGENCY PLAN

### I. FACILITY IDENTIFICATION

BUSINESS NAME <b>Fry's Electronics, Inc.</b>	3	FACILITY ID # <b>00745</b>	1
SITE ADDRESS <b>2311 No. Hollywood Way</b>	103	CITY <b>Burbank</b>	10
		ZIP CODE <b>91505</b>	105

### II. EMERGENCY CONTACTS

PRIMARY		SECONDARY	
NAME <b>John Goyette</b>	123	NAME <b>Maria Everett</b>	128
TITLE <b>Store Manager</b>	124	TITLE <b>Loss Prevention Safety Manager</b>	129
BUSINESS PHONE <b>(818) 526-8159</b>	125	BUSINESS PHONE <b>(818) 526-8155</b>	130
24-HOUR PHONE <b>(818) 526-8159</b>	126	24-HOUR PHONE <b>(818) 526-8155</b>	131
PAGER # <b>(818) 318-2408</b>	127	PAGER # <b>(818) 450-4501</b>	132

### III. EMERGENCY RESPONSE PLANS AND PROCEDURES

#### A. Notifications

Your business is required by State Law to provide an immediate verbal report of any release or threatened release of a hazardous material to local fire emergency response personnel, this Unified Program Agency (CUPA or PA), and the Office of Emergency Services. If you have a release or threatened release of hazardous materials, immediately call:

**FIRE / PARAMEDICS / POLICE / SHERIFF                      PHONE: 911**

**AFTER** the local emergency response personnel are notified, you shall then notify this Unified Program Agency and the Office of Emergency Services.

Local Unified Program Agency:       (818) 238-3475  
 State Office of Emergency Service:   (800) 852-7550 or (916) 262-1621  
 National Response Center:           (800) 424-8802

Information to be provided during Notification:

- ◆ Your name and the telephone number from where you are calling.
- ◆ Exact address of the release or threatened release.
- ◆ Date, time, cause, and type of incident (e.g. fire, air release, spill etc.)
- ◆ Material and quantity of the release, to the extent known.
- ◆ Current condition of the facility.
- ◆ Extent of injuries, if any.
- ◆ Possible hazards to public health and/ or the environment outside of the facility.

#### B. Emergency Medical Facility

List the local emergency medical facility that will be used by your business in the event of an accident or injury caused by a release or threatened release of hazardous material

HOSPITAL/CLINIC: <b>St. Joseph Occupational Health Center</b>	PHONE: <b>(818) 953-4402</b>
ADDRESS: <b>3413 Pacific Avenue</b>	
CITY: <b>Burbank, California</b>	ZIP CODE: <b>91505</b>

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**UNIFIED PROGRAM (UP) FORM  
CONSOLIDATED CONTINGENCY PLAN**

**SECTION I: BUSINESS PLAN AND CONTINGENCY PLAN**

**C. Private Emergency Response** n/a

**DOES YOUR BUSINESS HAVE A PRIVATE ON-SITE EMERGENCY RESPONSE TEAM?**  Yes  No  
 If yes, provide an attachment that describes what policies and procedures your business will follow to notify your on-site emergency response team in the event of a release or threatened release of hazardous materials.

**CLEANUP/DISPOSAL CONTRACTOR**  
 List the contractor that will provide cleanup services in the event of a release.

NAME OF CONTRACTOR	PHONE NO
ADDRESS	
CITY	ZIP CODE

**D. Arrangements With Emergency Responders** n/a

If you have made special (i.e. contractual) arrangements with any police department, fire department, hospital, contractor, or State or local emergency response team to coordinate emergency services, describe those arrangements on the lines below:

---



---

**E. Evacuation Plan**

1. The following alarm signal(s) will be used to begin evacuation of the facility (*check all which apply*):

Verbal   
  Telephone (*including cellular*)   
  Alarm System   
  Public Address System   
  Intercom  
 Pagers   
 Portable Radio   
 Other (*specify*):

2.  Evacuation map is prominently displayed throughout the facility.

3.  Individual(s) responsible for coordinating evacuation including spreading the alarm and confirming the business has been evacuated:  
**Store Manager. Loss Prevention & Safety Department**

**F. Earthquake Vulnerability**

Identify areas of the facility where releases could occur or would require immediate inspection or isolation because of the vulnerability to earthquake related ground motion.

Hazardous Waste/ Hazardous Materials Storage Areas   
 Production Floor   
 Process Lines  
 Bench / Lab   
 Waste Treatment   
 Other

Identify mechanical systems where releases could occur or would require immediate inspection or isolation because of the vulnerability to earthquake related ground motion.

Utilities   
 Sprinkler Systems   
 Cabinets   
 Shelves  
 Racks   
 Pressure Vessels   
 Gas Cylinders   
 Tanks  
 Process Piping   
 Shutoff Valves   
 Other:





**UNIFIED PROGRAM (UP) FORM  
CONSOLIDATED CONTINGENCY PLAN**

**SECTION I: BUSINESS PLAN AND CONTINGENCY PLAN**

**G. *Emergency Procedures***

Briefly describe your business standard operating procedures in the event of a release or threatened release of hazardous materials:

**SEE ATTACHED**

1. **PREVENTION** (prevent the hazard) - Describe the kinds of hazards associated with the hazardous materials present at your facility. What actions would your business take to prevent these hazards from occurring? You may include a discussion of safety and storage procedures. **The only potential hazard would be in relation to the tanks of Helium and Propane stored at this location.**

**The Helium tank is secured with two chains in the customer service department cage. The Propane tank is stored under supervised conditions in the mobile electronics installation department. Both tanks are inspected on a monthly basis.**

2. **MITIGATION** (reduce the hazard) - Describe what is done to lessen the harm or the damage to person(s), property, or the environment, and prevent what has occurred from getting worse or spreading. What is your immediate response to a leak, spill, fire, explosion, or airborne release at your business?

**Fry's regularly inspects these tanks to ensure that they are secured with proper valves and covers. In the event of a release or explosion, Fry's personnel would implement the Contingency and Training Program by immediately evacuating the store and contacting the emergency services.**

3. **ABATEMENT** (remove the hazard) - Describe what you would do to stop and remove the hazard. How do you handle the complete process of stopping a release, cleaning up, and disposing of released materials at your facility?

**Fry's does not handle this procedure directly. Instead, Fry's would allow emergency services to abate the hazard. However, Fry's would provide any/all assistance to emergency services as directed or required.**



# UNIFIED PROGRAM (UP) FORM CONSOLIDATED CONTINGENCY PLAN

## SECTION I: BUSINESS PLAN AND CONTINGENCY PLAN

### IV. EMERGENCY EQUIPMENT

22 CCR, Section 66265.52(e) [as referenced by Section 66262.34(a)(3)] requires that emergency equipment at the facility be listed. Completion of the following Emergency Equipment Inventory Table meets this requirement

<b>EMERGENCY EQUIPMENT INVENTORY TABLE</b>			
1. Equip Category	2. Equipment Type	3. Location *	4. Description**
Personal Protective, Equipment, Safety Equipment, and First Aid Equipment	<input type="checkbox"/> Cartridge Respirators		
	<input type="checkbox"/> Chemical Monitoring Equipment ( <i>describe</i> )		
	<input type="checkbox"/> Chemical Protective Aprons/Coats		
	<input type="checkbox"/> Chemical Protective Boots		
	<input type="checkbox"/> Chemical Protective Gloves		
	<input type="checkbox"/> Chemical Protective Suits ( <i>describe</i> )		
	<input type="checkbox"/> Face Shields		
	<input checked="" type="checkbox"/> First Aid Kits/Stations ( <i>describe</i> )	café/	Install (Expect First Aid Kit)
	<input type="checkbox"/> Hard Hats		
	<input checked="" type="checkbox"/> Plumbed Eye Wash Stations	Rec/	Install (Encon One Each Location)
	<input type="checkbox"/> Portable Eye Wash Kits ( <i>i.e. bottle type</i> )		
	<input type="checkbox"/> Respirator Cartridges ( <i>describe</i> )		
	<input type="checkbox"/> Safety Glasses/Splash Goggles		
	<input type="checkbox"/> Safety Showers		
	<input type="checkbox"/> Self-contained Breathing Apparatuses (SCBA)		
<input type="checkbox"/> Other ( <i>describe</i> )			
Fire Extinguishing Systems	<input checked="" type="checkbox"/> Automatic Fire Sprinkler Systems	ThroughtOut	(Over Head)
	<input type="checkbox"/> Fire Alarm Boxes/Stations		
	<input checked="" type="checkbox"/> Fire Extinguisher Systems ( <i>describe</i> )	ThroughOut	(16 Hand Held)
	<input type="checkbox"/> Other ( <i>describe</i> )		
Spill Control Equipment and Decontamination Equipment	<input type="checkbox"/> Absorbents ( <i>describe</i> )		
	<input type="checkbox"/> Berms/Dikes ( <i>describe</i> )		
	<input type="checkbox"/> Decontamination Equipment ( <i>describe</i> )		
	<input type="checkbox"/> Emergency Tanks ( <i>describe</i> )		
	<input type="checkbox"/> Exhaust Hoods		
	<input type="checkbox"/> Gas Cylinder Leak Repair Kits ( <i>describe</i> )		
	<input type="checkbox"/> Neutralizers ( <i>describe</i> )		
	<input type="checkbox"/> Overpack Drums		
	<input type="checkbox"/> Sumps ( <i>describe</i> )		
	<input type="checkbox"/> Other ( <i>describe</i> )		
Communications and Alarm Systems	<input type="checkbox"/> Chemical Alarms ( <i>describe</i> )		
	<input checked="" type="checkbox"/> Intercoms/ PA Systems	ThroughOut	
	<input checked="" type="checkbox"/> Portable Radios	LP &	Manager Office (Mortola)
	<input checked="" type="checkbox"/> Telephones	35	
	<input type="checkbox"/> Underground Tank Leak Detection Monitors		
<input type="checkbox"/> Other ( <i>describe</i> )			
Additional Equipment (Use Additional Pages if Needed.)			

\* Use the Location Codes (LC) from the Site Map(s) prepared for your Contingency Plan.

\*\* Describe the equipment and its capabilities. If applicable, specify any testing/maintenance procedures/intervals. Attach additional pages, numbered appropriately, if needed.

CHEMICALS IDENTIFIED AT:

00745 FRY'S ELECTRONCIS – 2311 No. HOLLYWOOD WAY BURBANK

As of February 20, 2006, the following is a list of inventory found in the janitors' closet.

- (1) Three gallons Pink Hand Soap;
- (2) One gallon Cove Base; (Dry Wall Plaster)
- (3) Two gallon Multi Purpose Cleaner;
- (4) One gallon Glass Cleaner;
- (5) One 12.5 OZ. Can Furniture Polish;
- (6) One gallon Metal Coil Cleaner;
- (7) Four/Five gallon cans Floor Stripper;
- (8) Twelve/Seven OZ. Cans Room Deodorant;
- (9) Two dozen Toilet Bowl Deodorant Blocks;
- (10) Four 50lbs Bags Polymer Repair.



# **Fry's ELECTRONICS**

## **EMERGENCY PROCEDURES MANUAL**

### **KEEP AT PIC PODIUM**

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## **EMERGENCY COMMUNICATIONS**

In an emergency, it is imperative that accurate information is quickly relayed to the proper decision-makers at the Home Office. When multiple individuals are communicating different information to different decision-makers, the risk of poor or slow decisions being made increases.

Every emergency situation is unique and the task of communicating information is extremely important. Therefore, our goal is as follows:

**TO ESTABLISH ONE CENTRALIZED LINE OF COMMUNICATION OUT OF THE STORE, TO ONE CENTRALIZED COMMUNICATIONS CENTER IN THE HOME OFFICE ... AS QUICKLY AS POSSIBLE.**

To accomplish this, follow the below listed guidelines:

1. Call 911 first, whenever an emergency situation warrants it.
2. Then, the Store Manager/PIC and Loss Prevention department should call the Director of Loss Prevention & Safety.
3. Once communication has been established, the Store Manager and one member of the Loss Prevention department will remain together during the emergency if possible, and discontinue any communication to any other associate at the Home Office.
4. The Director of Loss Prevention and Safety will establish communication with the Executive Vice President, President, or CEO.
5. If the Director of Loss Prevention & Safety is unreachable then call the Executive Vice President, President, or CEO.

**SECTION 1 - EMERGENCY PHONE NUMBERS**

Fire Department	
Police Department	
Emergency Clinic	
Power Company	
Gas Company	
Water Company	
Store Manager Home	
Store Manager Cell	
Asst. Store Manager Home	
Asst. Store Manager Cell	
District Manager of Loss Prevention Cell	
District Manager of Store M&O Cell	
Director of Loss Prevention & Safety Cell	

**POST AT THE PIC PODIUM AND LP OFFICE**



## **SECTION 5 – EARTHQUAKE**

### **A. When the Shaking Starts**

1. Move away from windows, hanging light fixtures, hanging signs, and high shelving.
2. Take cover under a desk or strong table.
3. Don't run.
4. Don't run outside the building.
5. Don't panic.
6. Don't use telephones.

### **B. When the Shaking Stops**

1. Follow the Store Manager or PIC's instructions.
2. The Store Manager or PIC will assess the situation and proceed according to the below listed guidelines.

### **C. If The Earthquake Is Severe**

Evacuate the building following the Evacuation Plan, and notify the Store M&O District Manager and the Loss Prevention & Safety District Manager as soon as possible.

#### **IF TIME AND SAFETY PERMIT, DO THE FOLLOWING:**

1. Check for injuries (Do not move the injured unless it is life threatening to keep them there).
2. Shut off the gas main. (Refer to Section 9, Gas Leak)
3. Shut off the electrical main if there is damage to the internal wiring.
4. Secure cash registers and high-value merchandise.
5. Clean up chemical spill with heavy-duty rubber gloves. (Refer to Section 10, Hazardous Materials)
6. Check for water or sewage leaks or broken electrical wiring.
7. If bathroom fixtures, water fountains, or landscaping sprinklers are leaking, shut off the domestic water.
8. If there is no fire and if fire sprinkler pipes are leaking, and it appears that substantial water damage will occur, you may shut off the fire riser. If the threat of fire is great and the leak is not major, you may not want to shut them off.
9. Prepare the store for aftershocks. (Is there a potential hazard that could cause major damage with another good aftershock?)
10. Secure all exits and set the alarm.

11. To turn electrical back on first, turn each individual breaker to the "off" position. Next, turn the electrical main on and one by one, turn on each individual breaker. If no problems occur as each breaker is turned on, continue to the next breaker.
12. Do not turn the gas on at this time. Wait for the gas company or Maintenance to give the approval to turn it back on.

**D. Basic Communication Information**

1. Check all phones and fax machines to make sure they are on the hook.
2. Use the phone for emergency communications only.
3. If you must dial the phone, pick up the receiver and leave it off the hook until you receive a dial tone.
4. Do not flash the receiver hook! This will only delay the call.
5. Dial the number immediately after receiving the dial tone or else you will not be able to make the call.
6. Do not walk away from the phone with the receiver off. You will receive a dial tone if the equipment is not damaged.

## SECTION 6 - EVACUATION PLAN – STORES

1. Designate a primary meeting place outside the building where all associates will meet. This place should be far enough away from the building and away from potential hazards, like power lines. A secondary meeting place should also be designated in the event that the primary meeting place is not safe.
2. Loss Prevention will place the Evacuation Map at all DSC podiums, the PIC podium, Customer Relations, and break room. The map must show the associate meeting place.
3. Call Randy Fry, Kathy Kolder or John Fry for permission to evacuate if circumstances permit. The decision to evacuate will be made by the Store/Asst. Manager or PIC when circumstances warrant it.
4. The PIC will make an announcement using the example language, *“Attention Fry’s Customers and Associates. We ask that you evacuate the building. Please calmly walk to the nearest emergency exit. Fry’s Associates, go to the associate meeting place.”* Repeat as often as necessary and as long as is safe to do so. Stores without a centralized paging system should make the announcement from each DSC podium throughout the store.
5. Associates must provide additional assistance to any disabled customers or associates to ensure they exit the building safely.
6. If safe to do so, Loss Prevention will check the bathrooms, offices, and presentation rooms to make sure all individuals are exiting the building.
7. Each DSC will take the Daily Coverage Report with them to the associate meeting place.
8. Each DSC will be responsible to account for all of their associates at the meeting place.
9. The DSC will inform the PIC when all associates are accounted for or who is missing.
10. All associates are to remain in the meeting place until the PIC gives notification that it is safe to return to the store or leave the premises.
11. The PIC must be alert to determine if new hazards (downed power lines, ruptured gas lines etc.) have made the evacuation itself unsafe, or if the primary meeting place is not safe. If the primary meeting place is unsafe, the PIC will decide to meet in the secondary place.
12. If prolonged evacuation is required and it is safe to do so, Loss Prevention will secure the building and set the alarm.
13. Loss Prevention will determine with the Store Manager if it is necessary to have a Loss Prevention Officer remain at the site, if it is safe, to watch the building.



**SECTION 7 – EVACUATION PLAN – HOME OFFICE**

1. Loss Prevention will post an Evacuation Map in each department and in the associate break room.
2. The designated meeting place for each department is on the map.
3. If safe to do so, Loss Prevention will check the bathrooms and offices to make sure all associates have exited the building.
4. Each department will quickly and quietly exit the building and meet in the pre-designated area outside the office.
5. The department supervisor will account for each person in their department.
6. The department supervisor will be alert to determine if any new hazards (downed power lines, ruptured gas lines, etc.) have made the evacuation itself unsafe. If the primary meeting place is unsafe, the supervisor will determine a secondary meeting place.
7. Loss Prevention will meet with each group to ensure all associates are accounted for.
8. All associates are to remain in the meeting area until Loss Prevention gives notification that is safe to go back into the building or leave the premises.

## **SECTION 8 – FIRE**

**NOTE: The safety of our customers and associates must be the primary consideration at all times when dealing with emergency situations. All associates should know the location of all fire exits and fire extinguishers. All associates should receive prior teaching of what to do in case they detect a fire.**

### **A. If You Smell Smoke**

1. Notify the PIC immediately.
2. The PIC will ask Loss Prevention to assist in investigating the source of the smell.

### **B. If A Fire Is Detected**

1. Call the Fire Department by dialing 911.
2. Have an associate meet the Fire Department outside to direct them to the location of the fire.
3. If it is safe to do so, locate a fire extinguisher and attempt to put out the fire.
4. If you are unable to put out the fire quickly with an extinguisher, the PIC will take steps to evacuate the building following Fry's Evacuation Plan.
5. If safe to do so, attempt to minimize any property damage.
6. Loss Prevention will document the incident, including the cause of the fire and the damage done.
7. Loss Prevention will take photographs and send them to the Home Office Legal Department along with any videotape if applicable.

## **SECTION 9 - GAS LEAK**

### **A. If You Smell Gas**

1. Notify the PIC immediately.
2. The PIC will ask Loss Prevention to assist in investigating the source of the smell.

### **B. If a Gas Leak is Reported (Do all of the following at the same time.)**

1. Shut off the gas by following the below listed procedure:
  - Get a crescent wrench from Loss Prevention.
  - Go to the gas main.
  - Turn the shut-off valve a quarter turn.
2. Evacuate the area of the leak.
3. Do your best to prevent sparks of any kind.
4. Air out the building.

Call the gas company before turning the gas back on.



## **SECTION 10 - HAZARDOUS MATERIALS**

Each chemical has its own unique method of cleaning up spills, so refer to the Material Safety Data Sheets for the chemicals we use and sell for the appropriate clean-up procedures. In case of a spill, proceed as follows:

1. Identify the material, its properties, and clean-up procedures.
2. You should have kitty litter available in your store for simple spills, like motor oil.
3. If you are unsure on how to clean up a chemical spill, consult the local Hazardous Materials Team or Fire Department for additional information.
4. Use the appropriate personal protective equipment.
5. If there are noxious fumes, evacuate the area.
6. Seek medical care immediately if someone is contaminated with a hazardous material.
7. If safe, mitigate or eliminate the source of the spill (close valves, cap bottles, etc.).
8. Do not let material go down a drain, or into a waterway, basement, or confined space.
9. Complete notifications to regulatory agencies if required.

## **SECTION 11 - POWER FAILURE**

### **A. If There Is A Power Failure**

1. Notify the District Manager of Store M&O. If the District Manager is not available, contact the President or Executive Vice President.
2. Notify the I.S. department.
3. Inform all the above about the following conditions:
  - ◆ Is the back up power working?
  - ◆ How much of the store is lit?
  - ◆ How much natural light is in the store?
  - ◆ What are the weather conditions?
  - ◆ Are there any factors that would negatively impact the safety of our customers or the protection of our assets?
  - ◆ If any of the variables change that would affect the store's ability to stay open during the outage, contact the District Manager of Store M&O for instructions.
4. Have all associates acquire a flashlight from their DSC podium or the PIC.
5. Have all associates immediately give "TK" service to all customers in the store by staying with them with the flashlight to guide them safely while the lights are out.
6. All associates not with a customer should move to the front of the store and escort customers one at a time using a flashlight. The associate will stay with the customer the entire time they are shopping and then return to the front for the next customer.
7. Associates are not to store-use flashlights and batteries without the PIC's approval.
8. Assign one responsible associate to guard each fire exit door for the entire duration that the power is out.
9. The Loss Prevention and store management teams will check the store to remove any safety hazards.
10. Call Randy Fry, Kathy Kolder, or John Fry for permission to evacuate if circumstances permit. The decision to evacuate will be made by the Store/Asst. Manager or PIC when circumstances warrant it.

## **SECTION 13 - WATER LEAK**

**A. DOMESTIC WATER** - This is the water that is used in the café, drinking fountains, bathrooms, and the landscape sprinklers.

1. All PIC's and Loss Prevention should know where the emergency shut off valve is located. (Refer to Section 2, Map of Electrical, Gas, & Water Shut-Offs)
2. Shut off the water valve when you have major leaks.

**B. FIRE SPRINKLER WATER** - This is a separate system from the domestic water.

1. There will typically be 3-4 pipes that are 6"-12" in diameter. Each pipe (riser) will disperse water to the sprinkler heads in a different part of the building.
2. A map should be posted at the risers that show which risers control which part of the building.
3. PIC's and Loss Prevention should be trained on this procedure before the need occurs to execute it.

When an actual emergency occurs, there is no time for indecision. Following the correct procedure may save thousands of dollars worth of merchandise from being ruined. If a sprinkler head is broken or the pipes are leaking, you **MUST** do the following:

### **C. Water Shut Off**

1. Turn the shut-off valve that is located on the front of the riser to the OFF position. (This stops the flow of water into the pipe, however a lot of water is already in the pipes.)
2. Locate the "MAIN (a.k.a. AUXILIARY) DRAIN VALVE." (It may be next to the shut-off valve in some stores or outside in others.)
3. OPEN the Main (Auxiliary) Drain valve. (This drains the water that is already in the sprinkler pipes. If you don't do this, water will continue to drain from the sprinkler head for 30-60 minutes.)
4. The water will stop flowing in approximately 1 minute.
5. The fire alarm will activate when the water begins flowing. Alarms will also activate showing that the valve is closed. If it is a false alarm, notify the alarm company and instruct them to **not** send the Fire Department
6. To reset the system, close the main (auxiliary) drain valve and SLOWLY open the riser shut-off valve. (If you open the valve all the way quickly, it may create too much pressure and damage the pipes.)
7. Check for leaks.
8. Call the alarm company and reset the fire alarm system.



## HAZARDOUS MATERIALS COMMUNICATION PROGRAM

### WHAT'S IN THIS POLICY?

- A. You Have a Right To Know
- B. List of Hazardous Substances
  - 1. Café
  - 2. Sales Floor
  - 3. Janitorial
    - ◆ Outside Janitorial Company
    - ◆ Fry's Associates
  - 4. Car Electronics Installation
  - 5. Proposition 65 (California Only)
- C. Material Safety Data Sheets (MSDS)
- D. Labeling
- E. Health Hazard Data Key Words
- F. Associate Information & Training
- G. Informing Contractors
- H. Inquiries and Questions

### A. You Have a Right To Know

In 1983, the Federal Government established the OSHA Hazard Communication Standard. This standard is designed to protect employees who use hazardous materials on the job. The Hazard Communication Standard states that companies which use hazardous materials must provide their employees with information and training on the proper handling and use of these materials.

You, as an associate of Fry's Electronics, have a Right To Know about the hazardous materials used in your work area and the potential effects of these materials upon your health and safety.

In compliance with Federal OSHA guidelines, Fry's Electronics has conducted an assessment of the hazards in the workplace. The Director of Loss Prevention & Safety has full authority and responsibility for implementing and maintaining this program. The Director of Loss Prevention & Safety has prepared and will keep current an inventory list of all known hazardous substances present in Fry's workplace.

**NO OTHER CHEMICAL MAY BE USED IN OUR STORES UNLESS IT HAS BEEN APPROVED BY THE DIRECTOR OF LOSS PREVENTION & SAFETY. THIS INCLUDES CHEMICALS THAT CAN BE PURCHASED AT A GROCERY STORE.**

Chemicals can cause serious harm to you and therefore Fry's Electronics will only allow approved chemicals into our building. Some chemicals we sell to customers and others we use. This policy is designed to educate you about what chemicals are allowed in the building, the proper use of those chemicals and the appropriate personal protective equipment needed when working with chemicals. All authorized chemicals will have a Material Safety Data Sheet available in the Store Manager's office. There are MSDS's also available in the café for the chemicals that are present there. These sheets have important information about hazardous components, spill/leak procedures, first aid information, protective measures, and more. Familiarize yourself with these sheets for your own protection.

**B. LIST OF HAZARDOUS SUBSTANCES****1. USED IN CAFÉ DEPT. – CHEMICALS PRESENT AND PERSONAL PROTECTIVE EQUIPMENT NEEDED**

NAME OF CHEMICAL	HEALTH HAZARD	GLOVES	SPLASH GOGGLES
LIQUID DETERGENT CONCENTRATE	<b>DANGER</b>	<b>YES</b>	<b>YES</b>
LIQUID RINSE CONCENTRATE	CAUTION	NO	NO
LIQUID SANITIZER CONCENTRATE	<b>DANGER</b>	<b>YES</b>	<b>YES</b>
POT & PAN DETERGENT CONCENTRATE	WARNING	<b>YES</b> (IF PROLONGED OR REPEATED EXPOSURE)	<b>YES</b> (IF SPLASHING MAY OCCUR)
POT & PAN SANITIZER CONCENTRATE	<b>DANGER</b>	<b>YES</b>	<b>YES</b>
FRUIT & VEGGIE WASH CONCENTRATE	<b>DANGER</b>	<b>YES</b>	<b>YES</b>
GLASS CLEANER CONCENTRATE	WARNING	<b>YES</b>	<b>YES</b>
ALL PURPOSE CLEANER CONCENTRATE	CAUTION	NO	NO
FLOOR CLEANER CONCENTRATE	CAUTION	NO	NO
FOOD CONTACT SANITIZER CONCENTRATE	<b>DANGER</b>	<b>YES</b>	<b>YES</b>
HAND SOAP	CAUTION	NO	NO
ESPRESSO MACHINE CLEANER	CAUTION	NO	NO
BLEACH	<b>DANGER</b>	<b>YES</b>	<b>YES</b>
COMPRESSED CO2 GAS-(EXPLOSIVE HAZARD) <b>CYLINDERS MUST BE ATTACHED TO THE WALLS WITH CHAINS OR STRAPS.</b>		NO	NO

Most of these chemicals are used in the EcoLab system. The concentrated chemical is placed in the dispenser and the associate uses a diluted form of the chemical in a secondary container. **USE CAUTION WHEN WORKING WITH THE CONCENTRATE. ALL CONTAINERS MUST BE LABELED WITH THE CHEMICAL THAT IS INSIDE.** Fry's uses this system in order to limit your exposure to chemicals.

Chemicals should be stored in an orderly fashion on lower shelves in order to prevent spills.

**2. SALES FLOOR**

We sell many chemicals in our store. Each one has an MSDS in a binder in the Store Manager's Office.

We also have compressed gas (Helium) in the Customer Service Sales area. This is an explosive hazard.

**Helium cylinders must be attached to the walls with chains or straps.**

**3. JANITORIAL**

◆ **CHEMICALS USED BY OUTSIDE JANITORIAL SERVICE – NOT BY FRY’S ASSOCIATES - AND PERSONAL PROTECTIVE EQUIPMENT NEEDED.** (Note: Fry’s associates should not remove these items from the janitorial service area. Fry’s associates should not use these chemicals at any time.)

NAME OF CHEMICAL	HEALTH HAZARD	GLOVES	SPLASH GOGGLES
1030 FLOOR FINISH	WARNING	YES	YES
1140 FLOOR FINISH	WARNING	YES	YES
808 FINISH STRIPPER	WARNING	YES	YES
815 FINISH STRIPPER	WARNING	YES	YES
1000 MAINTAINER/ RESTORER	CAUTION	YES	YES
JOHNSON WAX	CAUTION	NO	NO
TOP FLITE PLUS ALL PURPOSE CLEANER	WARNING	YES	YES
DEEP BLUE GLASS & SURFACE CLEANER	WARNING	YES	YES
M.A.D. MILD ACID DETERGENT	<b>DANGER</b>	YES	YES
CONSUME	CAUTION	YES	YES
BIG D AEROSOL DEODORANTS	CAUTION	YES	YES
PUSH LIQUID BACTERIA/DIGESTER	CAUTION	NO	NO
AF315 NEUTRAL PH DISINFECTANT	WARNING	YES	YES
PH7 NEUTRAL CLEANER	CAUTION	YES	YES
BONBET LIQUID DRY CARPET CLEANER	WARNING	YES	YES (MAKE SURE VENTILATION IS ADEQUATE)
ES-STEAM EXTRACTION CLEANER	WARNING	YES	YES (MAKE SURE VENTILATION IS ADEQUATE)
NILODOR POLYMER URINAL SCREEN	CAUTION	NO	<b>OPTIONAL</b>

◆ **CHEMICALS USED BY FRY’S ASSOCIATES AND PERSONAL PROTECTIVE EQUIPMENT NEEDED**

NAME OF CHEMICAL	HEALTH HAZARD	GLOVES	SPLASH GOGGLES
ALL PURPOSE DILUTED CLEANER FROM CAFE	CAUTION	NO	NO
WINDEX	NONE	NO	NO
FURNITURE POLISH	CAUTION	YES (FOR PROLONGED USE)	YES
STAINLESS STEEL CLEANER	CAUTION	NO	NO
GOO-GONE	CAUTION	YES (IF SIGNIFICANT SPLASHING)	YES (FOR PROLONGED USE)

**4. CAR ELECTRONICS INSTALLATION**



◆ CHEMICALS USED BY FRY'S CAR ELECTRONICS INSTALLATION DEPT. AND PERSONAL PROTECTIVE EQUIPMENT NEEDED			
NAME OF CHEMICAL	HEALTH HAZARD	GLOVES	SPLASH GOGGLES
SPRAY ADHESIVE	WARNING	YES	YES
GLUE STICKS	CAUTION	YES (IF WORKING WITH MOLTEN MATERIAL)	YES (IF WORKING WITH MOLTEN MATERIAL)
3M STRIP CAULK	CAUTION	NO	NO

## 5. PROP. 65 (CALIFORNIA ONLY)

There are chemicals in our store that are known to the state of California to cause cancer, birth defects, or other reproductive harm.

- ◆ Carbonless paper (receipt tape)
- ◆ Diesel fuel (trucks and emergency generators)
- ◆ Solder (on salesfloor)
- ◆ Chemical lead
- ◆ Plastic coated cables (coax, data cables etc...)

To address exposures to Proposition 65 chemicals, the Director of Loss Prevention & Safety has provided clear and reasonable warnings to individuals prior to exposure by means of signs that are posted on each side of the aisles where these products are sold or used.

## C. MATERIAL SAFETY DATA SHEETS (MSDS)

Federal law requires that copies of these sheets are available to our associates. The chemical manufacturer provides these sheets that contains detailed information about a specific hazardous material that is on the materials inventory. An MSDS contains the following information:

- ◆ Identity (name of the substance)
- ◆ Physical Hazards
- ◆ Health Hazards
- ◆ Routes of body entry
- ◆ Permissible Exposure limits (PEL)
- ◆ Carcinogenic Factors (cancer causing)
- ◆ Safe Handling Procedures
- ◆ Date of Sheet Preparation
- ◆ Control Measures (Personal Protective Equipment)
- ◆ Emergency First Aid
- ◆ Contact information (for the preparer of the sheet)
- ◆ Special Instructions

The Director of Loss Prevention & Safety is responsible for obtaining the MSDS's, reviewing them for completeness, and maintaining the data sheet system for the company. In the reviewing of incoming sheets, if new and significant health/safety information becomes available, this new information is passed on immediately to the affected associates by additional training sessions, posted memos, and other means of communication.

If MSDS's are missing or new hazardous substance(s) in use do not have MSDS's, please contact the Director of Loss Prevention & Safety at 408-487-4500. A new MSDS will be requested from the manufacturer.

You must read these sheets so that you have all the information that you need to work safely. There are copies in the café and a copy in the MSDS binder in the Store Manager's office.

You would use an MSDS, for example, if you spilled the Quaternary Food Contact Surface Sanitizer concentrate. Specific instructions for cleaning up a spill are written in the MSDS.

**D. LABELING**

ALL containers of hazardous materials must have legible labels identifying the material and warning associates of its potential hazards. The label must be placed in a conspicuous location on the container. Never use unlabeled containers to store any of the chemicals that are on this list. Every container must be properly labeled so that you know exactly what is inside the container. Never place one chemical in to a container that is labeled for a different container.

Fry's policy is all primary and secondary containers are labeled as follows:

LABEL INFORMATION	PRIMARY CONTAINER	SECONDARY CONTAINER
THE PRODUCT NAME	✓	✓
A WARNING STATEMENT, MESSAGE OR SYMBOL	✓	✓
NAME AND ADDRESS OF THE MANUFACTURER	✓	

Containers must be re-labeled if damaged or defaced.

**E. HEALTH HAZARD DATA KEY WORDS**

Each chemical we use will have the following hazard description name or number on the MSDS and on the label.

HEALTH HAZARD CLASSIFICATION NAME	HEALTH HAZARD CLASSIFICATION NUMBER	DESCRIPTION
<b>DEADLY</b>	<b>4</b>	THIS MEANS THE CHEMICAL MAY BE DEADLY.
<b>EXTREME DANGER</b>	<b>3</b>	THIS MEANS THAT THE CHEMICAL MAY BE TOXIC, CORROSIVE, OR FLAMMABLE. THE CHEMICAL MAY CAUSE PERMANENT BLINDNESS OR CHEMICAL BURNS. IT WOULD BE HARMFUL OR FATAL IF SWALLOWED.
<b>WARNING (DANGEROUS)</b>	<b>2</b>	CAUSES MODERATE IRRITATION. PROLONGED EXPOSURE CAUSES IRRITATION OR NAUSEA STOMACH DISTRESS IF SWALLOWED.
<b>CAUTION (SLIGHT HAZARD)</b>	<b>1</b>	THIS MEANS THE CHEMICAL MAY CAUSE IRRITATION TO SKIN AND EYES. IF SWALLOWED, MAY CAUSE STOMACH DISTRESS, NAUSEA, OR VOMITING.
<b>NONE</b>	<b>0</b>	NO HAZARD

## **F. ASSOCIATE INFORMATION AND TRAINING**

Associates are to attend a health and safety training session set up by the Loss Prevention and Safety Department Manager prior to starting work. This training session will provide information on the following:

- ◆ The requirements of the hazard communication regulation, including the associate's rights under the regulation.
- ◆ The location and availability of the written hazard communication program.
- ◆ Any operation in the work area, including non-routine tasks, where hazardous substances or Prop 65 carcinogens/reproductive toxins are present and exposures are likely to occur.
- ◆ Methods and observation techniques used to determine the presence or release of hazardous substances in the work area.
- ◆ Protective practices the company has taken to minimize or prevent exposure to these substances.
- ◆ How to read labels and review MSDS's to obtain hazard information.
- ◆ Physical and health effects of the hazardous substances.
- ◆ Symptoms of overexposure.
- ◆ Emphasizes associates' need to practice reducing and preventing exposure to these hazardous substances by engineering controls, work practices, and use of personal protective equipment.
- ◆ Emergency and first-aid procedures to follow if associates are exposed to hazardous substances.
- ◆ The location and interpretation of warning signs or placards to communicate that a chemical known to cause cancer or reproductive toxicity is used in the workplace.

Associates will receive additional training when a new hazard is introduced into the workplace.

## **G. INFORMING CONTRACTORS**

To ensure that outside contractors (janitorial employees) work safely in our stores and to protect our associates from chemicals used by outside contractors, the Director of Loss Prevention and Safety is responsible for giving and receiving the following information from contractor:

- ◆ Hazardous substances, including Proposition 65 chemicals, to which they may be exposed while on the job site as well as substances they will be bringing into the workplace. We will provide contractors with information on our labeling system and access to the MSDS's.
- ◆ Precautions and protective measures our associates may take to minimize the possibility of exposure.

## **H. INQUIRIES AND QUESTIONS**

If anyone has questions about this plan, please contact the Director of Loss Prevention and Safety at the Home Office. Our Plan will be maintained by the Director of Loss Prevention and Safety to ensure that the policies are carried out and the plan is effective.



▼ Summary

**AIN: 2463-001-019** <sup>3</sup>

**Situs Address:**

2311 N HOLLYWOOD WAY  
BURBANK CA 91505-1125

**Use Type:**

Commercial

Regular Fee Parcel

02530

**Parcel Status:**

**ACTIVE**

12/13/1995

**Delete Date:**

**CURRENT**

**Tax Status:**

None

**Year Defaulted:**

None

**Building (0102) & Land Overview**

Use Code: 1350

Design Type: 2700

**Quality Class:**

# of Units: 0

Beds/Baths: 0/0

Building SqFt: 345,000

**Year Built:**

446,273

**Effective Year:**

446,273

**Land SqFt:**

446,273



(<http://assessormap.co.la.ca.us/Geocortex/Essentials/REST/sites/PAIS/VirtualDirectory/AssessorMaps/ViewMap.html?val=2463-001>)

Parcel Map (<http://assessormap.co.la.ca.us/Geocortex/Essentials/REST/sites/PAIS/VirtualDirectory/AssessorMaps/ViewMap.html?val=2463-001>) / [Map Index](http://maps.assessor.lacounty.gov/Geocortex/Essentials/REST/sites/PAIS/VirtualDirectory/AssessorMaps/ViewMap.html?val=2463-NDX) (<http://maps.assessor.lacounty.gov/Geocortex/Essentials/REST/sites/PAIS/VirtualDirectory/AssessorMaps/ViewMap.html?val=2463-NDX>)

	2020 Roll Preparation	2019 Current Roll	RC	Year	1996 Base Value
\$	9,114,233	8,935,523	T	1996	\$ 6,000,000
\$	3,618,882	3,547,924	T	1996	\$ 2,386,000
\$	12,733,115	12,483,447			\$ 8,386,000

**Assessor's Responsible Division**

**District:** North District Office

**Region:** 24

**Cluster:** 24632 N HOLLYWD/BRBNK

North District Office (<https://maps.google.com/?q=13800+Balboa+Bld.+Sylmar%2C+CA+91342>)   
13800 Balboa Blvd.  
Sylmar, CA 91342

Phone: (818) 833-6000

Toll Free: 1 (888) 807-2111

M-F 7:30 am to 5:00 pm



2311 N Hollywood Way, Burbank, CA 91505-1125

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▼ Building and Land Characteristics

Land Information

Use Code = 1350 (Commercial)



**Total SqFt (GIS):** 446,273  
**Total SqFt (PDB):**  
**Usable SqFt:** 456,940  
**Acres:**  
**Land W' x D':** 0 x 0  
**Sewers:** Yes  
**Flight Path:** No  
**X-Traffic:** Yes  
**Freeway:** No  
**Corner Lot:** Yes  
**Golf Front:** No  
**Horse Lot:** No  
**View:** None  
**Zoning:** (Refer Issuing Agency)  
**Code Split:** No  
**Impairment:** None

**Situs Address:**  
 2311 N HOLLYWOOD WAY BURBANK CA 91505-1125

**Legal Description (for assessment purposes):**  
 P M 269-99-100 LOT 1

**Use Code:** 1350 (Commercial)  
 1 = Commercial  
 3 = Department Store  
 5 = Warehouse Store (Costco, etc.)  
 0 = One Story

### Building Information

**SUBPART:** 0102  
**Design Type:** 2700  
**Quality Class:**  
**# of Units:** 0  
**Beds/Baths:** 0/0  
**Building SqFt:** 345,000  
**Year Built:**  
**Effective Year:**  
**Depreciation:** / / 0  
**RCN Other:** \$ 379,500  
**RCN Other Trended:** \$ 824,274

Year Change: 1987

**Design Type:** 2700

- 2 = Commercial
- 7 = Parking Lot (Commercial or Patron)
- 0 = Unused or Unknown Code (No Meaning)
- 0 = Unused or Unknown Code (No Meaning)

**SUBPART:** 0202

**Design Type:** 1300  
**Quality Class:** CX

**# of Units:** 0  
**Beds/Baths:** 0/0  
**Building SqFt:** 101,566

**Year Built:** 1962  
**Effective Year:** 1967  
**Depreciation:** // 0

**RCN Other:** \$ 0  
**RCN Other Tended:** \$ 0  
**Year Change:** 1997

**Design Type:** 1300

- 1 = Commercial
- 3 = Department Store
- 0 = Unused or Unknown Code (No Meaning)
- 0 = Unused or Unknown Code (No Meaning)

**SUMMARY:** Total

**# of Units:** 0  
**Beds/Baths:** 0/0  
**Building SqFt:** 101,566  
**Avg SqFt/Unit:**

▼ **Events History**

Ownership () Parcel Change ()

Show Re-Assessable Only:

Recording Date	Seq. #	Re-Assessed	# Parcels	%	Ver. Code	DTT Sale Price	Assessed Value
12/29/1995	50	Yes	1	00%-0	K	\$ 8,200,082	\$ 8,200,000
03/15/1995	50	Yes		00%-0		\$ 0	\$ 4,966,095
12/15/1986	50	Yes	1		1	\$ 1,360,013	\$ 0

▼ Assessment History

Show All:  Hide Inactive Rolls:  Showing 1 to 10 of 30 entries.

Bill Number	Bill Type	Bill Status	Date to Auditor	Recording Date	Total Value	Land Value	Improvement Value
220-PSEG				12/29/1995	\$ 12,733,115	\$ 9,114,233	\$ 3,618,882
2190000	R	A	07/01/2019	12/29/1995	\$ 12,483,447	\$ 8,935,523	\$ 3,547,924
2180000	R	A	07/19/2018	12/29/1995	\$ 12,238,674	\$ 8,760,317	\$ 3,478,357
2170000	R	A	06/26/2017	12/29/1995	\$ 11,998,701	\$ 8,588,547	\$ 3,410,154
2160000	R	A	07/05/2016	12/29/1995	\$ 11,763,434	\$ 8,420,145	\$ 3,343,289
2150000	R	A	06/23/2015	12/29/1995	\$ 11,586,737	\$ 8,293,667	\$ 3,293,070
2140000	R	A	06/24/2014	12/29/1995	\$ 11,359,770	\$ 8,131,206	\$ 3,228,564
2130000	R	A	06/25/2013	12/29/1995	\$ 11,308,431	\$ 8,094,458	\$ 3,213,973
2120000	R	A	06/27/2012	12/29/1995	\$ 11,086,698	\$ 7,935,744	\$ 3,150,954
2110000	R	A	07/06/2011	12/29/1995	\$ 10,869,313	\$ 7,780,142	\$ 3,089,171

2463 1 SHEET

P. A. 1241-3 & 4

TRA 2530

REVISED 681024013 690321207

701109310 721211401 730322418

740705207 94062102003001-29 94062102003002-29

2019020528008001+24

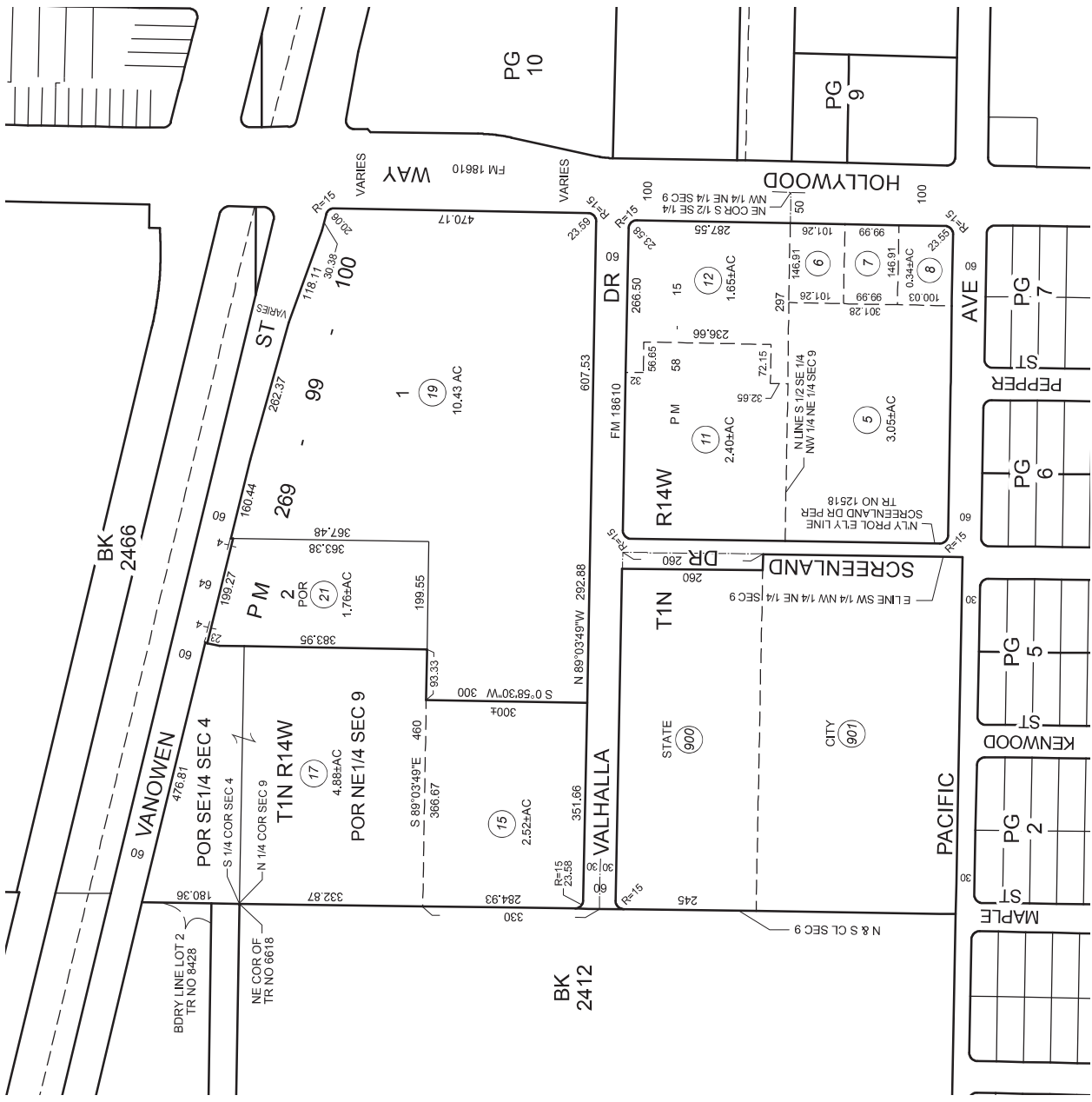
SEARCH NO

OFFICE OF THE ASSESSOR COUNTY OF LOS ANGELES COPYRIGHT © 2002

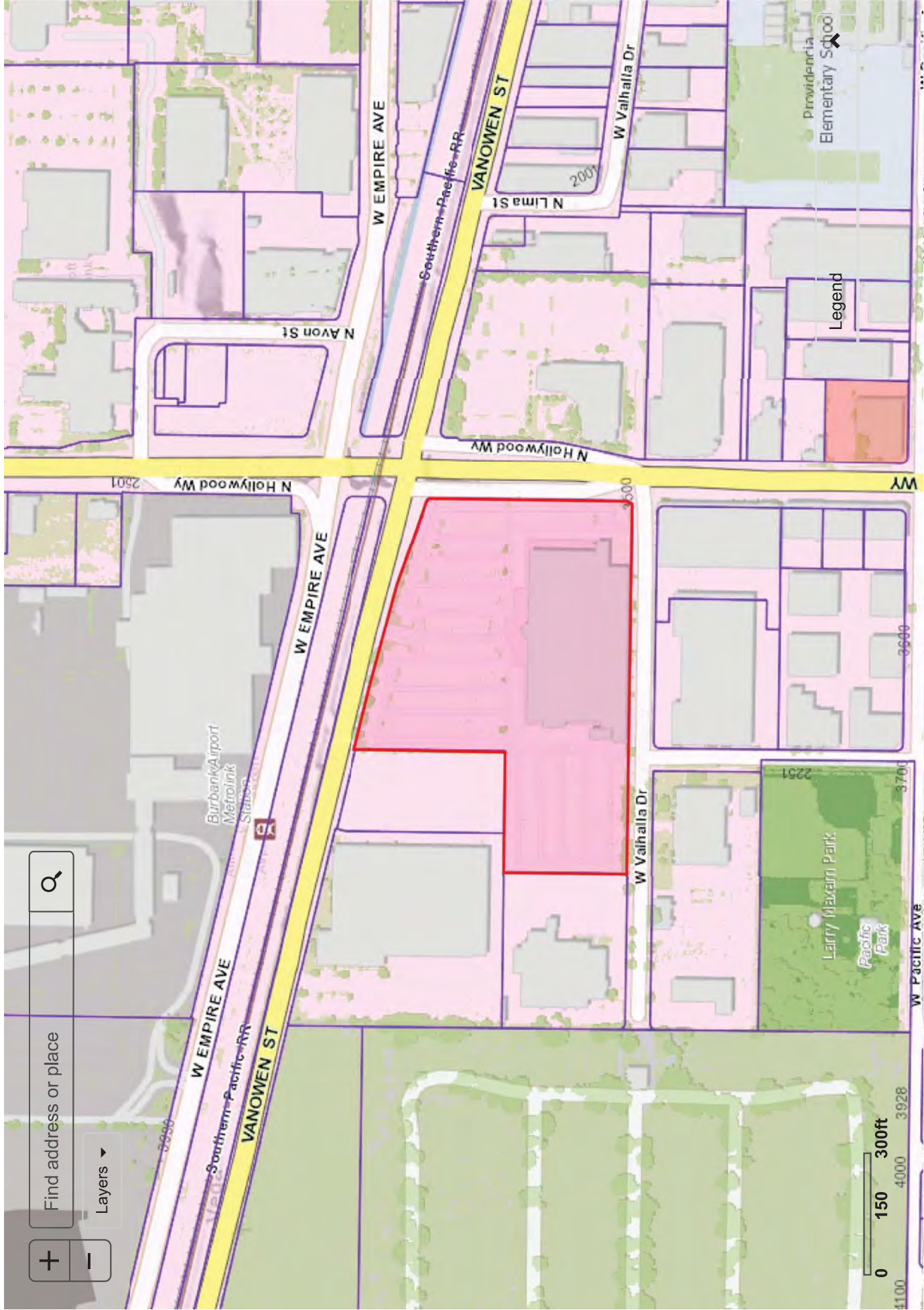
2020



MAPPING AND GIS SERVICES SCALE 1" = 200'





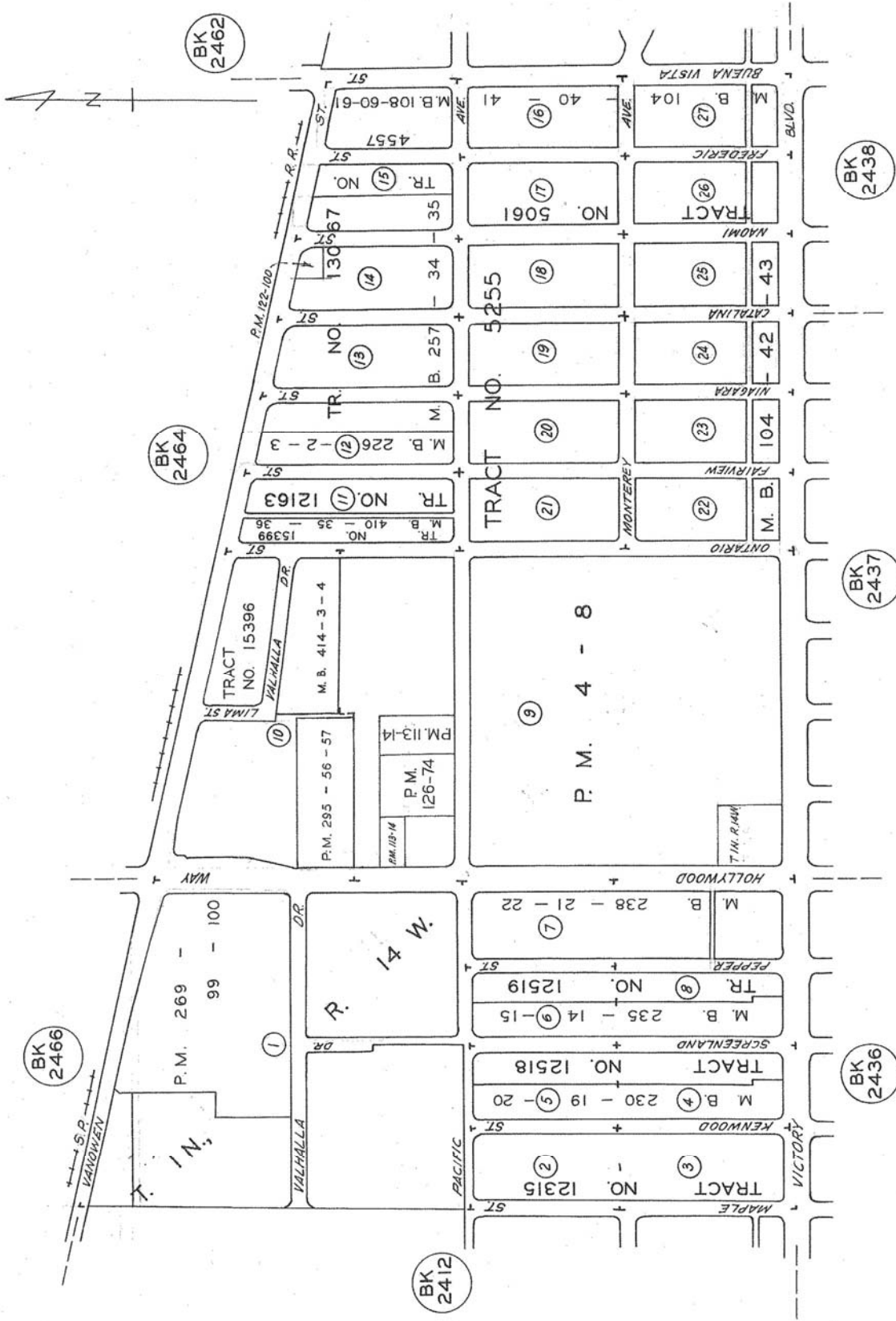


2463

SCALE 1" = 400'

2001

- 681024
- 690305
- 7161008
- 747712
- 8102305
- 800625
- 830511
- 960724
- 970218
- 20000828



INDEX  
 BOOK 2463  
 CITY OF BURBANK

ASSESSOR'S MAP  
 COUNTY OF LOS ANGELES, CALIF.



**Jared Blumenfeld**  
Secretary for  
Environmental Protection



## Department of Toxic Substances Control

Meredith Williams, Ph.D.

Director

1001 "I" Street

P.O. Box 806

Sacramento, California 95812-0806



**Gavin Newsom**  
Governor

### EPA ID PROFILE

Map

**ID Number:** CAD982504052  
**Name:** LOCKHEED MARTIN CORPORATION  
**County:** LOS ANGELES  
**NAICS:** 3364

**Status:** INACTIVE  
**Inactive Date:** 6/30/1998 12:00:00 AM  
**Record Entered:** 6/29/1990 12:00:00 AM  
**Last Updated:** 8/10/2004 11:17:55 AM

	Name	Address	City	State	Zip Code	Phone
<b>Location</b>	LOCKHEED MARTIN CORPORATION	B76-76A 2311 N HOLLYWOOD WY	BURBANK	CA	915050000	
<b>Mailing</b>		2550 N HOLLYWOOD WAY STE 301	BURBANK	CA	915051055	
<b>Owner</b>	LOCKHEED MARTIN CORPORATION	6801 ROCKLEDGE DR	BETHESDA	MD	208170000	8188762000

Operator/Contact	R N HELGERSON	INACTIVE PER VQ98 - BMI	BURBANK	CA	915050000	8188476927
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Based Only Upon ID Number:

CAD982504052

Calif. Manifests?	Non Calif. Manifests?	Transporter Registration?
Yes	N/A	N/A

**California and Non California Manifest Tonnage Total and Waste Code by Year Matrix by Entity Type (if available) are on the next page**

**Calif. Manifest Counts and Total Tonnage**

Top line represents Manifest Count and Bottom line represents Total Tonnage

Year	Generator	Trans. 1	Trans. 2	TSDf	ALT. TSDf
1993	3 167.71720	0 0.00000	0 0.00000	0 0.00000	0 0.00000
1994	1 58.99600	0 0.00000	0 0.00000	0 0.00000	0 0.00000
1995	56 1145.88280	0 0.00000	0 0.00000	0 0.00000	0 0.00000

**Non California Manifest Total Tonnage**

No Records Found



## Waste Code Matrix

<b>California</b>	<u><a href="#">Generator</a></u>	<u><a href="#">Trans. 1</a></u>	<u><a href="#">Trans. 2</a></u>	<u><a href="#">TSDF</a></u>	<u><a href="#">Alt. TSDF</a></u>
<b>RCRA</b>	<u><a href="#">Generator</a></u>	<u><a href="#">Trans. 1</a></u>	<u><a href="#">Trans. 2</a></u>	<u><a href="#">TSDF</a></u>	<u><a href="#">Alt. TSDF</a></u>

[Waste Code Matrix as a spreadsheet](#)

The Department of Toxics Substances Control (DTSC) takes every precaution to ensure the accuracy of data in the Hazardous Waste Tracking System (HWTS). However, because of the large number of manifests handled, inaccuracies in the submitted data, limitations of the manifest system and the technical limitations of the database, DTSC cannot guarantee that the data accurately reflect what was actually transported or produced.

**Report Generation Date:** 04/19/2020



HAZARDOUS SUBSTANCE STORAGE CONTAINER INFORMATION FOR LOS ANGELES COUNTY  
STATE WATER RESOURCES CONTROL BOARD

(1)=FARM MOTOR VEHICLE FUEL TANKS, 2=ALL OTHER PRODUCT TANKS, 3=WASTE TANKS, 4=SUMPS, 5=PITS, PONDS, LAGOONS & OTHERS)

I OWNER  
CALIFORNIA NATIONAL GUARD  
P.O. BOX 21405  
SACRAMENTO CA 95821

II FACILITY

ORGANIZATIONAL MAINT SHOP #13  
3800 VALHALLA DR.  
BURBANK CA 91504

MAILING ADDRESS  
TOWNSHIP/RANGE/SECTION  
3800 VALHALLA DR.  
BURBANK CA 91504

DEALER/FOREMAN/SUPERVISOR  
TELEPHONE  
CW4 GEORGE A. MCLEARY  
(818) 845-5284

TYPE OF BUSINESS  
NO. OF CONTAINERS  
REPAIR/FUEL DISPENSI  
3

III 24-HR. CONTACT PERSON / TELEPHONE  
DAY: MCLEARY, GEORGE A. (818) 846-3118 NIGHT: SAME

\*\*\*\*\* OWNER ASSIGNED CONTAINER NUMBER: 1 \*\*\*\*\* STATE BOARD ASSIGNED CONTAINER ID NUMBER: 00000061240001 \*\*\*\*\*

IV DESCRIPTION

A. CONTAINER TYPE : TANK  
B. MANUFACTURER/YR OF MFG: NATIONAL TANK /1950  
C. YEAR INSTALLED : 1950  
D. CAPACITY (GALLONS) : 3,000

E. REPAIRS : NONE IF YES WHEN :  
F. CURRENTLY USED : YES IF NO, YEAR OF LAST USE:  
G. STORES : PRODUCT  
H. MOTOR VEHICLE FUEL/WASTE OIL : YES CONTAINS: UNLEADED

IS CONTAINER LOCATED ON A FARM : NO

V CONTAINER CONSTRUCTION

A. THICKNESS:  
D. MATERIAL : UNKNOWN  
E. LINING : UNLINED  
F. WRAPPING : UNKNOWN

B. VAULTING: NON-VAULTED C. WALLING: UNKNOWN

VI PIPING

A. ABOVEGROUND PIPING :  
C. REPAIRS : NONE IF YES, YEAR OF MOST RECENT REPAIR:  
B. UNDERGROUND PIPING : SUCTION

VII LEAK DETECTION  
STOCK INVENTORY

VIII CHEMICAL COMPOSITION OF SUBSTANCES CURRENTLY STORED IN CONTAINER  
12031 UNLEADED MOTOR VEHICLE FUEL

HAZARDOUS SUBSTANCE STORAGE CONTAINER INFORMATION FOR LOS ANGELES COUNTY  
STATE WATER RESOURCES CONTROL BOARD

(1=FARM MOTOR VEHICLE FUEL TANKS, 2=ALL OTHER PRODUCT TANKS, 3=WASTE TANKS, 4=SUMPS, 5=PITS, PONDS, LAGOONS (OTHERS))  
CONTAINER TYPES: 1, 2, 3, 4, 5

\*\*\*\*\* OWNER ASSIGNED CONTAINER NUMBER: 2 \*\*\*\*\* STATE BOARD ASSIGNED CONTAINER ID NUMBER: 0000001240002 \*\*\*\*\*

IV DESCRIPTION

A. CONTAINER TYPE : TANK  
B. MANUFACTURER/YR OF MFG: NATIONAL TANK  
C. YEAR INSTALLED : 1950  
D. CAPACITY (GALLONS) : 2,000

E. REPAIRS : NONE IF YES WHEN :  
F. CURRENTLY USED : YES IF NO, YEAR OF LAST USE: /1950  
G. STORES : PRODUCT  
H. MOTOR VEHICLE FUEL/WASTE OIL : YES CONTAINS: DIESEL

IS CONTAINER LOCATED ON A FARM : NO

V CONTAINER CONSTRUCTION

A. THICKNESS:  
B. VAULTING: NON-VAULTED C. WALLING: UNKNOWN  
D. MATERIAL : UNKNOWN  
E. LINING : UNLINED  
F. WRAPPING : UNKNOWN

VI PIPING

A. ABOVEGROUND PIPING :  
B. UNDERGROUND PIPING : SUCTION  
C. REPAIRS : NONE IF YES, YEAR OF MOST RECENT REPAIR:

VII LEAK DETECTION STOCK INVENTORY

VIII CHEMICAL COMPOSITION OF SUBSTANCES CURRENTLY STORED IN CONTAINER  
12034  
DIESEL MOTOR VEHICLE FUEL

\*\*\*\*\* OWNER ASSIGNED CONTAINER NUMBER: 3 \*\*\*\*\* STATE BOARD ASSIGNED CONTAINER ID NUMBER: 0000001240003 \*\*\*\*\*

IV DESCRIPTION

A. CONTAINER TYPE : OTHER  
B. MANUFACTURER/YR OF MFG:  
C. YEAR INSTALLED : 1958  
D. CAPACITY (GALLONS) :

E. REPAIRS : YES IF YES WHEN : 1976  
F. CURRENTLY USED : YES IF NO, YEAR OF LAST USE: /1958  
G. STORES : WASTE  
H. MOTOR VEHICLE FUEL/WASTE OIL : YES CONTAINS: OIL, GREASE, DI

IS CONTAINER LOCATED ON A FARM : NO

V CONTAINER CONSTRUCTION

A. THICKNESS: 3 INCHES B. VAULTING: NON-VAULTED C. WALLING: SINGLE  
D. MATERIAL : CONCRETE  
E. LINING : UNLINED  
F. WRAPPING : NONE

VI PIPING

A. ABOVEGROUND PIPING :  
B. UNDERGROUND PIPING : GRAVITY  
C. REPAIRS : YES IF YES, YEAR OF MOST RECENT REPAIR: 1976

VII LEAK DETECTION NONE

VIII CHEMICAL COMPOSITION OF SUBSTANCES CURRENTLY STORED IN CONTAINER  
NONE



**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION**

101 CENTRE PLAZA DRIVE  
MONTEREY PARK, CA 91754-2156  
(213) 266-7500  
FAX: (213) 266-7600



July 5, 1995

Mr. Ron N. Helgerson  
Lockheed Martin Corporation  
Burbank Program Office  
2550 N. Hollywood Way, Suite 506  
Burbank, CA 91505-1055

**SOIL REMEDIATION FINAL REPORT, LOCKHEED PLANT A-1 SOUTH, BUILDING 76A  
(File No. 104.0675)(Cleanup and Abatement Order No. 87-161)**

Your May 25, 1995, letter transmitted the "Final Report of Soil Remediation for Building 76A, Lockheed Plant A-1 South".

Based on our review of the report, no further remediation is required as it appears that the contaminated areas identified by previous site investigations have been remediated to the extent possible that would greatly reduce the threat to the groundwater beneath the site. Confirmatory soil samplings and testings have indicated that this site has been remediated in accordance with Cleanup and Abatement Order No. 87-161 issued by this Regional Board on December 10, 1987.

As a result, the Lockheed Plant A-1 South site is hereby excluded from requirements set forth in Cleanup and Abatement Order No. 87-161. This does not release any other Lockheed sites from this Order. In addition, Lockheed should continue monitoring the groundwater monitoring well at the site. In the event that Lockheed sells this property, the new owner(s) must provide Lockheed and their consultants continued access to the property for the purpose of monitoring the on-site well.

Please call Alex Carlos at (213) 266-7583 if you have any questions.

A handwritten signature in cursive script that reads "Robert P. Ghirelli".

ROBERT P. GHIRELLI, D.Env.  
Executive Officer

Mr. Ron N. Helgerson  
July 5, 1995  
Page 2

cc: David Seter, USEPA, Region IX  
Jorge Leon, SWRCB, Office of the Chief Counsel  
John Lewis, RWQCB, Region 4  
Hamid Saebfar, CALEPA, DTSC, Region 3  
Mel Blevins, ULARA Watermaster  
John Johnsen, Lockheed Martin Corporation, Burbank Program Office  
Scott Warren, Lockheed Martin Corporation, Burbank Program Office  
Carol Yuge, Lockheed Martin Corporation, Burbank Program Office

## Detections Summary

Client: Tetra Tech, Inc.  
 301 E. Vanderbilt Way, Suite 450  
 San Bernardino, CA 92408-3562

Work Order: 17-04-0729  
 Project Name: LMC BOU  
 Received: 04/10/17

Attn: Robert Sabater

Page 2 of 3

### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
A-1-CW05-N-17Q2 (17-04-0729-6)						
Chromium	0.000622	J	0.000402*	mg/L	EPA 6020	EPA 3020A Total
Dichlorodifluoromethane	0.84	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	4.0		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	0.44	J	0.29*	ug/L	EPA 8260B	EPA 5030C
1,4-Dioxane	2.3		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C
A-1-CW05-FD-17Q2 (17-04-0729-7)						
Chromium	0.000512	J	0.000402*	mg/L	EPA 6020	EPA 3020A Total
Acetone	4.4	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Dichlorodifluoromethane	0.85	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	4.3		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	0.50		0.50	ug/L	EPA 8260B	EPA 5030C
1,4-Dioxane	2.7		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C
A-1-CW04-N-17Q2 (17-04-0729-8)						
Chromium, Hexavalent	0.88		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00164		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.3		0.50	ug/L	EPA 8260B	EPA 5030C
1,1,2-Trichloroethane	7.4		0.50	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	0.76		0.50	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	17		1.0	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	0.42	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloropropane	0.50		0.50	ug/L	EPA 8260B	EPA 5030C
Acetone	4.7	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	0.91		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	3.6		0.50	ug/L	EPA 8260B	EPA 5030C
Dichlorodifluoromethane	0.88	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	5.2		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	4.8		0.50	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	25		2.5	ug/L	EPA 8260B SIM	EPA 5030C
1,4-Dioxane	2.0		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C

\* MDL is shown

## Detections Summary

Client: Tetra Tech, Inc.  
 301 E. Vanderbilt Way, Suite 450  
 San Bernardino, CA 92408-3562

Work Order: 17-04-0729  
 Project Name: LMC BOU  
 Received: 04/10/17

Attn: Robert Sabater

Page 2 of 3

### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
A-1-CW05-N-17Q2 (17-04-0729-6)						
Chromium	0.000622	J	0.000402*	mg/L	EPA 6020	EPA 3020A Total
Dichlorodifluoromethane	0.84	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	4.0		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	0.44	J	0.29*	ug/L	EPA 8260B	EPA 5030C
1,4-Dioxane	2.3		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C
A-1-CW05-FD-17Q2 (17-04-0729-7)						
Chromium	0.000512	J	0.000402*	mg/L	EPA 6020	EPA 3020A Total
Acetone	4.4	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Dichlorodifluoromethane	0.85	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	4.3		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	0.50		0.50	ug/L	EPA 8260B	EPA 5030C
1,4-Dioxane	2.7		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C
A-1-CW04-N-17Q2 (17-04-0729-8)						
Chromium, Hexavalent	0.88		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00164		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.3		0.50	ug/L	EPA 8260B	EPA 5030C
1,1,2-Trichloroethane	7.4		0.50	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	0.76		0.50	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	17		1.0	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	0.42	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloropropane	0.50		0.50	ug/L	EPA 8260B	EPA 5030C
Acetone	4.7	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	0.91		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	3.6		0.50	ug/L	EPA 8260B	EPA 5030C
Dichlorodifluoromethane	0.88	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	5.2		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	4.8		0.50	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	25		2.5	ug/L	EPA 8260B SIM	EPA 5030C
1,4-Dioxane	2.0		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C

\* MDL is shown



## Detections Summary

Client: Tetra Tech, Inc.  
 301 E. Vanderbilt Way, Suite 450  
 San Bernardino, CA 92408-3562

Work Order: 17-04-0840  
 Project Name: LMC BOU  
 Received: 04/11/17

Attn: Robert Sabater

Page 1 of 2

### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
A-1-CW09-N-17Q2 (17-04-0840-1)						
Chromium, Hexavalent	1.4		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00224		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.9		0.50	ug/L	EPA 8260B	EPA 5030C
1,1,2-Trichloroethane	7.5		0.50	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	0.74		0.50	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	10		1.0	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	0.38	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloropropane	0.52		0.50	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	1.1		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	3.8		0.50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	5.9		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	5.9		0.50	ug/L	EPA 8260B	EPA 5030C
Methyl-t-Butyl Ether (MTBE)	0.44	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	15		1.2	ug/L	EPA 8260B SIM	EPA 5030C
1,4-Dioxane	3.7		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C
C-1-CW02-N-17Q2 (17-04-0840-2)						
Chromium	0.000600	J	0.000402*	mg/L	EPA 6020	EPA 3020A Total
Dichlorodifluoromethane	0.86	J	0.40*	ug/L	EPA 8260B	EPA 5030C
LTB-20170411 (17-04-0840-3)						
Acetone	4.6	J	4.0*	ug/L	EPA 8260B	EPA 5030C
A-1-CW02-N-17Q2 (17-04-0840-4)						
Chromium	0.00365		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.41	J	0.24*	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.29	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	21		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	4.2		0.50	ug/L	EPA 8260B	EPA 5030C
B-6-CW08-N-17Q2 (17-04-0840-5)						
Chromium, Hexavalent	0.028		0.020	ug/L	EPA 218.6	N/A
Chromium	0.000834	J	0.000402*	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.43	J	0.24*	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.27	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	12		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	3.2		0.50	ug/L	EPA 8260B	EPA 5030C
Methyl-t-Butyl Ether (MTBE)	0.24	J	0.20*	ug/L	EPA 8260B	EPA 5030C

\* MDL is shown



August 31, 2017

Gary Riley  
Lieutenant, U.S. Public Health Service  
U.S. EPA Region IX, Superfund Division  
75 Hawthorne Street, SFD-7-2  
San Francisco, CA 94105-3901

Via Electronic Mail

**SUBJECT:** Transmittal - *Annual Groundwater Monitoring Report, Second Quarter 2017, Burbank Operable Unit, Burbank, California*

Dear Mr. Riley:

On Behalf of Lockheed Martin Corporation please find enclosed a copy of the Annual Groundwater Monitoring Report, Second Quarter 2016, Burbank Operable Unit, Burbank, California. This report presents the second quarter groundwater elevation measurements and groundwater quality data from the BOU monitoring well network including the Pacific Airmotive Corporation monitoring wells. A tabulation of the volume of groundwater extracted by the BOU for the reporting period is also included.

As discussed, a response to the comments provided by the U.S. EPA [EPA Review of "Annual Groundwater Monitoring Report Second Quarter 2016, Burbank Operable Unit, Burbank, California" (August 2016)] on 01 May 2017 is provided as Attachment 1 to this letter. The 2017 BOU Report has been modified based on those comments that would apply to this year's report.

If you have any questions regarding the enclosed document, please contact Stan Phillips at [robert.s.phillips@lmco.com](mailto:robert.s.phillips@lmco.com) or (817) 495-0251 or myself at [Thomas.villeneuve@tetrattech.com](mailto:Thomas.villeneuve@tetrattech.com) or 9093825109.

Sincerely,  
TETRA TECH, INC.

A handwritten signature in black ink, appearing to read 'Thomas J. Villeneuve'.

Thomas J. Villeneuve, P.E.  
BOU and Burbank Soils Program Manager

Attachment 1 – Lockheed Martin response to EPA Review of "Annual Groundwater Monitoring Report Second Quarter 2016, Burbank Operable Unit, Burbank, California" (August 2016)



Enclosure

cc: William Mace, City of Burbank Water and Power  
Paul Williams, State Water Board Division of Drinking Water  
Gloria Pak, Los Angeles Regional Water Quality Control Board  
Glenn Bruck, USEPA  
Lisa Hamilton, AMEC representing General Electric  
Sonja Donaldson, OTIE  
Kevin Murdock, CH2MHill  
Stan Phillips, Lockheed Martin  
Tom Davis, CDMSmith

**Response to EPA Comments dated May 1, 2017 to the August 2016  
Annual Groundwater Monitoring Report, Second Quarter 2016, Burbank Operable Unit, Burbank, California**

EPA Comments		Response
		It was agreed in communications with the EPA that because of the timing of the comments on the 2016 BOU Groundwater Monitoring Report, the 2016 document would not be modified, but their comments would be used to modify the 2017 Annual BOU Groundwater Monitoring Report as appropriate.
1	Section 1.0, Introduction, Page 1-1 – Third paragraph states the activities were conducted in accordance with the Revised Operational Sampling Plan (OSP). The Sampling and Analysis Plan Addendum (Tetra Tech, 2016) for low flow sampling should also be referenced here.	The OSP was updated in early 2017 and is referenced in Section 1.0 and in other places in the text were appropriate.
2	Section 2.2.1, Pump Removal, Page 2-1 – Please add a description regarding the decontamination and disposal procedures for the pumps and associated piping.	The August 2017 report (Section 2.5.1, Low-Flow Pump Installation) includes a description of how the pumps and associated piping (pulled from the wells that were modified to low-flow pumps) were decontaminated and stored for off-site disposal. It notes that the pumps and piping were pressure washed and placed in roll-off bins for offsite disposal. Based on information provided by the Off-Site Rule (OSR) contact for USEPA Region IX, the pumps and piping will be taken to Clean Harbors in Buttonwillow, California, (one of USEPA's approved CERCLA waste facilities) after the waste profiles have been completed.
3	Section 2.4.1, Low-Flow Sampling, Pages 2-4 and 2-5 – Please add a description regarding any deviations to the SAP Addendum for low flow sampling, similar to Section 2.5 for the OSP.	Deviations from the OSP during the April 2017 monitoring event are documented in section 2.9 of the report.
4	Section 4.1, Groundwater Elevations, Page 4-1 (and Table 1) – An EPA comment on the 2015 annual groundwater monitoring report noted that water levels were collected over a 3-week period and suggested that water levels be measured over a shorter timeframe (generally 1-2 days). Per Table 1, most Spring 2016 water levels were measured over the period of April 4-7, although some measurements were collected on April 2 (1), April 9 (6), April 13 (1), April 15 (2), and April 18 (1). Although the overall window for measurements (about 2 weeks) is an improvement over 2015, efforts should be made in the future to further compress this range.  Monitoring wells 3872R, MW-04, MW-05, MW-06, SW-1, and SW-5 have not been surveyed. These wells should be surveyed prior to the next groundwater monitoring event.	Not all wells are accessible during the gauging event. The field crews do what they can to collect the measurements in as short a time frame as possible. Water level measurements were collected during the April 2017 monitoring event on April 18, 19, and 20.  Monitoring wells 3872R, MW-04, MW-05, MW-06, SW-1, SW-5, OW-VO1R, OW-V02R, and OW-V03R were surveyed on May 25, 2017 and OW-V08 was surveyed on June 6, 2017. The survey data was utilized in this report to calculate groundwater elevations and plot their locations. This is documented in section 2.4 of the monitoring report.
5	Section 4.2.7, Results of Stratification Testing, Pages 4-7 and 4-8 – This section describes the results of the stratification testing, notes that overall higher concentrations were found in the deeper samples compared to the shallow samples, and state that future samples will be collected from the deeper zone in these wells. Based on the data presented, EPA agrees with this approach for these wells.	Comment noted.
6	Section 6.3.2, Horizontal Gradients, Page 6-7 – This section refers to the water level evaluation for the WT HSU using the triangulated irregular network (TIN) approach, as depicted on Figure 30. However, the text should acknowledge that the direction of the horizontal gradient in triangles U, V, W, and X is to the southeast, indicating that groundwater in the area generally south of Burbank Boulevard is not likely being captured by the extraction wells.	The TIN values for those triangles that cross or are below the capture line will be acknowledged in future documents.  In 2017, the groundwater contours and the TINs support that capture from the BOU extraction wells extends south to approximately West Allan and Wyoming Avenue in the central-western portion of the BOU and Chandler Boulevard in the eastern portion of the BOU. The horizontal gradients calculated for triangles EE, FF, GG, and HH support partial capture in those regions. The horizontal gradients in triangles KK and LL do not support capture in those regions.
7	Sections 6.4 (Chemicals of Concern Concentration Trends) and 6.5 (Capture Zone Summary) – These sections focus on the four identified well pairs south of Burbank Boulevard. Well 3872N is not part of the four well pairs, but is identified in the OSP as essential for capture zone evaluation, mass flux evaluation, and characterization. This well showed a significant increase in PCE from 612 µg/L (2015) to 1,890 µg/L (2016). Further monitoring is required to evaluate whether this constitutes a long-term increasing trend. Please include this well in the discussion in these sections, including a possible explanation for the increased PCE concentration.	The concentration of PCE in 2017 in monitoring well 3872N was 310 ug/l. This concentration is more consistent with historical concentrations. The trend analysis for PCE in this well indicates the concentrations in the well are stable. The 2016 concentration appears anomalous. As we do with all monitoring wells that are located south of the BOU extraction wells, we will continue to watch the concentration trends in 3872N as more data is collected.
8	Table 2 – Second Quarter 2016 Groundwater Elevation Data – It appears that the table should consist of the first three pages only; the last three pages should be deleted as they appear to repeat content from the first three pages, but have incomplete screened interval values for several wells.	The table was checked to confirm the error did not carry over into this years report.
9	Table 4 - Second Quarter 2016 Groundwater Well Maintenance Table	
9.1	The proposed maintenance items appear to capture most, but not all, of the primary maintenance related items noted in the field data sheets provided in Appendix B. For example, many of the wells were noted to have gasket seals that required replacement, which is included in Table 4. However, other problems such as missing bolts, missing locks, cracked surface pads, and standing water are not captured in Table 4. Please revise Table 4 to include all significant maintenance items.	The majority of the maintenance items noted in 2016 field logs have been remedied and are documented in the 2017 report. In the 2017 report, the table (now Table 2) has been modified to include additional details based on the well inspection activities conducted in April 2017.
9.2	Table 4 should include a schedule to address the required repairs. Repairs should be completed in a timely manner. In addition, completed repairs can be documented in the "Prior Well Repairs" column to serve as an updated maintenance log.	Table 2 in the August 2017 report has been revised to include the prior repairs to serve as an updated maintenance log. The monitoring wells identified for repair in the 2017 report will be repaired prior to the April 2018 monitoring event.
9.3	Please identify the specific wells and approximate schedule for installation of dedicated low-flow sampling pumps in Table 4. The wells initially selected for low-flow pump installation were identified in the initial version of this table, as included in the LMC letter dated March 21, 2016 (Response to USEPA Comments - Annual Groundwater Monitoring Report Second Quarter 2015).	The installation of the new low-flow pumps is acknowledged in the 2017 report. Any new pump installations will be identified and documented in future monitoring reports. New wells are being equipped with low flow pumps.
11	Appendix B – Field Data Sheets –The "final pump depth" should be populated for wells with dedicated pumps to meet the OSP requirement of groundwater sample collection depth. The depth can be included from known sources, such as Table 1 for low-flow pump intake depths, and/or confirmed in the field with a depth sounder. This is particularly important for wells sampled with portable low-flow pumps, such as SW-1 and SW-5, to verify that the pump is placed at the desirable depth.	The field data sheets included in the August 2017 report include the final pump intake depth of the newly installed low-flow pumps and the intake depth of any portable pumps used to collect the samples.



**ANNUAL GROUNDWATER MONITORING REPORT  
SECOND QUARTER 2017  
BURBANK OPERABLE UNIT  
BURBANK, CALIFORNIA**

Prepared for:  
Lockheed Martin Corporation  
Corporate Energy, Environment, Safety & Health  
Burbank, California

Prepared by:  
Tetra Tech  
3475 East Foothill Blvd  
Pasadena, California 91107

August 2017

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Thomas J. Villeneuve (PE 53735)  
Project Manager

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Robert Sabater  
Deputy Project Manager



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## ACRONYMS

bgs	below ground surface
B HSU	B-zone hydrostratigraphic unit
BOU	Burbank Operable Unit
btoc	below top of casing
Caltrans	California Department of Transportation
COV	coefficient of variation (Mann-Kendall analysis)
DO	dissolved oxygen
DQO	data quality objective
DWNL	California Department of Public Health drinking water notification level
EC	electrical conductivity
gpm	gallons per minute
HSU	hydrostratigraphic unit
LARWQCB	California Regional Water Quality Control Board, Los Angeles Region
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
Lockheed Martin	Lockheed Martin Corporation
MAROS	Monitoring and Remediation Optimization System
MCL	California Department of Public Health maximum contaminant level
MS	matrix spike
MSD	matrix spike duplicate

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MSL	mean sea level
MTA	Metropolitan Transportation Agency
μg/kg	micrograms per kilogram
μg/L	micrograms per liter
μg/L/yr	micrograms per liter per year
mg/kg	milligrams per kilogram
NA	not applicable
ND	non-detect
ORP	oxidation-reduction potential
OSP	Revised Operational Sampling Plan
PCE	tetrachloroethene
%/yr	percent per year
PVC	polyvinyl chloride
QA	quality assurance
QC	quality control
RPD	relative percent difference
S	Mann-Kendall statistic
TCE	trichloroethene
TD	total depth
TIN	triangulated irregular network
1,2,3-TCP	1,2,3-trichloropropane
USEPA	United States Environmental Protection Agency
VOCs	volatile organic compounds
WT	water table
WT HSUs	water table hydrostratigraphic units



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## EXECUTIVE SUMMARY

The Burbank Operable Unit (BOU) is part of the North Hollywood National Priorities List site in the San Fernando Valley. Lockheed Martin monitors groundwater within the BOU to comply with the provisions of the United States Environmental Protection Agency (USEPA) Consent Decree (Docket No. 91-4527-MRP [Tx]) filed on March 25, 1992, and California Regional Water Quality Control Board, Los Angeles Region (LARWQCB) Cleanup and Abatement Order No. 87-161, dated December 17, 1987.

The Second Quarter 2017 BOU groundwater monitoring event was implemented in accordance with the 2017 Revised OSP; (Tetra Tech, 2017b). The intent of the program is to provide the data necessary to evaluate groundwater conditions at the BOU, including the near-field and far-field effects of the extraction well field pump and treat system.

### Groundwater Monitoring Well Maintenance

In preparation for the second quarter 2017 groundwater monitoring event, several monitoring well maintenance activities were completed in March and April, 2017:

- The dedicated high-volume pumps and associated piping were removed from 52 monitoring wells and replaced with dedicated low-flow pumps.
- A total of 9 groundwater monitoring wells were redeveloped or cleaned out. This includes A-1-CW07, B-5-CW03, B-6-CW16, C-1-CW05, C-1-CW06, 3852L, 3852M, and 4949C.
- Well maintenance activities were completed at 70 of the BOU monitoring wells. This included replacement of well lid gaskets, adding or replacing well tags, re-tapping the existing bolt holes, and replacing the standard six-point bolts with five-point bolts.
- Five new groundwater monitoring wells (B-1-CW30 through B-1-CW34) were constructed in October and November 2016 within the former Plant B-1 facility, as described in the Supplemental Site Investigation Report, Former Lockheed Martin Plant B-1, Burbank, California (Tetra Tech, 2017a).
- Three observation wells (OW-VO1R, OW-VO2R, and OW-VO3R) were installed to replace existing wells, one new observation well (OW-VO8) was installed, and one observation well (OW-VO6) was repaired within the BOU between February and April 2017, in accordance

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with Work Plan – Well Installation and Replacement, Burbank Operable Unit, Burbank, California (Tetra Tech, 2016d).

### **Groundwater Elevations and Gradients**

During the second quarter 2017 groundwater monitoring event, groundwater levels were measured in 98 monitoring wells. Based on those measurements, the local shallow groundwater flow direction was predominantly southeasterly in the northwest portion of the BOU and southerly in the northeast portion of the BOU, and it converged in a flow direction toward the cones of depression created by the operation of the BOU extraction wells. The second quarter 2017 groundwater elevation data indicate that the dominant direction of shallow groundwater flow immediately south of the BOU extraction wells was reversed from its natural southeasterly flow direction, to a northerly flow direction in response to the extraction well pumping (northeasterly flow direction in the western portion of the BOU). These groundwater trends extend to Victory Boulevard in the western portion of the BOU, West Allan and Wyoming Avenue in the central-western portion of the BOU, and to Chandler Boulevard in the eastern portion of the BOU. Beyond these boundaries the groundwater flow direction shows influence from pumping, but ultimately reverts to its natural southeasterly direction.

The local groundwater flow direction in the B HSU during the second quarter 2017 groundwater monitoring event was generally the same as the local groundwater flow direction observed in the WT HSUs with a couple exceptions. The groundwater flow does not converge on BOU extraction wells VO1 through VO7 as it does in the WT HSUs but you do see a groundwater depression centered on BOU extraction well VO8.

Groundwater-elevation data for selected monitoring wells were used to evaluate horizontal hydraulic gradients (direction and magnitude) within the BOU using a TIN. This horizontal hydraulic gradient analysis was completed using data collected in the April 2017 gauging event and a TIN defined by monitoring wells distributed in the WT HSU. The TIN map prepared for the WT HSUs shows that the hydraulic gradient in the area immediately to the south of the groundwater extraction well system is directly influenced by pumping, showing very steep gradients and in some instances a reversal from the regional trend and indicating very strong hydraulic capture. Farther to the south the direction of groundwater flow appears to be affected by extraction, but the hydraulic

gradient is not as steep. The degree of hydraulic capture dissipates and may be absent completely south of most of the BOU southern boundary.

## Water Quality Results

Sixty-five groundwater monitoring wells were sampled during the Second Quarter 2017 monitoring event, 42 completed in the WT HSU and 23 completed in the B HSU. The samples collected were tested for VOCs, 1,2,3-TCP, 1,4-dioxane, total chromium, and hexavalent chromium. Twenty-one organic and two inorganic analytes were detected. Isoconcentration maps were prepared for six primary chemicals of concern: PCE, TCE, 1,2,3-TCP, 1,4-dioxane, total chromium, and hexavalent chromium. Results for the primary chemicals of concern were as follows:

- PCE was detected in 59 of the primary (non-duplicate) samples, 37 of which exceeded the MCL (5 µg/L). Concentrations in the WT HSUs ranged from <0.20 µg/L to 630 µg/L (monitoring well B-1-CW33). Concentrations exceeding the MCL extended over much of the BOU with the highest concentrations detected at the northwest corner of the former Plant B-1 and trending southeast beneath former Plant B-1 and extending to Magnolia Boulevard. Concentrations in the B HSU ranged from <0.20 µg/L to 48 µg/L (monitoring well 3850R). Concentrations exceeding the MCL were not as widely distributed as in the shallower HSUs, with the highest concentrations detected adjacent to the extraction wells on Vanowen Street.
- TCE was detected in 53 of the samples, 35 of which exceeded the MCL. The detected concentrations ranged from 0.29 µg/L (monitoring well C-1-CW05) to 240 µg/L (monitoring wells 3872L and B-1-CW13). Concentrations exceeding the MCL extended over much of the BOU with the highest concentrations detected downgradient of former Building 85 and extending to Magnolia Boulevard. Concentrations in the B HSU ranged from <0.29 µg/L to 32 µg/L (monitoring well 3862E). Concentrations exceeding the MCL were not as widely distributed as in the shallower HSUs, with the highest concentrations detected south of the BOU. Additionally, elevated concentrations were detected in the southern portion of the former Plant B-6 area and continuing southeast beneath former Building 85 and extending to Vanowen Street.
- 1,2,3-TCP was detected in 31 of the samples, 30 of which exceeded the DWNL (0.005 µg/L). Concentrations in the WT HSUs ranged from <0.0025 µg/L to 87 µg/L (monitoring well A-1-CW08). Concentrations exceeding the DWNL extended over much of the BOU with the highest concentrations detected down gradient of the former Plant B-6 area, north of former Building 85, and along Vanowen Street. Concentrations in the B HSU ranged from <0.0025 µg/L to 0.29 µg/L (monitoring well 3852H). Concentrations exceeding the DWNL were not as widely distributed as in the WT HSUs, with the highest concentrations detected near Burbank Boulevard.
- 1,4-Dioxane was detected in 11 of the samples, 11 of which exceeded the DWNL (1.0 µg/L). Concentrations in the WT HSUs ranged from <0.28 µg/L to 3.7 µg/L (monitoring well A-1-CW09). Concentrations exceeding the DWNL are sparse, but spread out through the BOU

specifically at former Plants A-1-S, B-1, and C-1 as well as downgradient of Former Building 371. Concentrations in the B HSU ranged from  $<0.28$   $\mu\text{g/L}$  to  $2.3$   $\mu\text{g/L}$  (monitoring well A-1-CW05). Similar to the WT HSUs, concentrations exceeding the DWNL extended around the former Plant B-6 and A-1 areas of the BOU, with the highest concentrations detected at the former Plant A-1-S.

- Total chromium was detected in 65 of the samples, 2 of which exceeded the MCL ( $50$   $\mu\text{g/L}$ ). Concentrations in the WT HSUs ranged from  $1.05$  J (A-1-CW03R) to  $82.9$   $\mu\text{g/L}$  (monitoring well C-1-CW07). One sample from the eastern portion of the BOU near the former Weber Aircraft facility and one sample near former Plant C-1 had concentrations detected exceeding the MCL. Concentrations in the B HSU ranged from  $0.600$   $\mu\text{g/L}$  (monitoring well C-1-CW02) to  $7.85$   $\mu\text{g/L}$  (3872S). No concentrations were detected that exceeded the MCL.
- Hexavalent Chromium was detected in 58 samples, 5 of which exceeded the MCL ( $10$   $\mu\text{g/L}$ ). Concentrations in the WT HSUs range from  $0.010$   $\mu\text{g/L}$   $\mu\text{g/L}$  (monitoring well A-1-CW03R) to  $20$   $\mu\text{g/L}$  (monitoring well B-1-CW17). Four of the 5 samples that exceeded the MCL are located in the central to southern portions of former Plant B-1. The other sample that exceeded the MCL is located immediately outside of the northeastern boundary of the BOU. Concentrations in the B HSU ranged from  $0.021$   $\mu\text{g/L}$  (monitoring well 3850R) to  $7.9$   $\mu\text{g/L}$  (monitoring well 3872S). No concentrations were detected above the MCL.

### Statistical Trend Analyses

Statistical trend analyses were conducted using chemical data from the 65 monitoring wells sampled during the second quarter 2017 BOU groundwater monitoring event. The analysis was performed for the six primary chemicals of concern: PCE, TCE, 1,2,3-TCP, 1,4-dioxane, total chromium, and hexavalent chromium. Therefore, a total of 390 trends were tested. The MAROS, developed by the Air Force Center for Environmental Excellence (Air Force Center for Environmental Excellence, 2006), was used for the analyses. The MAROS is a statistical database application developed to assist with groundwater quality data trend analysis and long-term monitoring optimization at contaminated groundwater sites. BOU data from first quarter 1996 to second quarter 2017 were analyzed.

Statistical analysis indicated that for various reasons (insufficient data, no statistical trend, or no detections), a significant trend could not be determined for 43% of the datasets that were tested, particularly for 1,2,3-TCP, 1,4-dioxane, total chromium, and hexavalent chromium. Statistical analysis also indicated that 29% of the datasets had decreasing or probably decreasing concentration trends, 17% were stable, and 11% had increasing concentration trends. The trend analysis showed that those trends that were significant were generally small. Over half of the decreasing concentrations trends were for TCE and PCE concentrations, scattered throughout the BOU; about



half of the stable trends were for total chromium and hexavalent chromium concentrations; and 1,2,3-TCP and 1,4-dioxane concentrations upgradient of the BOU extraction wells in the former Plant B-6 area are generally increasing. With the exception of the increasing 1,2,3-TCP trend in monitoring wells 3852M and 3872L, all monitoring wells with increasing trends for one or more of the compounds of concern are upgradient of the BOU extraction wells or within the area captured by the extraction wells. The magnitude of the changes in concentration of 1,2,3-TCP in monitoring wells 3852M and 3872L are small (0.016 µg/L/yr and 0.006 µg/L/yr, respectively).

### Capture Zone Evaluation

Several lines of evidence were examined to evaluate the extent of capture resulting from the BOU extraction system and assess the effectiveness of the system in hydraulically containing the various chemical of concern plumes within the BOU. The results of the evaluation were as follows:

- The operational data from the extraction system indicated that groundwater is being extracted and that VOC mass is still being removed from the aquifer.
- Vertical hydraulic gradients indicated that pumping from the WT HSUs is inducing or increasing upward vertical gradients between the B HSU and the WT HSUs.
- The WT-HSU potentiometric map developed from the groundwater level measurements supports that the BOU extraction wells capture groundwater across most of the BOU north of Vanowen Street and south of the extraction wells toward Chandler Boulevard and Wyoming and West Allan Avenue.
- The TIN was developed from the same data as the potentiometric maps. The TIN for the WT HSUs supports that capture from the BOU extraction wells extends south to approximately Wyoming and West Allan Avenue in the central-western portion of the BOU and Chandler in the eastern portion of the BOU.
- The trend analysis for the eight downgradient performance monitoring wells yielded the following results: insufficient data (none), decreasing (16 results), increasing (2 results), no trend (14 results), probably decreasing (3 results), probably increasing (none), stable (8 results), and ND (5 results). The two increasing trends (1,2,3-TCP in monitoring wells 3852M and 3872L) had a limited data set (at least five analyses from each well from 2007 to 2017) and the magnitude of the change was small.

The lines of evidence suggest that the BOU extraction system exerts hydraulic control on the plumes originating from the BOU and it extends to Wyoming and West Allan Avenue in the central-western portion of the BOU and Chandler Boulevard in the eastern portion of the BOU, and the extraction system inhibits the migration of site-related chemicals of concern.

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## **Burbank Operable Unit Extraction System Performance**

Based on the data from the BOU monthly operation reports for the current reporting period (May 2016 through April 2017), an estimated 3,129,230,274 gallons of groundwater was extracted (average extraction rate of 5,937 gallons per minute) and approximately 3,697 pounds of volatile organic compounds (VOCs) were treated by the Burbank Operable Unit (BOU) treatment system. Multiple lines of evidence suggest that at current extraction rates the BOU extraction system exerts hydraulic control in the WT HSUs that extends to West Allan and Wyoming Avenue in the central-western portion of the BOU and Chandler Boulevard in the eastern portion of the BOU, and inhibits the migration of site-related chemicals of concern.

The upward hydraulic gradient (potentially pulling contaminant mass from the B HSU to the WT HSUs) exhibited in much of the southern portion of the BOU inhibits the migration of site-related chemicals of concern, where present, in the deeper HSU. The data also indicates that groundwater in the B HSU proximal to BOU extraction well VO8 is being captured by the pumping at this well.

While the BOU extraction system produces groundwater that is treated and deliver for consumption, water quality data from the treatment plant was not presented or reviewed as part of this report and therefore the second objective cannot be discussed as part of this report.

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## SECTION 1 INTRODUCTION

On behalf of Lockheed Martin Corporation (Lockheed Martin), Tetra Tech has prepared this report to present the results of the ongoing annual groundwater-quality monitoring for the Burbank Operable Unit (BOU) monitoring well field. The BOU is located in Burbank, California (Figure 1).

The BOU is part of the North Hollywood National Priorities List site in the San Fernando Valley. Lockheed Martin monitors groundwater within the BOU to comply with the provisions of the United States Environmental Protection Agency (USEPA) Consent Decree (Docket No. 91-4527-MRP [Tx]) filed on March 25, 1992, and California Regional Water Quality Control Board, Los Angeles Region (LARWQCB) Cleanup and Abatement Order No. 87-161, dated December 17, 1987.

The second quarter 2017 groundwater monitoring activities were conducted in accordance with the *Revised Operational Sampling Plan* (OSP; Tetra Tech, 2017b), which describe the objectives, decision process, analytical methods, and procedures for sampling the groundwater monitoring well network. The purposes of the BOU groundwater monitoring program are to monitor the chemical plume conditions and the performance of hydraulic capture by the ongoing groundwater treatment system. The site background and current conceptual site model for the BOU are presented in Appendix A.

### 1.1 HISTORICAL OVERVIEW

Groundwater monitoring was first initiated at the BOU in 1986. Since the late 1990s, the Groundwater Monitoring Plan has been implemented in accordance with the 1997 *Draft Phase 2 Operational Sampling Plan* (HSI Geotrans, 1997) and with modifications requested by the regulatory community. The Groundwater Monitoring Plan has evolved to incorporate additional requests by the USEPA and the LARWQCB. The following list presents the modifications made to the Groundwater Monitoring Plan.

- June 28, 2001 – USEPA Method 8260B for volatile organic compounds (VOCs), including Freon-113 and methyl-tert-butyl ether, replaced USEPA Methods 8010 and 8020 for halogenated volatile organic and purgeable aromatic compounds, respectively. LARWQCB directed analysis of hexavalent chromium by USEPA Method 218.6 (LARWQCB, 2001).

- March 28, 2002 – Analysis for 1,2,3-trichloropropane (1,2,3-TCP) was added to the Groundwater Monitoring Plan (LARWQCB, 2002a).
- November 18, 2002 – Monitoring wells B-6-CW01, B-6-CW02, B-6-CW03, B-6-CW03R, and B-6-CW16 were added to the Groundwater Monitoring Plan to be sampled for VOCs and heavy metals, and 1,2,3-TCP was to be included in the discussion and analysis of chemicals of concern in the groundwater monitoring reports (LARWQCB, 2002b).
- December 16, 2003 – A LARWQCB letter required Lockheed Martin to sample for emergent chemicals (perchlorate, n-nitrosodimethylamine, 1,4-dioxane) in addition to 1,2,3-TCP and hexavalent chromium as part of the BOU Groundwater Monitoring Plan, and to prepare a separate technical report summarizing the results (LARWQCB, 2003).
- September 2004 – The USEPA *Five-Year Review Report for Burbank Operable Unit, San Fernando Valley (Area 1) Superfund Site, Los Angeles County, California* required that Lockheed Martin continue to “monitor upgradient wells for emerging contaminants” and “evaluate the spatial distribution and concentration of emergent contaminants with respect to the BOU” (USEPA, 2004).
- December 8, 2004 – An LARWQCB letter to Lockheed Martin provided comments on the *Technical Report on Emergent Chemicals within the Burbank Operable Unit, Burbank, California* and reduced emergent chemical sampling to specific wells (LARWQCB, 2004).
- April 27, 2005 – A Lockheed Martin letter to USEPA, with a copy to LARWQCB, requested a change in BOU Groundwater Monitoring Plan sampling schedule - from first and third quarter to second and fourth quarter (Lockheed Martin, 2005).
- October 20, 2005 – A USEPA letter to General Electric requested sampling of eight monitoring wells at the former Pacific Airmotive Corporation site (USEPA, 2005). Due to a settlement agreement between Lockheed Martin and Pacific Airmotive Corporation (an indirect wholly owned subsidiary of General Electric), Lockheed Martin is responsible for monitoring and reporting for these wells. The Pacific Airmotive Corporation groundwater monitoring event is now conducted concurrently with the BOU Groundwater Monitoring Plan on a semiannual basis.
- February 10, 2006 – A USEPA letter to Lockheed Martin requested sampling of nine BOU monitoring wells in the vicinity of former Plants B-5 and C-1 (USEPA, 2006a).
- November 3, 2006 – A USEPA letter to Lockheed Martin concurred with proposed changes to sampling frequency for specific constituents (USEPA, 2006b; USEPA, 2007).
- October 22, 2010 – A USEPA letter to Lockheed Martin requested monitoring of 14 BOU wells as part of the North Hollywood Operable Unit Baseline Sampling Program (USEPA, 2010b).
- November 3, 2010 – A USEPA email to Lockheed Martin and General Electric approved their request to combine Pacific Airmotive Corporation and BOU semiannual reports (USEPA, 2010c).
- February 25, 2011 – A USEPA letter requested Lockheed Martin and other potentially responsible parties within the San Fernando Valley to change sampling schedules to April



and October in order to coincide with basin-wide remedial investigation sampling events (USEPA, 2011).

- April, 2013 – A comprehensive sampling event was performed at the BOU (Arcadis, 2013). The goal was to collect contemporaneous data for emerging compounds with detection limits for the BOU consistent with the larger San Fernando Valley Superfund site.
- March 26, 2014 – An OSP was prepared for the BOU and submitted to the USEPA (Arcadis, 2014).
- February 16, 2016 – A monitoring well replacement evaluation was prepared and submitted to the USEPA (Tetra Tech, 2016a). This document detailed the evaluation for the replacement of three monitoring wells that were destroyed in 2015 due to California Department of Transportation (Caltrans) and Metrolink construction activities.
- March 21, 2016 – A Sampling and Analysis Plan Addendum was prepared for the BOU to describe procedures for low-flow sampling and submitted to the USEPA (Tetra Tech, 2016c).
- March 31, 2017 – the OSP was updated and a revised document was submitted to the US EPA (Tetra Tech 2017).

## 1.2 CURRENT GROUNDWATER MONITORING PROGRAM OBJECTIVES

The 2017 OSP (Tetra Tech, 2017b) presents a groundwater monitoring program that provides the data necessary to evaluate groundwater conditions at the BOU, including the near-field and far-field effects of the BOU extraction well field. The four primary objectives of the long-term groundwater monitoring program are to accomplish the following:

- Verify containment of the 5 micrograms per liter ( $\mu\text{g/L}$ ) tetrachloroethene (PCE) and 100  $\mu\text{g/L}$  trichloroethene (TCE) plumes in groundwater
- Collect sufficient data to evaluate groundwater extraction system performance with respect to mass removal
- Characterize the nature and extent of emerging compounds
- Characterize the nature and extent of the primary chemicals of concern (PCE and TCE) to refine and update the conceptual site model

## 1.3 REPORT ORGANIZATION

This report is organized into the following sections:

- Section 1 – Introduction: This section presents the purpose of the BOU Groundwater Monitoring Plan and provides a brief description of the regulatory history at the BOU.

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- Section 2 – Summary of Groundwater Monitoring: This section provides a description of groundwater monitoring, measurements, and quality assurance and quality control procedures.
  - Section 3 – Groundwater Sampling Data Validation: This section summarizes compliance with the data quality objectives and requirements.
  - Section 4 – Groundwater Monitoring Results: This section presents the analytical results of the groundwater monitoring activities.
  - Section 5 – Statistical Trend Analyses: This section assesses statistical trends in site chemicals of concern over time.
  - Section 6 – Capture Zone Evaluation: This section provides an evaluation of the groundwater treatment system’s effectiveness in maintaining hydraulic capture.
  - Section 7 – Summary and Conclusions: This section presents analyses and conclusions with recommendations, where appropriate, for additional or reduced future monitoring.
  - Section 8 – References: This section provides a list of documents referenced in this report.

Tables and figures are presented at the conclusion of the report, and in the order in which they are introduced in the text. With one exception, the appendices are presented at the conclusion of the report, and in the order in which they are introduced in the text. The laboratory reports appear in Appendix G.

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## SECTION 2

# SUMMARY OF GROUNDWATER MONITORING

This section summarizes the second quarter 2017 groundwater monitoring and quality assurance (QA) and quality control (QC) procedures conducted at the BOU. The results from this monitoring event are discussed in Section 4. The BOU monitoring well network is shown on Figure 2.

### 2.1 GROUNDWATER MONITORING WELL REPLACEMENT EVALUATION

In 2016, Lockheed Martin prepared a monitoring well replacement evaluation for the replacement of monitoring wells 3860H, 4959J, and 4959H. Nearby facility monitoring wells SW-1 and SW-5 were selected to replace former monitoring wells 4959H and 4959J, respectively, and these monitoring wells were sampled as part of the current groundwater monitoring event (Tetra Tech, 2016d). A new monitoring well (to be designated as 3860HR) will be installed in the vicinity of former monitoring well 3860H; this work is anticipated to take place in summer 2017.

### 2.2 INSTALLATION OF GROUNDWATER MONITORING WELLS AT FORMER PLANT B-1

Between October and November 2016, five new groundwater monitoring wells (B-1-CW30 through B-1-CW34) were constructed within the former Plant B-1 facility, as described in the *Supplemental Site Investigation Report, Former Lockheed Martin Plant B-1, Burbank, California* (Tetra Tech, 2017a). The locations of the groundwater monitoring wells are shown on Figure 2. As required by the LARWQCB, the groundwater monitoring wells will be monitored quarterly for one year for total chromium, hexavalent chromium, volatile organic compounds, and emerging contaminants. After one year, the wells will be included in the routine BOU groundwater monitoring program and the constituents to be tested for and the frequency of groundwater monitoring will be reevaluated. Because these wells were sampled concurrently with the annual BOU groundwater monitoring activities, the groundwater elevations and analytical data from these wells are included in this report.

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## 2.3 INSTALLATION OF OBSERVATION WELLS OW-VO1R, OW-VO2R, OW-VO3R, AND OW-VO8 AND REPAIR OF OW-VO6

From February through early April 2017, three observation wells (OW-VO1R, OW-VO2R, and OW-VO3R) were installed to replace existing wells, one new observation well (OW-VO8) was installed, and one observation well (OW-VO6) was repaired within the BOU in accordance with *Work Plan – Well Installation and Replacement, Burbank Operable Unit, Burbank, California (Tetra Tech, 2016d)*. The location of these wells are presented on Figure 2.

- Observation wells OW-VO2R and OW-VO3R were installed and the packer within OW-VO6 was replaced because the vertical differences in hydraulic head between the water table aquifer and deeper units measured in these wells appear to be inconsistent with expected hydraulic conditions within the groundwater monitoring network.
- Observation well OW-VO1 was originally to be rehabilitated; however, because of the well condition a new well OW-V01R was installed and OW-VO1 was abandoned.
- A new observation well was installed adjacent to extraction VO-8. The purpose OW-VO8 was evaluate the influence of VO-8 within the water table and deeper zone.

A report presenting the details of the well installations, abandonments, and repairs will be submitted under separate cover and will include the installation of replacement well 3860H-R (Section 2.1).

## 2.4 SURVEY OF GROUNDWATER MONITORING WELLS

On May 25 and June 6, 2017, Lockheed Martin surveyed the new observation well locations as well as the six monitoring well locations (3872R, MW-04, MW-05, MW-06, SW-1, and SW-5) identified during the April 2016 sampling event as requiring resurveying. The survey data was used to calculate groundwater elevation data at these well and will be incorporated into the EPA’s database.

## 2.5 MONITORING WELL MAINTENANCE ACTIVITIES

### 2.5.1 Low-Flow Pump Installation

In November 2016, *Revised Technical Memorandum – Low-Flow Pump Intake Selection, Burbank Operable Unit, Burbank California (Tetra Tech, 2016e)* was prepared to document the transition from a high-volume to low-volume groundwater sampling protocol in 52 monitoring wells that are a part of the BOU. These 52 monitoring wells are identified on Table 1.

In March 2017, the high-flow pumps were removed in all 52 monitoring wells. However, low-flow pumps were only installed in 48 of the 52 monitoring wells. No pumps were install in the remaining



four wells (B-1-CW29, B-5-CW03, B-6-CW17, and C-1-CW06) because these wells were dry at the time of installation. All high-flow pumps and the associated piping removed from the 52 wells were pressure washed and placed in bins for offsite disposal. Based on information provided by the Off-Site Rule (OSR) contact for USEPA Region IX, the pumps and piping will be taken to Clean Harbors in Buttonwillow, California, which is on the USEPA's approved list of disposal facilities for CERCLA waste.

### 2.5.2 Well Redevelopment

Prior to the installation of the dedicated low-flow pumps, the 52 monitoring wells shown on Table 1 were gauged to determine if debris had accumulated in the monitoring wells. Based on the gauging results (shown on Table 1), 9 of the 52 monitoring wells had accumulated debris that completely filled the sumps (most monitoring wells have 5-foot-long sumps underlying the screened intervals) and partially obstructed the screens. The development results are described below:

- A-1-CW07: The well construction details for the well notes a total depth (TD) of 229 feet bgs. The well was noted to be dry with an initial measured TD of 214.30 feet bgs. A magnet was used to clean out any metallic debris that may have accumulated at the bottom of the well. After pulling up approximately one third of a 5-gallon bucket of debris, TD was remeasured at 210.52 feet bgs. Based on the condition of the well casing, the well was likely collapsing. Further evaluation for a replacement for A-1-CW07 is recommended.
- B-5-CW03: The well was noted to be dry during the redevelopment activities with a measured TD of 228.93 feet bgs. Alternating the use of an overshot tool to stir up the debris at the bottom of the well and a magnet was used to pull up rust and metal fragments. Overall, less than 0.25 feet of metallic debris was pulled from the bottom of the well. Approximately 2 feet of debris remains in the well.
- B-6-CW16: The well was redeveloped by bailing, swabbing with a surge block, bailing again, and pumping until water quality parameters stabilized. All debris within the screened section of the well casing appears to have been removed. Approximately 6.5 feet of sediment was removed with 2.5 feet of debris remaining in the sump.
- C-1-CW03: The well was redeveloped by bailing, swabbing with a surge block, bailing again, and pumping until water quality parameters stabilized. All debris within the screened section of the well casing appears to have been removed. Approximately 3 feet of sediment was removed with less than 0.5 feet of debris remaining in the sump.
- C-1-CW05: The well was redeveloped by bailing, swabbing with a surge block, bailing again, and pumping until water quality parameters stabilized. All debris within the screened section of the well casing appears to have been removed. Approximately 1 foot of sediment was removed with 1 foot of debris remaining in the sump.

- C-1-CW06: The well was noted to be dry during the redevelopment activities with a measured TD of 247.80 feet bgs. Alternating the use of an overshot tool to stir up the debris at the bottom of the well and a magnet was used to pull up metallic debris. No metallic debris was recovered during the use of the magnet.
- 3852L: The well was redeveloped by bailing, swabbing with a surge block, bailing again, and pumping until water quality parameters stabilized. All debris within the screened section of the well casing appears to have been removed. Approximately 2 feet of sediment was removed.
- 3852M: The well was redeveloped by bailing, swabbing with a surge block, bailing again, and pumping until water quality parameters stabilized. All debris within the screened section of the well casing appears to have been removed. Approximately 1.5 feet of sediment was removed with 2.5 feet of debris remaining in the sump.
- 4949C: The well was redeveloped by bailing, swabbing with a surge block, bailing again, and pumping until water quality parameters stabilized. All debris within the screened section of the well casing appears to have been removed. Approximately 9 feet of sediment was removed.

### 2.5.3 Groundwater Monitoring Well Inspections and Maintenance

The conditions of the monitoring wells that were scheduled for water level gauging or groundwater sampling were assessed during the monitoring period. The field inspection forms are included in Appendix B.

The maintenance items previously identified in 2016 were also completed in 70 of the BOU monitoring wells during the reporting period. These items included replacement of well lid gaskets, adding or replacing well tags, re-tapping the existing bolt holes, and replacing the standard six-point bolts with five-point bolts.

All 105 of the wells included in the April monitoring event were inspected as part of the monitoring event. Field logs documenting the condition of each well and the recommended maintenance are included in Appendix B. A summary of the well inspections and maintenance conducted during this reporting period are provided in Table 2.

## 2.6 GROUNDWATER-LEVEL MEASUREMENTS.

Groundwater levels were measured in 105 BOU monitoring wells in April 2017. Groundwater-level measurements and calculated elevation data for the second quarter of 2017 are summarized in Table 3. The procedures utilized to measure water levels are described in the *Revised Operational*

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*Sampling Plan* (OSP; Arcadis, 2014). The field data sheets compiled during the elevation measurements are included in Appendix B.

## **2.7 TRANSDUCER MEASUREMENTS**

Transducers are installed in 23 monitoring wells selected to collect continuous water level data (at 15-minute increments) throughout the year. During monitoring well sounding activities, data recorded by data-logging pressure transducers at the selected groundwater monitoring wells were downloaded and analyzed for the purposes of evaluating the downgradient capture boundary. Transducer data were adjusted with barometric pressure measurements and confirmed with field measurements collected with a hand-held water level meter at the time data were downloaded. The transducer data are presented in Appendix C.

## **2.8 GROUNDWATER SAMPLING**

### **2.8.1 Low-Flow Sampling**

A total of 74 monitoring wells were identified for sampling during the second quarter 2017 groundwater monitoring event using a low-flow sampling methodology in accordance with the procedures specified in the revised OSP (Tetra Tech, 2017b). This includes five new groundwater monitoring wells installed in October and November 2016 at the former Plant B-1 under the direction of the LARWQCB. These wells were sampled concurrently with the OSP monitoring wells.

Groundwater samples were successfully collected from 65 monitoring wells during the second quarter 2017 groundwater monitoring event with 42 completed in the WT HSU and 23 completed in the B HSU. The remaining nine wells (3850M, 3860J, 4949C, A-1-CW07, B-1-CW29, B-5-CW03, B-6-CW17, C-1-CW06, and MW-01) were not sampled because the wells were either dry or did not have enough water for the pumps to draw a sampling. The list of monitoring wells sampled and the analytical program are presented in Table 4. Field purge logs are presented in Appendix B.

### **2.8.2 Quality Assurance and Quality Control**

In accordance with the OSP's QA/QC guidance, duplicate samples, trip blanks, and equipment blanks were collected for each applicable analytical method to assess reproducibility and whether cross-contamination of the environmental samples occurred during sampling and handling or while

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in transit. Duplicate samples were collected at a frequency of 10% to assess sampling and analytical precision. Trip blanks for VOC and 1,2,3-TCP analyses were provided by the laboratory and placed inside each cooler containing groundwater samples to be analyzed for VOCs and/or 1,2,3-TCP.

Because dedicated low-flow pumps were used, no equipment blanks were collected as part of the second quarter 2017 sampling activities. The data validation findings are discussed in Section 3.

## **2.9 DEVIATIONS FROM THE REVISED OPERATIONAL SAMPLING PLAN**

There were some deviations from the OSP and SAP Addendum, as follows:

- Monitoring well 3850S was not gauged because the monitoring well vault was unable to be opened. The monitoring well has been added to the maintenance list and the well vault will be serviced or removed prior to the next sampling event.
- Monitoring wells A-1-CW07, B-1-CW29, B-5-CW03, B-6-CW17, C-1-CW06 and MW-01 were dry during the monitoring event. Therefore, the monitoring wells were not sampled.
- Monitoring well 3850M, 3860J, and 4949C had insufficient water to sample.



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## SECTION 3

# GROUNDWATER SAMPLING DATA VALIDATION

The objective of data validation is to identify any questionable or invalid laboratory measurements. Data validation entails a review of the QC data and the raw data or summary data to verify that the laboratory was operating within required limits and that the analytical results were correctly transcribed from the instrument readouts. In addition, data validation indicates which, if any, environmental samples were related to out-of-control QC samples.

The data were validated using the most recent versions of the USEPA's National Functional Guidelines for data validation available at the time of project initiation, where appropriate (USEPA, 2016b and 2016c). These procedures and criteria may be modified, as necessary, to address project-specific and method-specific criteria, control limits, and procedures. Data validation consists of data screening, checking, reviewing, editing, and interpretation to document analytical data quality and to determine whether the quality is sufficient to meet the data quality objectives (DQOs).

The data validator verifies that reduction of laboratory measurements and laboratory reporting of analytical parameters is in accordance with the procedures specified for each analytical method and/or as specified in the OSP. Any deviations from the analytical method or any special reporting requirements apart from those specified in the OSP are documented.

In order to assess the suitability of analytical results to support groundwater monitoring decisions, the BOU groundwater monitoring program QC manager undertook the following procedures:

- Checked extraction and analysis holding time
- Reviewed laboratory reports and chain-of-custody documentation for errors and omissions
- Checked laboratory reports for correct reporting limits and units
- Checked surrogate, laboratory control sample (LCS), laboratory control sample duplicate (LCSD), and matrix spike (MS), and matrix spike duplicate (MSD) results
- Assessed blank results and noted any detected analytes, their respective concentrations, and any impact to associated samples
- Assessed sample internal standard responses and surrogate recoveries

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- Reviewed instrument calibrations
  - Compared laboratory and field duplicate sample results and noted any significant variations

Specific QA indicators were evaluated to assess the overall usability of the data. These indicators included accuracy, precision, representativeness, comparability, and completeness. The parameters are described below.

- Accuracy is established by reviewing spiked sample analysis. The LCS measures the accuracy of the instrument, and the LCS results for this dataset were all found to be within control limits. Therefore, the accuracy for the sampling event was satisfactory.
- Precision is established by calculating the relative percent difference (RPD) values for MS/MSD pairs and field duplicates. The RPD values calculated for the sampling event show that greater than 95% of the RPDs calculated were within control limits. Therefore, the precision for the sampling event was satisfactory.
- Representativeness is established by using standard field sampling techniques. Because the field sampling was conducted in accordance with the OSP and by following established standard operating procedures, the sampling is judged to have adequate representativeness. Therefore, the representativeness for the sampling event was satisfactory.
- Comparability of the data is preserved if the analytical analyses are conducted under approved and vetted USEPA analytical methods. Because the USEPA methods are constructed with comparability built into the methods, by using approved analytical methods for the BOU project, the BOU data are comparable. Therefore, the comparability for the sampling event was satisfactory.
- Completeness is measured by determining the amount of valid data produced by the laboratory as compared to the total possible data from the chain. This dataset had no rejected data, and all samples were analyzed as per the chains. The data completeness is 100%, which exceeds the 90% criterion. Therefore, the completeness for the sampling event was satisfactory.

Based upon the data review, the data are considered usable as qualified. A QA/QC summary is presented in Appendix D. Data validation summary tables are included in Appendix D as well. All testing was provided by the Eurofins Calscience, a California Department of Public Health-accredited environmental laboratory. The laboratory analytical data packages, which include all environmental, field QC, and laboratory QC results, are provided in Appendix G.

## SECTION 4

# GROUNDWATER MONITORING RESULTS

This section provides the results and interpretations of the groundwater monitoring event.

### 4.1 GROUNDWATER ELEVATIONS

Groundwater elevations for the second quarter 2017 monitoring event are presented in Table 3. Potentiometric maps based on the groundwater elevation data are shown on Figures 3 and 4 for the WT HSUs and B HSU, respectively. The potentiometric surface maps were generated using an historic understanding of groundwater flow and data from current extraction system operations.

Extraction Well	Date Observation Well was Measured	Daily Total Pumped (gallons)					
		16-Apr-17	17-Apr-17	18-Apr-17	19-Apr-17	20-Apr-17	21-Apr-17
VO1	4/19/2017	0	0	0	0	0	0
VO2	4/19/2017	1,725,798	1,717,897	1,661,598	1,729,045	1,729,484	1,728,935
VO3	4/19/2017	0	0	0	0	0	0
VO4	4/20/2017	1,124,398	1,117,581	1,075,935	1,132,763	1,135,808	1,134,567
VO5	4/20/2017	1,674,028	1,681,589	1,675,570	1,713,193	1,714,287	1,712,318
VO6	4/20/2017	0	0	0	0	0	0
VO7	4/20/2017	1,678,693	1,670,613	871,700	0	0	0
VO8	4/19/2017	0	0	832,967	1,763,441	1,737,906	1,725,718

#### 4.1.1 Water Table Hydrostratigraphic Units

The local groundwater flow direction during the second quarter 2017 groundwater monitoring event was predominantly southeasterly in the northwest portion of the BOU and southerly in the northeast portion of the BOU, and it converged in a flow direction toward the cones of depression created by the operation of the BOU extraction wells. The second quarter 2017 groundwater elevation data indicate that the dominant direction of groundwater flow immediately south of the BOU extraction wells was reversed from its natural southeasterly flow direction, to a northerly flow direction in response to the extraction well pumping (northeasterly flow direction in the western portion of the

BOU). These groundwater trends extend to Victory Boulevard in the western portion of the BOU, West Allan and Wyoming Avenue in the central-western portion of the BOU, and to at least Chandler Boulevard in the eastern portion of the BOU. Beyond these boundaries the groundwater flow direction shows influence from pumping, but ultimately reverts to its natural southeasterly direction.

Groundwater extraction appeared to be the dominant influence on groundwater flow within the monitoring well network. Groundwater extraction created a northwest-aligned trough with respect to the water table surface, creating a series of coalescing cones of depression surrounding the BOU extraction wells, as shown on Figure 3.

#### 4.1.2 B-Zone Hydrostratigraphic Unit

The local groundwater flow direction in the B HSU during the second quarter 2017 groundwater monitoring event, as shown on Figure 4, was generally the same as the local groundwater flow direction observed in the WT HSUs. The greater drawdown observed at extraction well V08 in the second quarter 2017 compared with the second quarter 2016 is due to the inclusion of data from new observation well OW-V08B.

#### 4.1.3 Groundwater-Level Trends

Groundwater elevation trends were evaluated by examining annual precipitation data, cumulative pumping data from the BOU extraction system, and hydrographs for the monitoring wells included in the monitoring program. Hydrographs showing piezometric surface elevations over time were used to evaluate long-term trends in groundwater elevations (Appendix C). The hydrographs are generally dominated by a few long-term trends, as described below.

- The groundwater elevation within the BOU generally declined from 1988 to late 1992.
- The trend reversed in 1992, and groundwater elevations generally rose through early 1996 (with a minor dip in 1995).
- From early 1996 (the beginning of groundwater extraction at the BOU) through 2004, groundwater elevation generally decreased.
- From 2004 through early 2007, groundwater elevation rose.
- From early 2006 through 2010, groundwater elevation stabilized (on average).
- Groundwater elevation rose from late 2010 to the second quarter of 2013.



- Groundwater elevation declined from the second quarter of 2013 to the second quarter of 2017.

Figure 5 shows hydrographs from three clustered sets of monitoring wells and annual precipitation on the same graph. The three monitoring well clusters are from north of the extraction system in the Plant B-6 area, from near the extraction system in the Plant B-1 area, and from south of the extraction system. Each paired set of monitoring wells includes a monitoring well completed in one of the WT HSUs and one completed in the B HSU. The precipitation data are from the Valley Pumping Plant and/or the Bob Hope Airport in Burbank (Weather Warehouse, 2011; Weather Underground, 2017). Although the data are limited, prior to the startup of the BOU extraction system in 1996 there appears to be some correlation between precipitation and general water-level elevation. However, the dominant factor driving groundwater elevation changes is likely groundwater extraction in the basin and at nearby extraction wells, rather than a direct relationship to precipitation. This can be observed in the steepening hydraulic gradient between the upgradient Plant B-6 cluster and the Plant B-1 cluster after pumping began. While there are slight differences between how the monitoring well clusters from the different areas of the BOU respond over time, they generally track together. A review of the hydrographs also reveal an increase in the upward vertical gradient between all three paired monitoring wells after the BOU extraction system was started up, particularly in the B-1 pair that are nearest to the extraction system.

## 4.2 ANALYTICAL DATA SUMMARY

Sixty-five groundwater monitoring wells were sampled during the second quarter 2017 monitoring event. The samples collected were tested for VOCs, 1,2,3-TCP, 1,4-dioxane, total chromium, and hexavalent chromium. Twenty-one organic and two inorganic analytes were detected. A summary by monitoring well of the validated laboratory analytical results for the analytes detected during the water quality monitoring event is presented in Table 5. Only results for analytes that were detected at concentrations above their respective method detection limits are shown in Table 5. Analytical results that were above a regulatory threshold (i.e., California Department of Public Health maximum contaminant level [MCL] or California Department of Public Health drinking water notification level [DWNL]) are shown in bold type and the cell is highlighted in Table 5. A further summary of the analytes detected, associated regulatory thresholds, number of exceedances, and the range of concentrations detected is presented in Table 6.

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Figures 6 through 17 show isocontours of PCE, TCE, 1,2,3-TCP, 1,4-dioxane, total chromium, and hexavalent chromium in the WT HSUs and the B HSU based on the analytical results from the 2017 sampling event. These compounds were selected for contouring because they are considered either primary or emerging chemicals of concern. Initial contours for the groundwater concentration data were generated with C Tech's Earth Volumetric Studio software using a kriging algorithm. These contours were then adjusted by hand based on professional judgment.

#### 4.2.1 Tetrachloroethene

PCE has an MCL of 5 µg/L. It was detected in 59 of the primary (non-duplicate) samples, 37 of which exceeded the MCL. The detected concentrations ranged from 0.20 µg/L (monitoring well B-6-CW05) to 630 µg/L (monitoring well B-1-CW33).

Concentrations in the WT HSUs ranged from <0.20 µg/L to 630 µg/L (monitoring well B-1-CW33). Concentrations exceeding the MCL extended over much of the BOU with the highest concentrations detected at the northwest corner of the former Plant B-1 and trending southeast beneath former Plant B-1 and extending to Magnolia Boulevard (Figure 6).

Concentrations in the B HSU ranged from <0.20 µg/L to 48 µg/L (monitoring well 3850R). Concentrations exceeding the MCL were not as widely distributed as in the shallower HSUs, with the highest concentrations detected adjacent to the extraction wells on Vanowen Street (Figure 7).

#### 4.2.2 Trichloroethene

TCE has an MCL of 5 µg/L. It was detected in 53 of the samples, 35 of which exceeded the MCL. The detected concentrations ranged from 0.29 µg/L (monitoring well C-1-CW05) to 240 µg/L (monitoring wells 3872L and B-1-CW13).

Concentrations in the WT HSUs ranged from <0.29 µg/L to 240 µg/L (monitoring wells 3872L and B-1-CW13). Concentrations exceeding the MCL extended over much of the BOU with the highest concentrations detected downgradient of former Building 85 and extending to Magnolia Boulevard (Figure 8).

Concentrations in the B HSU ranged from <0.29 µg/L to 32 µg/L (monitoring well 3862E). Concentrations exceeding the MCL were not as widely distributed as in the shallower HSUs, with the highest concentrations detected south of the BOU. Additionally, elevated concentrations were

detected in the southern portion of the former Plant B-6 area and continuing southeast beneath former Building 85 and extending to Vanowen Street (Figure 9).

#### 4.2.3 1,2,3-Trichloropropane

The analyte 1,2,3-TCP has a DWNL of 0.005 µg/L. It was detected in 31 of the samples, 30 of which exceeded the DWNL. The detected concentrations ranged from 0.0045 µg/L (monitoring well 3861F) to 87 µg/L (monitoring well A-1-CW08).

Concentrations in the WT HSUs ranged from <0.0025 µg/L to 87 µg/L (monitoring well A-1-CW08). Concentrations exceeding the DWNL extended over much of the BOU with the highest concentrations detected down gradient of the former Plant B-6 area, north of former Building 85, and along Vanowen Street (Figure 10).

Concentrations in the B HSU ranged from <0.0025 µg/L to 0.29 µg/L (monitoring well 3852H). Concentrations exceeding the DWNL were not as widely distributed as in the WT HSUs, with the highest concentrations detected near Burbank Boulevard (Figure 11).

#### 4.2.4 1,4-Dioxane

The analyte 1,4-dioxane has a DWNL of 1.0 µg/L. It was detected in 11 of the samples, 11 of which exceeded the DWNL. The detected concentrations ranged from 1.0 µg/L (monitoring well B-1-CW11) to 3.7 µg/L (monitoring well A-1-CW09).

Concentrations in the WT HSUs ranged from <0.28 µg/L to 3.7 µg/L (monitoring well A-1-CW09). Concentrations exceeding the DWNL are limited but spread out through the BOU specifically at former Plants A-1-S, B-1, and C-1 as well as downgradient of Former Building 371(Figure 12).

Concentrations in the B HSU ranged from <0.28 µg/L to 2.3 µg/L (monitoring well A-1-CW05). Similar to the WT HSUs, concentrations exceeding the DWNL extended around the former Plant B-6 and A-1 areas of the BOU, with the highest concentrations detected at the former Plant A-1-S (Figure 13).

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#### 4.2.5 Total Chromium

Total chromium has an MCL of 50 µg/L. It was detected in 65 of the samples, 2 of which exceeded the MCL. The detected concentrations ranged from 0.600 µg/L (monitoring well C-1-CW02) to 82.9 µg/L (monitoring well C-1-CW07).

Concentrations in the WT HSUs ranged from 1.05 J (A-1-CW03R) to 82.9 µg/L (monitoring well C-1-CW07). One sample from the eastern portion of the BOU near the former Weber Aircraft facility and one sample near former Plant C-1 had concentrations detected exceeding the MCL (Figure 14).

Concentrations in the B HSU ranged from 0.600 µg/L (monitoring well C-1-CW02) to 7.85 µg/L (3872S). No concentrations were detected that exceeded the MCL (Figure 15).

#### 4.2.6 Hexavalent Chromium

Hexavalent chromium has an MCL of 10 µg/L. It was detected in 58 samples, 5 of which exceeded the MCL. The detected concentrations ranged from 0.010 µg/L µg/L (monitoring well A-1-CW03R) to 20 µg/L (monitoring well B-1-CW17).

Concentrations in the WT HSUs range from 0.010 µg/L µg/L (monitoring well A-1-CW03R) to 20 µg/L (monitoring well B-1-CW17). Four of the 5 samples that exceeded the MCL are located in the central to southern portions of former Plant B-1. The other sample that exceeded the MCL is located immediately outside of the northeastern boundary of the BOU (Figure 16).

Concentrations in the B HSU ranged from 0.021 µg/L (monitoring well 3850R) to 7.9 µg/L (monitoring well 3872S). No concentrations were detected above the MCL (Figure 17).



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## SECTION 5

# STATISTICAL TREND ANALYSES

Statistical trend analyses were conducted using chemical data from the 65 monitoring wells sampled as part of the 2017 BOU groundwater monitoring program. The analysis was performed for the six primary chemicals of concern: PCE, TCE, 1,2,3-TCP, 1,4-dioxane, total chromium, and hexavalent chromium. Therefore, a total of 390 trends were tested. The Monitoring and Remediation Optimization System (MAROS), developed by the Air Force Center for Environmental Excellence (Air Force Center for Environmental Excellence, 2006), was used for the analyses. MAROS is a statistical database application developed to assist with groundwater quality data trend analysis and long-term monitoring optimization at contaminated groundwater sites. BOU data from first quarter 1996 (i.e., full-scale implementation of the groundwater extraction system) to second quarter 2017 were analyzed. A summary of the statistical-trend analyses is provided in Appendix E.

### 5.1 STATISTICAL ANALYSIS METHODS

The software performs parametric and nonparametric trend analyses to evaluate temporal and spatial contaminant trends using Mann-Kendall and linear regression methods. Brief descriptions of the methods follow.

#### 5.1.1 Mann-Kendall Analysis

This statistical procedure was used to evaluate the data for trends. It is a nonparametric statistical procedure that is well suited for analyzing trends in data over time. The Mann-Kendall test for trend is suitable for analyzing data that follow a normal or non-normal distribution pattern. The Mann-Kendall test has no distributional assumptions and allows for irregularly spaced measurement periods or missing data. The advantage with this approach involves the cases where outliers in the data would produce biased estimates of the least squares estimated slope.

#### 5.1.2 Linear Regression Analysis

This parametric statistical procedure was used to calculate the magnitude of the trends. A parametric statistical procedure is typically used for analyzing trends in data over time and requires a normal statistical distribution of the data.

## 5.2 STATISTICAL TREND CATEGORIES

There are seven statistical concentration trend types derived from Mann-Kendall analysis: 1) decreasing, 2) increasing, 3) no trend (displaying two sets of conditions), 4) probably decreasing, 5) probably increasing, 6) stable, and 7) non-detect (ND; all sample results are below the detection limit). If a location has fewer than four quarters of data, then the Mann-Kendall analysis cannot be run and not applicable (NA) would be applied to the results. These statistical concentration trend types are determined by the following conditions:

Mann-Kendall Statistic (S)	Confidence in Trend	Concentration Trend
$S > 0$	$> 95\%$	Increasing
$S > 0$	90 - 95%	Probably Increasing
$S > 0$	$< 90\%$	No Trend
$S \leq 0$	$< 90\%$ and $COV \geq 1$	No Trend
$S \leq 0$	$< 90\%$ and $COV < 1$	Stable
$S < 0$	90 - 95%	Probably Decreasing
$S < 0$	$> 95\%$	Decreasing
ND	-	Non-detect
NA	-	Not applicable

**Notes:** > - Greater than

< - Less than

$\leq$  - Less than or equal to

COV - Coefficient of Variation

S - Mann-Kendall statistic

ND - All results non-detect

NA - Not applicable, less than four quarters of data

The Mann-Kendall statistic (S) measures the trend in the data. Positive values indicate an increase in constituent concentrations over time, whereas negative values indicate a decrease in constituent concentrations over time. The strength of the trend is proportional to the magnitude of the Mann-Kendall Statistic (i.e., large magnitudes indicate a strong trend).

The Coefficient of Variation (COV) is a statistical measure of how the individual data points vary about the mean value. Values less than or near 1.00 indicate that the data form a relatively close

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group about the mean value. Values larger than 1.00 indicate that the data show a greater degree of scatter about the mean.

“Confidence in Trend” is the statistical confidence that the constituent concentration is increasing ( $S > 0$ ) or decreasing ( $S < 0$ ).

If there were insufficient data or fewer than four sampling events, then “not applicable (NA)” was applied to the results.

### 5.3 RESULTS OF STATISTICAL ANALYSES

The overall results of the Mann-Kendall trend analyses are presented on Table 7. The breakdown of the overall trends were similar to 2016 but the number of stable trends decreased by approximately 5% and the number of decreasing trends increased by 5%. The number of analysis indicating insufficient data increased because of the addition of the new wells. The statistical analysis tested 390 datasets to evaluate for trends. The statistical analysis yielded a result of either insufficient data, ND, or no trend for 169 of the datasets tested. The decreasing or probably decreasing trend monitoring wells totaled 115, and the magnitude of the trends ranged from -182 to -0.0013 micrograms per liter per year ( $\mu\text{g/L/yr}$ ). The decreasing trends as a percentage for the period analyzed ranged from -24 to -0.47 percent per year ( $\%/yr$ ). Sixty-six monitoring wells demonstrated a stable trend. Forty monitoring wells demonstrated an increasing or probably increasing trend, and the magnitude of the trends ranged from 0.00062 to 8.76  $\mu\text{g/L/yr}$ . The increasing trends as a percentage for the period analyzed ranged from 0.82 to 88%/yr. Four of the increasing trends as a percentage change were 20%/yr or higher. The magnitudes of the trends are discussed by chemical of concern in the following subsections. Table 8 provides a more detailed summary of the trend analysis by monitoring well for those monitoring wells demonstrating an increasing or probably increasing trend for one or more of the primary chemicals of concern. Historical chemical of concern data for each monitoring well sampled are provided in Appendix E. The table of historical data includes a summary by monitoring well of all analytical results for the six chemicals of concern.

Time versus concentration graphs for the 17 monitoring wells identified in the OSP are presented in Appendix E; monitoring well 3860H was also identified in the OSP, but the monitoring well was destroyed in 2015 so a time versus concentration graph was not included.

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### 5.3.1 Tetrachloroethene

Figures 18 and 19 summarize the trend analysis results for PCE in the WT HSUs and B HSU, respectively. The statistical analysis for PCE yielded a result of either insufficient data, ND, or no trend for 12 of the monitoring wells tested. The decreasing or probably decreasing trend monitoring wells totaled 37, and the magnitude of the trends ranged from -182 to -0.07. The decreasing trends as a percentage for the period analyzed ranged from -18.3 to -2.01%/yr. The decreasing trends in the WT were scattered throughout the BOU. The decreasing trends in the B HSU are primarily adjacent to the BOU extraction wells and to the north near former the Plant B-6 area. Thirteen monitoring wells demonstrated a stable trend. Three monitoring wells demonstrated an increasing or probably increasing trend, and the magnitude of the trends ranged from 0.02 to 3.80 µg/L/yr. The increasing trends as a percentage for the period analyzed ranged from 2.92 to 3.65%/yr. There were no increasing or probably increasing trends identified in the WT HSU wells. Three increasing trend wells were identified in the B HSU. Two wells were adjacent to the BOU extraction wells and one well was upgradient of the BOU extraction wells. All three monitoring wells are within the area captured by the BOU extraction wells. The magnitude of the increasing trends and the percentage these changes in concentration represent are not large.

The following B-HSU monitoring wells exhibited increasing or probably increasing trends:

- 3850R: The 2017 concentration in this well was 48 micrograms per liter (µg/L). This well is located between extraction well VO6 and VO7 and upgradient of VO8. The magnitude of the increasing trend is 3.80 µg/L/yr and represents a change of 2.92%/yr over the period analyzed.
- B-1-CW28: The 2017 concentration in this well was 13 µg/L. This well is located between BOU extraction wells VO5 and VO6 and upgradient of VO8. The magnitude of the increasing trend is 0.91 µg/L/yr and represents a change of 3.65%/yr over the period analyzed.
- B-6-CW02: The 2017 concentration in this well was 0.56 µg/L. This well is located upgradient of the BOU extraction wells. The magnitude of the increasing trend is 0.02 µg/L/yr and represents a change of 3.29%/yr over the period analyzed. The analyte PCE has never been detected in this well at a concentration exceeding the MCL.

### 5.3.2 Trichloroethene

Figures 20 and 21 show the trend analysis results for TCE in the WT HSUs and the B HSU, respectively. The statistical analysis for TCE yielded a result of either insufficient data, ND, or no trend for 16 of the monitoring wells tested. The decreasing or probably decreasing trend monitoring



wells totaled 39, and the magnitude of the trends ranged from -50 to -0.02  $\mu\text{g/L/yr}$ . The decreasing trends as a percentage for the period analyzed ranged from -22 to -0.47%/yr. The decreasing trends in the WT HSUs were scattered throughout the BOU. The decreasing trends in the B HSU are primarily adjacent to or south of the BOU extraction wells. Eight monitoring wells demonstrated a stable trend. Two monitoring wells demonstrated an increasing or probably increasing trend, and the magnitude of the trends ranged from 0.14 to 2.38  $\mu\text{g/L/yr}$ . The increasing trends as a percentage for the period analyzed ranged from 1.41 to 3.83%/yr. The single increasing or probably increasing trend in the WT HSUs was 3830S, located south of former Plant B-5 and is upgradient of the BOU extraction system. The increasing trend in the B HSU was adjacent to the BOU extraction wells (within the area captured by the BOU extraction wells). The magnitude of the increasing trend and the percentage this change in concentration represent is not large.

The following WT-HSU monitoring well exhibited a probably increasing trend:

- 3830S: The 2017 concentration in this well was 85  $\mu\text{g/L}$ . This well is located south of former Plant B-5 and is upgradient of the BOU extraction system. The magnitude of the probably increasing trend is 2.38  $\mu\text{g/L/yr}$  and represents a change of 3.83%/yr over the period analyzed.

The following B-HSU monitoring well exhibited an increasing trend:

- 3850R: The 2017 concentration in this well was 7.8  $\mu\text{g/L}$ . This well is located between extraction well VO6 and VO7 and upgradient of VO8. The magnitude of the increasing trend is 0.14  $\mu\text{g/L/yr}$  and represents a change of 1.41%/yr over the period analyzed.

### 5.3.3 1,2,3-Trichloropropane

The analyte 1,2,3-TCP has historically been analyzed by two methods: as part of the standard VOC analyses (currently USEPA Method 8260B), which has a higher detection limit, and by low-level 1,2,3-TCP analyses (currently USEPA Method 8260B SIM), which has a lower detection limit. All 1,2,3-TCP data from 1996 to 2000 was a result of the VOC analyses (i.e., higher detection limits, generally several orders of magnitude higher than current 1,2,3-TCP concentrations). The MAROS application assigns a value of one-half of the detection limit in the case of non-detects. Therefore, the MAROS application would assign higher 1,2,3-TCP concentrations to the early 1,2,3-TCP non-detects which would skew the statistical analysis. To account for this, non-detects with high detection limits were not included in the 1,2,3-TCP statistical analysis.

Figures 22 and 23 show the trend analysis results for 1,2,3-TCP in the WT HSUs and the B HSU, respectively. The statistical analysis for 1,2,3-TCP yielded a result of either insufficient data, ND, or no trend for 44 of the monitoring wells tested. The decreasing or probably decreasing trend monitoring wells totaled 7, and the magnitude of the trends ranged from -1.01 to -0.006  $\mu\text{g/L/yr}$ . The decreasing trends as a percentage for the period analyzed ranged from -14.6 to -5.11%/yr. The decreasing trends in the WT HSUs were located at or upgradient of the extraction wells, the southwest boundary, and just south of the southern boundary of the BOU. There were no decreasing trends in the B HSU. Two monitoring wells demonstrated a stable trend. Twelve monitoring wells demonstrated an increasing or probably increasing trend, and the magnitude of the trends ranged from 0.00062 to 1.41  $\mu\text{g/L/yr}$ . The increasing trends as a percentage for the period analyzed ranged from 2.56 to 29%/yr. The increasing trends in the WT HSUs are scattered throughout the BOU and are within the area captured by the BOU extraction wells or upgradient of them, with the exception of monitoring wells 3852L, 3852M, and 3872N. The single increasing or probably increasing trend in the B HSUs was 3850R, located between extraction wells VO6 and VO7 and upgradient of VO8. With the exception of some of the Pacific Airmotive Corporation monitoring wells and monitoring well A-1-CW04, the magnitude of the increasing trends and the percentage these changes in concentration represent are not large.

The following WT-HSU monitoring wells exhibited increasing or probably increasing trends:

- MW-03: The 2017 concentration in this well was 0.93  $\mu\text{g/L}$ . This well is located within the former Pacific Airmotive Corporation/Plant B-6 area and is upgradient of the BOU extraction wells. The magnitude of the increasing trend is 0.43  $\mu\text{g/L/yr}$  and represents a change of 13.5%/yr over the period analyzed.
- MW-04: The 2017 concentration in this well was 0.96  $\mu\text{g/L}$ . This well is located within the former Pacific Airmotive Corporation/Plant B-6 area and is upgradient of the BOU extraction wells. The magnitude of the increasing trend is 0.22  $\mu\text{g/L/yr}$  and represents a change of 20%/yr over the period analyzed.
- MW-07: The 2017 concentration in this well was 0.60  $\mu\text{g/L}$ . This well is located within the former Pacific Airmotive Corporation/Plant B-6 area and is upgradient of the BOU extraction wells. The magnitude of the increasing trend is 0.07  $\mu\text{g/L/yr}$  and represents a change of 18.1%/yr over the period analyzed.
- MW-08: The 2017 concentration in this well was 0.93  $\mu\text{g/L}$ . This well is located within the former Pacific Airmotive Corporation/Plant B-6 area and is upgradient of the BOU extraction wells. The magnitude of the increasing trend is 0.20  $\mu\text{g/L/yr}$  and represents a change of 15.7%/yr over the period analyzed.

- 3852L: The 2017 concentration in this well was 0.032 µg/L. This well is located 4,000 feet south of the nearest BOU extraction well and is at the edge of the area captured by the BOU extraction wells. The magnitude of the increasing trend is 0.0080 µg/L/yr and represents a change of 8.94 %/yr over the period analyzed.
- 3852M: The 2017 concentration in this well was 0.21 µg/L. This well is located 5,000 feet south of the nearest BOU extraction well and appears to be south of the area of influence of the BOU extraction wells. The magnitude of the increasing trend is 0.016 µg/L/yr and represents a change of 12.4%/yr over the period analyzed.
- 3872L: The 2017 concentration in this well was 0.095 µg/L. This well is located 4,750 feet south of the nearest BOU extraction well and appears to be south of the area of influence of the BOU extraction wells. The magnitude of the increasing trend is 0.006 µg/L/yr and represents a change of 11.7%/yr over the period analyzed.
- A-1-CW04: The 2017 concentration in this well was 25 µg/L. This well is located is located in the former Plant A-1 area and is upgradient of BOU extraction well VO7. The magnitude of the increasing trend is 1.78 µg/L/yr and represents a change of 29%/yr over the period analyzed.
- A-1-CW08: The 2017 concentration in this well was 87 µg/L. This well is located downgradient of the former Plant B-6 and upgradient of the BOU extraction system. The magnitude of the increasing trend is 1.41 µg/L/yr and represents a change of 2.56%/yr over the period analyzed.
- A-1-CW09: The 2017 concentration in this well was 15 µg/L. This well is located is located in the former Plant A-1 area and is upgradient of BOU extraction well VO7. The magnitude of the probably increasing trend is 0.30 µg/L/yr and represents a change of 6.75%/yr over the period analyzed.
- B-1-CW13: The 2017 concentration in this well was 13 µg/L. This well is located between and within the influence of BOU extraction wells VO5 and VO6 and upgradient of VO8. The magnitude of the increasing trend is 0.88 µg/L/yr and represents a change of 5.48%/yr over the period analyzed.

The following B-HSU monitoring well exhibited an increasing trend:

- 3850R: The 2017 concentration in this well was 0.0074 µg/L. This well is located between extraction well VO6 and VO7 and upgradient of VO8. The magnitude of the increasing trend is 0.00062 µg/L/yr and represents a change of 7.67%/yr over the period analyzed.

#### 5.3.4 1,4-Dioxane

Figures 24 and 25 show the trend analysis results for 1,4-dioxane in the WT HSUs and the B HSU, respectively. The statistical analysis for 1,4-dioxane yielded a result of either insufficient data, ND, or no trend for 30 of the monitoring wells tested. The decreasing or probably decreasing trend monitoring wells totaled 11, and the magnitude of the trends ranged from -24 to -0.01 µg/L/yr. The decreasing trends as a percentage for the period analyzed ranged from -24 to -2.92%/yr. The

decreasing trends in the WT HSUs are scattered throughout the BOU. There was one probably decreasing trends in the B HSU, 3850R, located between extraction well VO6 and VO7 and upgradient of VO8. Thirteen monitoring wells demonstrated a stable trend. Eleven monitoring wells demonstrated an increasing or probably increasing trend, and the magnitude of the trends ranged from 0.003 to 0.53  $\mu\text{g/L/yr}$ . The increasing trends as a percentage for the period analyzed ranged from 1.08 to 11.5%/yr. The increasing trends in the WT and B HSUs were generally adjacent to and north of the extraction wells. All of the increasing trend monitoring wells are upgradient of the extraction wells or within the area captured by the BOU extraction wells. The magnitude of the increasing trends and the percentage these changes in concentration represent are not large.

The following WT-HSU monitoring wells exhibited increasing or probably increasing trends:

- MW-03: The analyte 1,4-dioxane was not detected in this well in 2017. This well is located within the former Pacific Airmotive Corporation/Plant B-6 area and is upgradient of the BOU extraction wells. The magnitude of the increasing trend is 0.07  $\mu\text{g/L/yr}$  and represents a change of 7.12%/yr over the period analyzed.
- MW-04: The analyte 1,4-dioxane was not detected in this well in 2017. This well is located within the former Pacific Airmotive Corporation/Plant B-6 area and is upgradient of the BOU extraction wells. The magnitude of the increasing trend is 0.06  $\mu\text{g/L/yr}$  and represents a change of 7.67%/yr over the period analyzed.
- MW-08: The analyte 1,4-dioxane was not detected in this well in 2017. This well is located within the former Pacific Airmotive Corporation/Plant B-6 area and is upgradient of the BOU extraction wells. The magnitude of the increasing trend is 0.53  $\mu\text{g/L/yr}$  and represents a change of 11.0%/yr over the period analyzed.
- 3852F: The 2017 concentration in this well was 1.5  $\mu\text{g/L}$ . This well is located 5,000 feet south of the nearest BOU extraction well and appears to be south of the area of influence of the BOU extraction wells. The magnitude of the increasing trend is 0.06  $\mu\text{g/L/yr}$  and represents a change of 10.6%/yr over the period analyzed.
- A-1-CW09: The 2017 concentration in this well was 3.7  $\mu\text{g/L}$ . This well is located in the former Plant A-1 area and upgradient of BOU extraction well VO7. The magnitude of the probably increasing trend is 0.16  $\mu\text{g/L/yr}$  and represents a change of 9.49%/yr over the period analyzed.
- B-1-CW13: The 2017 concentration in this well was 2.0  $\mu\text{g/L}$ . This well is located between and within the influence of BOU extraction wells VO5 and VO6 and upgradient of VO8. The magnitude of the increasing trend is 0.05  $\mu\text{g/L/yr}$  and represents a change of 5.66%/yr over the period analyzed.
- B-1-CW17: The 2017 concentration in this well was 2.9  $\mu\text{g/L}$ . This well is located on the downgradient edge of the influence of the extraction well VO1. The magnitude of the



increasing trend is 0.09 µg/L/yr and represents a change of 8.94%/yr over the period analyzed.

- C-1-CW08: The analyte 1,4-dioxane was not detected in this well in 2017. This well is located within the former Plant C-1 area and is upgradient of the BOU extraction wells. The magnitude of the increasing trend is 0.04 µg/L/yr and represents a change of 4.4%/yr over the period analyzed.

The following B-HSU monitoring wells exhibited increasing or probably increasing trends:

- B-6-CW14: The 2017 concentration in this well was 1.8 µg/L. This well is located in the former Plant B-1 area and upgradient of the BOU extraction system. The magnitude of the increasing trend is 0.10 µg/L/yr and represents a change of 11.5%/yr over the period analyzed.
- C-1-CW02: The analyte 1,4-dioxane was not detected in this well in 2017. This well is located upgradient of the former Plant C-1 area and is upgradient of the BOU extraction wells. The magnitude of the increasing trend is 0.02 µg/L/yr and represents a change of 4.75%/yr over the period analyzed.
- C-1-CW05: The analyte 1,4-dioxane was not detected in this well in 2017. This well is located east of the former Plant B-5 area. The magnitude of the increasing trend is 0.003 µg/L/yr and represents a change of 1.08%/yr over the period analyzed. The analyte 1,4-dioxane has never been detected in this well at a concentration exceeding the notification level.

### 5.3.5 Total Chromium

Figures 26 and 27 show the trend analysis results for total chromium in the WT HSUs and the B HSU, respectively. The statistical analysis for total chromium yielded a result of either insufficient data, ND, or no trend for 40 of the monitoring wells tested. The decreasing or probably decreasing trend monitoring wells totaled ten, and the magnitude of the trends ranged from -15.3 to -0.10 µg/L/yr. The decreasing trends as a percentage for the period analyzed ranged from -11.0 to -0.77%/yr. The decreasing trends in the WT and B HSUs are scattered throughout the BOU. Twelve monitoring wells demonstrated a stable trend. Three monitoring wells demonstrated an increasing or probably increasing trend, and the magnitude of the trends ranged from 0.13 to 0.42 µg/L/yr. The increasing trends as a percentage for the period analyzed ranged from 5.29 to 7.85%/yr. All of the increasing trend monitoring wells in the WT and B HSUs are located adjacent to or upgradient of the BOU extraction wells, and within the area captured by the extraction wells. The magnitude of the increasing trends and the percentage these changes in concentration represent are not large.

The following WT-HSU monitoring wells exhibited increasing or probably increasing trends:

- 3860K: The 2017 concentration in this well was 3.44 µg/L. This well is located is located downgradient of the former Pacific Airmotive Corporation/Plant B-6 area and is upgradient of the BOU extraction wells. The magnitude of the probably increasing trend is 0.22 µg/L/yr and represents a change of 5.48%/yr over the period analyzed. Total chromium has never been detected in this well at a concentration exceeding the MCL.
- B-6-CW16: The 2017 concentration in this well was 28.9 µg/L. This well is located downgradient of the former Plant B-6 and upgradient of the BOU extraction system. The magnitude of the increasing trend is 0.42 µg/L/yr and represents a change of 7.85%/yr over the period analyzed. Total chromium has never been detected in this well at a concentration exceeding the MCL.

The following B-HSU monitoring well exhibited a probably increasing trend:

- B-6-CW02: The 2017 concentration in this well was 2.95 µg/L. This well is located within the former Pacific Airmotive Corporation/Plant B-6 area and is upgradient of the BOU extraction wells. The magnitude of the probably increasing trend is 0.13 µg/L/yr and represents a change of 5.29%/yr over the period analyzed. Total chromium has never been detected in this well at a concentration exceeding the MCL.

### 5.3.6 Hexavalent Chromium

Figures 28 and 29 show the trend analysis results for hexavalent chromium in the WT HSUs and the B HSU, respectively. The statistical analysis for hexavalent chromium yielded a result of either insufficient data, ND, or no trend for 27 of the monitoring wells tested. The decreasing or probably decreasing trend monitoring wells totaled 11, and the magnitude of the trends ranged from -2.81 to -0.01 µg/L/yr. The decreasing trends as a percentage for the period analyzed ranged from -12.6 to -2.19%/yr. The decreasing trends in the WT HSUs are scattered across the BOU. The three decreasing trends in the B HSU are located at Building 371 and just immediately south of the BOU extraction wells. Eighteen monitoring wells demonstrated a stable trend. Nine monitoring wells demonstrated increasing or probably increasing trends, and the magnitude of the trends ranged from 0.03 to 8.76 µg/L/yr. The increasing trends as a percentage for the period analyzed ranged from 0.82 to 88 %/yr. The trends in the WT HSUs appear to be primarily located adjacent to or upgradient of the BOU extraction wells, and within the area captured by the extraction wells. The increasing trends in the B HSU are primarily south of the extraction wells and appears to be outside of the area captured by the extraction wells.

The following WT-HSU monitoring wells exhibited increasing or probably increasing trends:

- MW-04: The 2017 concentration in this well was 2.2 µg/L. This well is located within the former Pacific Airmotive Corporation/Plant B-6 area and is upgradient of the BOU extraction wells. The magnitude of the increasing trend is 0.05 µg/L/yr and represents a

change of 3.65%/yr over the period analyzed. Hexavalent chromium has never been detected in this well at a concentration exceeding the MCL.

- MW-08: The 2017 concentration in this well was 2.1 µg/L. This well is located within the former Pacific Airmotive Corporation/Plant B-6 area and is upgradient of the BOU extraction wells. The magnitude of the increasing trend is 0.10 µg/L/yr and represents a change of 7.12%/yr over the period analyzed. Hexavalent chromium has never been detected in this well at a concentration exceeding the MCL.
- 3870D: The 2017 concentration in this well was 17 µg/L. The well is located in the northeast corner of the BOU east of Interstate 5. The well appears to be upgradient of the BOU extraction system. The magnitude of the increasing trend is 8.76 µg/L/yr and represents a change of 88%/yr over the period analyzed.
- 3872N: The 2017 concentration in this well was 6.7 µg/L. This well is located 4,750 feet south of the nearest BOU extraction well and appears to be south of the area of influence of the BOU extraction wells. The magnitude of the increasing trend is 2.49 µg/L/yr and represents a change of 80%/yr over the period analyzed. Hexavalent chromium has never been detected in this well at a concentration exceeding the MCL.
- C-1-CW03: The 2017 concentration in this well was 0.88 µg/L. This well is located upgradient of the former Plant C-1 area and is upgradient of the BOU extraction wells. The magnitude of the increasing trend is 0.03 µg/L/yr and represents a change of 7.67%/yr over the period analyzed. Hexavalent chromium has never been detected in this well at a concentration exceeding the MCL.

The following B-HSU monitoring well exhibited a probably increasing trend:

- 3851N: The current concentration in this well is 1.2 µg/L. The well is located 2000 feet south of the nearest BOU extraction well. The magnitude of the increasing trend is 0.01 µg/L/yr and represents a change of 2.19 %/yr over the period analyzed. Hexavalent chromium has never been detected in this well at a concentration exceeding the MCL.
- 3852H: The 2017 concentration in this well was 1.1 µg/L. This well is located 4,750 feet south of the nearest BOU extraction well and appears to be south of the area of influence of the BOU extraction wells. The magnitude of the probably increasing trend is 0.01 µg/L/yr and represents a change of 0.82%/yr over the period analyzed. Hexavalent chromium has never been detected in this well at a concentration exceeding the MCL.
- 3861F: The 2017 concentration in this well was 4.9 µg/L. The well is located 1600 feet south of the nearest BOU extraction well and appears to be on the downgradient edge of the influence of the BOU extraction wells. The magnitude of the increasing trend is 0.04 µg/L/yr and represents a change of 1.41 %/yr over the period analyzed. Hexavalent chromium has never been detected in this well at a concentration exceeding the MCL.
- B-6-CW02: The 2017 concentration in this well was 2.5 µg/L. This well is located upgradient of the BOU extraction wells. The magnitude of the increasing trend is 0.03 µg/L/yr and represents a change of 4.02%/yr over the period analyzed. Hexavalent chromium has never been detected in this well at a concentration exceeding the MCL.

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## 5.4 COMPOUNDS OF CONCERN COMPARISON

During the USEPA's review of the 2013 BOU Annual Groundwater Monitoring and Emerging Compounds Report (Arcadis 2013), the USEPA requested that the analytical results for the compounds of concern (PCE, TCE, 1,2,3-TCP, 1,4-dioxane, total chromium, and hexavalent chromium) be compared to previous results to look for increases in concentrations. The concern was that limited or variable datasets can be problematic for statistical analysis and that inspection of the most recent data may identify a possible increasing trend before statistical analysis will. Specifically it was requested that the data be evaluated for the three following criteria:

- Criteria 1- Determine if detected concentration represents a new maximum for that monitoring well
- Criteria 2 - Determine if detected concentration exceeds the water-quality objectives for the first time in a period of two years
- Criteria 3 - Determine if the concentration is greater than the previous reported concentration by a factor of 50% or more and if it is in excess of the water quality objectives

Sixty-five monitoring wells were sampled and tested in 2017 and there are six primary compounds of concern, therefore, each of the three criteria were applied against 390 datasets. The same datasets used for the statistical analysis (January 1996 to the present) was used for this evaluation as well. Table 9 presents the result of the analysis and the matrix below summarizes the results.

- Criteria 1 – 40 of the 390 results represented a new maximum
- Criteria 2 – 3 of the 390 results represented a new exceedance of the MCL/DWNL since May 2014
- Criteria 3 – 29 of the 390 results represented an exceedance of the MCL/DWNL and the concentration was more than 50% higher than the last known concentration for that monitoring well.



Summary of Data Comparison						
Analyte	Wells That Met Criteria 1: New Maximum Concentration		Wells That Met Criteria 2: New Exceedance of MCL/DWNL since March 2016		Wells That Met Criteria 3: Exceedance of the MCL/DWNL and 50% Higher than Last Measured Concentration	
	Number of Wells	Concentration Range (µg/L)	Number of Wells	Concentration Range (µg/L)	Number of wells	Concentration Range (µg/L)
PCE	5	13.0 - 630	0	NA	7	14.0 - 630
TCE	5	0.29 - 200	0	NA	11	12.0 - 240
1,2,3-TCP	5	0.0011 - 25	0	NA	5	0.057 - 25
1,4-Dioxane	5	1.5 - 3.7	1	1.5	4	1.5 - 3.7
Total Chromium	2	0.028 - 17	1	16	1	16
Hexavalent Chromium	15	29 - 47	1	82.9	1	82.9
Total	40	NA	3	NA	29	NA

Note: NA – not applicable

The following observations were made while compiling these data:

- Several of the cases where one or more of these criteria were met were for monitoring wells where analytical detection limits have decreased, resulting in current detections at concentrations well below the former detection limits. The reduced detection limits are generally due to increased sensitivities of the analytical methods.
- Many monitoring wells have limited datasets (as few as four or five analyses since 1996) and provide less perspective over time or previous data for comparison.
- Some of the cases where these criteria were met were in areas where there is likely downgradient migration from higher concentration areas; or small upward changes in concentration in areas of known impacts.
- Five new wells were installed in the Plant B-1 area 2016. Twelve of the criteria 1 and eight of the criteria 3 exceedances were associated with those new wells.

Neither criteria 1, 2, or 3 identified any changes in concentration or plume morphology beyond those already presented on the isoconcentration maps or identified in the trend analysis that warrant further investigation at this time.

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## SECTION 6 CAPTURE ZONE EVALUATION

The systematic approach outlined in the USEPA guidance document *A Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems* (USEPA, 2008) was followed to assess the current status of hydraulic capture at the BOU. Data collected from October 2016 through early April 2017 were evaluated to assess capture. The lines of evidence collected from the site and used to complete the evaluation included the following: summation of extraction system operation, evaluation of the measured groundwater levels, analysis of hydraulic gradients (horizontal and vertical), concentration trend analyses, and a review of water-level trends during the reporting period. The following sections present a summary of each of these diagnostic components.

### 6.1 BOU EXTRACTION SYSTEM

The City of Burbank compiles extraction well discharge rates and water treatment plant operational data in monthly operations reports that are provided to the California Department of Public Health and the USEPA. These reports include the total daily volume of water pumped from each of the BOU extraction wells and the influent/effluent concentrations of the contaminants of concern. Table 10 provides a summary of monthly groundwater production from each of the eight groundwater extraction wells from May 2016 through April 2017.

Based on the data from the BOU monthly operation reports for the current reporting period (May 2016 through April 2017), an estimated 3,129,230,274 gallons of groundwater was extracted (average extraction rate of 5,937 gallons per minute) and approximately 3,697 pounds of volatile organic compounds (VOCs) were treated by the Burbank Operable Unit (BOU) treatment system (see Table 11). The estimated mass of VOCs removed by the BOU extraction wells and treatment system are based on the average monthly influent concentrations of total VOCs and the total volume of influent to the water treatment plant.

Since inception of the treatment system in 1996 through April 2017, the BOU has extracted an estimated 64,387,442,880 gallons of groundwater and removed approximately 259,422 pounds of VOCs. A summary of the cumulative volume of water and estimated mass of VOCs treated by year from 1996 through April 2017 is provided in Appendix F.

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All eight BOU extraction wells operated during the period reported. Extraction wells VO2, VO4, VO6, and VO8 were operating 91%, 79%, 78% and 80% of the period reported, respectively, and produced approximately 65% of the total volume pumped. The remaining four extraction wells were operating 34% to 52% of the period reported, and produced approximately 5% to 12% of the total volume pumped.

## 6.2 MEASURED GROUNDWATER LEVELS

Figures 3 and 4 present the potentiometric surface contours in the WT HSUs and the B HSU, respectively. Elevation data shown on both figures indicate that groundwater flows from northwest toward southeast across the BOU. The best indication of the steady-state hydraulic gradient (absent the effects of groundwater extraction) is shown in the western area of the Bob Hope Airport where groundwater flows from northwest to southeast at a gradient of 0.002 foot/foot.

Groundwater extraction appeared to be the dominant influence on groundwater flow within the monitoring well network. Groundwater extraction created a northwest-aligned trough with respect to the water table, creating a series of coalescing cones of depression beneath the BOU extraction wells. All of the BOU extraction wells are located in a linear alignment along or projecting east of Vanowen Street with the exception of VO8, which is located one block south of VO6. Figure 3 shows, in detail, the considerable cone of depression formed by the BOU extraction well system to capture contaminated groundwater present in the WT HSUs. Figure 3 also shows that the dominant direction of groundwater flow immediately south of the BOU was reversed from its natural southeasterly flow direction, as it followed a northerly flow direction into the cones of depression created by the BOU extraction wells. The influence of VO8 can be seen in the southward extension of the extraction system cone of depression apparent to the south of VO5 and VO6 toward Victory Boulevard (Figure 3 and 4).

The local groundwater flow direction in the B HSU was generally the same as the local groundwater flow direction observed in the WT HSUs: toward the southeast and converging on the area of groundwater extraction.

There appears to be a hydraulic divide in the vicinity of monitoring wells 3862D and 3872Q, in which the water table elevation contours exhibited changes in direction. These changes in direction

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indicate the approximate location of the southern limit of hydraulic capture, which is shown on Figure 3.

The data from select monitoring wells equipped with pressure transducers were converted to hydrographs and are presented in Appendix C. The result is a series of very detailed hydrographs for the reporting period from October 2016 through April 2017. From October 2016 through early April 2017, the groundwater levels in BOU monitoring wells generally declined.

The following observations are based upon a review of the data presented in the hydrographs in Appendix C:

- Graph C-7: Groundwater monitoring wells 3851M (WT HSUs) and 3851N (B HSU), located approximately 1,300 feet southwest of extraction well VO8, 2,000 feet southwest of extraction well VO6, and 1,800 feet south of extraction well VO7, exhibited influence from changes in pumping in all three BOU extraction wells. The influence from changes in pumping was up to 0.6 feet in magnitude. The greatest influence seems to be from changes in pumping at VO8. There was consistently approximately 0.5 feet of head difference between these two monitoring wells indicating an upward vertical gradient.
- Graph C-9: Groundwater monitoring well 3852L (WT HSUs), located approximately 2,800 feet south of extraction well VO8, 4,000 feet south of extraction well VO6, and 4,200 feet south of extraction well VO7, exhibited a slight response to changes in pumping in VO8. There was no observable response to changes in pumping in VO6 or VO7.
- Graph C-12: Groundwater monitoring well 3861D (WT HSUs), located approximately 190 feet southwest of extraction well VO3, 180 feet south of extraction well VO4, and 2,500 feet east of extraction well VO8, exhibited response to changes in pumping in all three extraction wells. The response to pumping was typically less than 0.5 feet in magnitude. Groundwater monitoring well 3861F (B HSU), co-located with 3861D, exhibited response to changes in pumping in all three BOU extraction wells. The response to changes in pumping was up to 1 foot in magnitude, and the greatest influence appeared to be from VO8. There was consistently approximately 4 feet of head difference between these two monitoring wells indicating a vertical gradient upward.
- Graph C-15: Groundwater monitoring well 3871H (WT HSUs), located approximately 2,300 feet south of extraction well VO1 and 2,700 feet southeast of extraction well VO2, exhibited response to changes in pumping in both VO1 and VO2. The response to changes in pumping in VO1 was greater (up to 1.25 feet, compared to 1 foot from pumping in VO2). Water levels fluctuated up to 2.5 feet when both pumps were operating.
- Graph C-19: Groundwater monitoring well 3880 (WT HSUs), located approximately 2,600 feet northeast of extraction well VO1, exhibited a slight response to changes in pumping in VO1.
- Graph C-22: Groundwater monitoring well A-1-CW04 (WT HSUs), located approximately 1,100 feet west of extraction well VO7 and 2,600 feet northwest of extraction well VO8,



exhibited significant response to changes in pumping in VO7 and slight response to changes in pumping in VO8. Groundwater monitoring well A-1-CW05 (B HSU), approximately co-located with A-1-CW04, exhibited response to pumping in both VO7 and VO8. There was consistently approximately 1 foot or more of head difference between these two monitoring wells indicating an upward vertical gradient.

- Graph C-24: Groundwater monitoring well B-1-CW12 (WT HSUs), located approximately 600 feet east of extraction well VO1, historically exhibited significant response to pumping in VO1, with fluctuations up to 2 feet or more in magnitude when pumping stops and starts in extraction well VO1. Groundwater monitoring well B-1-CW11 (B HSU), co-located with B-1-CW12, exhibited responses to pumping rate changes in VO1, with fluctuations generally on the order of 1 to 1.5 feet in magnitude. There is consistently more than 5 feet of head difference between these two monitoring wells indicating a vertical gradient upward. The shallow WT HSU is controlled by pumping from the western end of the groundwater extraction system. While pumping influenced the B HSU, water levels in the both zones declined during the reporting period.
- Graph C-25: Groundwater monitoring well B-1-CW13 (WT HSUs), located approximately 500 feet west of extraction well VO5 and 800 feet east of extraction well VO6, exhibited response to changes in pumping in both VO5 and VO6. The response to changes in pumping in VO5 was greater (2.5 feet or greater, compared to 1.5 feet from changes in pumping in VO6). The water levels fluctuated up to 3 feet when both pumps were operating.
- Graph C-27: Groundwater monitoring well B-1-CW17 (WT HSUs), located approximately 2,000 feet southeast of extraction well VO1, exhibited some response to changes in pumping in VO1, with fluctuations up to 0.2 feet in magnitude. Groundwater monitoring well B-1-CW20 (B HSU), located approximately 1,500 feet southeast of extraction well VO1, appeared to exhibit a larger response to changes in pumping in VO1, with fluctuations generally on the order of 0.75 feet in magnitude.
- Graph C-28: Groundwater monitoring well B-1-CW25 (WT HSUs), located approximately 300 feet east of extraction well VO4 and 600 feet west of extraction well VO3, exhibited response to changes in pumping in both VO3 and VO4. The response to changes in pumping in VO4 was greater (up to 3 feet). The largest influence was when both extraction wells were pumping.

Figure 30 shows changes in the elevation of the WT HSUs from six monitoring wells within the BOU: monitoring wells B-6-CW-17 and 3850V (upgradient of the BOU extraction wells); monitoring well B-1-CW25 (between BOU extraction wells VO3 and VO4); and monitoring wells 3861D and Tt-PW-02 (downgradient of the BOU extraction wells VO3 and VO4). Unfortunately B-6-CW-17 is dry and the data is not useable. These monitoring wells represent a line that approximately parallels the direction of groundwater flow from northwest (upgradient) to southeast (downgradient). Water levels in the upgradient monitoring wells were higher than either the downgradient or extraction system monitoring wells. Due to their proximity to the BOU extraction wells, the water levels in the extraction well monitoring wells showed the greatest fluctuations from

changes in pumping. Data presented in Figure 30 also show that the water level in Tt-PW-02, the farthest downgradient monitoring well on the hydrograph, is higher than the extraction system monitoring wells. The water level in 3861D, located between the extraction system monitoring wells and Tt-PW-02, was general higher than the water level in the extraction system monitoring wells and lower than monitoring well Tt-PW-02. Supporting that during the period represented, the groundwater along the profile represented by the graph is flowing toward the extraction system.

## 6.3 HYDRAULIC GRADIENTS

### 6.3.1 Vertical Gradients

Groundwater-elevation data for selected monitoring well-cluster sets were used to evaluate the vertical hydraulic gradient at various points in the BOU and potential vertical groundwater flow. The vertical gradient ( $i$ ) between the B HSU and the WT HSUs was calculated for the monitoring well-cluster sets by the following formula:

$$i = dh/dl,$$

where  $dh$  equals the difference between the groundwater elevations in the B HSU and overlying HSU, and  $dl$  equals the distance between the midpoint of the B HSU monitoring well screen and the midpoint of the saturated portion of the overlying HSU monitoring well screen. The direction and magnitude of the vertical gradient between the B HSU and the overlying WT HSUs at each monitoring well-cluster set are presented in Table 12.

The results indicate that there was a predominately upward vertical gradient over much of the BOU. This upward gradient is caused by the influence due to groundwater extraction (due to the fact that the BOU extraction wells are predominantly drawing from the WT HSUs), which lowers the WT HSUs' water level to elevations below the top of the B HSU's potentiometric surface. The magnitude of the upward gradient was generally greater in the monitoring well clusters that are closer to the BOU extraction wells.

A number of the transducers were installed in monitoring well clusters so the vertical hydraulic gradient can be evaluated. Monitoring well clusters near BOU extraction wells (B-1-CW12 [WT HSUs] and B-1-CW11 [B HSU]; Appendix C, Graph C-24) appear to show an upward vertical hydraulic gradient as a result of pumping from the WT HSUs. Similar upward gradients are observed

on the hydrographs for B-1-CW17 (WT HSUs) and B-1-CW20 (B HSU); 3861D (WT HSUs) and 3861F (B HSU); and 3851M (WT HSUs) and 3851N (B HSU); and A-1-CW04 (WT HSUs) and A-1-CW05 (B HSU) (Appendix C, Graphs C-27, C-12, C-7, and C-22, respectively). It should be noted that upward vertical hydraulic gradients are demonstrated over the full six-month period, suggesting that all pumping configurations from October 2016 through early April 2017 were capable of maintaining upward gradients for these subsets of monitoring wells.

### 6.3.2 Horizontal Gradients

Groundwater-elevation data for selected monitoring wells were used to evaluate horizontal hydraulic gradients (direction and magnitude) within the BOU using a triangulated irregular network (TIN). This horizontal hydraulic gradient analysis was completed using data collected during the April 2017 gauging event and TINs defined by monitoring wells distributed in the WT HSUs and the B HSU. The TIN segments established for this evaluation are shown on Figures 31 and 32 for the WT HSUs and the B HSU, respectively. As shown on these figures, the TIN cells are located adjacent to and immediately downgradient of the BOU extraction system. Consequently, the application of this diagnostic tool can help determine the near-well and downgradient extent of capture generated by the BOU extraction system.

A total of 38 TIN segments were defined for the WT HSUs (A through LL) and 25 TIN segments were defined for the B HSU (A through Y) to determine the direction and magnitude of the horizontal hydraulic gradients in the respective HSUs (Figures 31 and 32).

#### 6.3.2.1 WT HSU TIN Results

Based on review of Figure 31, the hydraulic gradient in the area immediately to the south and east of the groundwater extraction well system are directly influenced by pumping, showing steep gradients and in some instances a reversal from the southeast-oriented regional trend, indicating strong hydraulic capture.

South of Victory Boulevard (triangles AA, BB, and CC), the direction of groundwater flow appears to ultimately result in flow toward the extraction system, but the hydraulic gradient is not as steep. Further to the south, the horizontal gradients calculated for triangles EE, FF, GG, and HH support partial capture in this region. However, the horizontal gradients in triangles KK and LL do not support capture in those regions.

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### 6.3.2.2 B-Zone HSU TIN Results

The TIN map prepared for the B HSU (Figure 32) shows that groundwater directly adjacent to extraction well VO8 is influenced by pumping, and the influence quickly dissipates to the south, southwest, and west.

## 6.4 CHEMICALS OF CONCERN CONCENTRATION TRENDS

Concentration trends constitute another element in the evaluation of hydraulic capture. Per the guidance provided in *A Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems* (USEPA, 2008), contaminant concentrations should be monitored at locations downgradient of the capture zone to demonstrate capture. Contaminant concentrations can be monitored at two types of downgradient locations: sentinel monitoring wells or downgradient performance monitoring wells. Sentinel monitoring wells are located downgradient of the capture zone and concentrations are below background concentrations. Downgradient performance monitoring wells are located downgradient of the capture zone and are impacted above background concentrations. Four monitoring well pairs completed in both the WT-HSU and the B-HSU have been identified as downgradient performance monitoring wells: 3852M (WT HSUs) and 3852N (B HSU), 3862D (WT HSUs) and 3862E (B HSU), 3872L (WT HSUs) and 3872M (B HSU), and 3872Q (WT HSUs) and 3872S (B HSU). All of these monitoring wells are located south of Burbank Boulevard.

Results of the statistical trend analyses for the chemicals of concern are presented on Figures 18 through 29. Results presented on these figures correspond to the Mann-Kendall and the linear regression tests performed on data points covering the time period from first quarter 1996 to the most recent sampling event in April 2017, as presented in Section 5 and Appendix E. As discussed in Section 5 of this report, there are seven statistical concentration trend types that can be derived for the Mann-Kendall analysis: 1) decreasing, 2) increasing, 3) no trend (displaying two sets of conditions), 4) probably decreasing, 5) probably increasing, 6) stable, and 7) non-detect (ND; all sample results are below the detection limit). If a location has fewer than four quarters of data, then the Mann-Kendall analysis cannot be run and not applicable (NA) would be applied to the results. Trends for the 4 pairs of monitoring wells identified above are discussed by analyte below.



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### 6.4.1 Tetrachloroethene Concentration Trends

The trend analysis for the eight downgradient performance monitoring wells yielded the following results: insufficient data (none), decreasing (six monitoring wells: 3852M, 3852N, 3862D, 3862E, 3872M, and 3872Q), increasing (none), no trend (one monitoring well: 3872L), probably decreasing (one monitoring well: 3872S), probably increasing (none), stable (none), and ND (none). The magnitudes of the decreasing and probably decreasing trends ranged from -34 to -0.93 micrograms per liter per year ( $\mu\text{g/L/yr}$ ) in the WT HSUs and from -3.5 to -0.09  $\mu\text{g/L/yr}$  in the B HSU.

### 6.4.2 Trichloroethene Concentration Trends

The trend analysis for the eight downgradient performance monitoring wells yielded the following results: insufficient data (none), decreasing (seven monitoring wells: 3852M, 3852N, 3862D, 3862E, 3872M, 3872Q, and 3872S), increasing (none), no trend (one monitoring well: 3872L), probably decreasing (none), probably increasing (none), stable (none), and ND (none). The magnitudes of the decreasing trends were -30 to -0.42  $\mu\text{g/L/yr}$  in the WT HSUs and -1.64 to -0.03  $\mu\text{g/L/yr}$  in the B HSU.

### 6.4.3 1,2,3-Trichloropropane Concentration Trends

The trend analysis for the eight downgradient performance monitoring wells yielded the following results: insufficient data (none), decreasing (one monitoring well: 3872Q), increasing (two monitoring wells: 3852M and 3872L), no trend (five monitoring wells: 3852N, 3862D, 3862E, 3872M, and 3872S), probably decreasing (none), probably increasing (none), stable (none), and ND (none). The magnitude of the single decreasing trend was -0.023  $\mu\text{g/L/yr}$  in the WT HSUs. The magnitude of the increasing trend wells in the WT HSUs was 0.006  $\mu\text{g/L/yr}$  and 0.016  $\mu\text{g/L/yr}$ .

### 6.4.4 1,4-Dioxane Concentration Trends

The trend analysis for the eight downgradient performance monitoring wells yielded the following results: insufficient data (none), decreasing (one monitoring well: 3862D), increasing (none), no trend (none), probably decreasing (none), probably increasing (none), stable (two monitoring wells: 3852M and 3862E), and ND (five monitoring wells: 3852N, 3872L, 3872M, 3872Q, and 3872S). The magnitude of the single decreasing trend in the WT HSUs was -0.01  $\mu\text{g/L/yr}$ .

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### 6.4.5 Total Chromium Concentration Trends

The trend analysis for the eight downgradient performance monitoring wells yielded the following results: insufficient data (none), decreasing (none), increasing (none), no trend (three monitoring wells: 3852N, 3862E, and 3872Q), probably decreasing (two monitoring wells: 3852M and 3862D), probably increasing (none), stable (three monitoring wells: 3872L, 3872M, and 3872S), and ND (none). The magnitude of the decreasing trend wells was  $-0.14 \mu\text{g/L/yr}$  and  $-0.11 \mu\text{g/L/yr}$  (WT HSUs).

### 6.4.6 Hexavalent Chromium Concentration Trends

The trend analysis for the eight downgradient performance monitoring wells yielded the following results: insufficient data (none), decreasing (one monitoring well: 3862D), increasing (none), no trend (four monitoring wells: 3852M, 3852N, 3872L, and 3872M), probably decreasing (none), probably increasing (none), stable (three monitoring wells: 3862E, 3872Q, and 3872S), and ND (none). The magnitude of the decreasing trend was  $-0.50 \mu\text{g/L/yr}$  (WT HSUs).

## 6.5 CAPTURE ZONE SUMMARY

For this report, several lines of evidence were examined to evaluate the extent of capture resulting from the BOU extraction system and assess the effectiveness of the system in hydraulically containing the various chemical of concern plumes within the BOU. The lines of evidence included the following:

- The operational data from the extraction system indicated that groundwater is being extracted and that significant VOC mass is being removed from the aquifer.
- Vertical hydraulic gradients indicated that pumping from the WT HSUs is inducing or increasing upward vertical gradients between the B HSU and the WT HSUs.
- The WT-HSU potentiometric map developed from the groundwater level measurements supports that the BOU extraction wells capture groundwater across most of the BOU north of Vanowen Street and south of the extraction wells toward Chandler Boulevard and Wyoming and West Allan Avenue (Figure 3).
- The TIN for the WT HSUs were developed from the same data as the potentiometric maps. The TIN supports that capture from the BOU extraction wells extends south to approximately West Allan and Wyoming Avenue in the central-western portion of the BOU and Chandler Boulevard in the eastern portion of the BOU.

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- The trend analysis for the eight downgradient performance monitoring wells yielded the following results: insufficient data (none), decreasing (16 results), increasing (2 results), no trend (14 results), probably decreasing (3 results), probably increasing (none), stable (8 results), and ND (5 results). The two increasing trends (1,2,3-TCP in monitoring wells 3852M and 3872L) had a limited data set (at least five analyses from each well from 2007 to 2017) and the magnitude of the change was small.

The lines of evidence suggest that the BOU extraction system exerts lateral hydraulic control for the extent of contaminants of concern within the BOU. The BOU extraction system can be expected to inhibit the migration of site-related chemicals of concern that are present within the WT HSUs upgradient (north) of the southern limits of hydraulic control in each hydrostratigraphic unit. This interpretation is consistent with past BOU groundwater monitoring reports and recent modelling within the San Fernando Valley (Tetra Tech, 2015c).

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## SECTION 7

# CONCEPTUAL SITE MODEL EVALUATION

The groundwater monitoring results for the second quarter 2017 do not materially differ from results obtained during previous groundwater monitoring events, with the exception that as shown in Figure 5 the overall groundwater elevation at the site continues to drop, also drawdown in the vicinity of extraction well V08 is now depicted on the potentiometric surface maps (Figure 3 and 4). This difference is due to the inclusion of water level data from newly-installed observation wells OW-V08A and OW-V08B rather than changes in field conditions, and represents an improvement in the accuracy of depiction of the cone of depression around the BOU extraction well field. This new data helps better define the influence extraction well V08 is having on both the water table and the B HSUs. The repair and/or replacement of OWVO1, OW-VO2, OW-VO3, and OW-VO6 has helped to better define the influence of their associated BOU extraction wells. The new wells at Plant B-1 have refined the potentiometric and the isoconcentration mapping in that area as well.



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## SECTION 8

# SUMMARY AND CONCLUSIONS

The Second Quarter 2017 BOU groundwater monitoring event was implemented in accordance with the 2017 Revised OSP; (Tetra Tech, 2017b). The intent of the program is to provide the data necessary to evaluate groundwater conditions at the BOU, including the near-field and far-field effects of the extraction well field.

### 8.1 GROUNDWATER MONITORING WELL MAINTENANCE

In preparation for the second quarter 2017 groundwater monitoring event, several monitoring well maintenance activities were completed in March and April, 2017:

- The dedicated high-volume pumps and associated piping were removed from 52 monitoring wells and replaced with dedicated low-flow pumps.
- A total of 9 groundwater monitoring wells were redeveloped, cleaned out, or attempted to be cleaned out. This includes A-1-CW07, B-5-CW03, B-6-CW16, C-1-CW05, C-1-CW06, 3852L, 3852M, and 4949C.
- Additional well maintenance activities were completed at 70 of the BOU monitoring wells. This included replacement of well lid gaskets, adding or replacing well tags, re-tapping the existing bolt holes, and replacing the standard six-point bolts with five-point bolts.

### 8.2 GROUNDWATER ELEVATIONS AND GRADIENTS

During the second quarter 2017 groundwater monitoring event, groundwater levels were measured in 105 monitoring wells. Groundwater elevation contours for the WT HSUs and B HSU are shown on Figures 3 and 4, respectively. Based on those measurements, the local shallow groundwater flow direction was predominantly southeasterly in the northwest portion of the BOU and southerly in the northeast portion of the BOU, and it converged in a flow direction toward the cones of depression created by the operation of the BOU extraction wells. The second quarter 2017 groundwater elevation data indicate that the dominant direction of groundwater flow immediately south of the BOU extraction wells was reversed from its natural southeasterly flow direction, to a northerly flow direction in response to the extraction well pumping (northeasterly flow direction in the western portion of the BOU). These groundwater trends extend to Victory Boulevard in the western portion of the BOU, West Allan and Wyoming Avenue in the central-western portion of the BOU, and to at

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least Chandler Boulevard in the eastern portion of the BOU. Beyond these boundaries the groundwater flow direction shows influence from pumping, but ultimately reverts to its natural southeasterly direction.

The local groundwater flow direction in the B HSU during the second quarter 2017 groundwater monitoring event was generally the same as the local groundwater flow direction observed in the WT HSUs. The greater drawdown observed at extraction well V08 in the second quarter 2017 compared with the second quarter 2016 is due to the inclusion of data from new observation well OW-V08B.

Groundwater-elevation data for selected monitoring wells were used to evaluate horizontal hydraulic gradients (direction and magnitude) within the BOU using a TIN. This horizontal hydraulic gradient analysis was completed using data collected during the April 2017 gauging event and TINs defined by monitoring wells distributed in the WT HSUs and the B HSU. These TIN cells are located adjacent to and immediately downgradient of the BOU extraction system. Consequently, the application of this diagnostic tool can help determine the near-well and downgradient extent of capture generated by the BOU extraction system.

Based on the TIN map for the WT HSUs, the hydraulic gradient in the area immediately to the south and east of the groundwater extraction well system are directly influenced by pumping, showing steep gradients and in some instances a reversal from the southeast-oriented regional trend, indicating strong hydraulic capture. Farther to the south, the direction of groundwater flow appears to ultimately result in flow toward the extraction system, but the hydraulic gradient is not as steep. The degree of hydraulic capture dissipates along the southwestern operable unit boundary during the second quarter 2017 monitoring event.

Based on the TIN map for the B HSU, groundwater directly adjacent to extraction well VO8 is influenced by pumping, and the influence quickly dissipates to the south, southwest, and west.

### **8.3 WATER QUALITY RESULTS**

Sixty-five groundwater monitoring wells were sampled during the Second Quarter 2017 monitoring event, 42 completed in the WT HSU and 23 completed in the B HSU. The samples collected were tested for VOCs, 1,2,3-TCP, 1,4-dioxane, total chromium, and hexavalent chromium.

The data were validated using the most recent versions of the USEPA's *National Functional Guidelines* for data validation available at the time of project initiation, where appropriate (USEPA, 2008 and 2010a). Based upon the data review, the data are considered usable as qualified. All testing was provided by the Eurofins Calscience, a California Department of Public Health-accredited environmental laboratory.

Twenty-one organic and two inorganic analytes were detected. Isoconcentration maps were prepared for six primary chemicals of concern: PCE, TCE, 1,2,3-TCP, 1,4-dioxane, total chromium, and hexavalent chromium.

- PCE was detected in 59 of the primary (non-duplicate) samples, 37 of which exceeded the MCL (5 µg/L). Concentrations in the WT HSUs ranged from <0.20 µg/L to 630 µg/L (monitoring well B-1-CW33). Concentrations exceeding the MCL extended over much of the BOU with the highest concentrations detected at the northwest corner of the former Plant B-1 and trending southeast beneath former Plant B-1 and extending to Magnolia Boulevard. Concentrations in the B HSU ranged from <0.20 µg/L to 48 µg/L (monitoring well 3850R). Concentrations exceeding the MCL were not as widely distributed as in the shallower HSUs, with the highest concentrations detected adjacent to the extraction wells on Vanowen Street.
- TCE was detected in 53 of the samples, 35 of which exceeded the MCL. The detected concentrations ranged from 0.29 µg/L (monitoring well C-1-CW05) to 240 µg/L (monitoring wells 3872L and B-1-CW13). Concentrations exceeding the MCL extended over much of the BOU with the highest concentrations detected downgradient of former Building 85 and extending to Magnolia Boulevard. Concentrations in the B HSU ranged from <0.29 µg/L to 32 µg/L (monitoring well 3862E). Concentrations exceeding the MCL were not as widely distributed as in the shallower HSUs, with the highest concentrations detected south of the BOU. Additionally, elevated concentrations were detected in the southern portion of the former Plant B-6 area and continuing southeast beneath former Building 85 and extending to Vanowen Street.
- 1,2,3-TCP was detected in 31 of the samples, 30 of which exceeded the DWNL (0.005 µg/L). Concentrations in the WT HSUs ranged from <0.0025 µg/L to 87 µg/L (monitoring well A-1-CW08). Concentrations exceeding the DWNL extended over much of the BOU with the highest concentrations detected down gradient of the former Plant B-6 area, north of former Building 85, and along Vanowen Street. Concentrations in the B HSU ranged from <0.0025 µg/L to 0.29 µg/L (monitoring well 3852H). Concentrations exceeding the DWNL were not as widely distributed as in the WT HSUs, with the highest concentrations detected near Burbank Boulevard.
- 1,4-Dioxane was detected in 11 of the samples, 11 of which exceeded the DWNL (1.0 µg/L). Concentrations in the WT HSUs ranged from <0.28 µg/L to 3.7 µg/L (monitoring well A-1-CW09). Concentrations exceeding the DWNL are sparse, but spread out through the BOU specifically at former Plants A-1-S, B-1, and C-1 as well as downgradient of Former Building 371. Concentrations in the B HSU ranged from <0.28 µg/L to 2.3 µg/L (monitoring well A-1-CW05). Similar to the WT HSUs, concentrations exceeding the DWNL extended

around the former Plant B-6 and A-1 areas of the BOU, with the highest concentrations detected at the former Plant A-1-S.

- Total chromium was detected in 65 of the samples, 2 of which exceeded the MCL (50 µg/L). Concentrations in the WT HSUs ranged from 1.05 J (A-1-CW03R) to 82.9 µg/L (monitoring well C-1-CW07). One sample from the eastern portion of the BOU near the former Weber Aircraft facility and one sample near former Plant C-1 had concentrations detected exceeding the MCL. Concentrations in the B HSU ranged from 0.600 µg/L (monitoring well C-1-CW02 to 7.85 µg/L (3872S). No concentrations were detected that exceeded the MCL.
- Hexavalent Chromium was detected in 58 samples, 5 of which exceeded the MCL (10 µg/L). Concentrations in the WT HSUs range from 0.010 µg/L µg/L (monitoring well A-1-CW03R) to 20 µg/L (monitoring well B-1-CW17). Four of the 5 samples that exceeded the MCL are located in the central to southern portions of former Plant B-1. The other sample that exceeded the MCL is located immediately outside of the northeastern boundary of the BOU. Concentrations in the B HSU ranged from 0.021 µg/L (monitoring well 3850R) to 7.9 µg/L (monitoring well 3872S). No concentrations were detected above the MCL.

## 8.4 STATISTICAL TREND ANALYSES

Statistical trend analyses were conducted using chemical data from the 65 monitoring wells sampled during the second quarter 2017 BOU groundwater monitoring event. The analysis was performed for the six primary chemicals of concern: PCE, TCE, 1,2,3-TCP, 1,4-dioxane, total chromium, and hexavalent chromium. Therefore, a total of 390 trends were tested. The MAROS, developed by the Air Force Center for Environmental Excellence (Air Force Center for Environmental Excellence, 2006), was used for the analyses. The MAROS is a statistical database application developed to assist with groundwater quality data trend analysis and long-term monitoring optimization at contaminated groundwater sites. BOU data from first quarter 1996 to second quarter 2017 were analyzed.

Statistical analysis indicated that for various reasons (insufficient data, no statistical trend, or no detections), a significant trend could not be determined for 43% of the datasets that were tested, particularly for 1,2,3-TCP, 1,4-dioxane, total chromium, and hexavalent chromium. Statistical analysis also indicated that 29% of the datasets had decreasing or probably decreasing concentration trends, 17% were stable, and 11% had increasing concentration trends. The trend analysis showed that those trends that were significant were generally small. Over half of the decreasing concentrations trends were for TCE and PCE concentrations, scattered throughout the BOU; about half of the stable trends were for total chromium and hexavalent chromium concentrations; and 1,2,3-TCP and 1,4-dioxane concentrations upgradient of the BOU extraction wells in the former Plant B-6 area are generally increasing. With the exception of the increasing 1,2,3-TCP trend in



monitoring wells 3852M and 3872L, all monitoring wells with increasing trends for one or more of the compounds of concern are upgradient of the BOU extraction wells or within the area captured by the extraction wells. The magnitude of the changes in concentration of 1,2,3-TCP in monitoring wells 3852M and 3872L are small (0.016 µg/L/yr and 0.006 µg/L/yr, respectively).

## 8.5 CAPTURE ZONE EVALUATION

Several lines of evidence were examined to evaluate the extent of capture resulting from the BOU extraction system and assess the effectiveness of the system in hydraulically containing the various chemical of concern plumes within the BOU. The lines of evidence included the following:

- The operational data from the extraction system indicated that groundwater is being extracted and that VOC mass is still being removed from the aquifer.
- Vertical hydraulic gradients indicated that pumping from the WT HSUs is inducing or increasing upward vertical gradients between the B HSU and the WT HSUs.
- The WT-HSU potentiometric map developed from the groundwater level measurements supports that the BOU extraction wells capture groundwater across most of the BOU north of Vanowen Street and south of the extraction wells toward Chandler Boulevard and Wyoming and West Allan Avenue.
- The TIN for the WT HSUs were developed from the same data as the potentiometric maps. The TIN supports that capture from the BOU extraction wells extends south to approximately West Allan and Wyoming Avenue in the central-western portion of the BOU and Chandler Boulevard in the eastern portion of the BOU.
- The trend analysis for the eight downgradient performance monitoring wells yielded the following results: insufficient data (none), decreasing (16 results), increasing (2 results), no trend (14 results), probably decreasing (3 results), probably increasing (none), stable (8 results), and ND (5 results). The two increasing trends (1,2,3-TCP in monitoring wells 3852M and 3872L) had a limited data set (at least five analyses from each well from 2007 to 2017) and the magnitude of the change was small.

The lines of evidence suggest that the BOU extraction system exerts hydraulic control on the plumes originating from the BOU and it extends to near West Allan and Wyoming Avenue in the central-western portion of the BOU and Chandler Boulevard in the eastern portion of the BOU, and the extraction system inhibits the migration of site-related chemicals of concern.

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## 8.6 BURBANK OPERABLE UNIT EXTRACTION SYSTEM PERFORMANCE

Based on the data from the BOU monthly operation reports for the current reporting period (May 2016 through April 2017), an estimated 3,129,230,274 gallons of groundwater was extracted (average extraction rate of 5,937 gallons per minute) and approximately 3,697 pounds of volatile organic compounds (VOCs) were treated by the Burbank Operable Unit (BOU) treatment system. Per the 1997 Explanation of Significant Difference (USEPA, 1997), the USEPA contends that:

The City of Burbank can substantially accept and has committed to accept, an average of 9,000 gpm from the interim remedy facilities.

Due to elimination of reinjection from the project, the Burbank OU groundwater extraction rate will not be a continuous 9,000 gpm. The instantaneous extraction rate will fluctuate with the City of Burbank's water demand. In recognition of the likelihood that it will not be possible to extract groundwater at a rate of 9,000 gpm, twenty-four hours a day, three hundred and sixty-five days a year, EPA is specifying that the new extraction rate will be achieved as an average rate, not an instantaneous rate.

EPA has also decided to suspend the 9,000 gpm extraction rate requirement during times when nitrate levels in the extracted groundwater exceed 50 mg/L as nitrate.

Multiple lines of evidence suggest that at current extraction rates the BOU extraction system exerts hydraulic control in the WT HSUs that extends to near to near West Allan and Wyoming Avenue in the central-western portion of the BOU and Chandler Boulevard in the eastern portion of the BOU, and inhibits the migration of site-related chemicals of concern. The upward hydraulic gradient (potentially pulling contaminant mass from the B HSU to the WT HSUs) exhibited in much of the southern portion of the BOU inhibits the migration of site-related chemicals of concern, where present, in the deeper HSU.

The *Revised Operational Sampling Plan* (Tetra Tech, 2017b) states the following:

The Record of Decision for the Burbank Operable Unit was signed in June 1989. An Explanation of Significant Difference was signed in November 1990 and a second Explanation of Significant Difference was signed in February 1997. The selected remedy

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addressed the volatile organic compound- contaminated groundwater plume in the Burbank area. As described in the Record of Decision and Explanations of Significant Differences, the interim remedial action selected for the Burbank Operable Unit was designed to achieve two objectives:

1. To partially control the movement and spread of groundwater contaminants in the Burbank Operable Unit area, while contributing to aquifer restoration
2. To address the public health threat posed by contamination of the City of Burbank’s public water supply wells by providing residents in the area with a water supply that meets State and Federal drinking water standards.

Based on the data and the analyses presented in this report, Tetra Tech concludes that the first objective of the remedial action is being met. While the BOU extraction system produces groundwater that is treated and deliver for consumption, water quality data from the treatment plant was not presented or reviewed as part of this report and therefore the second objective cannot be discussed as part of this report.

## 8.7 RECOMMENDATIONS

The following recommendations are proposed for the BOU groundwater monitoring program:

- Implement the repairs identified during the monitoring well inspections.
- Continue performing the monitoring well inspections annually.
- Install and sample the replacement monitoring well for 3860H (as described in the *Work Plan – Well Installation and Replacement* (Tetra Tech, 2016d).
- Evaluate a replacement monitoring well for A-1-CW07.
- Reduce the transducer recording frequency. Currently, transducers record data in 15-minute increments. Recommend changing the frequency to record data every 6 hours.
- Remove transducer from B-6-CW17 and evaluate placement nearby well.

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## TABLES

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**Table 1**  
**Wells Scheduled for Low-Flow Sampling**  
**Lockheed Martin Corporation**  
**Burbank Operable Unit, Burbank, California**

<b>Well ID</b>	<b>Casing Diameter (inches)</b>	<b>Proposed Pump Composition</b>	<b>April 2017 Depth to Groundwater (feet btoc)</b>	<b>Total Depth of Well (feet btoc)</b>	<b>Selected Depth of Pump Intake (feet btoc)</b>
3830Q	5	PVC	235.16	235.16	344.5
3830S	5	PVC	235.31	235.31	250.5
3831Q	5	PVC	198.30	198.30	239.5
3850M	5	PVC	228.15	228.15	226.5
3850N	5	PVC	203.31	203.31	209.5
3850R	5	PVC	198.35	198.35	341.5
3850U	5	PVC	228.25	228.25	228.5
3851M	5	PVC	191.19	191.19	207.2
3851N	5	PVC	184.37	190.49	314.5
3852F	5	PVC	142.77	148.03	166.6
3852H	5	PVC	146.25	149.65	291.0
3852L	5	PVC	156.93	164.95	173.1
3852M	5	PVC	132.62	136.91	217.5
3852N	5	PVC	137.32	137.94	292.5
3860J	5	PVC	197.06	203.34	204.5
3860K	5	Stainless Steel	204.45	212.21	224.5
3861D	5	PVC	157.67	164.20	174.5
3862D	5	PVC	127.27	133.36	183.5
3862E	5	PVC	124.68	130.38	270.5
3871H	5	PVC	131.22	138.19	220.0
3871J	5	PVC	127.26	132.80	278.5
3872L	5	PVC	105.09	110.68	174.5
3872M	5	PVC	100.88	106.58	296.0
3872N	5	Stainless Steel	102.68	108.49	133.5
3872Q	5	PVC	114.70	120.81	127.5
3872S	5	PVC	111.32	117.30	284.5
3880	5	PVC	151.50	157.24	164.5
4949C	5	PVC	258.59	268.00	266.5
A-1-CW02	5	PVC	216.20	222.80	354.5
A-1-CW03R	5	PVC	219.75	226.96	264.5
A-1-CW04	5	PVC	211.19	217.52	232.4
A-1-CW05	5	PVC	209.70	216.18	365.5



**Table 1**  
**Wells Scheduled for Low-Flow Sampling**  
**Lockheed Martin Corporation**  
**Burbank Operable Unit, Burbank, California**

Well ID	Casing Diameter (inches)	Proposed Pump Composition	April 2017 Depth to Groundwater (feet btoc)	Total Depth of Well (feet btoc)	Selected Depth of Pump Intake (feet btoc)
A-1-CW08	5	PVC	217.86	226.60	229.5
A-1-CW09	5	PVC	209.92	217.67	221.5
B-1-CW11	5	PVC	144.80	150.40	322.0
B-1-CW12	5	PVC	151.22	155.58	164.5
B-1-CW17	5	PVC	135.64	140.51	157.3
B-1-CW20	5	PVC	134.75	140.55	294.5
B-1-CW25	5	PVC	178.16	185.95	184.5
B-1-CW27	5	PVC	172.68	178.36	323.5
B-1-CW28	5	PVC	185.4	191.69	335.5
B-1-CW29	5	PVC	165.43	Dry Well	165.5
B-5-CW02	5	PVC	226.37	232.6	344.5
B-5-CW03	5	PVC	226.07	Dry Well	225.5
B-6-CW02	5	PVC	227.02	234.04	334.5
B-6-CW14	5	PVC	232.58	240.76	354.5
B-6-CW17	5	PVC	266.63	Dry Well	264.5
C-1-CW02	5	PVC	264.23	270.59	386.5
C-1-CW03	5	PVC	264.43	271.01	274.5
C-1-CW05	5	PVC	246.39	251.71	380.5
C-1-CW06	5	PVC	Dry	Dry Well	246.5
C-1-CW07	5	PVC	256.78	264.71	312

Notes:                   bgs = below ground surface  
                              btoc = below top of casing

Table 2  
 Second Quarter 2017 Groundwater Well Maintenance Table  
 2017 BOU Annual Groundwater Monitoring Report  
 Lockheed Martin Corporation  
 Burbank Operable Unit, Burbank, California

Well ID	Street Address	Property Description	Property Owner	Wells With Transducer	Wells With Nitrogen Well Packers	Dedicated Pump Type	Dedicated High-Voltage Pump Model	Dedicated Low-Flow Pump Model	Depth of Low-Flow Pump Intake (feet bgs)	Total Depth (feet bgs)	Screen Interval (feet bgs)	Well Repairs to Date	Notes	Proposed Maintenance
3830Q	Clybourn Ave. south of Vanowen Street	Sidewalk						BESSST P200	344.5	360	335 - 355	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nut-bolts).		
3830R	Clybourn Ave. south of Vanowen Street	Sidewalk				•	1 HP / 230 V		316	290 - 311				
3830S	Clybourn Ave. south of Vanowen Street	Sidewalk						BESSST P200	250.5	263	218 - 258	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nut-bolts).		
3831Q	Clybourn Ave. south of Vanowen Street	Sidewalk						BESSST P200	239.5	255	230-250	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nut-bolts).		
3831Q	Clybourn Ave. north of W. Victoria Blvd.	Sidewalk						BESSST P200	226.5	237	182 - 232	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nut-bolts).	Notify property owner tenam 24 hours prior to arrival. Nones shirt and hard hat required.	2017: Repair apron surrounding well monument. Low priority, complete in near future.
3830M	Wimona Ave. east of N Ontario Street	Burbank Water Power Yard	Burbank Public Works					BESSST P200	209.5	220	165 - 215	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nut-bolts).	Traffic control required	
3830N	Vanowen Street west of N. Ontario Street	Street				•	3/4 HP / 230 V			256	231 - 251		Traffic control required	
3830P	Vanowen Street west of N. Ontario Street	Street				•	1 HP / 230 V			322	277 - 317		Traffic control required	
3830Q	Vanowen Street west of N. Ontario Street	Street				•	1 HP / 230 V			352	337 - 347		Traffic control required	
3830R	Vanowen Street west of N. Ontario Street	Street						BESSST P200	341.5	352	337 - 347	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nut-bolts).	Traffic control required	
3830S	Thornion Avenue east of N. Niagara St.	Street				•	1/2 HP / 230 V		238	183 - 233			Missing 230V plug on pump power lead	
3830T	N. Ontario Street north of Barona Ave.	Street				•	1/2 HP / 230 V		244	194 - 239			Traffic control required	
3830U	N. Ontario Street south of Barona Ave.	Street						BESSST P200	228.5	239	189 - 234	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nut-bolts).	Traffic control required	
3830V	N. California Street east of N. Ontario Street	Street				•	1/2 HP / 230 V		248	203 - 243			Traffic control required	
3830W	N. Ontario Street north of Floyd	Street				•	1/2 HP / 230 V		245	200 - 240			Traffic control required	
3831M	N. Hollywood Way parking lot of BOU	Parking Lot	City of Burbank			•		BESSST P200	207.2	220	165 - 215	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nut-bolts).		
3831N	N. Hollywood Way parking lot of BOU	Parking Lot	City of Burbank			•		BESSST P200	314.5	330	305 - 325	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nut-bolts).		
3831P	N. Hollywood Way parking lot of BOU	Parking Lot	City of Burbank			•	1 HP / 230 V		385	370 - 380				
3832F	N. Hollywood Way parking lot of BOU	Sidewalk	City of Burbank					BESSST P200	166.6	185	125 - 175	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nut-bolts).		
3832G	N. Avon Street south of Burbank Blvd.	Sidewalk				•	1/2 HP / 230 V		221	196 - 216				
3832H	N. Avon Street south of Burbank Blvd.	Sidewalk				•	1/2 HP / 230 V		291	304	269 - 299	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nut-bolts).		
3832J	Lima Street east sw at grammar school	Sidewalk				•	1/2 HP / 230V		282	257 - 277			Pump plug needs rewiring	
3832K	Lima Street east sw at grammar school	Sidewalk				•	3/4 HP / 230 V		238	213 - 233				
3832L	Lima Street east at grammar school	Sidewalk				•		BESSST P200	173.1	184	139 - 179	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nut-bolts).		
3832M	N. Catalina Street north of Chandler Blvd	Sidewalk						BESSST P200	217.5	233	206 - 228	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nut-bolts).		
3832N	N. Catalina Street north of Chandler Blvd	Sidewalk						BESSST P200	292.5	308	283 - 303	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nut-bolts).		
3830J	Lincoln Street and Rosita	Street	City of Burbank					BESSST P200	204.5	215	170 - 210	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nut-bolts).		
3860K	N. Noom Ave Fire Department	LA Fire Station	Los Angeles County					BESSST P200	224.9	235	180 - 230	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nut-bolts).	Notify property owner/tenant 24 hours prior to arrival	
3861D								BESSST P200	174.5	185	130 - 180	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nut-bolts).		
3861E						•	3/4 HP / 230 V		248	201 - 241				
3861F						•	1/2 HP / 230 V		314	328	303 - 323	2014: Obstruction removed from well		
3862C						•	1/2 HP / 230 V		183.5	199	174 - 194	2016: High-volume pump removed and low-flow pump installed		
3862D						•	1/2 HP / 230 V		270.5	281	256 - 276	2017: Replaced well gasket; replaced interior well tag; replaced bolts (pen-nut-bolts).		
3862E								BESSST P200	174 - 194	199	174 - 194	2006: Pump serviced - January 26, 2006		
3862E								BESSST P200	270.5	281	256 - 276	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nut-bolts).		
3870D	Irving Dr. at Kaefer St							QED	182.5	195	140 - 190	2016: Low-flow pump installed		
								QED	140 - 190			2017: replaced interior well tag		

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Well ID	Street Address	Property Description	Property Owner	Wells With Transducer	Wells With Nitrogen Well Packers	Dedicated Pump Type	Dedicated High-Voltage Pump Model	Dedicated Low-Flow Pump Model	Depth of Low-Flow Pump Intake (feet bgs)	Total Depth (feet bgs)	Screen Interval (feet bgs)	Well Repairs to Date	Notes	Proposed Maintenance
3870E	Irving Dr. at Kessler St								520	475 - 515			No pump	
3871G							1/2 HP / 230 V	BEISST P200	220	140	95 - 135	2005: Pump serviced - November 22, 2005		
3871H								BEISST P200	246	200 - 241		2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (penta-bolts).		
3871J								BEISST P200	289	274 - 284		2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (penta-bolts).		
3872L								BEISST P200	125	70 - 120		2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (penta-bolts).		
3872M							1/2 HP / 230 V	BEISST P200	195	160 - 190		2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (penta-bolts).		
3872N								BEISST P200	309	274 - 304		2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (penta-bolts).		
3872P								BEISST P200	149	124 - 144		2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (penta-bolts).		
3872Q							1/2 HP / 230 V	BEISST P200	254	229 - 249		2016: Air colony cleared		
3872R								BEISST P200	138	93 - 133		2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (penta-bolts).		
3872S							1/2 HP / 230 V	BEISST P200	228	193 - 223		2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (penta-bolts).		
3880	Amherst Drive south of N. 3rd Street	Sidewalk						BEISST P200	300	275 - 295		2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (penta-bolts).		
4948	Along San Fernando Road	Railroad right-of-way	SCRRRA / Metrolink					BEISST P200	164.5	175	120 - 170	2014: Well developed on 3/27/14		
4949C	Along San Fernando Road	Railroad right-of-way	SCRRRA / Metrolink					BEISST P200	291.5	302	247 - 297	2012-2013: Pump removed	Located in railroad ROW	
A-1-CW01								BEISST P200	266.5	277	222 - 272	2016: low-flow pump installed	Located in railroad ROW. Pump not functioning (2016)	
A-1-CW02	Located in NSP airport parking lot	Private Parking Lot						BEISST P200	354.5	362	350 - 360	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (penta-bolts).	Notify property owner/tenant prior to arrival	
A-1-CW03	Located in NSP airport parking lot	Private Parking Lot					1/2 HP / 230 V	BEISST P200	260.5	285	245 - 285	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (penta-bolts).	Generally dry	
A-1-CW03R	Located in NSP airport parking lot	Private Parking Lot						BEISST P200	332.4	345	300 - 340	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (penta-bolts).	Provide 2-day notice (penta-bolts contact) prior to arrival	
A-1-CW04		Private Parking Lot	L.A. Graphic Company					BEISST P200	366.5	381	356 - 376	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (penta-bolts).		
A-1-CW05	2220 N. Hollywood Way, Burbank, CA	Airport Budget Rental Parking Lot	Budget Car Rental Company					BEISST P200	557	522 - 552		2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (penta-bolts).		
A-1-CW06		Yahoo Parking Lot	Yahoo				1/2 HP / 115 V					2014: Well developed and pump removed April 2014	Unable to get to water table because of debris/obstruction. Well has likely collapsed.	2017: Recommend abandonment and replacement of well.
A-1-CW07	Located in Yahoo parking lot	Yahoo Parking Lot C						BEISST P200	229	174 - 224		2016: well redveloped		
A-1-CW08	Bob Hope Airport	Airport Parking Lot C	City of Burbank					BEISST P200	229.5	240	175 - 235	2017: Well dry; replaced interior well tag. Used magnet to clear metal debris in well.	Provide 2-day notice to property owner/tenant prior to arrival.	2017: Apron surrounding well monument may need to be repaired. Low priority, complete in near future.
A-1-CW09								BEISST P200	221.5	232	187 - 227	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (penta-bolts).		
B-1-CW11								BEISST P200	322	335	300 - 330	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (penta-bolts).		
B-1-CW12								BEISST P200	164.5	175	120 - 170	2014: Well developed		
B-1-CW13	Located in Kicks, Castle parking lot	Kicks Castle Parking Lot	Kicks Castle					BEISST P200	206.5	215	150 - 210	2014: Well developed April 2014; pump removed April 2014; low-flow pump installed 2016; Replaced well gasket; replaced interior well tag; replaced bolts.		
B-1-CW16	Located in Disney Parking lot	Disney Parking Lot	The Walt Disney Co.				1/2 HP / 230 V	BEISST P200	195	140 - 190		2005: Pump serviced - November 29, 2005	Pump is potentially bad	
B-1-CW17	Located in Costco parking lot	Costco Parking Lot	Costco					BEISST P200	157.3	170	125 - 165	2017: Installed low-flow pump; replaced interior well tag; replaced bolts (penta-bolts).	Traffic control required	2017: Requires larger gasket replacement due to size of manhole cover. Replace with new gasket before April 2018 monitoring event.
B-1-CW20	Located in Costco parking lot	Dir. Lot						BEISST P200	294.5	310	285 - 305	2017: Installed low-flow pump; replaced interior well tag; replaced bolts (penta-bolts).		2017: Requires larger gasket replacement due to size of manhole cover. Replace with new gasket before April 2018 monitoring event.

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Well ID	Street Address	Property Description	Property Owner	Wells With Transducer	Wells With Nitrogen Well Packers	Dedicated Pump Type	Dedicated High-Voltage Pump Model	Dedicated Low-Flow Pump Model	Depth of Low-Flow Pump Intake (feet bgs)	Total Depth (feet bgs)	Screen Interval (feet bgs)	Well Repairs to Date	Notes	Proposed Maintenance
B-1-CW25	Within the line of production wells on Vanowen Street	Sheet	City of Burbank					BEISST P200	184.5	195	150 - 190	2017: Installed low-flow pump; placed well gasket; placed interior well tag		2017: Replace lid. Current lid does not have holes to bolt lid onto the monument. Replace lid and add gasket before April 2018 monitoring event.
B-1-CW27	Within the line of production wells on Vanowen Street	Sheet	City of Burbank	•				BEISST P200	323.5	339	314 - 334	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pena-bolts).		
B-1-CW28	Located in K&R Castle parking lot	K&R Castle Parking Lot	K&R Castle					BEISST P200	335.5	351	320 - 346	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pena-bolts).		
B-1-CW29	100 ft NW of corner of building (City size well lid)	Homeowner Buffer Parking Lot	Homeowner					BEISST P200	165.5	176	131 - 171	2017: Replaced interior well tag. Pump not placed because well is dry.	City size well lid, 100 ft NW of Homeowners Buffer; traffic control required	2017: Requires larger gasket replacement due to size of manhole cover. Replace with new gasket before April 2018 monitoring event.
B-1-CW30								QED	183	196	156 - 196		2016: well installed.	
B-1-CW31								QED	185.5	205	165 - 206		2016: well installed.	
B-1-CW32								QED	163.6	180	140 - 180		2016: well installed.	
B-1-CW33								QED	204	218	179 - 219		2016: well installed.	
B-1-CW34								QED	169	185	145 - 185		2016: well installed.	
B-5-CW01	4400 block of Empire Avenue	Southwest Parking Lot	Union Pacific		•		1 1/2 HP / 230 V			552	542 - 552			
B-5-CW02	4400 block of Empire Avenue	Southwest Parking Lot	Union Pacific	•				BEISST P200	344.5	350	340 - 350	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pena-bolts).	10 1/2" AEC installed combo lock, 1 1/2" to access with big wrench.	
B-5-CW03	4400 block of Empire Avenue	Southwest Parking Lot	Union Pacific	•				BEISST P200	225.5	231	211 - 231	2012: Drop pipe repaired 2017: replaced well gasket; replaced interior well tag; replaced bolts. Pump not placed because well was dry.		
B-6-CW01								BEISST P200	334.5	340	330 - 340	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pena-bolts).		
B-6-CW02				•			1 1/2 HP / 230 V			215	185 - 215		Generally dry	
B-6-CW03	Located in trucking/motive parking lot (Space 1 and 2A)	Trucking/Motive Parking Lot					1/2 HP / 230 V			265	240 - 260	2005: Pump serviced - November 23, 2005	Pump requires 230V extension cord for sampling. No starter box required	
B-6-CW04							2 HP / 230 V		349.5	520	510 - 520	2016: Low-flow pump installed	Notify property owner/tenant 24 hours prior to access	
B-6-CW05		Commercial - Ford Property	Ford					•		335	345 - 355	2017: Replaced well gasket; replaced interior well tag; replaced bolts.	Notify property owner/tenant 24 hours prior to access	
B-6-CW06		Commercial - Ford Property	Ford				1/2 HP / 230 V			235	215 - 235		Notify property owner/tenant 24 hours prior to access	
B-6-CW07							1 1/2 HP / 230V			502	492 - 502		Notify property owner/tenant 24 hours prior to access	
B-6-CW08	Bob Hope Airport	Private Parking Lot						•	366	371	361 - 371	2014: Pump removed and low-flow pump installed		
B-6-CW09	Bob Hope Airport	Private Parking Lot					1/2 HP / 230 V			262	242 - 262	2017: replaced well gasket; replaced interior well tag; replaced bolts.		2017: Apron surrounding well monument may need to be repaired. Low priority, complete in near future.
B-6-CW10	Bob Hope Airport	Airport Parking Lot A						•	249	258	204 - 253	2014: Observation removed April 2014 2016: low-flow pump installed	Notify property owner/tenant 24 hours prior to access	
B-6-CW14	Bob Hope Airport	Airport Parking Lot A						BEISST P200	354.5	370	325 - 365	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pena-bolts).	Notify property owner/tenant 24 hours prior to access.	
B-6-CW15										615	560 - 610			
B-6-CW16										265	210 - 260		No pump	



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B-6CW17		Private Parking Lot, between shaft 187 & 241		•				BEESST P200	264.5	275	240 - 270	2017: placed interior well tag. Pump not placed because well was dry.		
C1-LCW01						•	2 HP / 230 V							
C1-LCW02		Private Parking Lot		•				BEESST P200	386.5	392	382 - 392	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nibolts).	Notify property owner/tenant 24 to 48 hours prior to access	
C1-LCW03		Private Parking Lot				•	2 HP / 230 V	BEESST P200	274.5	280	259 - 280	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nibolts).	Notify property owner/tenant 24 hours prior to access	
C1-LCW04								BEESST P200	380.5	662	652 - 662	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nibolts).		
C1-LCW05								BEESST P200	376 - 386	386	376 - 386	2017: replaced well gasket; replaced interior well tag; replaced bolts (pen-nibolts). Pump not placed because well was dry.		
C1-LCW06								BEESST P200	246.5	248	232 - 252	2017: Installed low-flow pump; replaced well gasket; replaced interior well tag; replaced bolts (pen-nibolts).		
C1-LCW07	Bob Hope Airport	Airline Charter Pitches	Burbank Regional Airport Authority					BEESST P200	312	336	290 - 320	2015: Pump removed 2016: low-flow pump installed		
C1-LCW08	Bob Hope Airport	Airline Charter Pitches	Burbank Regional Airport Authority			•		•	277	292	245 - 285	2017: Replaced well gasket; replaced interior well tag; replaced bolts.		
MW-01	3003 North Hollywood Way, Burbank, CA	Commercial	General Electric (formerly PAC site)							242	180 - 240		No pump; padlock combination 6752; generally dry	
MW-02	3003 North Hollywood Way, Burbank, CA	Commercial	General Electric (formerly PAC site)							242	180 - 240		No pump; padlock combination 6752; generally dry	
MW-03	3003 North Hollywood Way, Burbank, CA	Commercial	General Electric (formerly PAC site)			•		•	267	283	220 - 280	2014: Well developed and pump removed 2016: low-flow pump installed	Padlock combination 6752; generally dry	
MW-04	2940 North Hollywood Way, Burbank, CA	Commercial	General Electric (formerly PAC site)			•		•	255	265	200 - 260	2016: Low-flow pump installed 2017: Surveyed.		
MW-05	2940 North Hollywood Way, Burbank, CA	Commercial	General Electric (formerly PAC site)							270	205 - 265	Surveyed 2017	No pump	
MW-06	2940 North Hollywood Way, Burbank, CA	Commercial	General Electric (formerly PAC site)							265	200 - 260	Surveyed 2017	No pump	
MW-07	2840 North Hollywood Way, Burbank, CA	Commercial - Within Kino Flo property	General Electric (formerly PAC site)					•	250	260	195 - 255	Low-flow pump installed 2016	Notify property owner/tenant 48 hours prior to access. Tenant prefers morning sampling.	
MW-08	2840 North Hollywood Way, Burbank, CA	Commercial - Within Kino Flo property	General Electric (formerly PAC site)					•	243.5	260	195 - 255	Low-flow pump installed 2016	Notify property owner/tenant 48 hours prior to access. Tenant prefers morning sampling.	2017: Need to repair cap. Repair cap prior to April 2018 monitoring event.
SW-1								•		267	207 - 237	2016: Well developed 2017: Surveyed		
SW-5						•		•		258	196 - 226 231 - 251	2016: Well developed 2017: Surveyed		
Te-PW-01	Located S. curbside on Kinnage Street at Ilwaco Blvd.	Street	City of Burbank	•						235	185 - 225	2017: Added well tag	Traffic control required. No Pump.	
Te-PW-02	Located W. curbside on Lineah Street at Burbank Blvd.	Street	City of Burbank							235	179 - 219	2017: Added well tag	Traffic control required. No Pump.	
OW-AV01A			General Electric (formerly PAC site)		•					330	76 - 263	2017: Abandoned		
OW-AV01B			General Electric (formerly PAC site)		•					330	301 - 325	2017: Abandoned		
OW-AV01R			General Electric (formerly PAC site)							325	140 - 250	2017: Installed and developed		
OW-AV01B			General Electric (formerly PAC site)							325	300 - 325	2017: Installed and developed	2017: Install transducer prior to April 2018 monitoring event.	
OW-AV02A			General Electric (formerly PAC site)							330	92 - 284	2017: Abandoned		
OW-AV02B			General Electric (formerly PAC site)							330	100 - 322	2017: Abandoned		
OW-AV02R			General Electric (formerly PAC site)							330	150 - 322	2017: Installed and developed		
OW-AV02B			General Electric (formerly PAC site)							320	305 - 350	2017: Installed and developed	2017: Install transducer prior to April 2018 monitoring event.	

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OW-A06A					•				340	340	70-271	2017: Abandoned.		
OW-A06B					•				340	310-329		2017: Abandoned.		
OW-A06K									335	160-270		2017: Installed and developed.		2017: Install transducer prior to April 2018 monitoring event.
OW-A06R									335	315-335		2017: Installed and developed.		2017: Install transducer prior to April 2018 monitoring event.
OW-A06A									360	110-282				2017: Install transducer prior to April 2018 monitoring event.
OW-A06B									360	320-350				
OW-A06A	Located on Vanowen Street	Street	City of Burbank		•				370	110-283			Traffic control required	2017: Install transducer prior to April 2018 monitoring event.
OW-A06B	Located on Vanowen Street	Street	City of Burbank		•				370	321-360			Traffic control required	2017: Install transducer prior to April 2018 monitoring event.
OW-A06A	Located on Vanowen Street	Street	City of Burbank		•				360	120-273		Concrete apron surrounding manhole repaired; replaced packer.	Traffic control required	2017: Install transducer prior to April 2018 monitoring event.
OW-A06B	Located on Vanowen Street	Street	City of Burbank		•				360	312-350		Concrete apron surrounding manhole repaired; replaced packer.	Traffic control required	2017: Install transducer prior to April 2018 monitoring event.
OW-A07A	Located on Vanowen Street	Street	City of Burbank		•				360	120-273			Traffic control required	2017: Install transducer prior to April 2018 monitoring event.
OW-A07B	Located on Vanowen Street	Street	City of Burbank		•				360	312-350			Traffic control required	2017: Install transducer prior to April 2018 monitoring event.
OW-A08A	Located in Burbank Fire Department Training Facility Yard	Burbank FD Yard	Burbank FD		•				345	170-280			Key to gate on west side of the facility (Ontano St.) is available for check out at the BOU treatment facility.	2017: Install transducer prior to April 2018 monitoring event.
OW-A08B	Located in Burbank Fire Department Training Facility Yard	Burbank FD Yard	Burbank FD		•				345	325-345				

NOTES:  
 Historical information included in this matrix is a collaboration of information provided by Lockheed Martin, dated 9/14/11 and information obtained from the United States Environmental Protection Agency, San Fernando Valley database.

- bgs = below ground surface
- btoc = below top of casing
- EPA = ENVIRONMENTAL PROTECTION AGENCY
- IP = basepower
- NA = NOT APPLICABLE
- NR = NON-ROUTINE MONITORING WELL
- OS = OPERATIONAL SAMPLING POINT
- ISU = industrial site unit
- OSP = Operational Sampling Plan
- PAC = Pacific Atomic Corporation
- WELL
- R = ROUTINE MONITORING WELL
- SVOC = SEMI-VOLATILE ORGANIC COMPOUND
- TCF = TRICHLOROPANE
- TDS = TOTAL DISSOLVED SOLIDS
- State = State
- Vol = Volatile
- Vol = Volatile
- WB = CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD REQUIRED WELL
- WT = water table
- X = OPERATIONAL SAMPLING PLAN

**Table 3**  
**Second Quarter 2016 Groundwater Elevation Data**

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Well ID	Screened HSU	Screened Interval (feet bgs)	Date Measured	Time Measured	Well Casing Elevation (feet MSL)	Depth to Groundwater (feet btoc)	Groundwater Elevation (feet MSL)
3830Q	B	335 - 355	4/18/2017	15:01	702.56	235.16	467.40
3830S	X/A (WT)	218 - 258	4/18/2017	15:10	702.37	235.31	467.06
3831Q	A (WT)	230 - 250	4/18/2017	10:22	660.31	198.30	462.01
3850M	X (WT)	182 - 232	4/20/2017	10:02	684.67	228.15	456.52
3850N	X (WT)	165 - 215	4/20/2017	11:11	658.07	203.31	454.76
3850Q	Y	277 - 317	4/20/2017	11:13	655.87	198.88	456.99
3850R	B	337 - 347	4/20/2017	11:14	657.49	198.35	459.14
3850S	A'/X (WT)	183 - 233	NA	NA	668.04	NA	NA
3850T	A'/X (WT)	194 - 239	4/19/2017	14:28	680.30	224.58	455.72
3850U	A'/X (WT)	189 - 234	4/19/2017	14:14	684.83	228.25	456.58
3850V	A'/X (WT)	203 - 243	4/18/2017	9:55	693.20	233.75	459.45
3850W	A'/X (WT)	200 - 240	4/18/2017	13:43	693.01	233.45	459.56
3851M	X/A (WT)	165 - 215	4/19/2017	10:12	650.35	191.19	459.16
3851N	B	305 - 325	4/19/2017	10:09	650.10	190.49	459.61
3852F	X (WT)	125 - 175	4/18/2017	10:01	607.65	148.03	459.62
3852G	A (WT)	196 - 216	4/18/2017	10:34	607.85	147.71	460.14
3852H	B	269 - 299	4/18/2017	10:10	607.93	149.65	458.28
3852L	X (WT)	139 - 179	4/18/2017	9:45	623.05	164.95	458.10
3852M	A (WT)	208 - 228	4/18/2017	9:15	593.45	136.91	456.54
3852N	B	283 - 303	4/18/2017	9:21	593.47	137.94	455.53
3860J	X (WT)	170 - 210	4/18/2017	8:01	660.22	203.34	456.88
3860K	A'/X (WT)	180 - 230	4/18/2017	10:28	667.57	212.21	455.36
3861D	X (WT)	130 - 180	4/19/2017	9:40	617.88	164.20	453.68
3861E	A (WT)	201 - 241	4/19/2017	9:44	615.96	163.60	452.36
3861F	B	303 - 323	4/19/2017	9:37	617.46	159.94	457.52
3862D	A (WT)	174 - 194	4/18/2017	8:31	587.50	133.36	454.14
3862E	B	256 - 276	4/18/2017	8:35	587.35	130.38	456.97
3870D	K (WT)	140 - 190	4/18/2017	7:47	639.78	169.28	470.50
3871H	A (WT)	200 - 241	4/18/2017	8:46	591.34	138.19	453.15
3871J	B	274 - 284	4/18/2017	8:52	591.14	132.80	458.34
3872L	A (WT)	160 - 190	4/18/2017	8:08	562.68	110.68	452.00
3872M	B/OA	274 - 304	4/18/2017	8:12	564.35	106.58	457.77
3872N	X (WT)	124 - 144	4/18/2017	8:20	560.77	108.49	452.28
3872Q	A' (WT)	93 - 133	4/18/2017	7:49	575.25	120.81	454.44
3872R	A (WT)	193 - 223	4/18/2017	7:54	575.00	120.87	454.13
3872S	B	275 - 295	4/18/2017	7:57	574.95	117.30	457.65
3880	K (WT)	120 - 170	4/18/2017	7:35	620.06	157.24	462.82
4948	A/Y (WT)	247 - 297	4/19/2017	7:22	763.46	291.49	471.97

**Table 3**  
**Second Quarter 2016 Groundwater Elevation Data**

**2016 BOU Annual Groundwater Monitoring Report**  
**Lockheed Martin Corporation**  
**Burbank Operable Unit, Burbank, California**

Well ID	Screened HSU	Screened Interval (feet bgs)	Date Measured	Time Measured	Well Casing Elevation (feet MSL)	Depth to Groundwater (feet btoc)	Groundwater Elevation (feet MSL)
4949C	A (WT)	222 - 272	4/19/2017	7:30	733.32	268.00	465.32
A-1-CW02	B	350 - 360	4/19/2017	10:45	684.64	222.80	461.84
A-1-CW03R	A (WT)	245 - 285	4/19/2017	10:42	685.09	226.96	458.13
A-1-CW04	A (WT)	200 - 240	4/19/2017	14:03	677.81	217.52	460.29
A-1-CW05	B	336 - 376	4/19/2017	14:14	677.91	216.18	461.73
A-1-CW07	X (WT)	174 - 224	4/19/2017	14:45	674.35	Dry Well	TD 210.54
A-1-CW08	X (WT)	175 - 235	4/19/2017	14:35	682.74	226.60	456.14
A-1-CW09	X (WT)	187 - 227	4/18/2017	12:17	673.80	217.67	456.13
B-1-CW11	B	300 - 330	4/19/2017	7:37	610.05	150.40	459.65
B-1-CW12	A' (WT)	120 - 170	4/19/2017	7:35	609.85	155.58	454.27
B-1-CW13	X (WT)	150 - 210	4/20/2017	8:17	651.49	200.05	451.44
B-1-CW16	A' (WT)	140 - 190	4/19/2017	10:29	639.07	186.94	452.13
B-1-CW17	A'/X (WT)	125 - 165	4/19/2017	9:09	596.35	140.51	455.84
B-1-CW20	B	285 - 305	4/19/2017	9:21	600.23	140.55	459.68
B-1-CW25	A' (WT)	150 - 190	4/19/2017	8:20	636.54	185.95	450.59
B-1-CW27	B	314 - 334	4/19/2017	8:16	636.93	178.36	458.57
B-1-CW28	B	326 - 346	4/20/2017	8:30	650.15	191.69	458.46
B-1-CW29	A' (WT)	131 - 171	4/19/2017	7:57	623.12	Dry Well	171.65
B-1-CW30	A' (WT)	156 - 196	4/19/2017	7:51	622.10	169.80	452.30
B-1-CW31	A' (WT)	165 - 205	4/19/2017	7:44	620.89	170.59	450.30
B-1-CW32	A' (WT)	139 - 179	4/19/2017	9:14	602.92	148.16	454.76
B-1-CW33	A' (WT)	178 - 218	4/19/2017	8:07	639.96	189.80	450.16
B-1-CW34	A' (WT)	144 - 184	4/19/2017	7:30	609.47	154.32	455.15
B-5-CW02	B	340 - 350	4/18/2017	14:32	697.67	232.60	465.07
B-5-CW03	A (WT)	211 - 231	4/18/2017	14:40	697.26	Dry Well	TD 228.35
B-6-CW02	B	330 - 340	4/18/2017	10:06	699.99	234.04	465.95
B-6-CW05	B	345 - 355	4/18/2017	13:23	725.42	258.07	467.35
B-6-CW08	B	361 - 371	4/19/2017	12:56	727.06	259.90	467.16
B-6-CW09	X/A (WT)	242 - 262	4/19/2017	12:59	727.04	Dry Well	TD 257.95
B-6-CW10	X (WT)	203 - 253	4/19/2017	15:06	710.11	247.00	463.11
B-6-CW14	B	325 - 365	4/19/2017	14:08	704.79	240.76	464.03
B-6-CW16	X/A (WT)	210 - 260	4/18/2017	14:00	714.62	250.78	463.84
B-6-CW17	A/Y (WT)	240 - 270	4/19/2017	13:31	742.39	Dry Well	NA
C-1-CW02	B	382 - 392	4/18/2017	12:57	740.07	270.59	469.48
C-1-CW03	A (WT)	259 - 280	4/18/2017	13:00	740.39	271.01	469.38
C-1-CW05	B	376 - 386	4/18/2017	12:31	720.87	251.71	469.16
C-1-CW06	A (WT)	232 - 252	4/18/2017	12:40	720.91	Dry Well	TD 247.12
C-1-CW07	Y (WT)	290 - 320	4/19/2017	9:39	729.74	264.71	465.03



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C-1-CW08	A (WT)	245 - 285	4/19/2017	9:30	731.72	264.40	467.32
MW-01	A'/X (WT)	180 - 240	4/18/2017	9:01	719.39	Dry Well	TD 240.25
MW-02	A'/X (WT)	180 - 240	4/18/2017	8:55	720.05	Dry Well	TD 238.71
MW-03	X/A (WT)	220 - 280	4/18/2017	8:45	720.63	257.09	463.54
MW-04	X/A (WT)	200 - 260	4/18/2017	9:27	702.29	240.90	461.39
MW-05	X/A (WT)	205 - 265	4/18/2017	9:09	705.34	243.04	462.30
MW-06	X/A (WT)	200 - 260	4/18/2017	9:15	705.67	Dry Well	TD 241.04
MW-07	X/A (WT)	195 - 255	4/18/2017	9:44	698.00	237.82	460.18
MW-08	X/A (WT)	195 - 255	4/18/2017	9:34	702.95	243.26	459.69
OW-VO1A-R	WT	140 - 250	4/19/2017	8:03	619.15	167.62	451.53
OW-VO1B-R	B	300 - 325	4/19/2017	8:57	619.13	162.48	456.65
OW-VO2A-R	WT	150 - 260	4/19/2017	8:43	622.82	179.15	443.67
OW-VO2B-R	B	305 - 320	4/19/2017	8:47	622.84	164.71	458.13
OW-VO3A-R	WT	160 - 270	4/19/2017	8:27	627.12	176.72	450.40
OW-VO3B-R	B	315 - 335	4/19/2017	8:30	627.14	169.19	457.95
OW-VO4A	WT	110 - 282	4/20/2017	8:52	639.72	185.85	453.87
OW-VO4B	B	320 - 350	4/20/2017	8:55	639.66	182.23	457.43
OW-VO5A	WT	110 - 283	4/20/2017	11:03	645.68	199.13	446.55
OW-VO5B	B	321 - 360	4/20/2017	11:04	645.61	188.40	457.21
OW-VO6A	WT	120 - 273	4/20/2017	11:10	656.45	202.23	454.22
OW-VO6B	B	312 - 350	4/20/2017	11:09	656.38	197.72	458.66
OW-VO7A	WT	120 - 273	4/20/2017	11:19	668.65	211.99	456.66
OW-VO7B	B	312 - 350	4/20/2017	11:25	668.86	209.95	458.91
OW-VO8A	WT	170 - 280	4/19/2017	9:55	645.70	192.61	453.09
OW-VO8B	B	325 - 345	4/19/2017	9:08	645.67	191.44	454.23
Tt-PW-01	A	185 - 225	4/20/2017	11:31	611.96	156.66	455.30
Tt-PW-02	A	179 - 219	4/20/2017	11:48	603.18	147.45	455.73
SW-1	X/A (WT)	207 - 237 242 - 262	4/18/2017	8:15	714.71	244.75	469.96
SW-5	X/A/Y (WT)	196 - 226 231 - 251	4/18/2017	8:27	694.59	235.37	459.22

Notes:

A = A hydrostratigraphic unit  
A' = A' hydrostratigraphic unit  
B = B hydrostratigraphic unit  
btoc = below top of casing  
HSU = hydrostratigraphic unit  
MSL - mean sea level

OA = older alluvium  
NA = not available  
WT = water table  
X = X hydrostratigraphic unit  
Y = Y hydrostratigraphic unit

**Table 4**  
**Second Quarter 2016 Sampling Matrix**

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**Lockheed Martin Corporation**  
**Burbank Operable Unit, Burbank, California**

Well ID	HSU	October Water Level Wells	April Water Level Wells	Laboratory Analyses					Identified in Draft 2014 OSP for Time v. Concentration Evaluation
				VOCs (USEPA Method 8260B)	1,2,3-TCP (USEPA Method 8260B SIM)	Hexavalent Chromium (USEPA Method 218.6)	Total Chromium (USEPA Methods 6010B)	1,4-Dioxane (USEPA Method 8270C[M] Isotope Dilution)	
3830Q	B		•	X	X	X	X	X	
3830R	Y (WT)								
3830S	X/A (WT)		•	X	X	X	X	X	
3831Q	A (WT)	•	•	X	X	X	X	X	Potential trending of TCE plume; BOU boundary
3850M	X (WT)		•	X	X	X	X	X	
3850N	X (WT)		•	X	X	X	X	X	Potential trending of TCE plume; near pumping zone
3850P	A (WT)								
3850Q	Y (WT)		•						
3850R	B	•	•	X	X	X	X	X	
3850S	A/X (WT)		•						
3850T	A/X (WT)		•						
3850U	A/X (WT)		•	X	X	X	X	X	
3850V	A/X (WT)	• T	• T						
3850W	A/X (WT)		•						
3851M	X/A (WT)	• T	• T	X	X	X	X	X	
3851N	B	• T	• T	X	X	X	X	X	
3851P	OA								
3852F	X (WT)		•	X	X	X	X	X	
3852G	A (WT)	•	•						
3852H	B	•	•	X	X	X	X	X	
3852J	Y (WT)								
3852K	A (WT)								
3852L	X (WT)	• T	• T	X	X	X	X	X	Capture zone boundary
3852M	A (WT)	•	•	X	X	X	X	X	
3852N	B	•	•	X	X	X	X	X	
3860J	X (WT)		•	X	X	X	X	X	

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Well ID	HSU	October Water Level Wells	April Water Level Wells	Laboratory Analyses					Identified in Draft 2014 OSP for Time v. Concentration Evaluation
				VOCs (USEPA Method 8260B)	1,2,3-TCP (USEPA Method 8260B SIM)	Hexavalent Chromium (USEPA Method 218.6)	Total Chromium (USEPA Methods 6010B)	1,4-Dioxane (USEPA Method 8270C[M] Isotope Dilution)	
3860K	A'/X (WT)		•	X	X	X	X	X	
3861D	X (WT)	• T	• T	X	X	X	X	X	Capture zone evaluation
3861E	A (WT)		•						
3861F	B	• T	• T	X	X	X	X	X	
3862C	A' (WT)								
3862D	A (WT)	•	•	X	X	X	X	X	Increasing TCE and PCE trends
3862E	B	•	•	X	X	X	X	X	
3870D	K (WT)		•	X	X	X	X	X	
3870E	K								
3871G	A' (WT)								
3871H	A (WT)	• T	• T	X	X	X	X	X	Increasing TCE and PCE trends
3871J	B		•	X	X	X	X	X	
3872K	A' (WT)	•							
3872L	A (WT)		•	X	X	X	X	X	
3872M	B/OA	•	•	X	X	X	X	X	
3872N	X (WT)		•	X	X	X	X	X	
3872P	Y (WT)								
3872Q	A' (WT)	•	•	X	X	X	X	X	
3872R	A (WT)		•						
3872S	B	•	•	X	X	X	X	X	
3880	K (WT)	• T	• T	X	X	X	X	X	
4948	A/Y (WT)		•	X	X	X	X	X	
4949C	A (WT)		•	X	X	X	X	X	
A-1-CW01	OA								
A-1-CW02	B		•	X	X	X	X	X	

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Well ID	HSU	October Water Level Wells	April Water Level Wells	Laboratory Analyses					Identified in Draft 2014 OSP for Time v. Concentration Evaluation
				VOCs (USEPA Method 8260B)	1,2,3-TCP (USEPA Method 8260B SIM)	Hexavalent Chromium (USEPA Method 218.6)	Total Chromium (USEPA Methods 6010B)	1,4-Dioxane (USEPA Method 8270C[M] Isotope Dilution)	
A-1-CW03	X (WT)								
A-1-CW03R	A (WT)		•	X	X	X	X	X	
A-1-CW04	A (WT)	• T	• T	X	X	X	X	X	
A-1-CW05	B	• T	• T	X	X	X	X	X	
A-1-CW06	OA								
A-1-CW07	X (WT)		•	X	X	X	X	X	Elevated COC concentrations and upgradient capture zone evaluation
A-1-CW08	X (WT)		•	X	X	X	X	X	
A-1-CW09	X (WT)	•	•	X	X	X	X	X	Cross-gradient capture zone analysis
B-1-CW11	B	• T	• T	X	X	X	X	X	
B-1-CW12	A' (WT)	• T	• T	X	X	X	X	X	Elevated COC concentrations and adjacent to pumping zone
B-1-CW13	X (WT)	• T	• T	X	X	X	X	X	
B-1-CW16	A'/X (WT)		•						
B-1-CW17	A'/X (WT)	• T	• T	X	X	X	X	X	Elevated COC concentrations and hydraulic capture
B-1-CW20	B	• T	• T	X	X	X	X	X	
B-1-CW25	A' (WT)	• T	• T	X	X	X	X	X	Elevated COC concentrations and adjacent to pumping zone
B-1-CW27	B	•	•	X	X	X	X	X	
B-1-CW28	B	•	•	X	X	X	X	X	
B-1-CW29	A' (WT)		•	X	X	X	X	X	Elevated COC concentrations and upgradient capture zone evaluation
B-1-CW30	A' (WT)		•	X	X	X	X	X	
B-1-CW31	A' (WT)		•	X	X	X	X	X	
B-1-CW32	A' (WT)		•	X	X	X	X	X	
B-1-CW33	A' (WT)		•	X	X	X	X	X	
B-1-CW34	A' (WT)		•	X	X	X	X	X	
B-5-CW01	OA								
B-5-CW02	B	• T	• T	X	X	X	X	X	
B-5-CW03	A (WT)	• T	• T	X	X	X	X	X	1,2,3-TCP trend and cross gradient capture zone



**Table 4**  
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Well ID	HSU	October Water Level Wells	April Water Level Wells	Laboratory Analyses					Identified in Draft 2014 OSP for Time v. Concentration Evaluation
				VOCs (USEPA Method 8260B)	1,2,3-TCP (USEPA Method 8260B SIM)	Hexavalent Chromium (USEPA Method 218.6)	Total Chromium (USEPA Methods 6010B)	1,4-Dioxane (USEPA Method 8270C[M] Isotope Dilution)	
B-6-CW01	OA								
B-6-CW02	B	• T	• T	X	X	X	X	X	
B-6-CW03	X (WT)								
B-6-CW03R	A (WT)								
B-6-CW04	OA								
B-6-CW05	B		•	X	X	X	X	X	
B-6-CW06	X (WT)								
B-6-CW07	OA								
B-6-CW08	B		•	X	X	X	X	X	
B-6-CW09	X/A (WT)		•						
B-6-CW10	X (WT)		•	X	X	X	X	X	
B-6-CW14	B		•	X	X	X	X	X	
B-6-CW15	OA								
B-6-CW16	X/A (WT)		•	X	X	X	X	X	
B-6-CW17	A/Y (WT)	• T	• T	X	X	X	X	X	
C-1-CW01	OA								
C-1-CW02	B	• T	• T	X	X	X	X	X	
C-1-CW03	A (WT)		•	X	X	X	X	X	
C-1-CW04	OA								
C-1-CW05	B		•	X	X	X	X	X	
C-1-CW06	A (WT)		•	X	X	X	X	X	Elevated TCE concentrations and western BOU boundary
C-1-CW07	Y (WT)		•	X	X	X	X	X	Chromium detections and upgradient capture evaluation
C-1-CW08	A (WT)		•	X	X	X	X	X	Chromium detections and upgradient capture evaluation
MW-01	A/X (WT)		•	X	X	X	X	X	Elevated COC concentrations and potential mass flux zone
MW-02	A/X (WT)								
MW-03	X/A (WT)		•	X	X	X	X	X	
MW-04	X/A (WT)		•	X	X	X	X	X	
MW-05	X/A (WT)		•						

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				VOCs (USEPA Method 8260B)	1,2,3-TCP (USEPA Method 8260B SIM)	Hexavalent Chromium (USEPA Method 218.6)	Total Chromium (USEPA Methods 6010B)	1,4-Dioxane (USEPA Method 8270C[M] Isotope Dilution)	
MW-06	X/A (WT)		•						
MW-07	X/A (WT)		•	X	X	X	X	X	
MW-08	X/A (WT)		•	X	X	X	X	X	
SW-1	X/A (WT)		•	X	X	X	X	X	
SW-5	X/A/Y (WT)		•	X	X	X	X	X	
Tt-PW-01	A (WT)		•						
Tt-PW-02	A (WT)	• T	• T						

**Notes:**

- B = B hydrostratigraphic unit
- BOU = Burbank Operable Unit
- COC = chemical of concern
- HSU = hydrostratigraphic unit
- PCE = tetrachloroethene
- T = well with transducer
- TCE - trichloroethene
- TCP = trichloropropane
- VOCs = volatile organic compounds
- USEPA = United States Environmental Protection Agency
- WT = water table
- ?? = screened HSU information not available

Table 5  
Second Quarter 2017 Groundwater Analytical Data

2017 Annual Groundwater Monitoring Report  
Lockheed Martin Corporation  
Burbank Operable Unit, Burbank, CA

Sampling Location	Screened HSI	Sample Date	Chromium, Total	Hexavalent Chromium	Acetone	Bromo-dichloro-methane	Methyl-tert-butyl-ether	Carbon Tetrachloride	Chloroform	Dichloro-difluoro-methane	1,1-Dichloro-ethane	1,2-Dichloro-ethane	1,1-Dichloro-ethane	1,1,1-Trichloro-ethane	1,1,1,1-Tetrachloro-ethane	1,1,1,2-Tetrachloro-ethane	Trichloro-ethylene	Trichloro-fluoro-methane	Trichloro-propane	1,2,3-Trichloro-propane	1,4-Dioxane
3830Q	B	4/4/2017	0.770 Jq	0.19	<4.0	<0.20	<0.20	<0.20	<0.20	0.78 Jq	0.62	<0.20	0.51	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.0025	<0.28
3830S	X/A (WT)	4/4/2017	4.03	0.93	<1.6	<0.80	1.4 Jq	<0.80	1.4 Jq	<1.6	<0.80	<1.1	<0.80	<0.80	<0.80	<0.80	85	<0.80	<0.0025	<0.28	
3831Q	A (WT)	4/4/2017	21.3	<0.0099	<4.0	<0.20	<0.20	0.28 Jq	0.66	<0.40	0.21 Jq	<0.20	0.40 Jq	<0.20	<0.20	<0.20	9.2	<0.20	0.011	<0.28	
3850M	X (WT)	Not sampled																			
3850N	X (WT)	4/13/2017	10.1	9.0	<4.0	<0.20	<0.20	1.8	3.2	<0.40	<0.20	0.38 Jq	0.87	0.26 Jq	0.43 Jq	0.20	19	<0.20	0.56 Jq	<0.28	
3850R	B	4/13/2017	0.850 Jq	0.021	<8.0	<0.40	<0.40	<0.40	<0.40	<0.80	<0.40	<0.40	<0.40	0.58 Jq	<0.40	<0.40	7.8	<0.40	0.0074	<0.28	
3850U	A/X (WT)	4/25/2017	9.19	0.87	<4.0	<0.20	<0.20	0.35 Jq	1.5	<0.40	<0.20	0.44 Jq	6.9	0.35 Jq	4.9	<0.20	19	<0.20	1.6 Jq	1.4	
3851M	A/X (WT)	4/3/2017	3.03	1.9	<9.2 Uk	<0.20	<0.20	0.53	0.62	<0.40	<0.20	0.57	0.24 Jq	<0.20	<0.20	<0.20	12	<0.20	0.087	<0.28	
3851N	B	4/4/2017	1.72	1.2	5.7 Jq	<0.20	<0.20	<0.20	<0.20	1.2	0.28 Jq	<0.20	<0.20	<0.20	<0.20	<0.20	0.67	<0.20	<0.0025	<0.28	
3852F	X (WT)	4/12/2017	3.15	2.7	<4.0	0.20 Jq	<0.20	0.44 Jq	0.51	1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.58	<0.20	0.027	1.5	
3852H	B	4/12/2017	2.32	1.1	<4.0	<0.20	<0.20	1.6	6.9	0.91 Jq	<0.20	2.1	<0.28	<0.20	<0.20	0.29 Jq	7.2	<0.20	0.29	<0.28	
3852L	X (WT)	4/5/2017	4.48	1.8	4.5 Jq	<0.20	<0.20	0.28 Jq	0.46 Jq	<0.40	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	1.3	<0.20	0.033	<0.28	
3852M	A (WT)	4/5/2017	1.35 Jf	0.63	<5.4 Uk, f	<0.20	<0.20	1.2	1.5	<0.40	<0.20	1.0	0.69	<0.20 UJf	0.25 Jq	12	<0.20	0.21	<0.28		
3852N	B	4/3/2017	3.22	2.5	<7.4 Uk	<0.20	<0.20	<0.20	<0.20	<0.40	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	2.6	<0.20	<0.0025	<0.28	
3860J	X (WT)	Not sampled																			
3860K	A/X (WT)	4/7/2017	3.44	1.9	<4.0	<0.20	<0.20	<0.20	<0.20	<4.0	<2.0	17	2.3 Jq	<2.0	210	<2.0	210	<2.0	32	<0.28	
3861Q	X (WT)	4/7/2017	8.94	6.8	4.1 Jq	<0.20	<0.20	0.41 Jq	1.2	7.1	<0.20	<0.20	<0.20	<0.20	<0.20	0.41 Jq	<0.20	0.0056	<0.28		
3861F	B	4/7/2017	5.56	4.9	7.2 Jq	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	4.1	<0.20	0.045 Jq	<0.28	
3862D	A (WT)	4/5/2017	9.01	8.5	<8.0	<0.40	<0.40	1.1	0.89 Jq	1.5 Jq	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	89	<0.40	0.023	<0.28	
3862E	B	4/10/2017	1.66	1.0	<4.0	<0.20	<0.20	0.40 Jq	0.29 Jq	0.87 Jq	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	32	<0.20	0.013	<0.28	
3870D	K (WT)	4/5/2017	18.6	17	<4.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.0025	<0.28	
3871M	A (WT)	4/7/2017	11.4	9.6	<3.2	<1.6	<1.6	<1.6	<1.6	<3.2	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	140	<1.6	0.084	<0.28	
3872L	B	4/7/2017	4.47	3.8	5.5 Jq	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.0025	<0.28	
3873M	B/OA	4/3/2017	4.87	4.4	<6.7 Uk	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	240	<0.20	0.095	<0.28	
3873N	X (WT)	4/3/2017	7.88	6.7	<9.3 Uk	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	2.0	<0.20	<0.0025	<0.28	
3872Q	A (WT)	4/5/2017	1.26	0.68	<1.6	<0.80	<0.80	0.91	3.6	0.88 Jq	<1.6	<0.80	<1.1	<0.80	<0.80	<0.80	30	<0.80	0.045	<0.28	
3872S	B	4/5/2017	7.85	7.9	<4.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.0025	<0.28	
3880	K (WT)	4/5/2017	7.94	6.7	<4.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.0025	<0.28	
4948	A/Y (WT)	4/14/2017	5.03	0.82	<4.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	1.3	<0.20	<0.0025	<0.28	
4949C	A (WT)	Not sampled																			
A-1-CW02	B	4/11/2017	3.65	<0.0099	<4.0	<0.20	<0.20	<0.20	0.29 Jq	<0.40	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	4.2	<0.20	<0.0025	<0.28	
A-1-CW03R	A (WT)	4/13/2017	1.05	0.010 Jq	<4.0	<0.20	<0.20	0.42 Jq	2.1	<0.40	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	22	<0.20	0.043	<0.28	
A-1-CW04	A (WT)	4/10/2017	1.64	0.88	4.7 Jq	<0.20	<0.20	0.91	3.6	0.88 Jq	<0.20	0.42 Jq	0.76	<0.20	1.3	<0.20	7.4	<0.20	25 Jq	2.0	
A-1-CW05	B	4/10/2017	0.622 Jq	<0.0099	<4.0 UJf	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.0025	<0.28	
A-1-CW07	X (WT)	Not sampled																			
A-1-CW08	X (WT)	4/6/2017	1.76	1.2	<8.0	<0.40	<0.40	1.0	3.0	<0.80	<0.40	<0.40	1.4	<0.40	<0.40	<0.40	69	<0.40	87	<0.28	
A-1-CW09	X (WT)	4/11/2017	2.24	1.4	<4.0	<0.20	<0.20	0.44 Jq	1.1	<0.40	<0.20	0.38 Jq	0.74	<0.20	<0.20	<0.20	7.5	<0.20	15	3.7	
B-1-CW11	B	4/3/2017	3.19	2.7	<4.0	<0.20	<0.20	<0.20	0.88 Jq	2.6	<0.20	0.21 Jq	<0.28	0.95	<0.20	<0.20	0.78	0.29 Jq	<0.0025	1.0	
B-1-CW12	A (WT)	4/4/2017	11.5	11	<4.0	<0.20	<0.20	<0.20	1.5	2.5	<0.20	<0.20	1.9	1.1	<0.20	<0.20	14	<0.20	<0.0025	<0.28	
B-1-CW13	X (WT)	4/12/2017	2.76	2.0	<1.6	<0.80	<0.80	3.1	1.5	<1.6	<0.80	<0.80	7.9	<0.80	<0.80	<0.80	5.1	<0.80	13 Jq	2.0	
B-1-CW17	A/X (WT)	4/4/2017	24.6	20	<1.6	<0.80	<0.80	4.3	<1.6	<0.80	<0.80	2.9	3.2	<0.80	<0.80	<0.80	94	<0.80	<0.0025	2.9	
B-1-CW20	B	4/13/2017	3.46	2.1	<4.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.0025	<0.28	
B-1-CW25	A (WT)	4/24/2017	8.01	3.8	4.1 Jq	<0.20	<0.20	<0.20	2.6	<0.40	<0.20	0.62	<0.20	0.92	<0.20	<0.20	19	<0.20	0.022	<0.28	
B-1-CW27	B	4/10/2017	6.11	5.2	<4.0	<0.20	<0.20	0.32 Jq	0.40	<0.40	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	2.3	<0.20	<0.0025	<0.28	
B-1-CW28	B	4/12/2017	0.982 Jq	<0.0099	<4.0	<0.20	<0.20	<0.20	0.35 Jq	<0.40	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	3.2	<0.20	<0.0025	<0.28	
B-1-CW29	A (WT)	Not sampled																			
B-1-CW30	A (WT)	4/6/2017	33.3	0.59	<4.0	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	200	<2.0	<0.0025	<0.28	
B-1-CW31	A (WT)	4/6/2017	21.7	16	<8.0	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	47	<0.40	<0.0025	<0.28	
B-1-CW32	A (WT)	4/5/2017	47.4	8.8	<1.6	<0.80	<0.80	5.6	<1.6	<0.80	<0.80	<1.1	4.1	<0.80	<0.80	<0.80	110	<0.80	0.011	<0.28	
B-1-CW33	A (WT)	4/6/2017	14.9	0.4	<8.0	<4.0	<4.0	<4.0	<4.0	<8.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	180	<4.0	0.87 Jq	1.2	
B-1-CW34	A (WT)	4/5/2017	32.1	16	<4.0	<0.20	<0.20	1.4	<0.40	<0.20	<0.20	0.50	7.8	<0.20	<0.20	<0.20	32	<0.20	<0.0025	<0.28	
B-5-CW02	B	4/10/2017	0.679 Jq	<0.0099	<4.0																

Table 5  
Second Quarter 2017 Groundwater Analytical Data

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Sampling Location	Screened HSI	Chromium, Total	Hexavalent Chromium	Acetone	Bromo-dichloro-methane	Methyl-tert-butyl-ether	Carbon Tetrachloride	Chloroform	Dichloro-difluoro-methane	1,1-Dichloro-ethane	1,2-Dichloro-ethane	1,1-Dichloro-ethane	cis-1,2-Dichloro-ethane	1,2-Dichloro-propane	Naphthalene	Tetrahydro-ethane	Toluene	1,1,2-Trifluoro-ethane	1,1,1-Trifluoro-ethane	1,1,2-Trifluoro-ethane	Trichloro-ethane	Trichloro-methane	Trichloro-propane	1,4-Dioxane
B-5-CW03	A (WT)	Not sampled																						
B-6-CW02	B	4/6/2017	2.95	<4.0 UJF	<0.20	<0.20	<0.20	0.35 lq	<0.40	<0.20	<0.20	<0.28	<0.20	<0.20	<0.40	0.56	<0.20	<0.24	<0.20	<0.20	<0.29	<0.20	<0.0025	<0.28
B-6-CW05	B	4/11/2017	1.72	<4.0	<0.20	<0.20	<0.20	0.27 lq	<0.40	<0.20	<0.20	<0.28	<0.20	<0.20	<0.40	0.20 lq	<0.20	<0.24	<0.20	<0.20	<0.29	<0.20	<0.0025	<0.28
B-6-CW08	B	4/11/2017	0.834 lq	<4.0	<0.20	0.24 lq	<0.20	0.27 lq	<0.40	<0.20	<0.20	<0.28	<0.20	<0.20	<0.40	12	<0.20	0.43 lq	<0.20	<0.20	3.2	<0.20	<0.0025	<0.28
B-6-CW10	X (WT)	4/24/2017	2.55	<4.0	<0.20	<0.20	0.50	1.7	<0.40	<0.20	<0.20	<0.28	0.35 lq	<0.20	<0.40	30	<0.20	0.34 lq	<0.20	<0.20	13	<0.20	1.5 lq	<0.28
B-6-CW14	B	4/6/2017	1.77	4.5 lq	<0.20	<0.20	<0.20	0.29 lq	<0.40	<0.20	<0.20	<0.28	<0.20	<0.20	<0.40	22	<0.20	<0.24	<0.20	<0.20	5.1	<0.20	<0.0025	1.8
B-6-CW16	X/A (WT)	4/25/2017	28.9	<4.0	<0.20	<0.20	0.46 lq	0.81	<0.40	<0.20	<0.20	8.1	<0.20	<0.20	<0.40	69	<0.20	1.3	0.42 lq	<0.20	3.9	<0.20	<0.0025	<0.28
B-6-CW17	A/Y (WT)	Not sampled																						
C-1-CW02	B	4/11/2017	0.600 lq	<4.0	<0.20	<0.20	<0.20	<0.20	0.86 lq	<0.20	<0.20	<0.28	<0.20	<0.20	<0.40	<0.20	<0.20	<0.24	<0.20	<0.20	<0.29	<0.20	<0.0025	<0.28
C-1-CW03	A (WT)	4/25/2017	2.66	<4.0	0.34 lq	<0.20	0.74	<0.40	<0.40	<0.20	<0.20	<0.28	<0.20	<0.20	<0.40	0.38 lq	<0.20	<0.24	<0.20	<0.20	<0.29	<0.20	<0.0025	<0.28
C-1-CW05	B	4/6/2017	0.735 lq	<4.0	<0.20	<0.20	<0.20	<0.20	1.9	1.1	<0.20	<0.28	0.30 lq	<0.20	<0.40	0.68	<0.20	<0.20	<0.20	<0.20	0.29 lq	<0.20	<0.0025	<0.28
C-1-CW06	A (WT)	Not sampled																						
C-1-CW07	Y (WT)	4/12/2017	82.9	<4.0	<0.20	<0.20	0.37 lq	0.29 lq	0.94 lq	<0.20	<0.20	0.44 lq	<0.20	<0.20	<0.40	3.2	<0.20	<0.24	<0.20	<0.20	0.72	<0.20	<0.0025	2.8
C-1-CW08	A (WT)	4/12/2017	7.57	<4.0	<0.20	<0.20	0.52	0.33 lq	0.99 lq	<0.20	<0.20	0.48 lq	<0.20	<0.20	<0.40	1.5	<0.20	<0.24	<0.20	<0.20	0.36 lq	<0.20	<0.0025	<0.28
MW-01	A/X (WT)	Not sampled																						
MW-03	X/A (WT)	4/7/2017	2.97	4.1 lq	<0.20	<0.20	0.78	2.6	<0.40	<0.20	0.32 lq	7.2	0.25 lq	<0.20	<0.40	32	<0.20	2.9	<0.20	<0.20	12	0.34 lq	0.93	<0.28
MW-04	X/A (WT)	4/10/2017	2.49	2.2	<0.20	<0.20	1.1	1.5	<0.40	<0.20	0.22 lq	2.5	<0.20	<0.20	0.82 lq	29	<0.20	1.3	<0.20	<0.20	21	0.34 lq	0.96	<0.28
MW-07	X/A (WT)	4/7/2017	2.62	1.9	<0.20	<0.20	0.34 lq	1.9	<0.40	<0.20	0.23 lq	2.9	<0.20	<0.20	<0.40	34	<0.20	3.9	<0.20	<0.20	17	<0.20	0.60	<0.28
MW-08	X/A (WT)	4/7/2017	2.81	2.1	<0.20	<0.20	0.57	4.3	<0.40	<0.20	0.20	2.1	<0.20	<0.20	0.45 lq	71	<0.20	3.4	<0.20	<0.20	24	<0.20	0.93	<0.28
SW-1	X/A (WT)	4/25/2017	6.53	<4.0	0.80	<0.20	<0.20	3.3	<0.40	<0.20	<0.20	<0.28	<0.20	<0.20	<0.40	<0.20	<0.20	<0.24	<0.20	<0.20	<0.29	<0.20	<0.0025	<0.28
SW-5	X/A/Y (WT)	4/10/2017	57	4.7	<0.40	<0.40	0.67 lq	0.94 lq	<0.80	<0.40	<0.40	3.8	<0.40	<0.40	<0.80	51	<0.40	3.1	<0.40	<0.40	52	<0.40	<0.0025	<0.28
MCL/DWNL (µg/L)			50	10	80	13	0.5	80	1000 (U)	5	0.5	6	6	5	17 (U)	5	150	1200	200	5	5	150	0.005 (U)	1 (U)

Notes:  
 Only analytes positively detected are presented in this table. For a complete list, refer to the laboratory data package.  
 µg/L - micrograms per liter  
 <# - Analyte not detected; method detection limit concentration is shown.  
 A = A hydrostratigraphic unit  
 B = B hydrostratigraphic unit  
 OA = other alluvium  
 X = X hydrostratigraphic unit  
 Y = Y hydrostratigraphic unit  
 HSI = hydrostratigraphic unit  
 WT = water table  
 DWNL - California Department of Public Health drinking water notification level  
 MCL - California Department of Public Health maximum contaminant level  
 MDL - Method detection limit



**Table 6**  
**Second Quarter 2016 Summary of Chemicals Detected**

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**Lockheed Martin Corporation**  
**Burbank Operable Unit, Burbank, CA**

Organic Analytes Detected	Total Number of Samples Analyzed <sup>(1)</sup>	Total Number of Detections <sup>(1)</sup>	Number of Detections Exceeding MCL or DWNL <sup>(1)</sup>	MCL / DWNL (µg/L)	Minimum Concentration Detected (µg/L)	Maximum Concentration Detected (µg/L)
1,4-Dioxane	65	11	11	1 <sup>(2)</sup>	1.0	3.7
Acetone	65	13	0	--	4.0	11
Bromodichloromethane	65	3	0	80 <sup>(3)</sup>	0.20	0.80
Methyl tert-Butyl Ether	65	5	0	13	0.230	1.6
Carbon Tetrachloride	65	25	15	0.5	0.280	3.1
Chloroform	65	45	0	80 <sup>(3)</sup>	0.27	6.9
Dichlorodifluoromethane	65	16	0	1,000 <sup>(2)</sup>	0.78	7.1
1,1-Dichloroethane	65	5	0	5	0.21	1.1
1,2-Dichloroethane	65	10	2	0.5	0.21	2.1
1,1-Dichloroethene	65	24	6	6	0.44	17
cis-1,2-Dichloroethene	65	19	1	6	0.21	7.8
1,2-Dichloropropane	65	3	0	5	0.21	0.52
Naphthalene	65	2	0	17 <sup>(2)</sup>	0.45	0.82
Tetrachloroethene	65	59	37	5	0.20	630
Toluene	65	2	0	150	0.35	0.41
1,1,2-Trichloro-1,2,2-Trifluoro-ethane	65	17	0	1,200	0.27	8.5
1,1,1-Trichloroethane	65	2	0	200	0.23	0.42
1,1,2-Trichloroethane	65	5	2	5	0.25	7.5
Trichloroethene	65	53	35	5	0.29	240
Trichlorofluoromethane	65	3	0	150	0.29	0.34
1,2,3-Trichloropropane	65	31	30	0.005 <sup>(2)</sup>	0.0045	87
<b>Inorganic Analytes Detected</b>	<b>Total Number of Samples Analyzed <sup>(1)</sup></b>	<b>Total Number of Detections <sup>(1)</sup></b>	<b>Number of Detections Exceeding MCL or DWNL <sup>(1)</sup></b>	<b>MCL / DWNL (µg/L)</b>	<b>Minimum Concentration Detected (µg/L)</b>	<b>Maximum Concentration Detected (µg/L)</b>
Total Chromium	65	65	2	50	0.600	82.9
Hexavalent Chromium	65	58	3	10	0.010	20.0

**Notes:** DWNL - California Department of Public Health drinking water notification level  
MCL - California Department of Public Health maximum contaminant level  
"--" - MCL or DWNL not established  
<sup>(1)</sup> - Number of detections excludes sample duplicates, secondary stratification samples, trip blanks, and equipment blanks  
<sup>(2)</sup> - DWNL  
<sup>(3)</sup> - MCL for total trihalomethanes  
µg/L - micrograms per liter

**Table 7  
Summary of Mann-Kendall Test Results**

**2017 Annual Groundwater Monitoring Report  
Lockheed Martin Corporation  
Burbank Operable Unit, Burbank, CA**

Analyte	Wells Tested	Insufficient Data	Non-detect	No Trend	Decreasing Trend	Probably Decreasing Trend	Stable Trend	Probably Increasing Trend	Increasing Trend
1,2,3-Trichloropropane	65	5	7	32	5	2	2	3	9
1,4-Dioxane	65	5	13	12	8	3	13	5	6
Tetrachloroethene	65	5	2	5	35	2	13	0	3
Trichloroethene	65	5	3	8	35	4	8	1	1
Hexavalent Chromium	65	5	0	22	7	4	18	4	5
Total Chromium	65	5	0	35	5	5	12	1	2
Total Analysis	390	30	25	114	95	20	66	14	26

Table 8  
 Summary of Mann-Kendall and Linear Regression Results for Increasing Trend Wells  
 2017 Annual Groundwater Monitoring Report  
 Lockheed Martin Corporation  
 Burbank Operable Unit, Burbank, CA

Sample Location	Analytic	1,2,2-Trichloropropane		1,4-Dioxane		Tetrachloroethylene		Trichloroethylene		Hexavalent Chromium		Total Chromium	
		Trend	Magnitude (%/yr)	Magnitude (µg/Ly)	Trend	Magnitude (%/yr)	Magnitude (µg/Ly)	Trend	Magnitude (%/yr)	Magnitude (µg/Ly)	Trend	Magnitude (%/yr)	Magnitude (µg/Ly)
3830S	HSU	No Trend			No Trend	-3.83	-0.61	Probably Increasing	3.83	2.38	No Trend	No Trend	
3830R	B	Probably Increasing	7.67	0.00662	No Trend	2.92	3.80	Increasing	1.41	0.14	No Trend	No Trend	
3831N	B	Probably Decreasing	-10.8	-0.0013	Stable	-14.4	-4.18	Decreasing	-14.8	-1.32	Probably Increasing	2.19	0.01
3832F	X (WT)	No Trend			Probably Increasing	2.92	-0.53	Decreasing	-2.01	-0.36	Probably Increasing	0.82	0.01
3832H	B	No Trend			Probably Decreasing	-2.92	-0.93	No Trend	-2.01	-0.42	No Trend	No Trend	
3832L	X (WT)	Probably Increasing	8.94	0.0080	Stable	-2.92	-0.93	Decreasing	-2.01	-0.42	Probably Decreasing	-3.47	-0.14
3832M	A (WT)	Increasing	12.4	0.016	Stable	-4.93	-1.82	Decreasing	-4.02	-0.52	Probably Increasing	1.41	0.04
3860K	A/X (WT)	No Trend			Non-detect	-4.56	-1.41	Decreasing	-4.02	-0.52	No Trend	No Trend	
3861F	B	No Trend			Decreasing	-17.3	-0.07	Non-detect			Increasing	88	8.76
3870D	K (WT)	Non-detect			Non-detect			Non-detect			No Trend	No Trend	
3872L	A (WT)	Increasing	11.7	0.006	Non-detect			Stable			Increasing	80	2.49
3872N	X (WT)	No Trend			Stable			Decreasing	-9.67	-1.64	Stable	No Trend	
A-1-CW04	A (WT)	Increasing	29	1.78	Stable	-10.6	-4.4	Decreasing	-9.49	-10.4	No Trend	No Trend	
A-1-CW08	X (WT)	Probably Increasing	2.56	1.41	No Trend	-3.47	-6.24	Stable	-9.49	-10.4	No Trend	No Trend	
A-1-CW09	X (WT)	Increasing	6.75	0.30	Increasing	9.49	0.16	Decreasing	-4.75	-3.7	Stable	No Trend	
B-1-CW13	X (WT)	Increasing	5.48	0.88	Increasing	5.66	0.05	Decreasing	-4.02	-9.23	Decreasing	-2.19	-0.90
B-1-CW17	A/X (WT)	No Trend			Stable	8.94	0.09	Stable	-0.47	-0.02	Stable	No Trend	
B-1-CW28	B	No Trend			Stable	3.65	0.91	Decreasing	-0.47	-0.02	Probably Increasing	4.02	0.03
B-6-CW02	B	No Trend			Non-detect			Non-detect			Stable	Probably Decreasing	-5.47
B-6-CW14	B	No Trend			Increasing	11.5	0.10	No Trend			No Trend	Increasing	7.85
B-6-CW16	X/A (WT)	No Trend			Stable	-6.75	-7.43	Decreasing	-6.39	-1.66	No Trend	Probably Decreasing	-3.47
C-1-CW02	B	No Trend			Probably Increasing	4.75	0.02	Decreasing	-2.92	-0.07	No Trend	No Trend	
C-1-CW03	A (WT)	No Trend			Decreasing	-3.83	-0.05	Decreasing	-3.29	-0.29	Increasing	7.67	0.03
C-1-CW05	B	No Trend			Probably Increasing	1.08	0.00	Stable			Stable	Decreasing	-4.75
C-1-CW08	A (WT)	No Trend			Probably Increasing	4.4	0.04	Decreasing	-13.1	-8.02	Probably Decreasing	-2.92	-0.01
MM-03	X/A (WT)	Increasing	13.5	0.43	Stable	7.12	0.07	Decreasing	-2.92	-0.55	No Trend	No Trend	
MM-04	X/A (WT)	Increasing	20	0.22	Probably Increasing	7.67	0.06	Decreasing	-2.92	-0.44	Increasing	3.65	0.05
MM-07	X/A (WT)	Increasing	18.1	0.07	No Trend			Decreasing	-2.56	-0.25	No Trend	Stable	
MM-08	X/A (WT)	Increasing	15.7	0.20	Increasing	11.0	0.53	Decreasing	-3.47	-1.69	Increasing	7.12	0.10

Notes:  
 Shading identifies: increasing and probably increasing trends  
 Highlighting indicates locations where the magnitude of the increasing or probably increasing trend represents greater than a 20% change per year  
 µg/L/yr = microgram per liter per year  
 %/yr = percent change per year  
 A - A hydrostratigraphic unit  
 A - A hydrostratigraphic unit  
 B - B hydrostratigraphic unit  
 B - B hydrostratigraphic unit  
 X - X hydrostratigraphic unit  
 X - X hydrostratigraphic unit  
 HSU - hydrostratigraphic unit  
 WT - water table

Table 9  
Noted Changes In Concentrations in Second Quarter 2017

2017 Annual Groundwater Monitoring Report  
Lockheed Martin Corporation  
Burbank Operable Unit, Burbank, CA

Sampling Location	Screened HSU	Sample Date	Compound	Q2 2017 Concentration (µg/L)	New Maximum Concentration (Y/N)	Exceeds MCL/DWNL First Time in Two Years (Y/N)	>1.5X Increase Since Most Recently Reported Concentration and Exceeds MCL/DWNL	Comments
3851M	X/A (WT)	4/3/2017	1,2,3-TCP	0.057	N	N	Y	Concentration was similar in 2015 (0.053 µg/L) and the concentration in 2016 was (0.054 µg/L); trend analysis indicates the concentration are stable
3872L	A (WT)	4/3/2017	1,2,3-TCP	0.095	Y	N	Y	Trend analysis identified an increasing trend with a magnitude of
A-1-CW04	A (WT)	4/10/2017	1,2,3-TCP	25	Y	N	Y	Trend analysis identified an increasing trend with a magnitude of
A-1-CW09	X (WT)	4/11/2017	1,2,3-TCP	15.0	Y	N	N	Trend analysis identified an increasing trend with a magnitude of
B-1-CW32	A (WT)	4/5/2017	1,2,3-TCP	0.011	Y	N	N	New well installed in late 2016, this is the second time it has been sampled; first result was 0.0086 µg/L
B-6-CW10	X (WT)	4/24/2017	1,2,3-TCP	1.50	Y	N	Y	Concentration in 2014 (0.981 µg/L) and the concentration was 0.485 µg/L in 2016; trend analysis indicates there is no trend
MW-08	X/A (WT)	4/7/2017	1,2,3-TCP	0.93	N	N	Y	Trend analysis identified an increasing trend with a magnitude of
3852F	X (WT)	4/12/2017	1,4-Dioxane	1.50	Y	Y	Y	This well has been tested for this compound seven times and it has been detected near the detection limits twice (0.75 µg/L in 2016 and 1.5 µg/L in 2017); trend analysis identified a probably increasing trend with a magnitude of (0.06 µg/L/yr)
A-1-CW04	A (WT)	4/10/2017	1,4-Dioxane	2.00	N	N	Y	Concentrations detected in 2014 and 2015 were very similar; trend analysis indicates the concentration are stable
A-1-CW09	X (WT)	4/11/2017	1,4-Dioxane	3.70	Y	N	Y	Trend analysis identified an increasing trend with a magnitude of
B-1-CW13	X (WT)	4/12/2017	1,4-Dioxane	2.00	Y	N	Y	Trend analysis identified an increasing trend with a magnitude of
B-1-CW17	A/X (WT)	4/4/2017	1,4-Dioxane	2.90	Y	N	N	Trend analysis identified an increasing trend with a magnitude of
B-6-CW14	B	4/6/2017	1,4-Dioxane	1.80	Y	N	N	Trend analysis identified an increasing trend with a magnitude of
3851N	B	4/4/2017	Hex Chrome	1.20	Y	N	N	Trend analysis identified a probably increasing trend with a magnitude of (0.01 µg/L/yr)



**Table 9**  
**Noted Changes In Concentrations in Second Quarter 2017**  
**2017 Annual Groundwater Monitoring Report**  
**Lockheed Martin Corporation**  
**Burbank Operable Unit, Burbank, CA**

Sampling Location	Screened HSU	Sample Date	Compound	Q2 2017 Concentration (µg/L)	New Maximum Concentration (Y/N)	Exceeds MCL/DWNL First Time in Two Years (Y/N)	>1.5X Increase Since Most Recently Reported Concentration and Exceeds MCL/DWNL	Comments
3852F	X (WT)	4/12/2017	Hex Chrome	2.70	Y	N	N	Concentration was similar in 2013 (2.5 µg/L) and the concentration in 2016 was (1.57 µg/L); trend analysis indicates no trend
3852N	B	4/3/2017	Hex Chrome	2.50	Y	N	N	Concentration in 2015 was (2.1 µg/L) and the concentration in 2016 was (1.5 µg/L); trend analysis indicates no trend
3861D	X (WT)	4/7/2017	Hex Chrome	6.80	Y	N	N	Concentration in 2004 was (5.8 µg/L), in 2014 the concentration was (4.3 µg/L) and the concentration in 2016 was (3.03 µg/L); trend analysis indicates the concentrations are stable
3861F	B	4/7/2017	Hex Chrome	4.90	Y	N	N	The concentration in 2016 was (3.89 µg/L); trend analysis identified an probably increasing trend with a magnitude of (0.04 µg/L/yr)
3870D	K (WT)	4/5/2017	Hex Chrome	17.00	Y	N	N	The concentration in 2015 was (16.3 µg/L); trend analysis identified an increasing trend with a magnitude of (8.76 µg/L/yr)
3871H	A (WT)	4/7/2017	Hex Chrome	9.60	Y	N	N	Concentration in 2004 was (7.8 µg/L), in 2015 the concentration was (6.21 µg/L) and the concentration in 2016 was (2.81 µg/L); trend analysis indicates no trend
3872L	A (WT)	4/3/2017	Hex Chrome	4.40	Y	N	N	Concentration in 2015 the concentration was (3.78 µg/L) and the concentration in 2016 was (2.93 µg/L); trend analysis indicates no trend
3872M	B/OA	4/3/2017	Hex Chrome	4.40	Y	N	N	Concentration in 2015 the concentration was (3.97 µg/L) and the concentration in 2016 was (3.13 µg/L); trend analysis indicates no trend
3872N	X (WT)	4/3/2017	Hex Chrome	6.70	Y	N	N	Concentration in 2015 the concentration was (5.51 µg/L) and the concentration in 2016 was (2.84 µg/L); trend analysis identified an increasing trend with a magnitude of (2.49 µg/L/yr)
3872S	B	4/5/2017	Hex Chrome	7.90	Y	N	N	Concentration in 2007 was (7.4 µg/L), in 2015 the concentration was (6.38 µg/L) and the concentration in 2016 was (4.47 µg/L); trend analysis indicates the concentrations are stable
B-1-CW27	B	4/10/2017	Hex Chrome	5.20	Y	N	N	Concentration in 2006 was (4.5 µg/L) and the concentration in 2016 was (3.89 µg/L); trend analysis indicates no trend
B-1-CW31	A' (WT)	4/6/2017	Hex Chrome	16.0	Y	Y	Y	New well installed in late 2016, this is the second time it has been sampled; first result was (6.0 µg/L)

Table 9  
Noted Changes In Concentrations in Second Quarter 2017

2017 Annual Groundwater Monitoring Report  
Lockheed Martin Corporation  
Burbank Operable Unit, Burbank, CA

Sampling Location	Screened HSU	Sample Date	Compound	Q2 2017 Concentration (µg/L)	New Maximum Concentration (Y/N)	Exceeds MCL/DWNL First Time in Two Years (Y/N)	>1.5X Increase Since Most Recently Reported Concentration and Exceeds MCL/DWNL	Comments
B-6-CW02	B	4/6/2017	Hex Chrome	2.50	Y	N	N	Trend analysis identified an probably increasing trend with a magnitude of (0.03 µg/L/yr)
C-1-CW08	A (WT)	4/12/2017	Hex Chrome	1.10	Y	N	N	Concentrations have been similar in the past; trend analysis identified a probably decreasing trend with a magnitude of (-0.01 µg/L/yr); trend is likely a result of past elevated detection
3872L	A (WT)	4/3/2017	PCE	300	N	N	Y	Concentration has been an order of magnitude higher in the past; trend analysis identified no trend
B-1-CW30	A' (WT)	4/6/2017	PCE	110	Y	N	Y	New well installed in late 2016, this is the second time it has been sampled; first result was (54.0 µg/L)
B-1-CW31	A' (WT)	4/6/2017	PCE	55	Y	N	Y	New well installed in late 2016, this is the second time it has been sampled; first result was (15.0 µg/L)
B-1-CW32	A' (WT)	4/5/2017	PCE	14.0	Y	N	Y	New well installed in late 2016, this is the second time it has been sampled; first result was (8.5 µg/L)
B-1-CW33	A' (WT)	4/6/2017	PCE	630	Y	N	Y	New well installed in late 2016, this is the second time it has been sampled; first result was (390.0 µg/L)
B-1-CW34	A' (WT)	4/5/2017	PCE	13.0	Y	N	N	New well installed in late 2016, this is the second time it has been sampled; first result was (8.7 µg/L)
MW-08	X/A (WT)	4/7/2017	PCE	71	N	N	Y	Concentrations were two orders of magnitude higher in the past; concentration in 2015 was (150 µg/L); trend analysis identified a decreasing trend with a magnitude of (-3.47 µg/L/yr)
SW-5	X/A/Y (WT)	4/10/2017	PCE	51	N	N	Y	Concentrations were two orders of magnitude higher in the past; this is the third time it has been sampled in the recent past; trend analysis identified a decreasing trend with a magnitude of (-12.3 µg/L/yr)
3851M	X/A (WT)	4/3/2017	TCE	12.0	N	N	Y	Concentrations were three orders of magnitude higher in the past; concentration in 2016 was (8 ug/L); trend analysis identified a decreasing trend with a magnitude of (-2.11 µg/L/yr)
3861D	X (WT)	4/7/2017	TCE	160	N	N	Y	Concentrations were an order of magnitude higher in the past; concentration in 2014 was (604 ug/L); trend analysis identified a decreasing trend with a magnitude of (-48 µg/L/yr)

Table 9  
Noted Changes In Concentrations in Second Quarter 2017

2017 Annual Groundwater Monitoring Report  
Lockheed Martin Corporation  
Burbank Operable Unit, Burbank, CA

Sampling Location	Screened HSU	Sample Date	Compound	Q2 2017 Concentration (µg/L)	New Maximum Concentration (Y/N)	Exceeds MCL/DWNL First Time in Two Years (Y/N)	>1.5X Increase Since Most Recently Reported Concentration and Exceeds MCL/DWNL	Comments
3872L	A (WT)	4/3/2017	TCE	240	N	N	Y	Concentrations in the past were three times higher but in the recent past they have been at least three times less; trend analysis identified no trend
B-1-CW25	A' (WT)	4/24/2017	TCE	19.0	N	N	Y	Concentrations were three orders of magnitude higher in the past; concentration in 2015 was (22.6 µg/L); trend analysis identified a decreasing trend with a magnitude of (-31 µg/L/yr)
B-1-CW30	A' (WT)	4/6/2017	TCE	200	Y	N	Y	New well installed in late 2016, this is the second time it has been sampled; first result was (110 µg/L)
B-1-CW31	A' (WT)	4/6/2017	TCE	47	Y	N	Y	New well installed in late 2016, this is the second time it has been sampled; first result was (4.5 µg/L)
B-1-CW32	A' (WT)	4/5/2017	TCE	110	Y	N	Y	New well installed in late 2016, this is the second time it has been sampled; first result was (64 µg/L)
B-1-CW34	A' (WT)	4/5/2017	TCE	22	Y	N	N	New well installed in late 2016, this is the second time it has been sampled; first result was (17 µg/L)
C-1-CW05	B	4/6/2017	TCE	0.29	Y	N	N	This is the first time the compound has been detected in this well; it appears to be the result of lower detection limits
MW-04	X/A (WT)	4/10/2017	TCE	21	N	N	Y	Concentrations were similar in 2015 (19.9 µg/L), trend analysis identified a decreasing trend with a magnitude of (-0.44 µg/L/yr)
MW-07	X/A (WT)	4/7/2017	TCE	17.0	N	N	Y	Concentration in 2015 was (5.35 µg/L) and the concentration in 2016 was (4.59 µg/L); trend analysis identified a decreasing trend with a magnitude of (-0.25 µg/L/yr)
MW-08	X/A (WT)	4/7/2017	TCE	24	N	N	Y	Concentrations were an order of magnitude higher in the past; concentration in 2015 was (87 µg/L); trend analysis identified a decreasing trend with a magnitude of (-1.69 µg/L/yr)
SW-5	X/A/Y (WT)	4/10/2017	TCE	32	N	N	Y	Concentrations were an order of magnitude higher in the past; this is the third time it has been sampled in the recent past; trend analysis identified a decreasing trend with a magnitude of (-4.85 µg/L/yr)
B-1-CW32	A' (WT)	4/5/2017	Total Chrome	47	Y	N	N	New well installed in late 2016, this is the second time it has been sampled; first result was (40.9 µg/L)
B-6-CW16	X/A (WT)	4/25/2017	Total Chrome	29	Y	N	N	Concentration in 2016 (23.7 µg/L), trend analysis identified an increasing trend with a magnitude of (0.42 µg/L/yr)





**Table 10**  
**BOU Production Well Summary**  
**(May 2016 - April 2017)**

**2017 Annual Groundwater Monitoring Report**  
**Lockheed Martin Corporation**  
**Burbank Operable Unit, Burbank, CA**

Well ID	Total Monthly Production (gallons)												Average Extraction Rate (gallons per minute)		
	VO1	VO2	VO3	VO4	VO5	VO6	VO7	VO8	Total by Month						
2016															
May	28,616,295	37,208,392	27,394,427	41,072,402	40,542,979	20,637,562	41,451,497	49,320,176	286,243,730	6,412					
June	571,681	53,445,131	24,811,787	39,301,456	37,640,906	51,694,036	20,270,469	60,314,584	288,050,050	6,668					
July	-	59,185,274	32,240,131	42,138,516	34,179,392	40,985,136	43,564,857	63,706,435	315,999,741	7,079					
August	-	60,585,079	38,791,661	38,526,405	13,019,758	61,282,842	45,196,555	65,848,687	323,250,987	7,241					
September	26,730,150	55,059,895	37,591,086	12,976,492	27,376,333	50,482,522	31,388,050	64,173,133	305,777,661	7,078					
October	34,943,823	51,271,534	21,517,247	17,017,096	54,008,821	50,470,789	7,662,822	65,959,475	302,851,607	6,784					
November	23,820,148	45,063,453	36,761,590	19,494,567	21,034,408	51,299,476	21,632,647	62,648,411	281,754,700	6,522					
December	32,955,587	47,295,508	36,525,519	38,095,851	19,804,424	54,303,409	21,728,022	3,062,537	253,770,857	5,685					
2017															
January	1,152,352	50,469,832	15,728,860	23,962,929	50,986,876	22,826,682	29,503,661	1,059,593	195,690,785	4,384					
February	3,817,474	29,802,263	3,048,151	25,921,324	24,685,919	30,252,631	11,931,934	44,424,476	173,884,172	4,164					
March	102,292	43,611,211	-	30,838,723	26,157,378	49,977,025	7,821,701	52,037,951	210,546,281	4,717					
April	-	42,226,358	-	27,767,266	32,980,590	28,343,824	15,323,277	44,768,388	191,409,703	4,431					
<b>Total by Well</b>	<b>152,709,802</b>	<b>575,223,930</b>	<b>274,410,459</b>	<b>357,113,027</b>	<b>382,417,784</b>	<b>512,555,934</b>	<b>297,475,492</b>	<b>577,323,846</b>	<b>3,129,230,274</b>	<b>5,937</b>					

**Table 11**  
**BOU Mass Removal Summary**  
**May 2016 - April 2017**

**2016 Annual Groundwater Monitoring Report**  
**Lockheed Martin Corporation**  
**Burbank Operable Unit, Burbank, CA**

<b>Reporting Month</b>	<b>Volume of Water Extracted by Month (gallons)</b>	<b>Average Influent Total VOCs Concentration (µg/L)</b>	<b>VOC Mass Removed (lbs)</b>
May 2016	286,243,730	110.6	264.2
June 2016	288,050,050	150.1	360.7
July 2016	315,999,741	154.5	407.3
August 2016	323,250,987	147.0	396.7
September 2016	305,777,661	130.4	332.8
October 2016	302,851,607	138.0	348.8
November 2016	281,754,700	137.2	322.6
December 2016	253,770,857	184.8	391.5
January 2017	195,690,785	175.6	286.8
February 2017	173,884,172	123.6	179.4
March 2017	210,546,281	119.1	209.2
April 2017	191,409,703	123.5	197.3
<b>TOTAL</b>	<b>3,129,230,274</b>	<b>TOTAL</b>	<b>3,697</b>

**Notes:** VOCs - volatile organic compounds  
lbs - pounds  
µg/L - micrograms per liter

**Table 12**  
**Second Quarter 2017 Vertical Gradient Calculations**

**2017 Annual Groundwater Monitoring Report**  
**Lockheed Martin Corporation**  
**Burbank Operable Unit, Burbank, CA**

Well ID	HSU	Surface Elevation (feet MSL)	Top of Well Screen Elevation (feet MSL)	Bottom of Well Screen Elevation (feet MSL)	April 2017		
					Groundwater Elevation (feet MSL)	Elevation of Screen Midpoint* (feet MSL)	Vertical Gradient
B-1-CW12	WT	609.85	489.85	439.85	155.58	297.72	-1.941
B-1-CW11	B	610.05	310.05	280.05	150.40	295.05	(up)
B-1-CW25	WT	636.54	486.54	446.54	185.95	316.24	-2.289
B-1-CW27	B	636.93	322.93	302.93	178.36	312.93	(up)
B-1-CW13	WT	651.49	501.49	441.49	200.05	320.77	-1.263
B-1-CW28	B	650.15	324.15	304.15	191.69	314.15	(up)
3850N	WT	658.07	493.07	443.07	203.31	323.19	-0.645
3850R	B	657.49	320.49	310.49	198.35	315.49	(up)
3861D	WT	617.88	487.88	437.88	164.20	301.04	1.245
3861F	B	617.46	314.46	294.46	159.94	304.46	(up)
3851M	WT	650.35	485.35	435.35	191.19	313.27	0.032
3851N	B	650.10	345.10	325.10	190.49	335.10	(up)
B-5-CW03	WT	697.26	486.26	466.26	228.35	347.31	-0.792
B-5-CW02	B	697.67	357.67	347.67	232.60	352.67	(up)
C-1-CW06	WT	720.91	488.91	468.91	Dry Well	NA	NA
C-1-CW05	B	720.87	344.87	334.87	251.71	339.87	
3852F	WT	607.65	482.65	432.65	148.03	290.34	-0.048
3852H	B	607.93	338.93	308.93	149.65	323.93	(down)
3852M	WT	593.45	385.45	365.45	136.91	375.45	0.014
3852N	B	593.47	310.47	290.47	137.94	300.47	(down)
3872Q	WT	575.25	482.25	442.25	120.81	281.53	0.417
3872S	B	574.95	299.95	279.95	117.30	289.95	(up)

**Notes:**

\* = Mid water column used for WT HSU wells if the water level is below the top of the screen

A = A-zone

B = B-zone

HSU = hydrostratigraphic unit

MSL = mean sea level

NA = not applicable

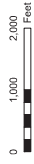
WT = water table

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## FIGURES

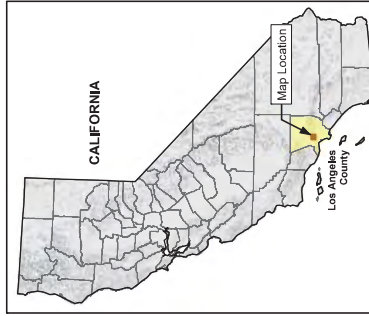
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Burbank Operable Unit Boundary

Sources:  
USGS 7.5 topographic map, Burbank, California, 1972.  
USGS 7.5 topographic map, Van Nuys, California, 1972.



BURBANK OPERABLE UNIT

### Site Location Map

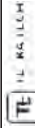
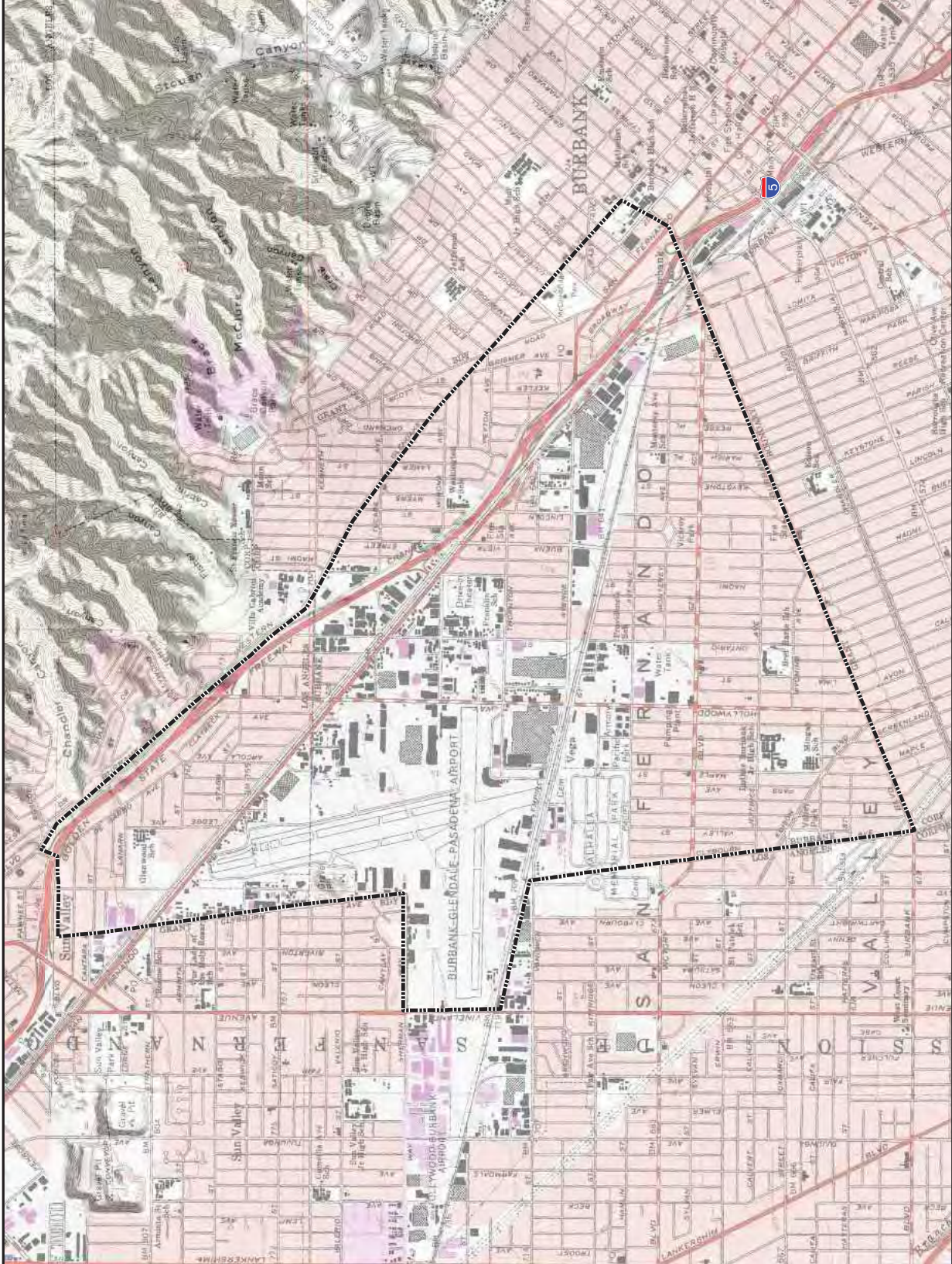


FIGURE 1





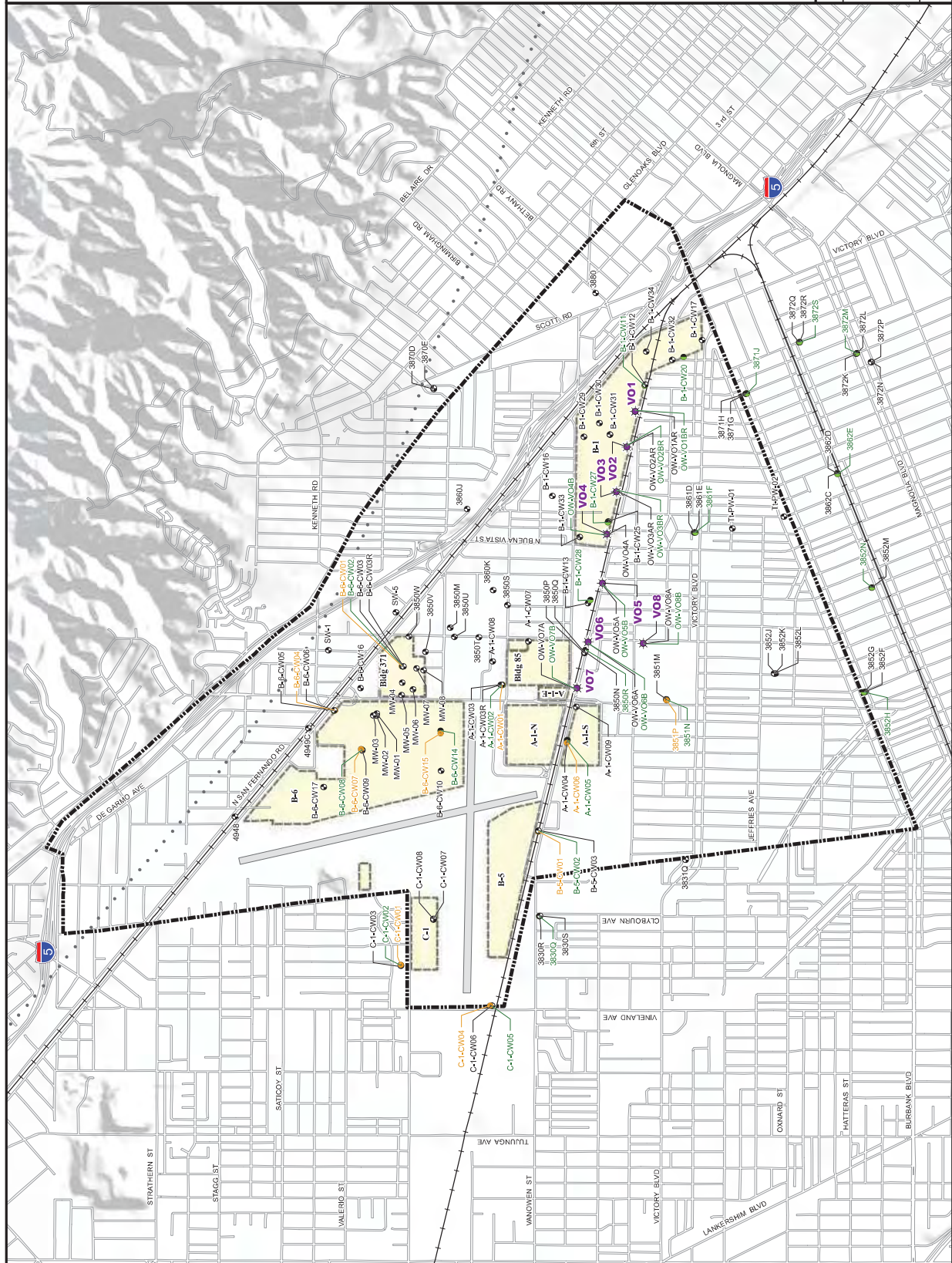


- Monitoring Well (WT-HSU)
- Monitoring Well (B-HSU)
- Monitoring Well (other alluvium)
- Extraction Well
- Approximate Concealed Trace of the Verdugo Fault
- Railroad
- Burbank Operable Unit Boundary
- Former Lockheed Martin Burbank Properties

Notes:  
 • Bedrossian, J.L. and Rogers, P.D., 2012 "Geologic Correlation of Quaternary Surface Deposits in Southern California Geological Survey Special Report 217, Plate 6, July."  
 Well Survey: H201 Modesto, Inc. 2015  
 Modesto: MADRS WESTSECT State Plane California Y. FIPS5405 FT US  
 WT - Water Table  
 B - Borehole  
 HSU - Hydrostratigraphic Unit

BURBANK OPERABLE UNIT

## Monitoring Well Network







- Monitoring Well
- ⊛ Extraction Well
- Groundwater Elevation Contour (ft amsl)
- Burbank Channel
- Approximate Southern Limit of Hydraulic Capture
- Approximate Concealed Trace of the Verdugo Fault
- Railroad
- Burbank Operable Unit Boundary
- Former Lockheed Martin Burbank Properties

Notes:  
 Gray well label indicates well not used for contouring.  
 Groundwater elevation measurements collected between 4/14/17 and 4/20/17; most measurements collected between 4/16/17 and 4/20/17.  
 \*Bedrossian, T.L. and Rollins, P.D., 2012 "Geologic Comparison of Well Logs from the Deposit (Recharge) Well Surveys, KDM1 Modelling, Inc., 2012, California Geological Survey Special Report 217, Page 9, July, Projection: NAD83 NRS82047 State Plane California V.

BURBANK OPERABLE UNIT  
**Second Quarter 2017**  
**Water Table Elevation Map**

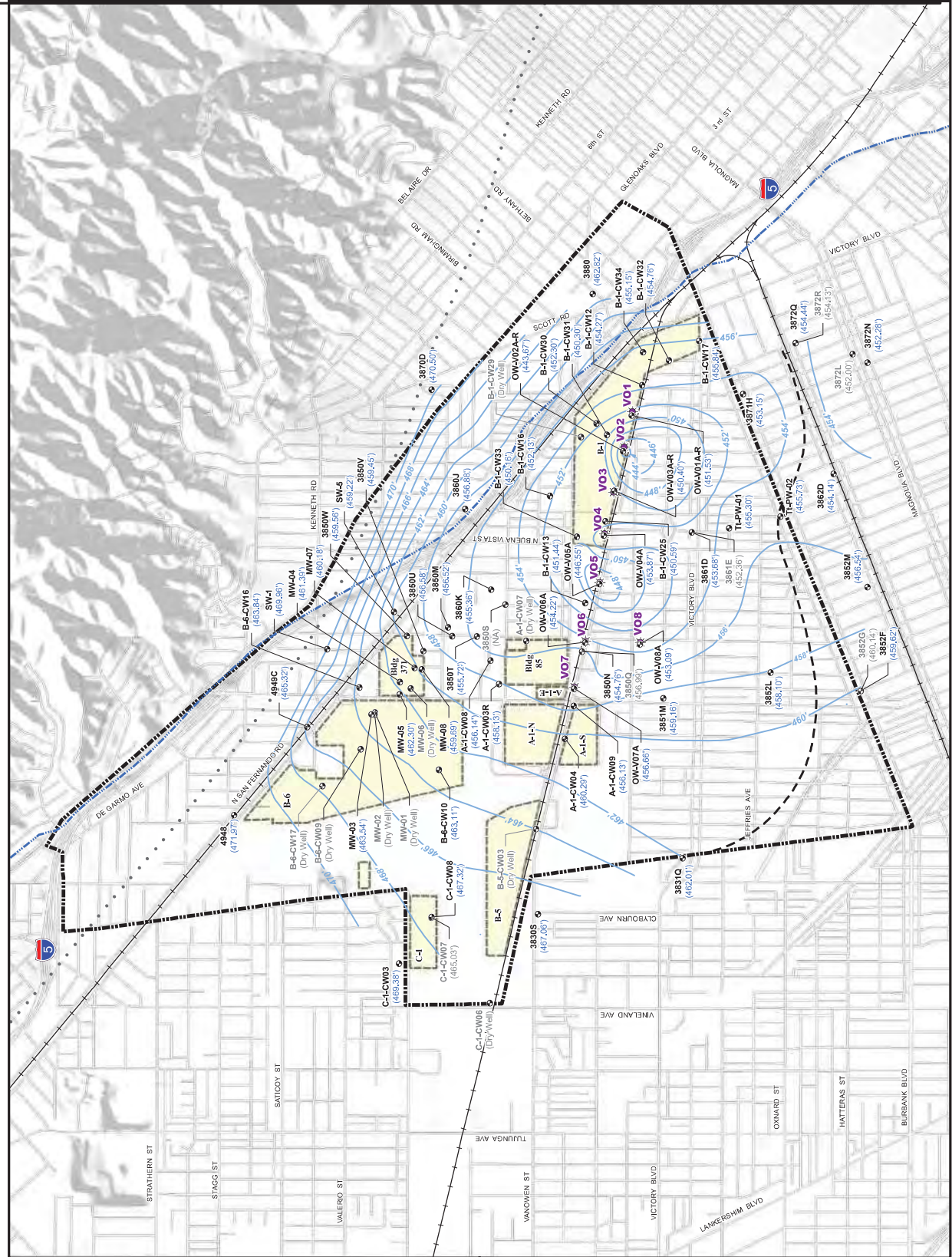
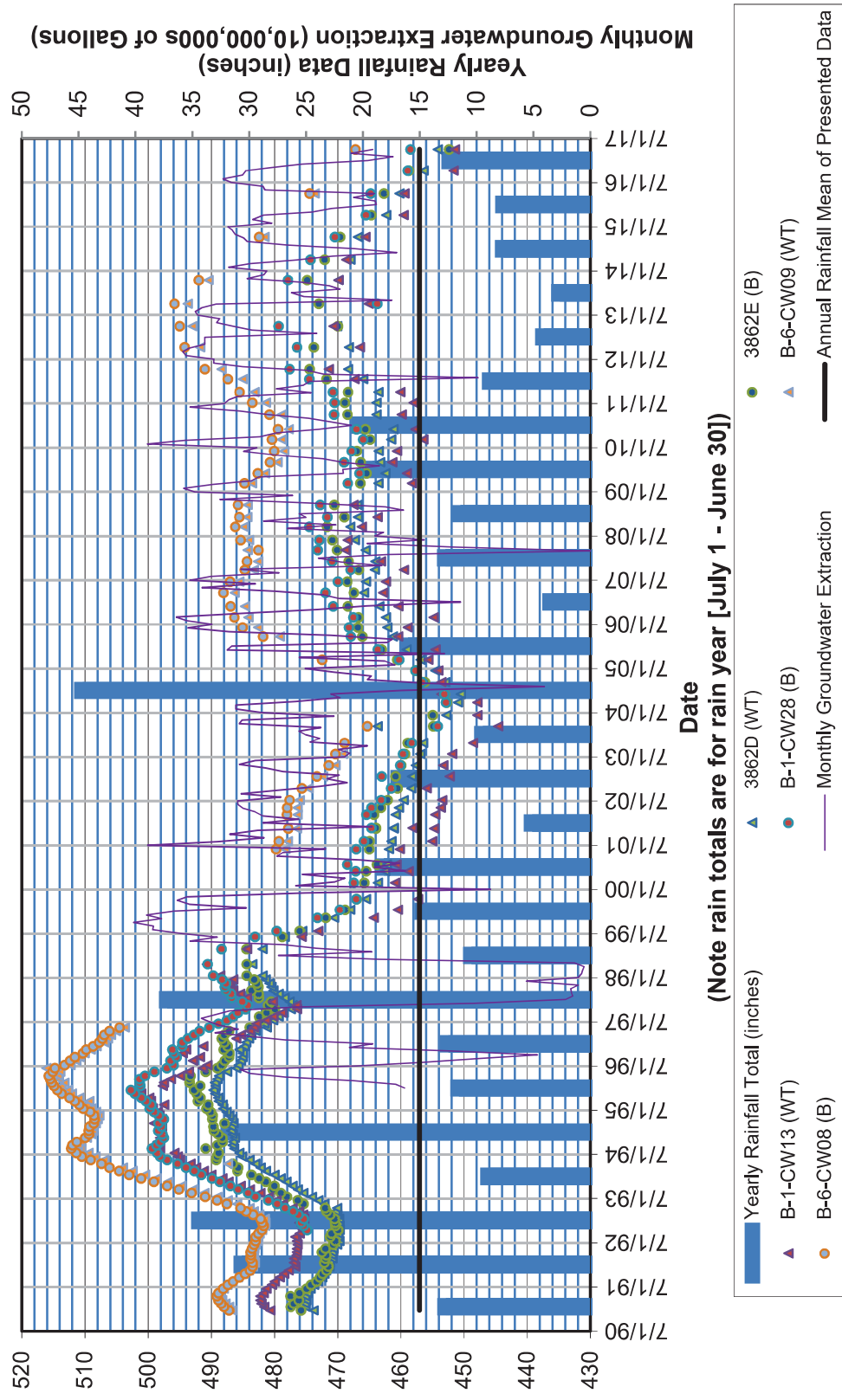
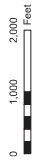






Figure 5 - Annual Precipitation and Hydrographs of Select Water Table and B-Zone Wells

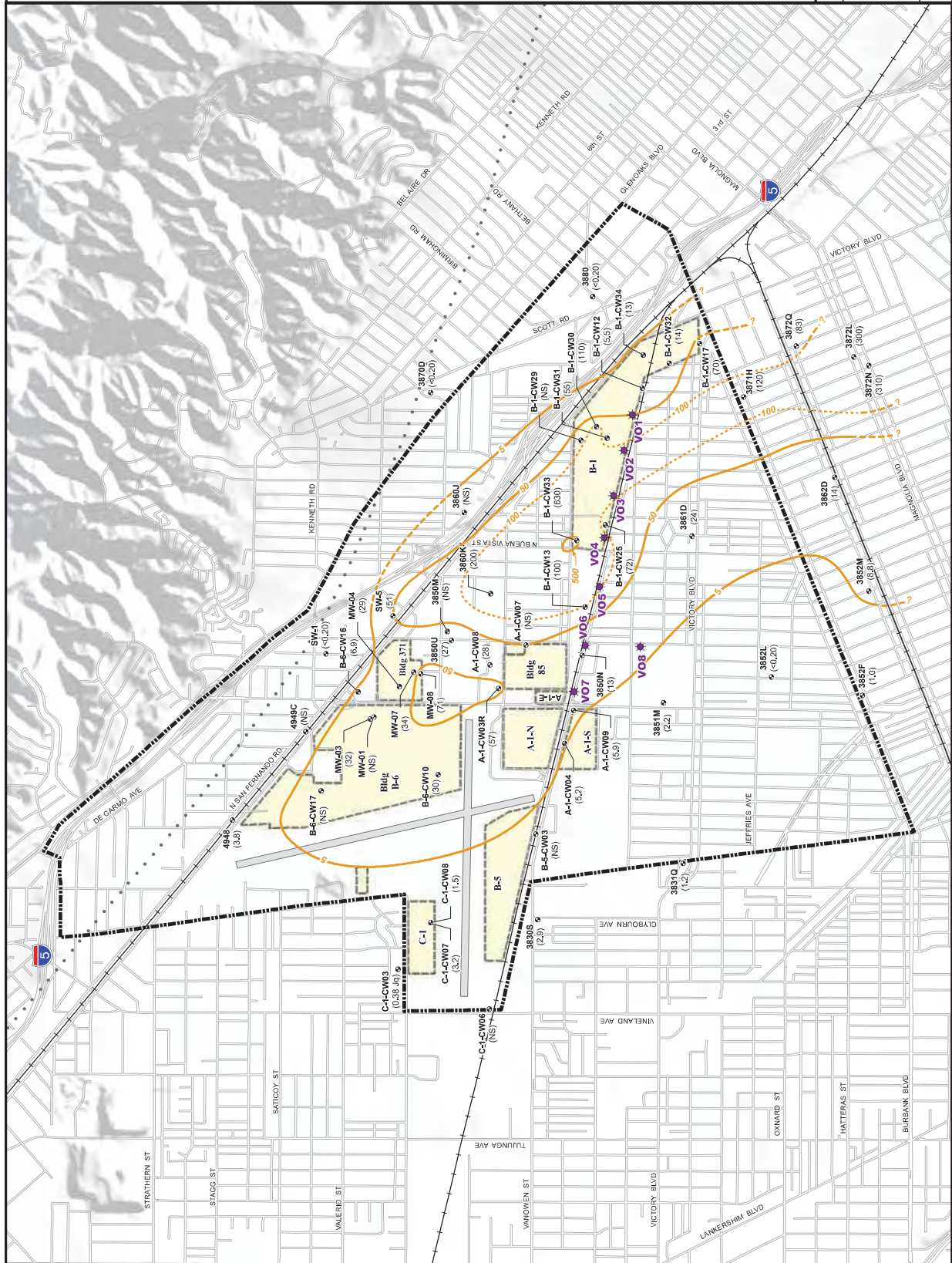




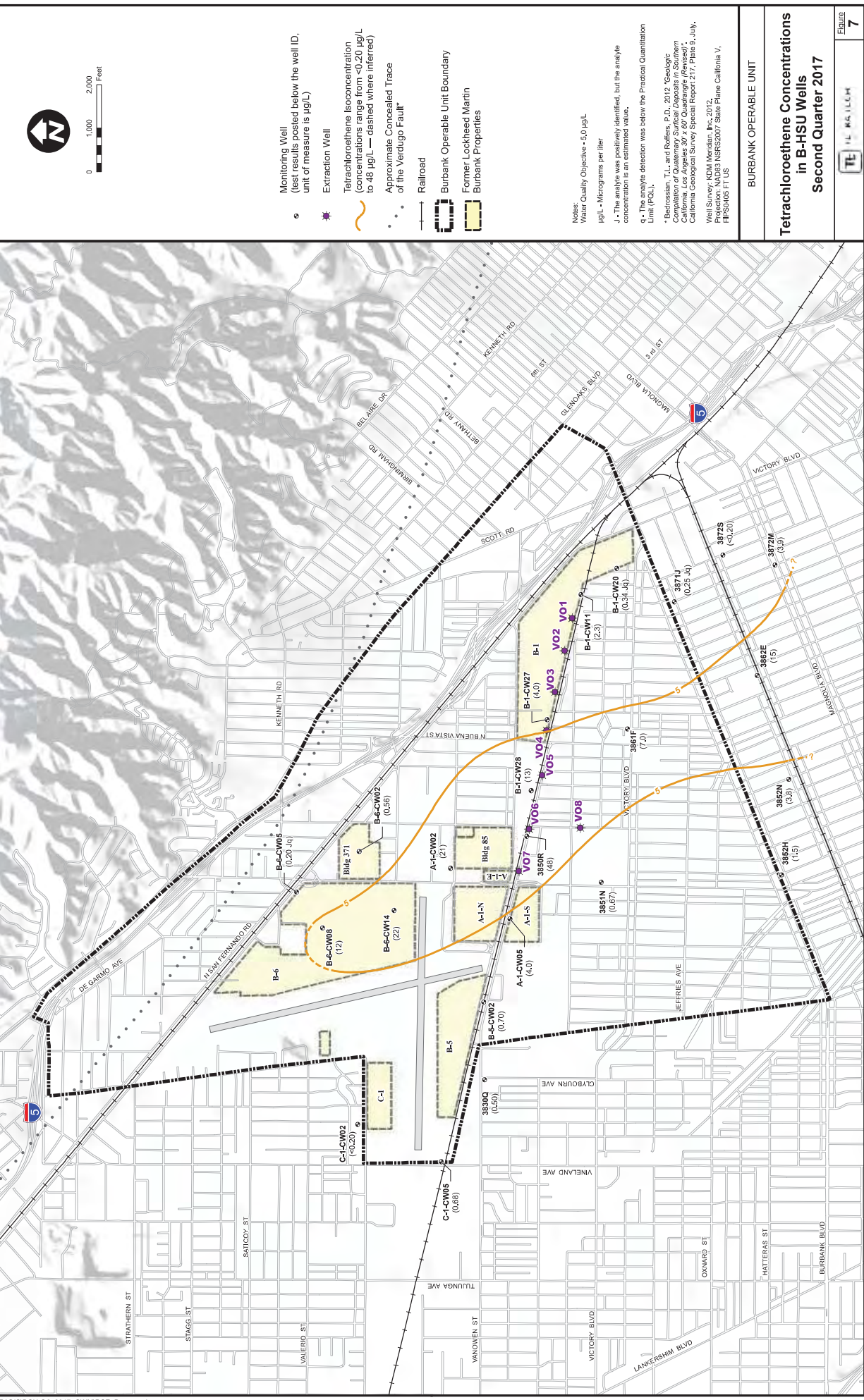
- Monitoring Well  
(test results posted below the well ID, unit of measure is µg/L)
- Extraction Well
- Tetrachloroethene Isoconcentration  
(concentrations range from <math><0.20\ \mu\text{g/L}</math> to 630 µg/L — dashed where inferred)
- Intermediate Isoconcentration Contour
- Railroad
- Burbank Operable Unit Boundary
- Approximate Concealed Trace of the Verdugo Fault\*
- Former Lockheed Martin Burbank Properties

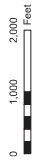
Notes:  
 Water Quality Objective = 5.0 µg/L  
 µg/L = Micrograms per liter  
 NS = Not sampled  
 \* Bedrossian, T.J. and Rollins, P.D., 2012 "Geologic Compilation of Quaternary, Surficial Deposits in Southern California Los Angeles 30' x 60' Quadrangle (Revised)" California Geological Survey Special Report 471, Page 3, July, 2012.  
 Well Survey: KDM Meridian, Inc. 2012.  
 File Name: B103 NSRCS2007 State Plans California V.  
 EPS3066 FT US

**BURBANK OPERABLE UNIT**  
**Tetrachloroethene Concentrations**  
**in WT-HSU Wells**  
**Second Quarter 2017**



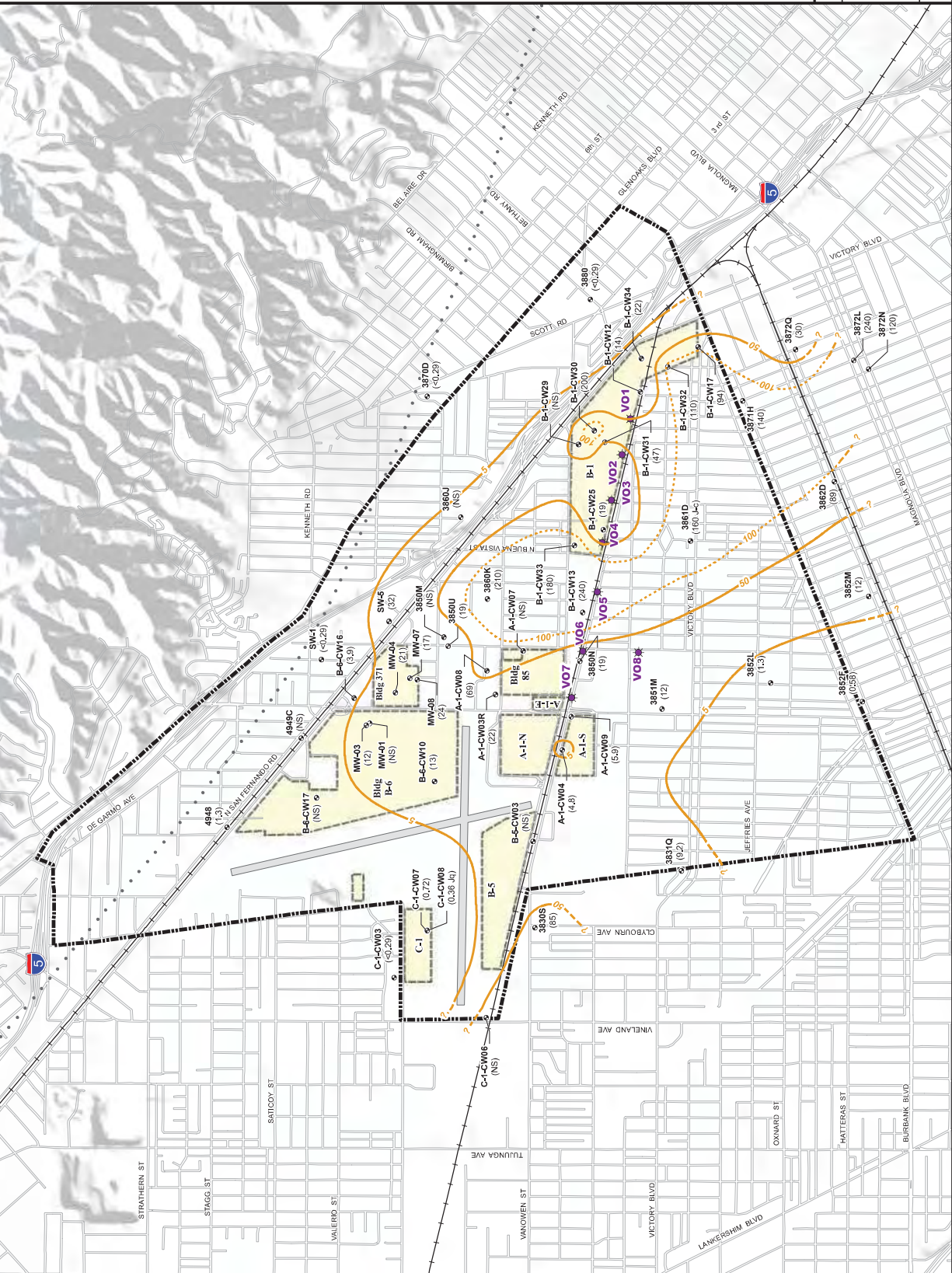




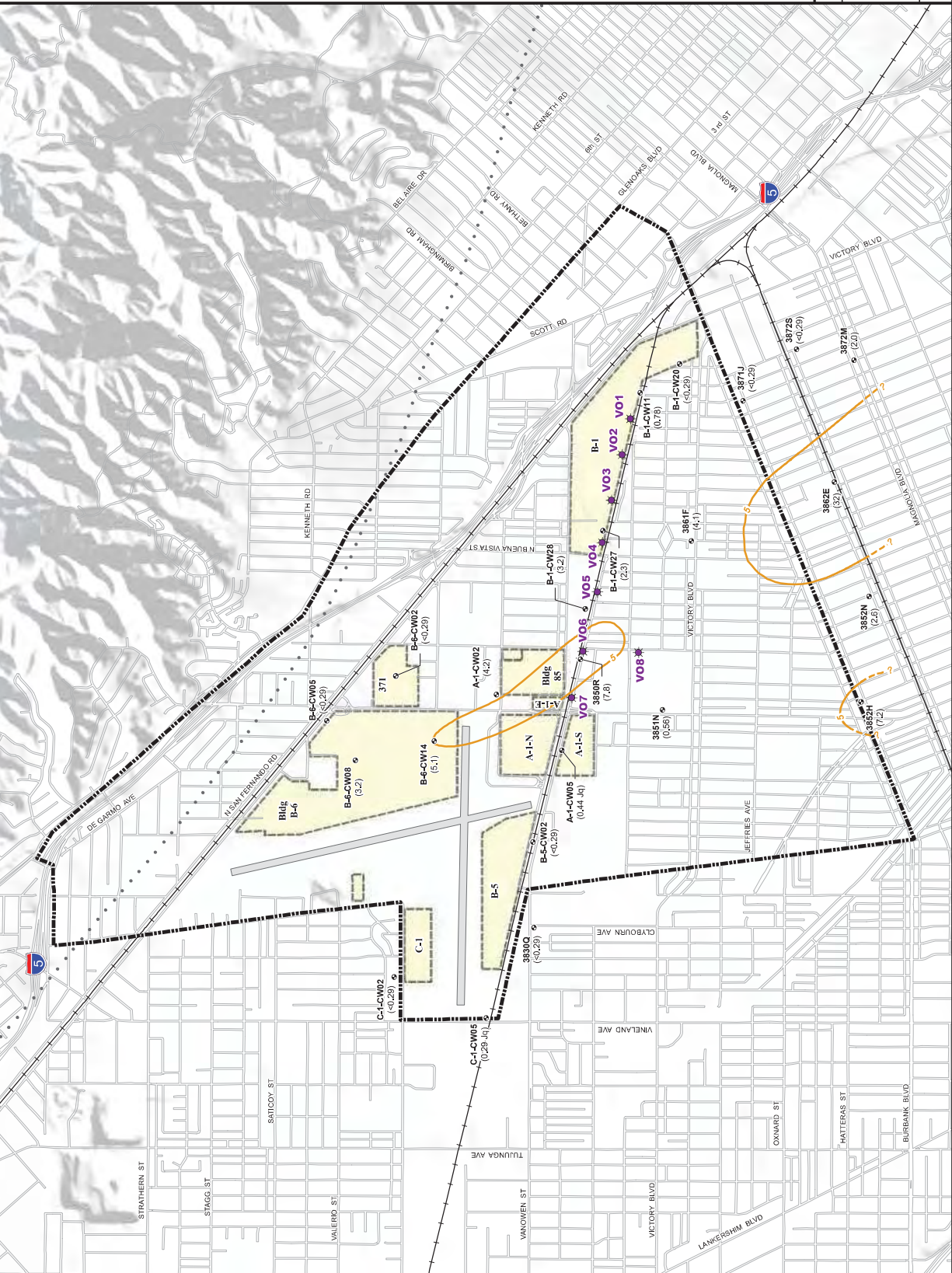
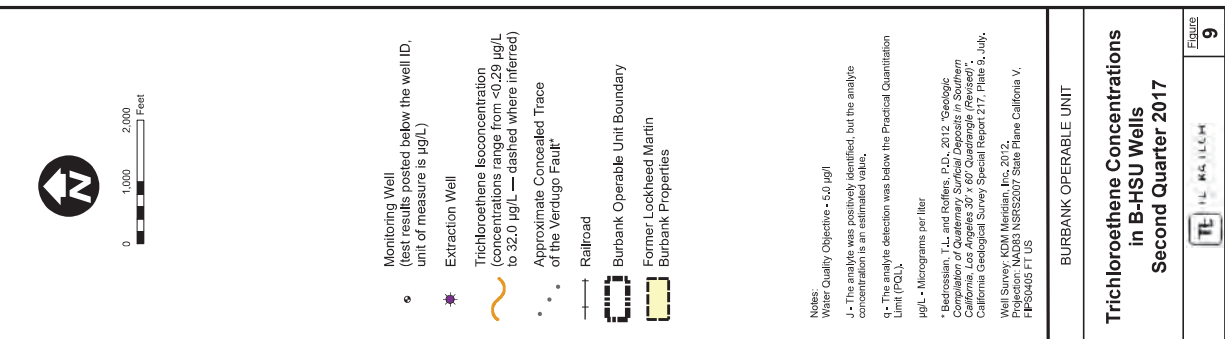


- Monitoring Well (test results posted below the well ID, unit of measure is µg/L)
- Extraction Well
- Trichloroethene Isoconcentration (concentrations range from <math><0.29\ \mu\text{g/L}</math> to <math>240\ \mu\text{g/L}</math> — dashed where inferred)
- Intermediate Isoconcentration Contour of the Verdugo Fault
- Approximate Concealed Trace of the Verdugo Fault
- Railroad
- Burbank Operable Unit Boundary
- Former Lockheed Martin
- Burbank Properties

Notes:  
 Water Quality Objective - 5.0 µg/L  
 J - The analyte was positively identified, but the analyte concentration is an estimated value.  
 c - The Matrix Spike and/or Matrix Spike Duplicate recoveries were outside control limits.  
 S - The analyte detection was below the Practical Quantitation Limit (PQL).  
 \* Bedrossian, T.L. and Rollins, P.D., 2012 "Geologic Correlation of the Burbank Operable Unit, Burbank, California, Los Angeles 30' x 60' Quadrangle (Reverse)", California Geological Survey Special Report 217, Plate 5, July.  
 Well Survey: KDM Meridian, Inc. 2012.  
 Projection: NAD83 NRS2007 State Plane California V, FPS9405 FT US













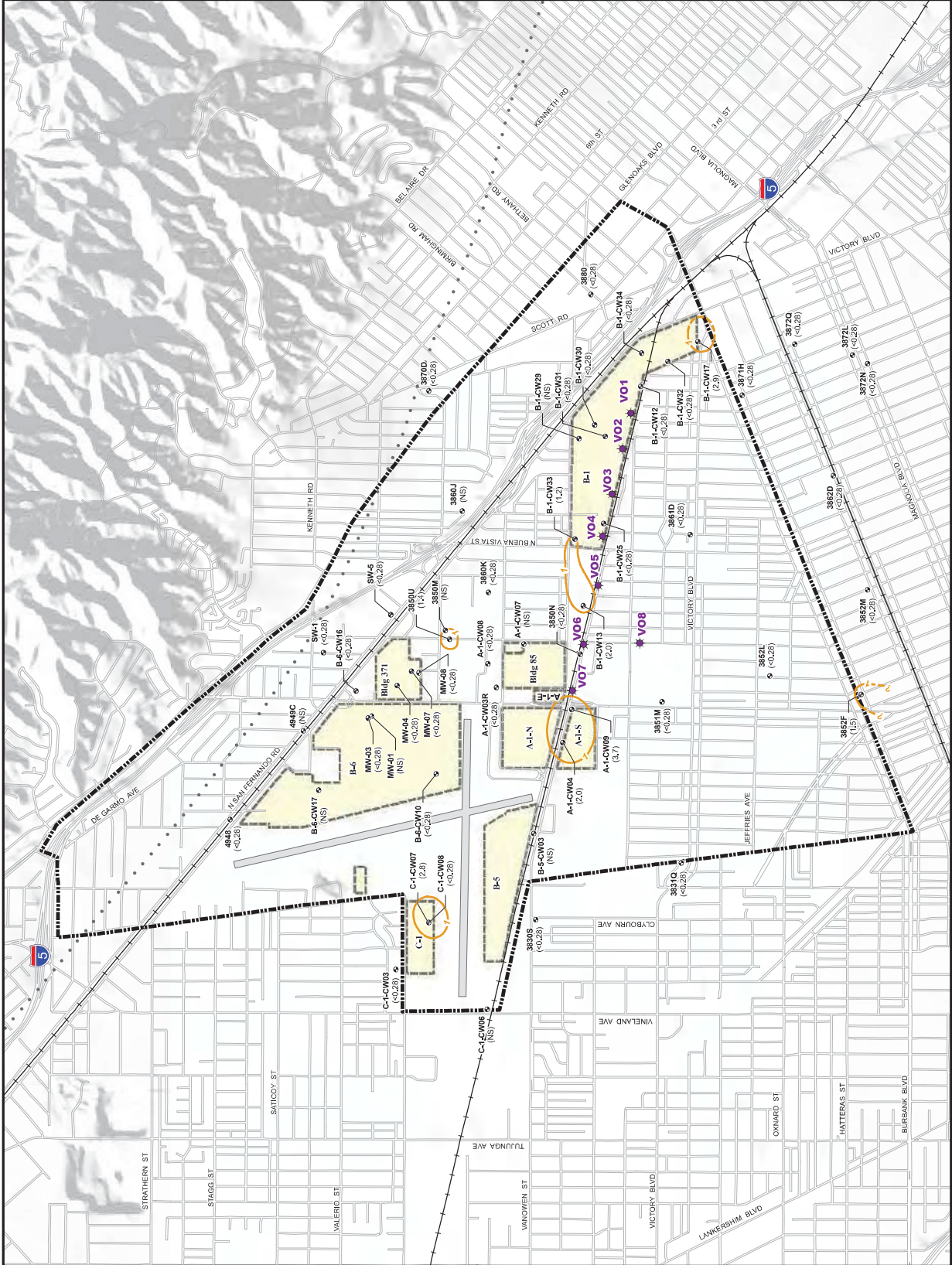


- Monitoring Well  
(test results posted below the well ID,  
unit of measure is µg/L)
- Extraction Well
- 1,4-Dioxane Isoconcentration  
(concentrations range from <math><0.28\ \mu\text{g/L}</math>  
to - Approximate Concealed Trace  
of the Verdugo Fault
- Railroad
- Burbank Operable Unit Boundary
- Former Lockheed Martin  
Burbank Properties

Notes:  
Water Quality Objective - 1.0 µg/L  
µg/L - Micrograms per liter  
\* Bedrossian, T.L. and Reifers, P.D., 2012 "Geologic  
Completion of Quaternary Surficial Deposits in Southern  
California, Los Angeles 30' x 60' Quadrangle (Revised)",  
California Geological Survey Special Report C17, Plate 3, July,  
Well Survey: KDM Meidan, Inc., 2012,  
Projection: NAD83 NGRS2007 State Plane California V,  
FPSW463 FT US

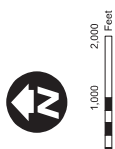
**BURBANK OPERABLE UNIT**

**1,4-Dioxane Concentrations  
in WT-HSU Wells  
Second Quarter 2017**









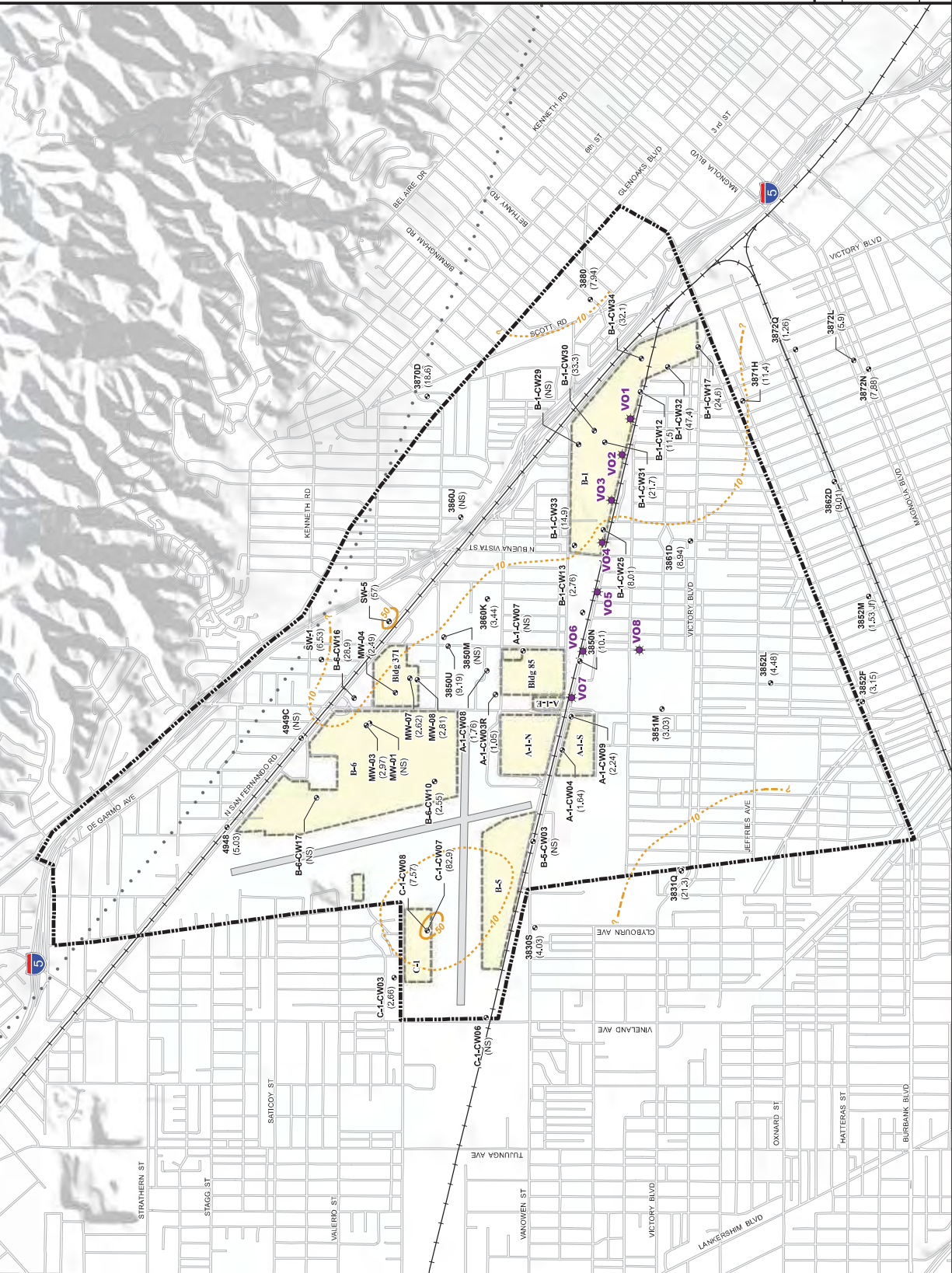
- Monitoring Well (test results posted below the well ID, unit of measure is µg/L)
- Extraction Well
- Total Chromium Isoconcentration (concentrations range from 1.05 µg/L to 82.9 µg/L — dashed where inferred)
- Intermediate Isoconcentration Contour
- Approximate Concealed Trace of the Verdugo Fault\*
- Railroad
- Burbank Operable Unit Boundary
- Former Lockheed Martin Burbank Properties

Notes:

- Water Quality Objective - 50.0 µg/L
- µg/L - Micrograms per liter
- J - The analyte was positively identified, but the analyte concentration is an estimated value.
- f - The duplicate samples Relative Percent Difference (RPD) was outside the control limit.

\* Bedrossian, T.L. and Rogers, P.D., 2012 "Geologic Compilation of Quaternary Surficial Deposits in Southern California, Los Angeles 30' x 60' Quadrangle (Revised)". California Geological Survey Special Report 217, Plate 9, July.

Well Survey: KDM Meridian, Inc., 2012.  
 Projection: NAD83 NSRS2007 State Plane California V, FIPS4005 FT US



**BURBANK OPERABLE UNIT**

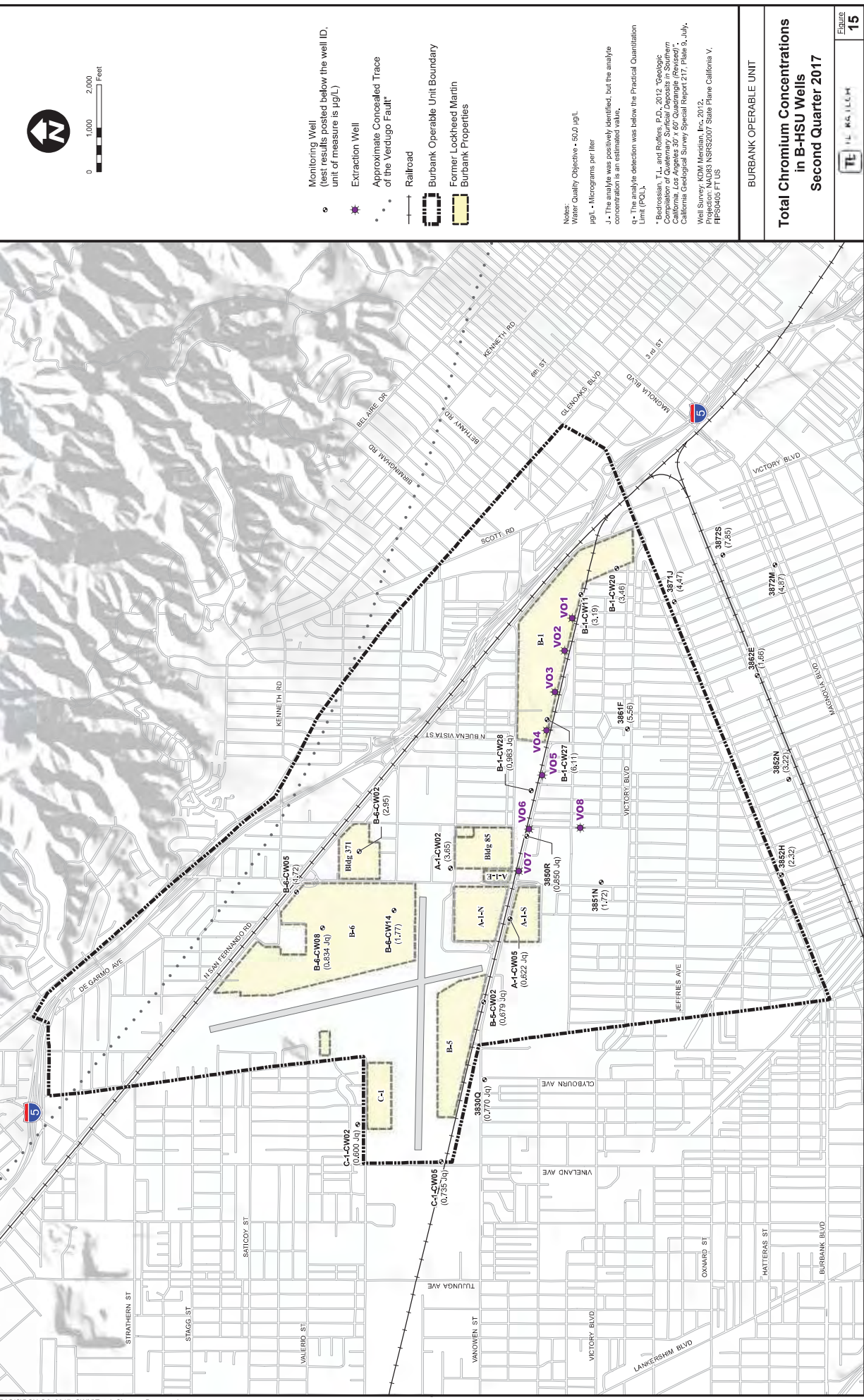
## Total Chromium Concentrations in WT-HSU Wells Second Quarter 2017

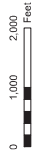


EQS

14







- Monitoring Well (test results posted below the well ID, unit of measure is µg/L)
- Extraction Well
- Hexavalent Chromium Isoconcentration contours range from <math><0.0099\ \mu\text{g/L}</math> to 20 µg/L — dashed where inferred
- Intermediate Isoconcentration Contour of the Verdugo Fault
- Approximate Concatenated Trace of the Verdugo Fault
- Railroad
- Burbank Operable Unit Boundary
- Former Lockhead Martin
- Burbank Properties

Notes:  
 Water Quality Objective - 10.0 µg/L  
 µg/L - Micrograms per liter  
 J - The analyte was positively identified, but the analyte concentration is an estimated value.  
 Q - The analyte detection was below the Practical Quantitation Limit (PQL).

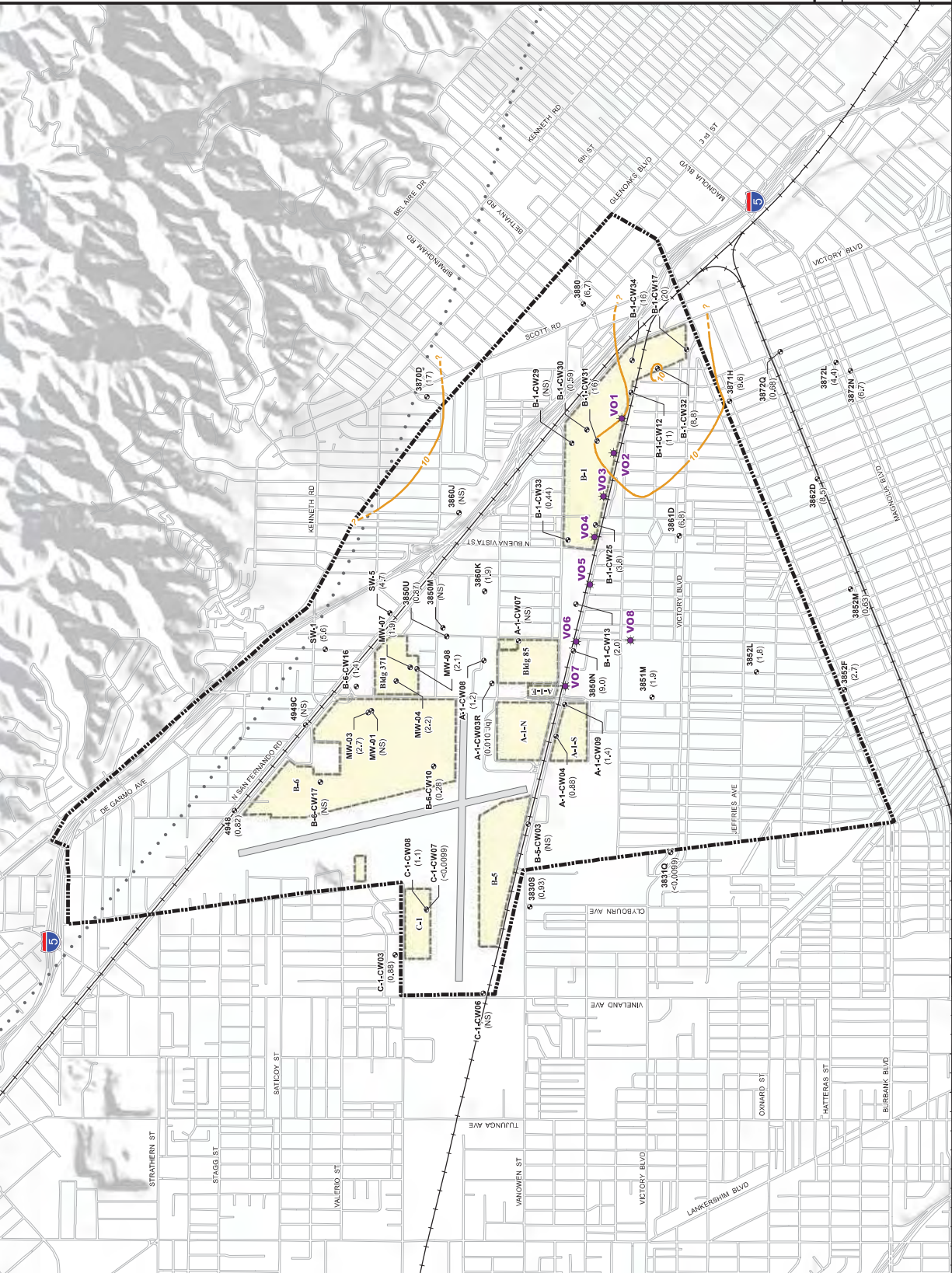
\* Bedrossian, T.L. and Buffler, P.D., 2012. "Geologic Compilation of Quaternary Surficial Deposits in Southern California, Los Angeles 30' x 60' Quadrangle (Revised)". California Geological Survey Special Report 217, Plate 9, July. Well Survey: KDM Meridian, Inc. 2012. Projection: NAD83 NRS62007 State Plane California V. FIPS2045 FT US

BURBANK OPERABLE UNIT

### Hexavalent Chromium Concentrations in WT-HSU Wells Second Quarter 2017

TEL K&L&H

EQUUS 16

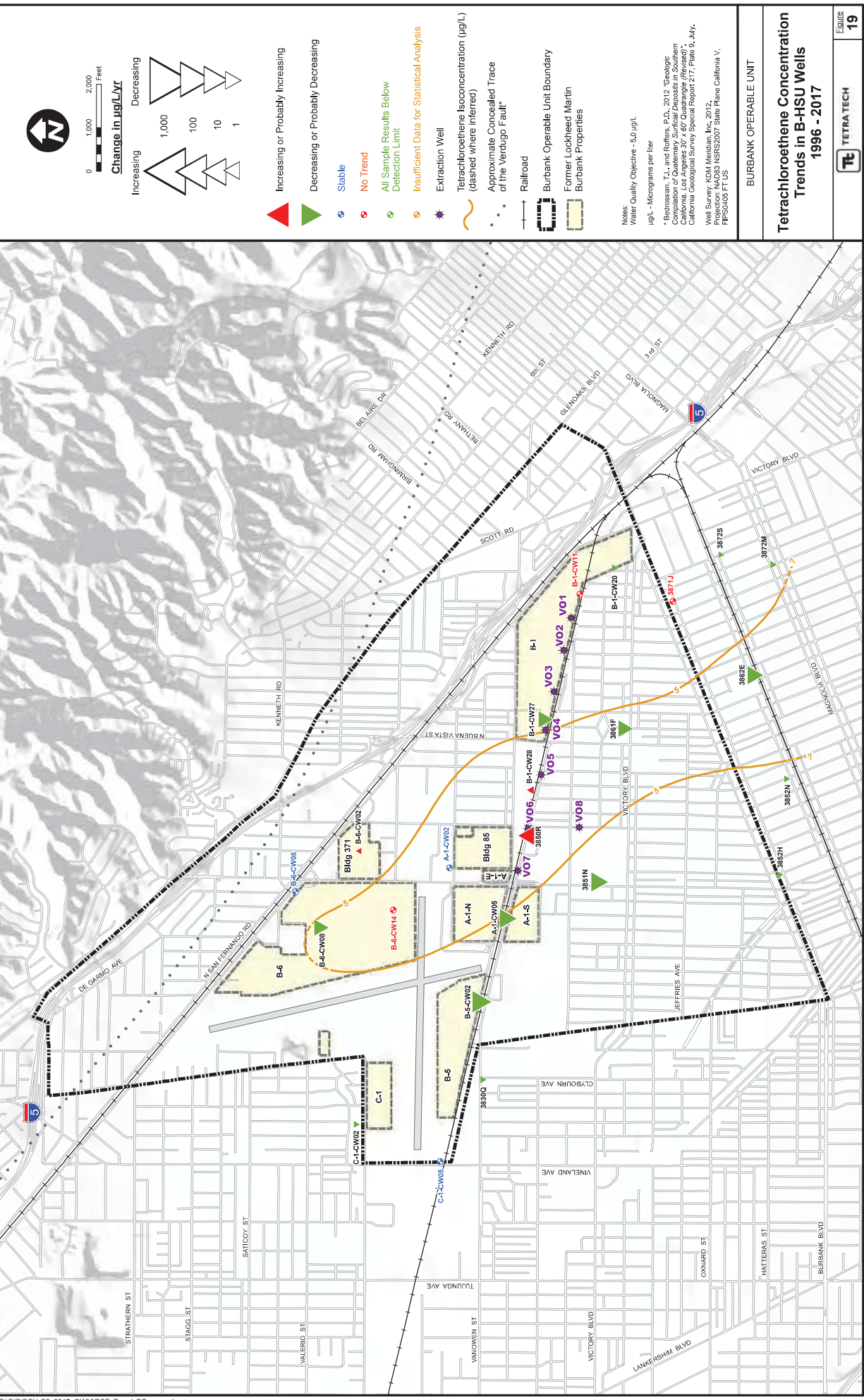












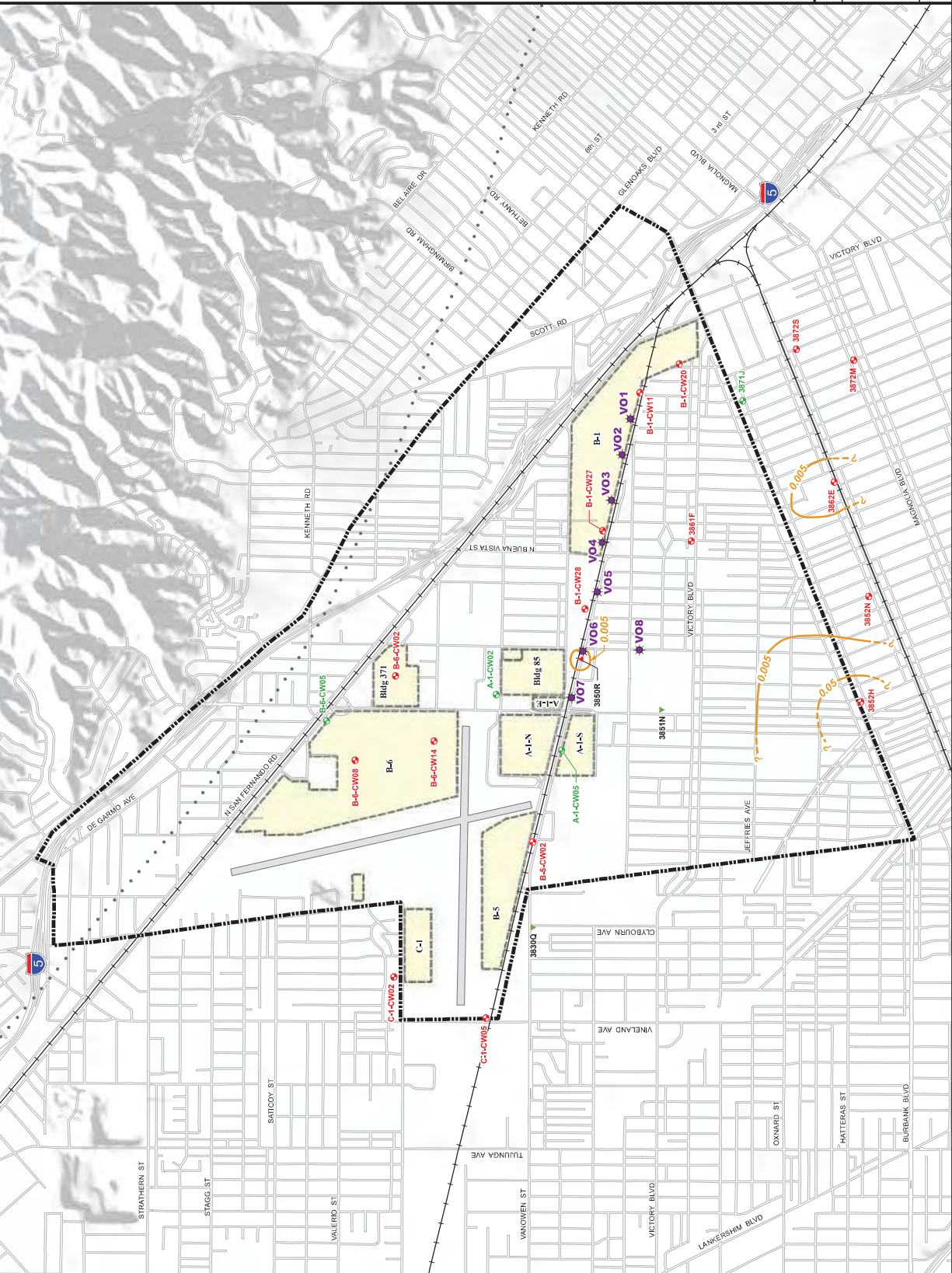
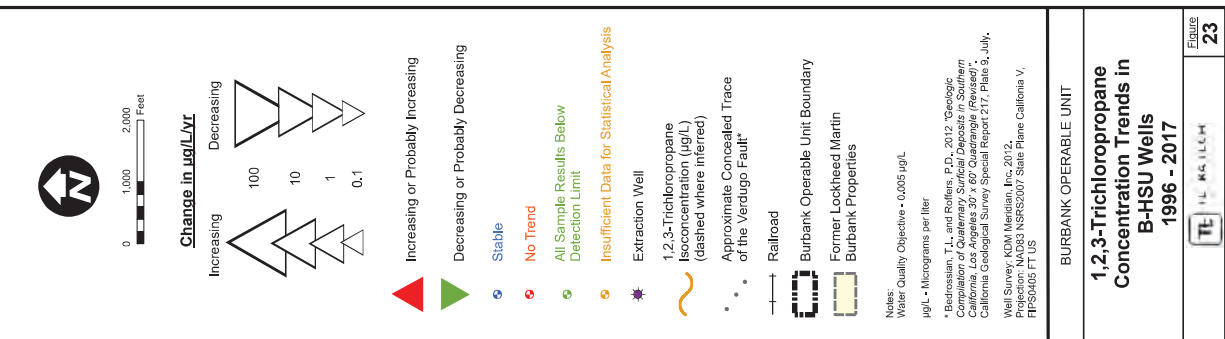


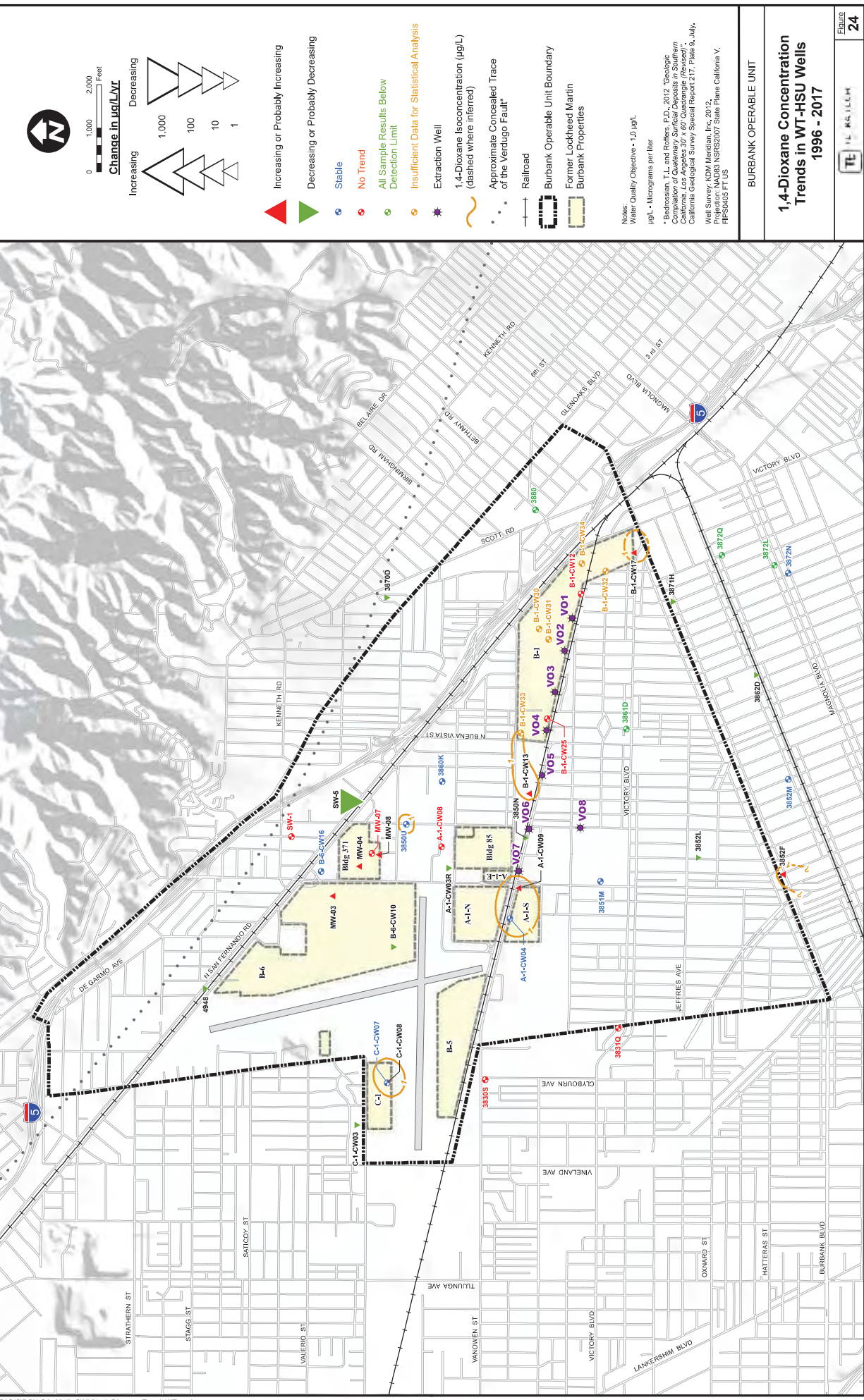




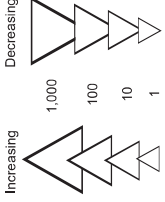








Change in  $\mu\text{g/L/yr}$



- ▲ Increasing or Probably Increasing
- ▲ Decreasing or Probably Decreasing
- Stable
- No Trend
- All Sample Results Below Detection Limit
- Insufficient Data for Statistical Analysis
- ★ Extraction Well
- 1,4-Dioxane Isoconcentration ( $\mu\text{g/L}$ ) (dashed where inferred)
- Approximate Concealed Trace of the Verdugo Fault
- Railroad
- Burbank Operable Unit Boundary
- Former Lockheed Martin Burbank Properties

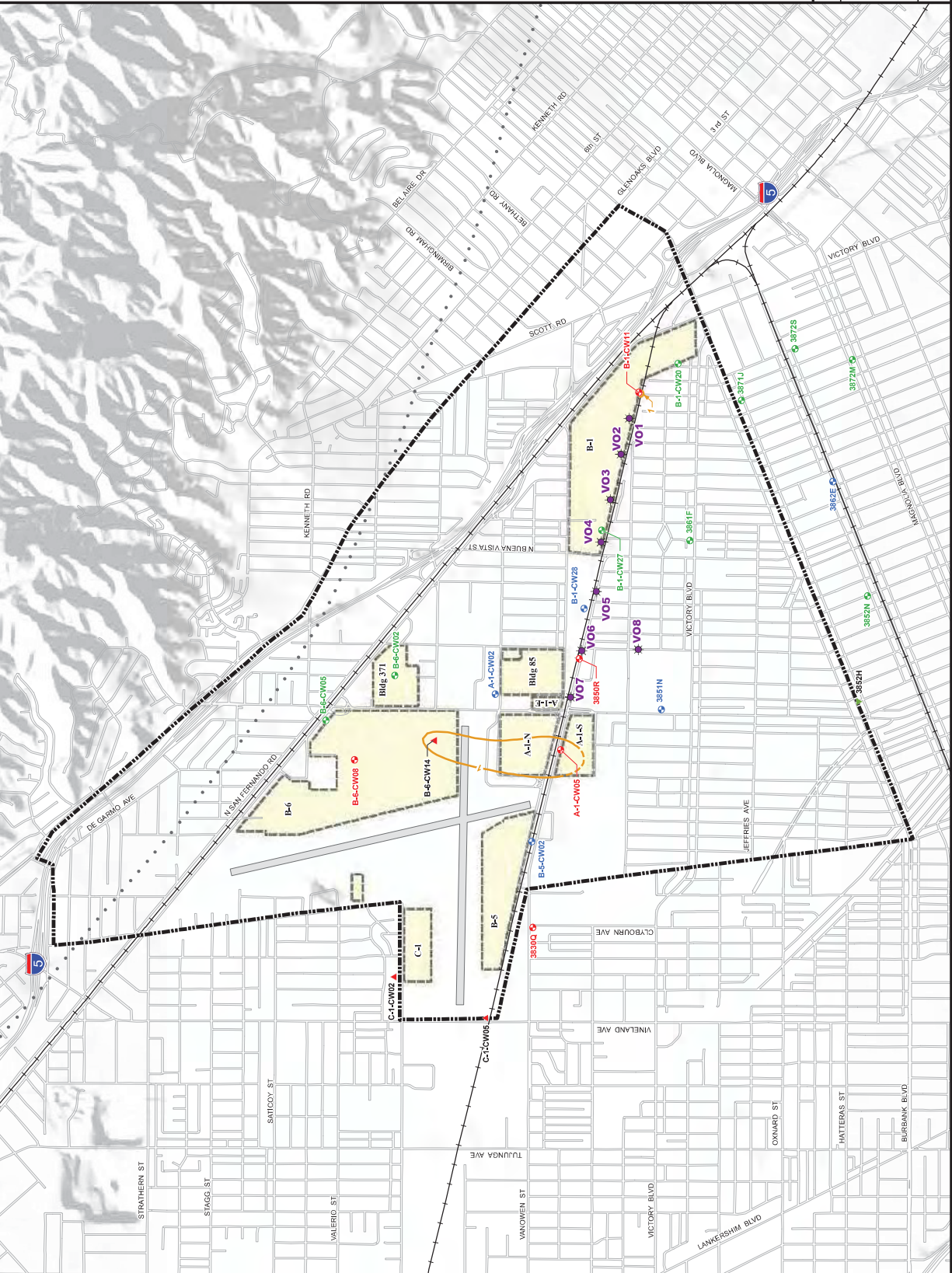
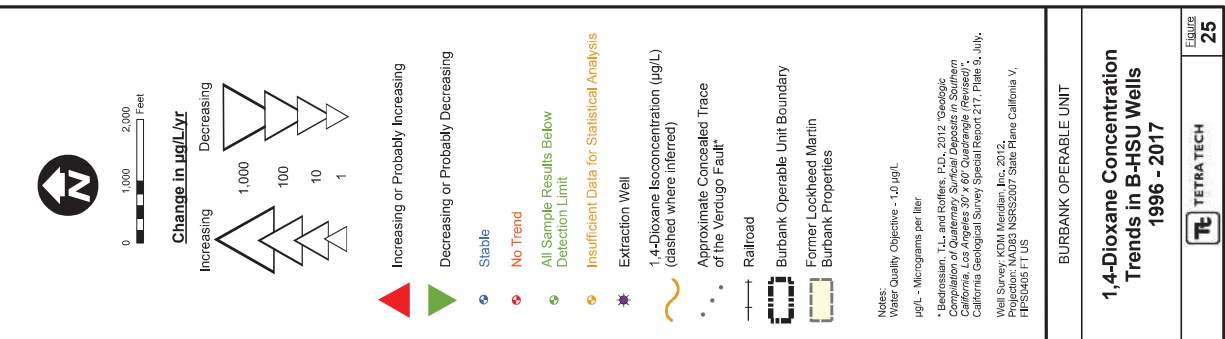
Notes:  
 Water Quality Objective = 1.0  $\mu\text{g/L}$   
 $\mu\text{g/L}$  = Micrograms per liter  
 \* Bedrossian, T.L. and Rogers, P.D., 2012 "Geologic Compilation of Quaternary Surficial Deposits in Southern California, Los Angeles 30' x 60' Quadrangle (Revised)", California Geological Survey Special Report 217, Plate 8, July.  
 Well Survey: KDM Meridian, Inc. 2012.  
 Projection: NAD83 NSRS2007 State Plane California V.  
 RP36463 PT US

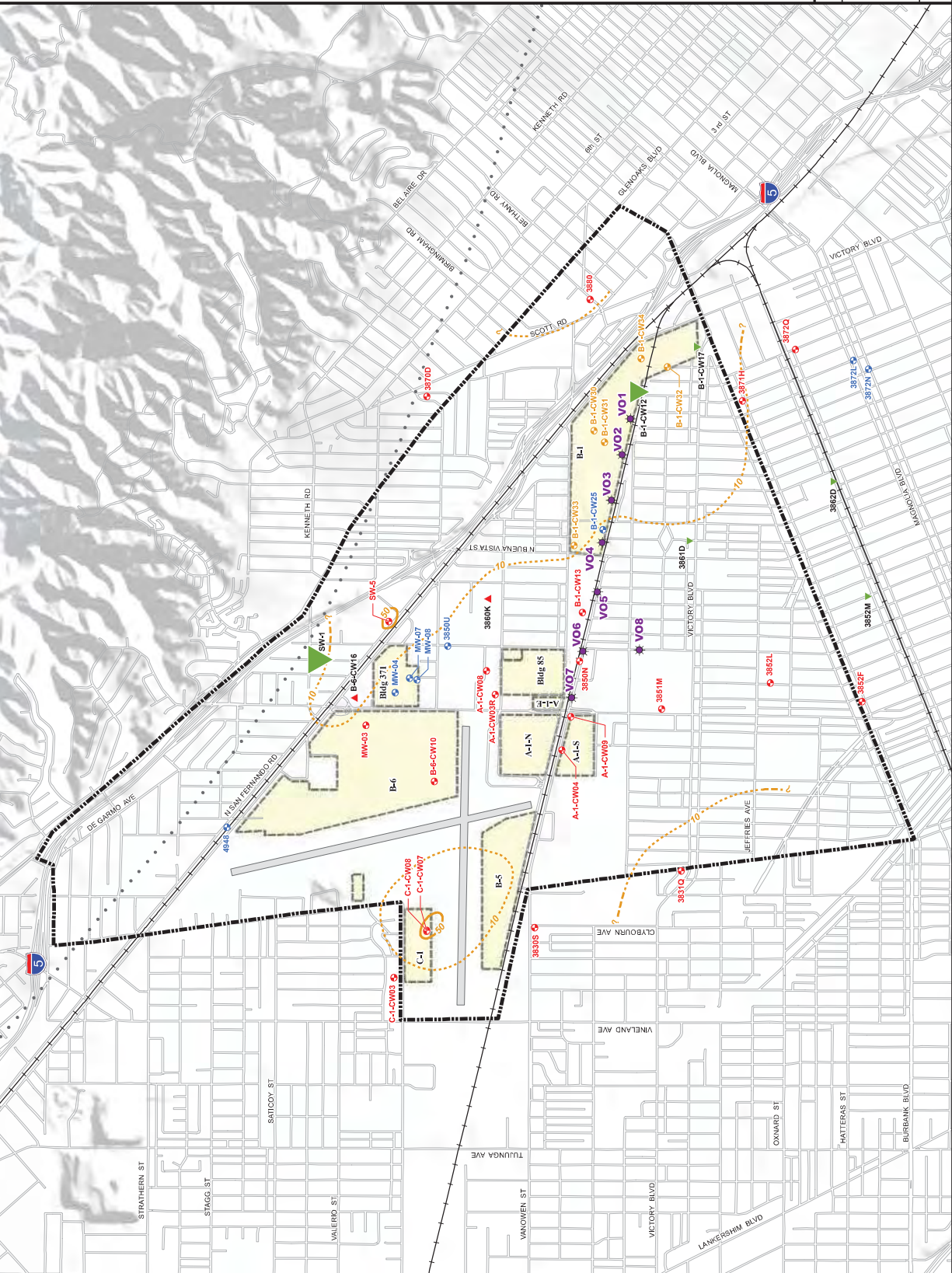
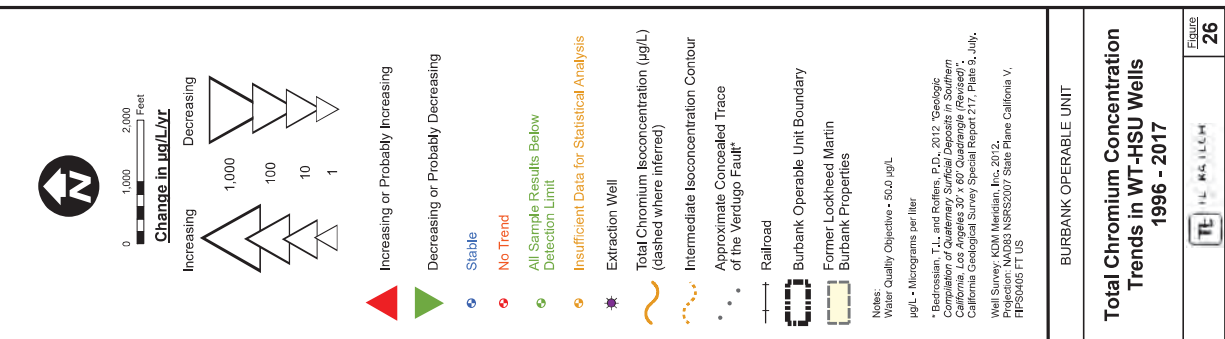
**BURBANK OPERABLE UNIT**

## 1,4-Dioxane Concentration Trends in WT-HSU Wells 1996 - 2017

**24**

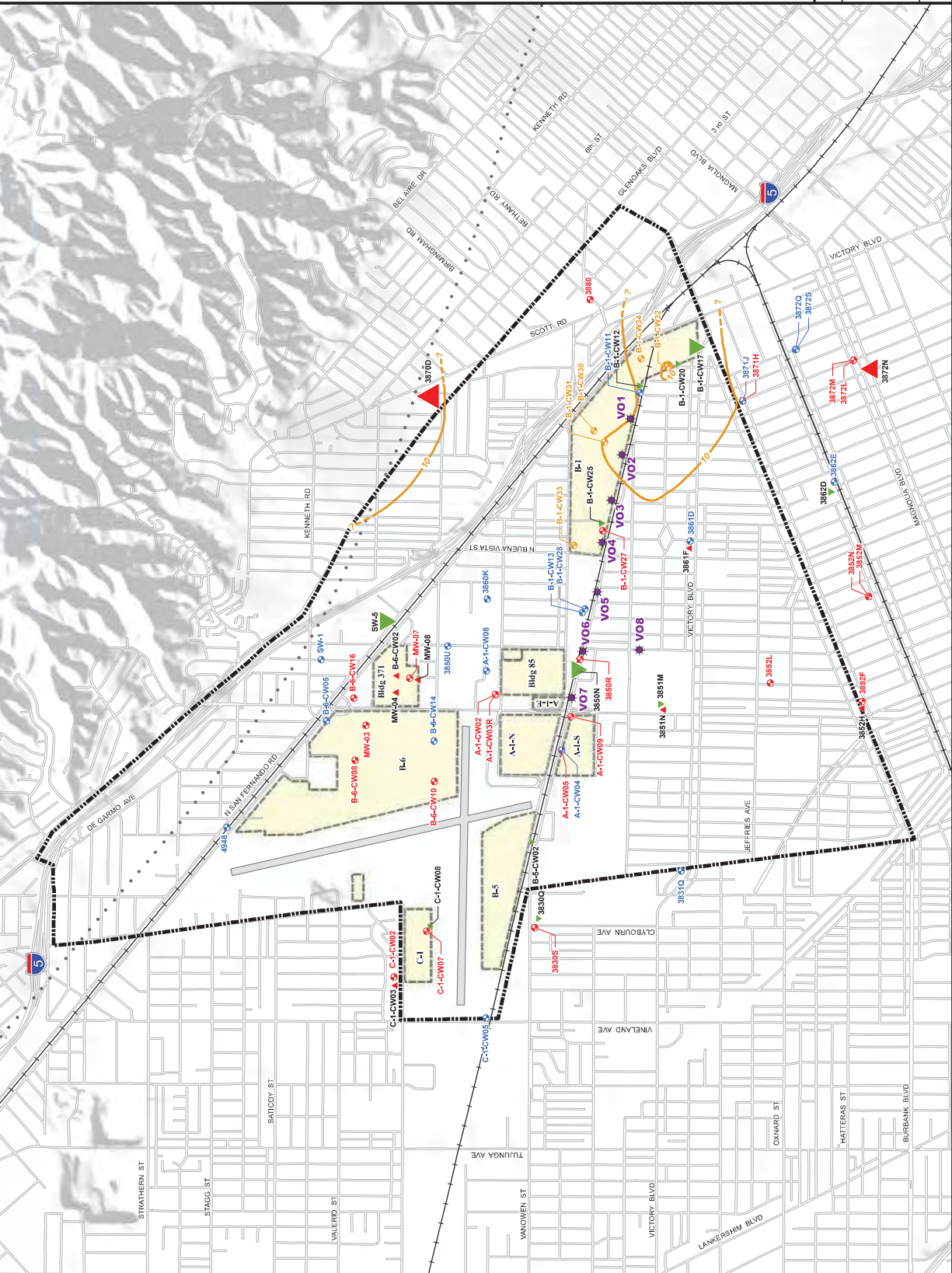
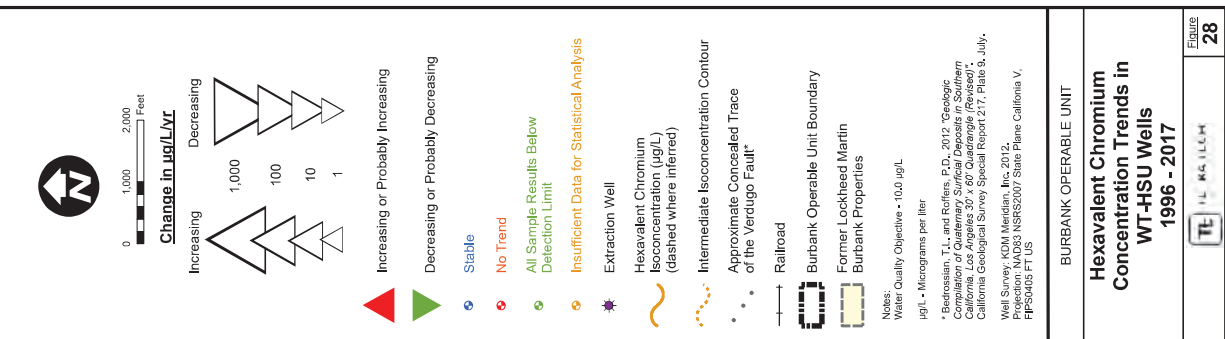














**Change in  $\mu\text{g/L}/\text{yr}$**

Increasing: 1,000  
 100  
 10  
 1

Decreasing:

**Legend:**

- ▲ Increasing or Probably Increasing
- ▲ Decreasing or Probably Decreasing
- Stable
- No Trend
- All Sample Results Below Detection Limit
- Insufficient Data for Statistical Analysis
- Extraction Well
- Approximate Concealed Trace of the Verdugo Fault
- Railroad
- Burbank Operable Unit Boundary
- Former Lockheed Martin Burbank Properties

**Notes:**

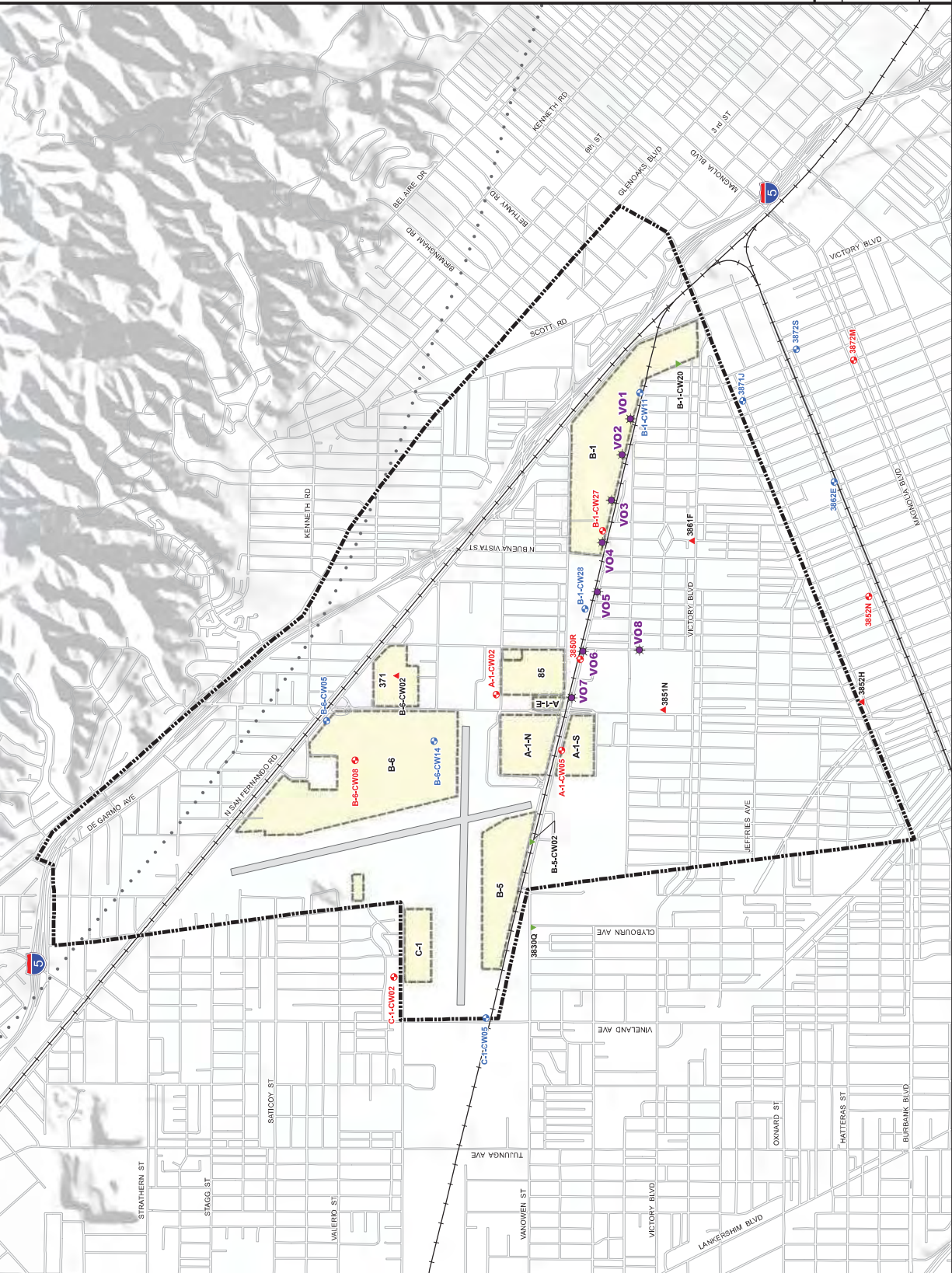
Water Quality Objective = 10.0  $\mu\text{g/L}$

$\mu\text{g/L}$  = Micrograms per liter

\* Based on: T. L. and R. K. R. D. S. 6019 "Geologic Conditions of the Groundwater System in the San Gabriel Valley, Los Angeles 30' x 60' Quadrangle (Revised)", California Geological Survey Special Report 217, Plate 8, July, 1968.

Well Survey: KDM Meridian, Inc. 2012.

Projection: NAD83 NRSR2007 State Plane California V, FIPS4045 FT US

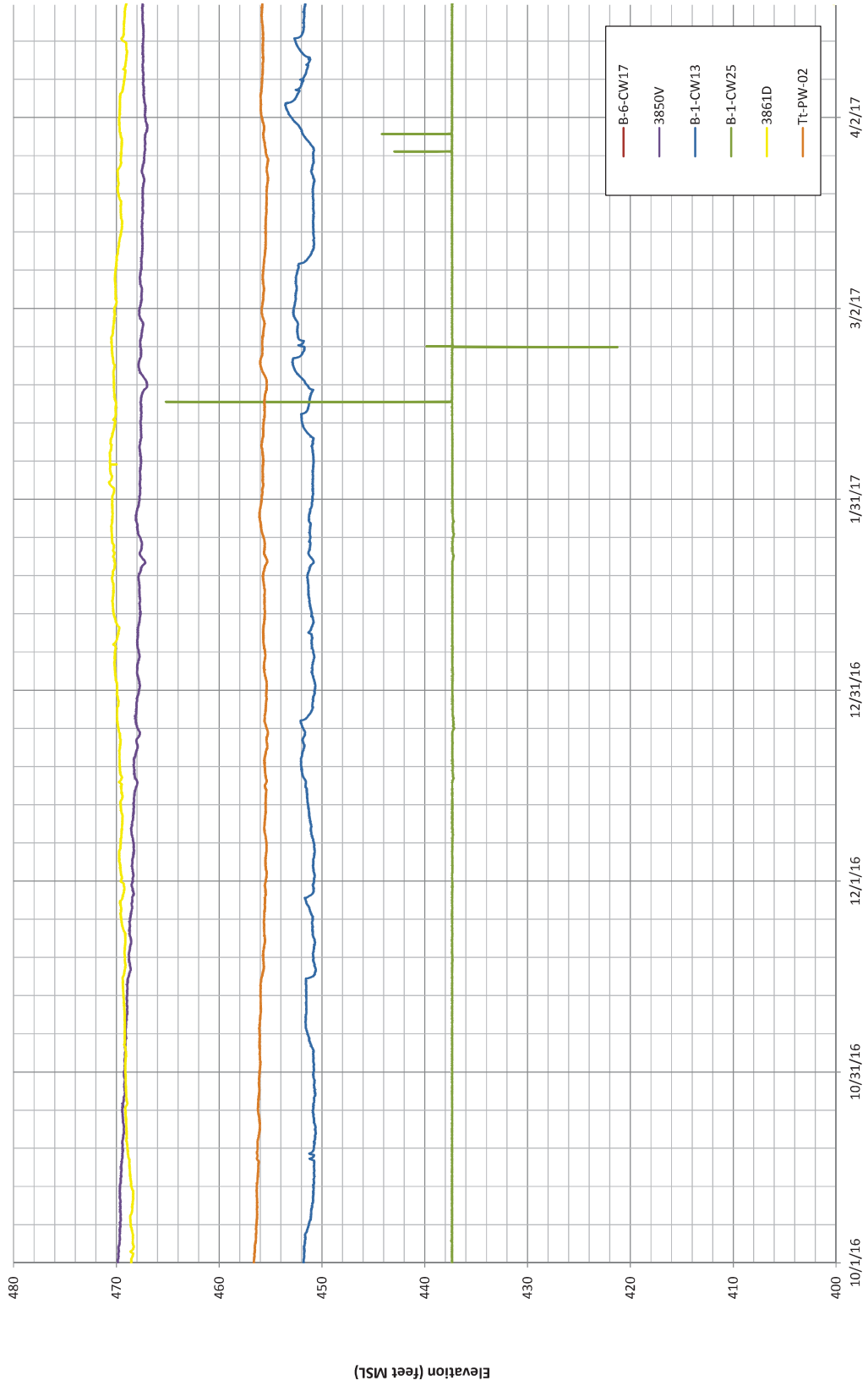


**BURBANK OPERABLE UNIT**

**Hexavalent Chromium  
Concentration Trends in  
B-HSU Wells  
1996 - 2017**

EQUUS 29

Figure 30  
BOU Groundwater Production  
and Transducer Data from Select Monitoring Wells





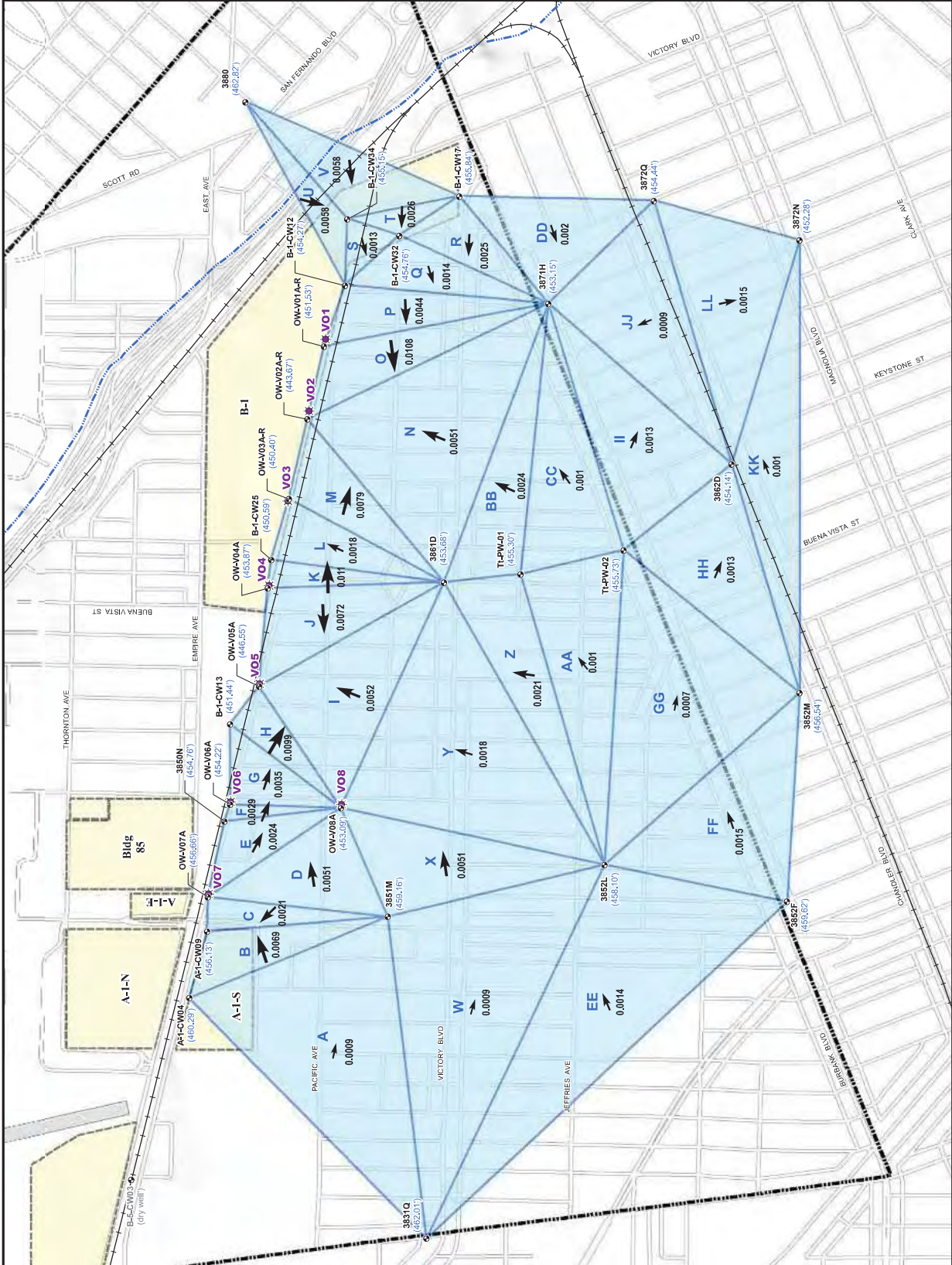


- Monitoring Well (WT-HSU) with Groundwater Elevation (ft amsl)
- Extraction Well
- Burbank Channel
- Approximate Concealed Trace of the Verdugo Fault\*
- Railroad
- Burbank Operable Unit Boundary
- Former Lockheed Martin Burbank Properties
- TIN Segment
- Hydraulic Gradient Magnitude Result (ft/ft)

Notes:  
 WT - Water Table  
 HSU - Hydrostratigraphic Unit  
 ft amsl - feet above mean sea level.  
 Well Survey: KDM Meridian, Inc. 2012.  
 Projection: NAD83, NRSR2007 State Plane California V,  
 RPS0405 FT US

BURBANK OPERABLE UNIT

## Second Quarter 2017 Hydraulic Gradients in the Water Table Hydrostratigraphic Unit





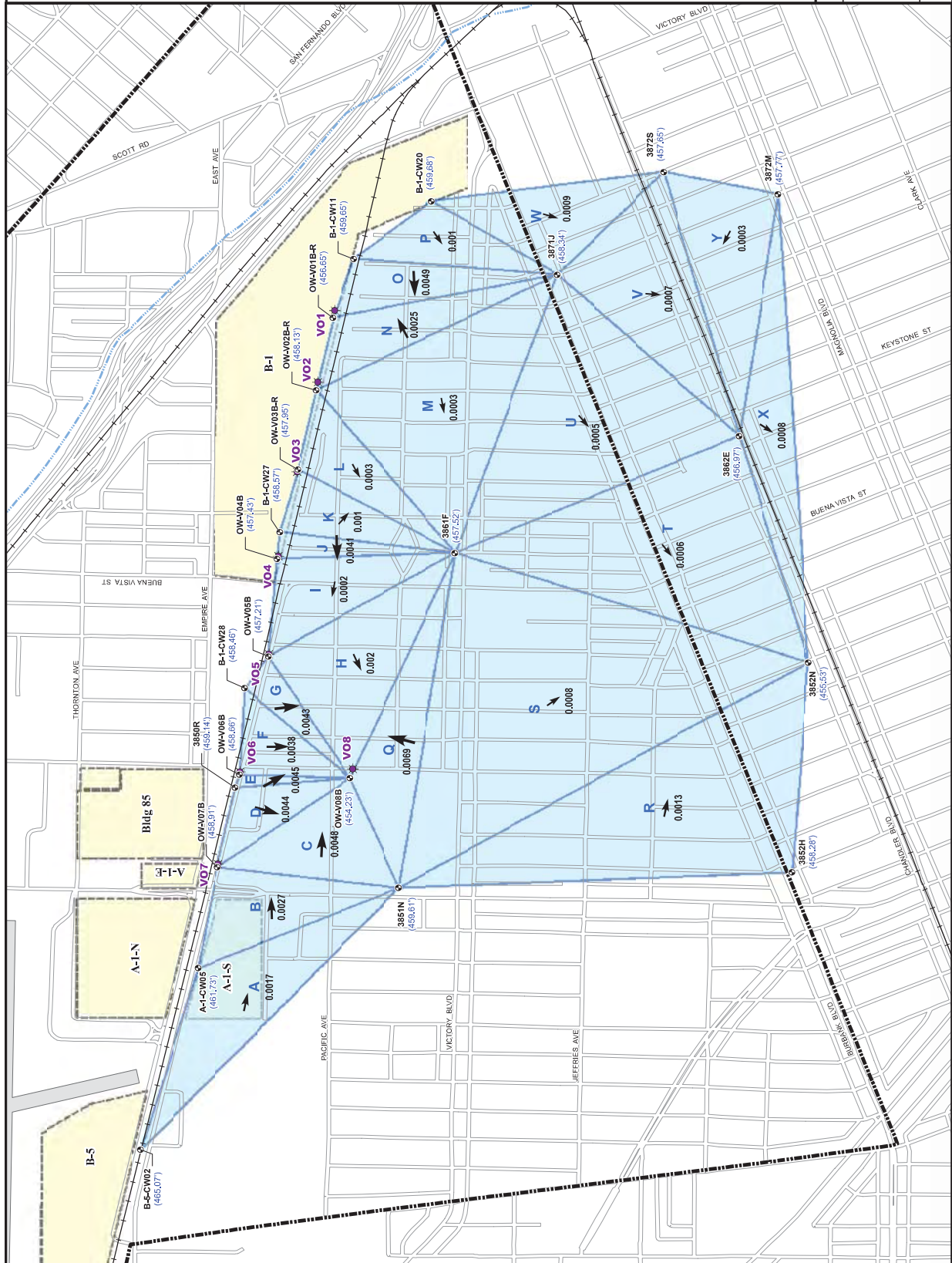
- Monitoring Well (B-HSU) with Groundwater Elevation (ft amsl)
- Extraction Well
- Burbank Channel
- Railroad
- Burbank Operable Unit Boundary
- Former Lockheed Martin Burbank Properties
- TIN Segment
- Hydraulic Gradient Magnitude Result (ft/ft)

- Hydraulic Gradient Direction (with feet/feet change)
- 0.000212 - 0.001000
- 0.001001 - 0.002000
- 0.002001 - 0.004000
- 0.004001 - 0.006000
- 0.006001 - 0.006921

Notes:  
 B - B-Zone  
 HSU - Hydrostratigraphic Unit  
 ft amsl - feet above mean sea level.  
 Well Survey: KDM Meridian, Inc. 2012  
 Projection: NAD83 NRS92007 State Plane California V,  
 FIPS1605 FT US

BURBANK OPERABLE UNIT

## Second Quarter 2017 Hydraulic Gradients in the B-Zone Hydrostratigraphic Unit





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## **APPENDICES**

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# Appendix A

## Conceptual Site Model

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Annual Groundwater Monitoring Report, Second Quarter 2017

Lockheed Martin Corporation

Burbank Operable Unit, Burbank, CA

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# APPENDIX A

## SITE BACKGROUND AND CONCEPTUAL SITE MODEL

This appendix summarizes the site background and conceptual site model (CSM) for the Burbank Operable Unit (BOU) based on the current and previous investigations. The discussion is divided into five main subsections: site background, physical setting, geology, hydrogeology, and groundwater quality.

### 1.1 SITE BACKGROUND

#### 1.1.1 Site History

From the 1920s to the early 1990s, Lockheed Martin and several aircraft manufacturing/maintenance facilities operated within and around the vicinity of the Burbank Airport (currently the Bob Hope Airport). Lockheed Martin owned and operated a total of nine facilities within the current BOU area. The primary operations at the facilities included the manufacturing and assembly of aircraft and associated components. Other operations performed at the plants included research and development activities, and production of aviation devices. Supporting activities included manufacturing, machining, and assembling of various parts; parts cleaning and painting; and tooling and welding. Primary and support activities required the use and storage of fuel oils, gasoline, paints, primers, and chemicals. Types of oils used included hydraulic, cutting, and lubricating oils. Types of chemicals used included solvents, acids, caustics, and descalers.

Operations at the various plants were discontinued in the early 1990s, and structures associated with the facilities have been demolished. Most of the facilities have been redeveloped into commercial property.

#### 1.1.2 Regulatory Framework

In 1980, the California Department of Health (DOH, currently called the California Department of Health Services (DHS)) requested that all major water providers sample and analyze groundwater

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for contamination. Based on analyses of groundwater samples collected within the southeastern portion of the San Fernando Valley(SFV), trichloroethylene (TCE) and tetrachloroethylene (PCE) were detected consistently in a large number of production wells within the North Hollywood and Burbank area at concentrations greater than the maximum contaminant level (MCL) for drinking water. As a result, the United States Environmental Protection Agency (EPA) provided federal funding for the Los Angeles Department of Water and Power to conduct a two-year study to define the extent of contamination. The results of the study, published in 1983, revealed widespread VOC-contaminated groundwater in the SFV.

In 1986, North Hollywood and Burbank were added to the National Priorities List and designated as the North Hollywood and Burbank Operable Units (NHOU and BOU) of Area 1 of the SFV Superfund Site. In October 1988, a Feasibility Study was completed within the BOU.

In June of 1989, a Record of Decision (ROD) for an interim groundwater remedy at the BOU was signed. In March 1992, EPA entered into a Consent Decree (CD) with Lockheed Martin, the City of Burbank, and Weber Aircraft, Inc. Two Explanation of Significant Differences (ESDs) were also signed and incorporated to the 1989 ROD between 1990 and 1997. The CD, ROD, and ESDs stipulated that Lockheed Martin was to design and construct a 9,000-gallon per minute (gpm) groundwater extraction and treatment system that must meet MCLs and SALs, with the exception of nitrate. Furthermore, Lockheed Martin would operate the system for 2 years.

In June 1998, a second Consent Decree was entered. This provided for continued operations and maintenance of the BOU treatment system by the City of Burbank at 9,000 gpm. Funding was to be provided by a trust fund established and funded by parties to the CD.

Since 1996, the BOU treatment system has been fully operational, with downtime attributed to unexpected maintenance/design issues, new chemicals of concern (primarily 1,2,3-trichloropropane (1,2,3-TCP)), and well pump and controls problems. The concentration of PCE and TCE in groundwater effluent from the treatment system has been less than MCLs. Treated groundwater from the blendpoint, which is served to consumers, has met all DHS contaminant goals set forth in the operating permit, as well as the drinking water MCL cleanup goals.



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### 1.1.3 Groundwater Monitoring Program

The groundwater-monitoring program (GMP) for the BOU is conducted in accordance an Operational Sampling Plan (OSP), which describes the objectives, schedule, rationale, analytical methods, and procedures for sampling the groundwater monitoring-well network. The OSP has evolved since its inception in 1997 with the *Draft Phase 2 OSP (HIS Geotrans, 1997)* to incorporate additional requests by the EPA and the California Regional Water Quality Control Board, Los Angeles Region (LARWQCB).

In April 2012, Lockheed Martin submitted the Revised Phase 2 OSP to the EPA that proposed modifications to the BOU GMP (Strategic Engineering & Science, 2012). The 2012 Revised OSP included a groundwater monitoring optimization plan that presented the rationale for selection of COCs for the BOU GMP and elimination of other analytes (e.g., semivolatile organic compounds, pesticides, polychlorinated biphenyls, and radionuclides). During a meeting between Lockheed Martin and the EPA on August 22, 2012, EPA requested implementation of a comprehensive sampling event in order to refine the OSP. A Comprehensive Sampling Event Work Plan was subsequently prepared and submitted to the EPA on February 11, 2013. In April 2013, the EPA approved the revised OSP and Comprehensive Sampling Event Work Plan.

In 2014, Lockheed Martin submitted another Revised OSP (Arcadis, 2014) to the EPA that proposed modifications to optimize the long-term GMP and implement a monitoring schedule that coincides with the EPA's revised Basinwide Groundwater Monitoring Program schedule: every second and fourth quarter for groundwater level monitoring and every second quarter for groundwater sampling for chemical analyses.

In 2017, Lockheed Martin submitted a Revised OSP Addendum (Tetra Tech, 2017) that referenced changes to the groundwater monitoring well network, and included procedures for sampling BOU wells using a low-flow sampling protocol and modifications to the Quality Assurance Project Plan reflecting the current BOU groundwater monitoring project team and data validation procedures.

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## 1.2 PHYSICAL SETTING

The BOU is located in the southeastern portion of the San Fernando Valley (SFV) in the City of Burbank, California. The SFV is a 260-square-mile physiographic basin located in the Transverse Ranges province in southern California. The SFV is bounded to the south by the Santa Monica Mountains, to the west by the Simi Hills, to the north by the Santa Susana and San Gabriel Mountains, and to the east-northeast by the Verdugo and San Gabriel Mountains.

## 1.3 GEOLOGY

Geologic units underlying the SFV generally consist of the following (from oldest to youngest):

- Mesozoic and older plutonic and metamorphic rocks (crystalline basement)
- Tertiary-age marine sandstone, mudstone, and shale (sedimentary bedrock)
- Unconsolidated Plio-Pleistocene marine and non-marine sediments
- Unconsolidated Quaternary alluvial deposits

The basement and bedrock units crop out in the surrounding hills and mountains that form the valley boundaries. The eastern margin of the valley is bounded by the plutonic and metamorphic rocks of the Verdugo Mountains. The northern margin of the valley is bounded by the sedimentary rocks of the Santa Susana Mountains and the plutonic and metamorphic rocks of the San Gabriel Mountains. The western edge of the valley is defined by the Simi Hills where sedimentary rock is exposed. The southern margin is defined by the Santa Monica Mountains where sedimentary and igneous rocks are exposed.

The Quaternary alluvium beneath the BOU consists of Holocene younger alluvium and Pleistocene older alluvium. The younger alluvium extends from the ground surface to a depth of up to 410 feet below ground surface (bgs). The older alluvium extends from the base of the younger alluvium to depths of up to 1,200 feet bgs or more. The contact between the younger and older alluvium has been reported to be marked by a distinct basal cobble layer (HSI Geotrans, 1997).

The younger alluvium consists of coarse-grained sand, gravel, and cobbles interbedded with finer-grained units of sand, silty sand, sandy silt, silt, and clay. Individual units within the younger alluvium vary in elevation and thickness; the contacts between the units have a northeast-trending

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strike and dip towards the southeast. The lithology of the upper portion of the older alluvium varies from sand, gravel, and boulders in the northwestern portion of the BOU to interbedded silt and sand in the eastern and southern portions. The deeper portion of the older alluvium consists of silt and sand with interbedded gravel (HSI Geotrans, 1997.)

The northwest-trending Verdugo fault zone runs along the northeastern boundary of the BOU. The fault zone has been interpreted to be a low-permeability zone that can both impede and direct the flow of groundwater.

## **1.4 HYDROGEOLOGY**

The BOU is located in the San Fernando Basin, which is characterized as water-bearing alluvium that overlies a non-water-bearing bedrock complex of older sedimentary rock formations and crystalline and metamorphic basement complex rock. Groundwater enters the basin by infiltration of surface-water runoff from the highlands, by deep penetration of rain on the valley floor, and by artificial means such as irrigation return or induced recharge. Outflow of groundwater from the basin is through groundwater extraction and a small amount of flow (surface and groundwater) through the Los Angeles Narrows, located southeast of the BOU. Groundwater in the vicinity of the BOU flows mainly through two sedimentary units: the Pleistocene older alluvium and the Holocene younger alluvium. The aquifer in the older alluvium has been observed to be locally semi-confined to confined by clay and silt units, whereas the aquifer in the younger alluvium is generally unconfined to semi-confined depending upon the location and thickness of the fine-grained units (HSI Geotrans, 1997).

The aquifer in the younger alluvium within the BOU has been divided into five hydrostratigraphic units (HSUs) based on electrical resistivity responses in geophysical logs (Hargis & Associates, 1991; Simon Hydro Search, 1993). The five HSUs of the younger alluvium are identified from upper to lower as A', X, A, Y, and B (HSI Geotrans, 1997). The A', A, and B HSUs are generally comprised of coarser-grained material (coarse-grained sand, gravel, and cobbles). The X and Y HSUs separate the three HSUs listed above (A', A, B), and consist of relatively finer-grained material (sand, silty sand, and silt). Based on the stratigraphic position of the units and the groundwater gradient, the A' HSU, the X HSU, or the A HSU may locally represent water table

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conditions depending on geographic location within the project area, and are collectively referred to as water table (WT) HSUs.

The five HSUs of the younger alluvium are encountered throughout much of the southeastern San Fernando Basin. During the 1991 installation of groundwater monitoring wells 3860J, 3870D, 3870E, and 3880 northeast of the BOU, however, boring data and geophysical logs confirmed the absence of the five HSUs and identified the presence of finer-grained silty sands and sandy silts (Hargis and Associates, 1991). Based on the data, a separate HSU with distinct lithology was identified as the K HSU (also considered a WT HSU).

## **1.5 GROUNDWATER QUALITY**

Lockheed Martin has monitored groundwater quality at the BOU since 1986. Based on analysis of the historical data, the following analytes have been selected as primary chemicals of concern for the BOU site: tetrachloroethene (PCE), trichloroethene (TCE), 1,2,3-trichloropropane (1,2,3-TCP), 1,4-dioxane, total chromium, and hexavalent chromium (Tetra Tech, 2004). Overall, TCE and PCE concentrations in shallow groundwater have decreased since data was first collected in 1993. Additionally, analytical results from well clusters have shown that TCE and PCE concentrations in wells screened in the lower HSUs are generally one to two orders of magnitude less than in the WT wells (Earth Tech, 2000; Tetra Tech, 2011).

## **1.6 REFERENCES**

1. Earth Tech, 2000. *Analysis of Groundwater Level Changes at the Burbank Operable Unit Extraction and Treatment Facility, Lockheed Martin Corporation, Burbank, California.*
2. Hargis & Associates, 1991. *Installation of Groundwater Monitoring Wells Along Vanowen Street, Lockheed Engineering and Science Company, Burbank, California.*
3. HSI Geotrans, 1997. *Draft Phase 2 Operational Sampling Plan, Burbank Operable Unit, Burbank, California.* July 11.
4. Simon Hydro Search. 1993. *Phase I Final Remedial Design Report, Burbank Operable Unit, Volumes V & VI prepared for LESAT.* September 30.
5. Tetra Tech, 2004. *Draft Lockheed Martin Corporation Revised Phase 2 Operational Sampling Plan, Burbank Operable Unit, Burbank, California.* February 3.
6. Tetra Tech, 2011. *Semiannual Groundwater Monitoring Report, Third Quarter and Fourth Quarter 2011, Burbank Operable Unit, Burbank, California.* March



# Appendix B

## Field Data Sheets

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Annual Groundwater Monitoring Report, Second Quarter 2017

Lockheed Martin Corporation

Burbank Operable Unit, Burbank, CA



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**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

Page 1 of 1

DATE: 04/04/17 SITE NAME / NUMBER: LHC-1370 FURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME: LHC-1370 SAMPLING DEVICE:  Purging Pump  Disposable Baller  Other  
 OVA:  FID  PID In Casing (ppm) (initial) (vented to) (vented to)  
 MONITORING WELL IDENTIFICATION: 3830Q DUCTILE I.D.: \_\_\_\_\_ IN BREATHING ZONE (ppm) \_\_\_\_\_  
 SAMPLE I.D.: 3830Q-N-1702 WELL DEPTH (ft base): 391.50 FINAL PUMP DEPTH (ft base): 344.5  
 STATIC WATER LEVEL (ft base): 237.00 CASING TUBE DIAMETER (ft ID): 3.5 SAMPLER'S SERIAL NUMBER: \_\_\_\_\_  
 WATER COLUMN (feet): 122.5 WELL R.P.M. VOLUME (V) (gallons): 4120 DUCTILE SAMPLE TIME: 1229

Time	Activity	Water Level (ft base)	Pump Depth (ft base)	Temp (°C)	EC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Pumped (gallons)	Well Pump Volume Purged	Flow Rate (gal/min)
1140	Start pump	251.00	344.5										140
1214		257.03		22.87	0.1665	7.47	4.80	0.40	18.4	Colorless	4760	6.01	
1217		257.04		22.91	0.1665	7.47	8.01	0.59	14.9		5180	1.10	
1220		257.04		22.93	0.1665	7.47	9.33	0.38	14.5		5600	1.19	
1223		257.05		22.65	0.1665	7.47	4.26	0.56	16.2		1020	1.28	
1226		257.03		22.62	0.1663	7.47	3.03	0.37	17.2		1440	1.36	
1229	Sample	257.03		22.65	0.1663	7.46	3.06	0.56	17.3		1800	1.45	

Coliforms in test (taken prior to sampling): \_\_\_\_\_ Solids (mg/L): \_\_\_\_\_ Fe<sup>3+</sup> (mg/L): \_\_\_\_\_ D.O. (ppm): 0.94  
 Water level at time of sampling (ft base): 237.03 Turbidity at time of sampling: 308  
 Pump Settings: \_\_\_\_\_ PSI: 127 Discharge: 10  
 Comments: High pressure bot

PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature collect readings Conductivity ± 3 %  
 pH ± 0.1 DO ± 0.3 mg/L  
 Turbidity < 10 NTUs (if > 10 NTUs ± 10 %)  
 WL ± 0.1 feet ORP ± 10 mV

Note:  
 If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.



TECHNICAL  
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 Telephone (415) 331-1871  
 Fax (415) 331-1871

**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE: 04/04/2017 SITE NAME / NUMBER: LC-201 PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME: LC-201 SAMPLING DEVICE:  Purging Pump  Disposable Trailer  Other  
 MONITORING WELL IDENTIFICATION: 38205 DVA:  FID  PID  Is Casing (ppm) (initial) (ventil to)  
 SAMPLE ID: 38205-N-1702 IN BREATHING ZONE (ppm) (initial) (ventil to)  
 STATIC WATER LEVEL (ft bwc): 237.12 WELLS DEPTH (ft bwc): 250.5  
 WATER COLUMN (ft): 23.38 CASING/TUBE DIAMETER (inch): 3/8 SAMPLER'S SIGNATURE: [Signature]  
 WELL PUMP VOLUME (V) (gal/min): 2839 3 x (gal/min) DPLICATE SAMPLE TIME: 1413

Time	Activity	Water Level (ft bwc)	Pump Depth (ft bwc)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals/min)	Well Pump Volume Purged	Flow Rate (gal/min)
1339	Start purg	237.12	250.5										
1358		237.12		22.36	0.914	7.28	6.85	5.13	127.2	Colorless	2850	1.00	1.50
1421		237.12		22.32	0.912	7.28	7.100	5.16	125.5		3200	1.10	
1404		237.12		22.32	0.911	7.28	8.23	5.24	122.2		3750	1.22	
1407		237.12		22.31	0.909	7.28	6.87	5.21	119.2		4200	1.42	
1410		237.12		22.40	0.909	7.28	6.42	5.36	116.6		4650	1.65	
1413	Sample	237.12		22.41	0.909	7.28	6.71	5.47	114.8		5100	1.80	

Colorimetric test (taken prior to sampling) Sulfide (mg/L): — O.O. (ppm): 5.47  
 Water level at time of sampling (ft bwc): 237.12 Turbidity at time of sampling: 6.71  
 Pump Settings: CPXC 2 PSI: 130 Recharge: 22 Discharge: 8  
 Comments: \* Use a high pressure control box

Notes:  
 If indicators are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (mark) in the top of the well casing.  
 If the reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.





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Telex (909) 381-6694

**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

DATE 04/04/17 SITE NAME/NUMBER BOU PURGING DEVICE:  Depressured Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME LUC-BOU SAMPLING DEVICE:  Purging Pump  Disposable Baller  Other  
 MONITORING WELL IDENTIFICATION 38519 OVA:  FID  PID In Casing (ppm) (initial) 00 (vented to) 00  
 SAMPLE I.D. 3810-N-172A IN BREATHING ZONE (yes) (initial) 00 (vented to) 00  
 STATIC WATER LEVEL (ft bgs) 198.51 DUCTILE I.D. 318 FINAL PUMP DEPTH (ft bgs) 239.5  
 WATER COLUMN (ft) 85.9 CASING/TUBE DIAMETER (in) 318 SAMPLER'S SIGNATURE [Signature]  
 WELL PUMP VOLUME (gals) 3005 WELL SAMPLE TIME 1014 DUPLICATE SAMPLE TIME ---

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (°C)	ZC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals/ml)	Well Pump Volume Pumped	Flow Rate (gal/min) (ml/min)
0904	Start purge	198.51	239.5	19.88	1.17	7.29	64.8	1.69	-37.3	191mg	3080	1.02	110
0932		198.51		19.86	1.122	7.29	58.3	1.65	-37.4		3410	1.13	
0935		198.51		19.80	1.123	7.29	49.4	1.61	-37.2		3740	1.24	
0938		198.51		19.90	1.124	7.28	49.4	1.61	-37.1		4070	1.35	
0941		198.51		19.94	1.125	7.28	49.4	1.61	-36.3		4400	1.46	
0944		198.50		20.04	1.124	7.28	42.9	1.56	-35.2		4730	1.57	
0947		198.51		20.15	1.123	7.28	36.9	1.54	-33.6		5060	1.68	
0950		198.51		20.15	1.125	7.28	28.6	1.53	-32.5		5370	1.79	
0953		198.50		20.29	1.124	7.28	29.7	1.58	-30.6		5720	1.90	
0956		198.51		20.43	1.131	7.27	22.5	1.51	-29.5	10ml/min	6050	2.01	
1002		198.51		20.51	1.131	7.28	14.8	1.56	-28.9		6380	2.12	

Colorimetric test (taken prior to sampling) Salts (mg/L): --- Fe<sup>2+</sup> (mg/L): --- D.O. (ppm): 1.44  
 Water level at time of sampling (ft bgs): 198.51 Turbidity at time of sampling: 12.2  
 Pump Settings: CPM: 2 PSI: 110 Recharge: 20 Discharge: 10  
 Conductivity: DO ± 0.3 mg/L  
 Turbidity < 10 NTUs (if > 10 NTUs ± 10%)  
 ORP ± 10 mV

**Notes:**  
 If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (mark) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.





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**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

Page 2 of 2

DATE 04/28/11 SITE NAME / NUMBER 80U  
 PROGRAM NAME ATC-80U  
 MONITORING WELL IDENTIFICATION 363019  
 SAMPLE I.D. 363019-N-1702 DUPLICATE I.D. \_\_\_\_\_  
 STATIC WATER LEVEL (ft bgs) 198.51 WELL DEPTH (ft bgs) 251.50  
 WATER COLUMN (ft) 55.99 CASING/TUBE DIAMETER (ft/in) 2.87  
 WELL / PUMP VOLUME (V) (gal/ml) 3005

PUMPING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 SAMPLING DEVICE:  Pumping Pump  Disposable Bailer  Other  
 ONA:  PID  PID In Casing (p/m) (seal) (vented to) \_\_\_\_\_  
 IN BREATHING ZONE (p/m) (Initial) (vented to) \_\_\_\_\_  
 FINAL PUMP DEPTH (ft bgs) 237.5

SAMPLER'S SIGNATURE [Signature] WELL SAMPLE TIME 7:14 DUPLICATE SAMPLE TIME \_\_\_\_\_

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gal/ml)	Well/Pump Volume Purged	Flow Rate (gal/min)
1005		198.51	251.50	20.68	1.132	7.28	13.9	1.51	-26.3	Colorless	6710	2.23	110
1008		198.51		20.70	1.132	7.28	12.3	1.47	-21.0		7040	2.39	
1011		198.61		20.74	1.131	7.27	12.2	1.46	-25.8		7370	2.45	
1014	Sample	198.51									7700	2.56	

Colorimetric test (taken prior to sampling) 1.46 D.O. (p/m): 12.2  
 Water level at time of sampling (ft bgs): \_\_\_\_\_ Turbidity at time of sampling: \_\_\_\_\_ Discharge: 10  
 Pump Settings: CPM: 2 PPS: 110 Recharge: 20  
 Comments: \_\_\_\_\_

PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature reflect readings Conductivity ± 3 %  
 pH ± 0.1 DO ± 0.3 mg/L  
 Turbidity < 10 NTUs (if > 10 NTUs ± 10 %)  
 ORP ± 10 mV

Note: If volatiles are detected in the breathing zone during the initial screenings, the breathing zone will be periodically monitored during pumping and sampling activities. All water levels and pump depths are measured from the reference point (notch) in the top of the well casing. If no reference point is observed from the casing, high point should be noticed and measurements should be collected from this point. Every attempt should be made to float water level drawdown to less than 0.33 feet and purge rate to less than 0.9 L/min.







PATENT 7,271  
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 San Bernardino, CA 92410  
 Telephone (909) 381-1874  
 or fax (909) 381-1178

**GROUNDWATER MONITORING WELL**  
**FIELD DATA LOG SHEET - SAMPLING**

DATE 4-13-2017

SITE NAME / NUMBER WLC BOU

MORNING DEVICE:  Dedicated Pump

SAMPLING DEVICE:  Peristaltic Pump

Dipper Pump

PROGRAM NAME

MONITORING WELL IDENTIFICATION 38504

OVA:  ID

Discharge Seal

Other

SAMPLE I.D. 38504-N-1782

IN BREATHING ZONES (ppm)

(initial) 0

(vented to)

STATIC WATER LEVEL (ft) 204.66

WELL DEPTH (ft) 219.50

FINAL PUMP DEPTH (ft) 204.5

(vented to)

WATER COLUMN (feet)

CASING/TUBER DIAMETER (in) 3/4

SAMPLER'S SIGNATURE [Signature]

WELL SAMPLE TIME 11:24

WELL PUMP VOLUME (V) (gallons) 2350

DUPLICATE NO.

DUPLICATE SAMPLE TIME

Temp (C)

pH

D.O. (ppm)

Flow Rate (gal/min)

Water Level (ft) 204.60

Turbidity (NTU)

ORP (mV)

Well Pump Volumes Purged

Activity

EC (mS/cm)

Color

Volume Purged (gallons)

Pump Depth (ft) 204.64

10.2

84.7

1.02

204.54

1.93

79.0

1.23

204.64

1.87

77.0

1.43

204.64

1.86

69.1

1.83

204.64

1.72

66.5

1.84

204.64

1.64

64.3

2.04

204.64

1.73

61.6

2.25

204.64

1.89

58.7

2.45

204.64

1.82

57.7

2.60

End Pump

1.82

57.7

2.60

Sample

1.82

57.7

2.60

Color

1.82

57.7

2.60

Volume Purged (gallons)

1.82

57.7

2.60

Temp (C)

1.82

57.7

2.60

Temp (C)

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Temp (C)

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Temp (C)

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2.60

Temp (C)

1.82

57.7

2.60

Temp (C)

1.82

57.7

2.60

**Note:**

If valicles are trapped in the breathing zone during the initial screening, the breathing zone will be periodically minimized during purging and sampling activities.

All water levels and pump depths not measured from the reference point (marked) to the top of the well casing.

If our reference point is observed then the casing high point should be marked and measurements should be collected from this point.

Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 l/min.

PARAMETERS FOR WATER QUALITY STABILIZATION									
Temperature unless readings									
pH ± 0.1									
Conductivity ± 1%									
Turbidity < 10 NTUs (if > 10 NTUs ± 10%)									
WT ± 0.1 feet									
ORP ± 10 mV									





TERRATECH  
 11111 Valley Blvd., W. 11111  
 Fullerton, CA 92630  
 (714) 771-1111

GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING

DATE: 4-13-07 SITE NAME/NUMBER: LMC B21 PURGING DEVICE:  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME: 38502 SAMPLING DEVICE:  Pumping Pump  Disposable Bailer  Other  
 MONITORING WELL IDENTIFICATION: 38502 DUCTILE I.D.: 3.515 OVA:  HD  LWB  In Casing (open) (initial) 0 (vented to)  
 SAMPLE I.D.: 38502 WELL DEPTH (ft) (to base): 351.5 IN DREATING ZONE (open) (initial) 0 (vented to)  
 STATIC WATER LEVEL (ft) (MGS): 198.76 CASING/TUBE DIAMETER (INS): 3.515 FINAL PUMP DEPTH (ft) (to base): 341.5 SAMPLER'S SIGNATURE: Lambert  
 WATER COLUMN (feet) WELL LOG: 5045 3 Y (gallons) WELLS SAMPLE TIME: 11316 DUPLICATE SAMPLE TIME

Time	Activity	Water Level (ft) (to)	Pump Depth (ft) (to)	Temp (°C)	RC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals/ml)	Well/Pump Volatiles %purged	Flow Rate (g/min) (ml/min)
1300	Start Pump	198.76	341.5	23.01	0.633	7.95	5.37	0.47	-40.8	clear	52.00	1.03	200
1302		198.73		22.88	0.631	7.95	2.71	0.46	-46.0	clear	53.60	1.15	
1306		198.71		22.75	0.636	7.96	2.34	0.47	-42.6	clear	54.00	1.27	
1309		198.73		23.00	0.637	7.98	2.17	0.47	-41.5	clear	70.00	1.39	
1310		198.79		23.05	0.636	7.99	3.25	0.32	-40.0	clear	71.00	1.51	
1315	End Pump	198.72		23.30	0.639	7.99	3.82	0.31	-38.7	clear	82.00	1.03	
1316	Sample												

Coliform test (taken prior to sampling) Surfate (mg/L): 0.0 D.O. (ppm): 3.5  
 Water level at time of sampling (ft) (base): 198.73 Turbidity at time of sampling: 3.82  
 Pump Settings: PSI: 150 Recharge: Discharge:  
 Comments: Flow

PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature enclosed readings Conductivity 1.1 %  
 pH ± 0.1 DO ± 0.5 mg/L  
 Turbidity < 10 NTUs (if > 10 NTUs = 10%) ORP ± 10 mV  
 W.P. ± 0.1 feet

Note:  
 If volatiles are detected in the breathing zone during the initial evening, the breathing zone will be periodically monitored during pumping and sampling activities.  
 All water levels and pump depths are measured from the reference point (celest) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 1.5 feet and purge rate to less than 0.5 L/min.





TECHNICAL  
201 E. Yuma Way, Suite 100  
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Telephone: (909) 381-1074  
Telex: 990108110

**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

Page 1 of 1

DATE 04/25/17 SITE NAME/NUMBER LHG-B00 PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME LHG-B00 SAMPLING DEVICE:  Purging Pump  Disposable Bailor  Other  
 MONITORING WELL IDENTIFICATION 3850 V DUCTILE IRON CASING (ppm)  FID  PID In. Casing (ppm) (Initial)          (vented to)  
 SAMPLE I.D. 3850V-N-1702 IN BREATHING ZONE (ppm) (Initial)          (vented to)  
 STATIC WATER LEVEL (ft bosc) 238.50 FINAL PUMP DEPTH (ft bosc) 233  
 WATER COLUMN (ft) 11.29 CASING/TUBE DIAMETER (in) 3.75 SAMPLER'S SIGNATURE [Signature]  
 WELL PUMP VOLUME (gal) 2538 WELL SAMPLE TIME 1107 DUPLICATE SAMPLE TIME         

Time	Activity	Water Level (ft bosc)	Pump Depth (ft bosc)	Temp (°C)	TC (mS/cm)	Fe <sup>2+</sup> (mg/L)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volumes Pumped (gal/ml)	Well Pump Volumes Pumped	Flow Rate (gal/min)
1035	Start Purging	227.2	233	23.31	0.988	7.22	3.46	3.47	24.4	(No loss)	2720	1.05	(No)
1052		227.16		23.27	0.988	7.22	2.82	3.45	28.8		3200	1.24	
1055		227.18		23.52	0.988	7.23	2.95	3.47	28.5		3480	1.42	
1101		227.19		23.42	0.989	7.27	3.01	3.45	28.1		4120	1.61	
1104		227.13		23.69	0.989	7.29	3.18	3.51	28.4		4640	1.77	
1107	Sample	227.16		23.74	0.988	7.28	2.98	3.46	28.3		5120	1.98	

Colorimetric test (taken prior to sampling) Solids (mg/L):          Fe<sup>2+</sup> (mg/L):          D.O. (ppm): 3.46  
 Water level at time of sampling (ft bosc): 227.16 Turbidity at time of sampling: 2.98 Temperature on inlet readings:          Conductivity = 3 %  
 Pump Settings: CPM: 2 PSI: 115 Recharge: 21 Discharge: 7 pH ± 0.1  
 Comments: Well is high pressure control box. Turbidity < 10 NTUs (if > 10 NTUs ± 10 %) ORP ± 10 mV  
 W/L ± 0.1 foot

Note:  
 If volatiles are detected in the breathing zone during the initial sampling, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.  
 If no reference point is observed then the rising high point should be marked and measurements should be collected from this point.  
 Every message should be made to limit water level drawdown to less than 0.33 feet and purgo rate to less than 0.5 L/min.



TECH  
 10101  
 San Bernardino, CA 92406  
 Telephone (909) 391-1051  
 Telex: 7909 387-31

**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE 04/03/2017 SITE NAME / NUMBER BOV PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME LMC BOV SAMPLING DEVICE:  Purging Pump  Disposable Bailer  Other  
 MONITORING WELL IDENTIFICATION 3851M DVA:  FID  FID In Casing (ppm) (initial) 0.0 (vented to) 0.0  
 SAMPLE I.D. 3851M-N-1792 ON BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0  
 STATIC WATER LEVEL (ft bgs) 192.36 WELL DEPTH (ft bgs) 230.12 FINAL PUMP DEPTH (ft bgs) 207.2  
 WATER COLUMN (feet) 27.76 CASING/TUBE DIAMETER (inches) 3/8" SAMPLER'S SIGNATURE [Signature]

WELL / PUMP VOLUME (V) (gal/ml) 242.1 z v (gal/ml) --- WELL SAMPLE TIME 15:29 DUPLICATE SAMPLE TIME ---

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (°C)	EC (µmS/cm)	pH	Turbidity (NTU)	Deoxygen O <sub>2</sub> (mg/L)	ORP (mV)	Color	Volume Pumped (gals/ml)	Well/Pump Volume Pumped	Flow Rate (gal/min)
1501	Start purging	192.36	207.2	20.08	0.760	7.41	3.52	5.63	157.5	Colorless	2535	6.05	170
1514		192.36		19.92	0.757	7.39	2.55	5.59	143.1		3120	1.29	
1517		192.38		19.87	0.754	7.40	3.14	5.55	144.0		3705	1.53	
1520		192.37		19.79	0.754	7.40	4.45	5.52	145.1		4290	1.77	
1523		192.37		19.76	0.751	7.40	2.55	5.47	146.4		4875	2.01	
1524		192.38		19.71	0.749	7.40	2.56	5.46	147.7		5460	2.26	
1529	Sample												

Colorimetric test (taken prior to sampling) Sulfide (mg/L): --- Fe<sup>3+</sup> (mg/L): --- D.O. (ppm): 5.46  
 Water level at time of sampling (ft bgs): 192.38 Turbidity at time of sampling: 2.56  
 Pump Settings: CPX: 3 PSI: 105 Recharge: 135 Discharge: 65  
 Comments: ---

PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature collect readings Conductivity + 3%  
 pH ± 0.1 30 ± 0.5 mg/L  
 Turbidity < 10 NTUs (if > 10 NTUs ± 10%)  
 WL ± 0.1 feet ORP = 40 mV

Note:  
 If volatiles are detected in the breathing zone during the initial ascending, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (notch) to the top of the well casing.  
 If no reference point is observed then the casing high point should be noticed and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.





TERRATECH  
307E Van Ness Way, Suite 105  
San Francisco, CA 94108  
Telephone (415) 381-1070  
FAX (415) 381-1070

**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

DATE 04/09/17 SITE NAME / NUMBER LHC-B01 MURGING DEVICE:  De-aerated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME LHC-B01 SAMPLING DEVICE:  Purging Pump  Disposable Bailer  Other  
 MONITORING WELL IDENTIFICATION 3851 N OVA:  RID  PID in Casing (Open) (initial) \_\_\_\_\_ (vented to) \_\_\_\_\_  
 SAMPLE I.D. 3851 N-1700 DUPLICATE I.D. \_\_\_\_\_ (initial) \_\_\_\_\_ (vented to) \_\_\_\_\_  
 MONITORING WELL IDENTIFICATION 3851 N ON BREATHING ZONE (Open) \_\_\_\_\_  
 STATIC WATER LEVEL (R base) 191.70 WELL DEPTH (ft base) 329.50 FINAL PUMP DEPTH (ft base) 314.5  
 WATER COLUMN (feet) 137.8 CASING/TUBE DIAMETER (DIN) 3/8" SAMPLER'S SIGNATURE [Signature]  
 WELL PUMP VOLUME (V) (gallon) 4573 3 v (gal/min) \_\_\_\_\_ WELL SAMPLE TIME 16:37 DUPLICATE SAMPLE TIME \_\_\_\_\_

Time	Activity	Water Level (ft base)	Pump Depth (ft base)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Pumped (gallons)	Well Pump Volume Pumped	Pump Rate (gal/min)
15:53	Start pump	191.70	314.5										100
16:00		191.71		21.10	0.614	7.46	7.30	3.76	151.8	Colorless	4610	1.01	
16:05		191.72		21.04	0.612	7.46	6.30	3.70	153.5		5120	1.12	
16:08		191.72		21.05	0.611	7.46	6.82	3.67	152.8		5600	1.32	
16:31		191.72		21.02	0.610	7.46	5.17	3.75	151.1		6080	1.39	
16:34		191.72		21.01	0.609	7.46	6.44	3.73	149.8		6560	1.43	
16:37	Stop pump	191.72		21.00	0.607	7.46	4.97	3.69	149.0		7040	1.54	

Colorimetric test (taken prior to sampling) Subtle (mg/L) 191.72 D.O. (ppm) 3.69  
 Water level at time of sampling (ft base) 191.72 Turbidity at time of sampling: 4.97  
 Pump Settings: RPM: 2 PSI: 130 Recharge: 21 Discharge: 9  
 Comments: Use a high pressure control box

PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature collect readings  
 pH ± 0.1  
 Conductivity ± 3 %  
 Turbidity < 10 NTUs (if > 10 NTUs ± 10 %)  
 WL ± 0.1 foot  
 ORP ± 10 mV

Note:  
 If voltmeters are detected in the breathing zones during the full screening, air breathing zones will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purging rate to less than 0.5 L/min.



TECHNICAL  
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**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE 04/23/17 SITE NAME / NUMBER LHC-800 PURGING DEVICE:  Dedicated Pump  Perforated Pump  Bladder Pump  
 PROGRAM NAME LHC-800 SAMPLING DEVICE:  Pumping Pump  Disposable Bailer  Other  
 MONITORING WELL IDENTIFICATION 352 F OVA:  FID  PID In Casing (ppm) (initial) (vented to)  
 SAMPLE I.D. 352 F-1700a DUCTILE I.D. 160.10 IN BREATHING ZONE (ppm) (initial) (vented to)  
 STATIC WATER LEVEL (ft bwc) 147.98 WELL DEPTH (ft bwc) 184.50 FINAL PUMP DEPTH (ft bwc) 160.10  
 WATER COLUMN (ft) 36.52 CASING/TUBE DIAMETER (in) 5.75 SAMPLER'S SIGNATURE [Signature]  
 WELL / PUMP VOLUME (V) (gal/min) 0053 WELL SAMPLE TIME 1529 DUPLICATE SAMPLE TIME \_\_\_\_\_

Time	Activity	Water Level (ft bwc)	Pump Depth (ft bwc)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Disolved Oxygen (mg/L)	ORP (mV)	Color	Volumes Pumped (gals/ft)	Well/Case Volumes Pumped	Flow Rate (gallons/minute)
1503	Start Pump	147.98	161.46										190
1514		147.98		20.01	0.722	6.50	2.28	6.71	159.2	Colorless	2090	102	
1517		147.98		20.95	0.771	6.60	2.84	6.61	156.1		2060	130	
1520		147.99		20.90	0.770	6.57	2.16	6.71	152.9		2030	157	
1523		147.99		20.89	0.770	6.84	2.10	6.61	147.4		2000	185	
1526		147.98		20.86	0.770	6.88	2.12	6.61	145.2		4370	213	
1529	Sample	147.98		20.86	0.770	6.94	2.08	6.58	142.6		4940	241	

Colorimetric test (taken prior to sampling) Sulfide (mg/L): \_\_\_\_\_ Fe<sup>2+</sup> (mg/L): \_\_\_\_\_ D.O. (ppm): 6.58  
 Water level at time of sampling (ft bwc): 147.98 Turbidity at time of sampling: 2.08 Discharge: 8  
 Pump Settings: CPM: 2 PSI: 83 Recharge: 22  
 Comments: \_\_\_\_\_

PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature collect (range) Conductivity ± 3 %  
 pH ± 0.1 DO ± 0.3 mg/L  
 Turbidity < 10 NTU (if > 10 NTU) ± 10 %  
 WL ± 0.1 foot ORP ± 10 mV

Note:  
 If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (marked) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.3 L/min.





TERA TECH  
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 San Bernardino, CA 92408  
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 Telex (909) 381-413

**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE: 07/24/77 SITE NAME / NUMBER: 80V PURGING DEVICE:  Permeable Pump  Bladder Pump  
 PROGRAM NAME: 476-80V SAMPLING DEVICE:  Purging Pump  Disposable Bailer  Other

MONITORING WELL IDENTIFICATION: 3650 H-00 OVA:  PID  MID In Casing (ppm) (initial) (vented to)  
 SAMPLE I.D.: 3650 H-1700 DUPLICATE I.D.: \_\_\_\_\_ IN BREATHING ZONE (ppm) (initial) (vented to)  
 STATIC WATER LEVEL (ft base): 149.99 WELL DEPTH (ft base): 303.50 FINAL PUMP DEPTH (ft base): 291.00

WATER COLLUM (ft base): 154.01 CASING/TUBE DIAMETER (ft base): 3.8" SAMPLER'S SIGNATURE: \_\_\_\_\_  
 WELL PUMP VOLUME (V) (gal/min): 45.24 WELL SAMPLE TIME: 10:35 DUPLICATE SAMPLE TIME: \_\_\_\_\_

Time	Activity	Water Level (ft base)	Pump Depth (ft base)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallons)	Well Pump Volume Purged	Flow Rate (gallons/minute)
1955	Start pump	149.99	291.00	20.39	0.500	7.49	4.01	3.27	123.5	Colorless	4620	1.03	0.10
1958		149.65		20.39	0.500	7.51	4.21	3.14	122.4		5250	1.10	
1959		149.64		20.39	0.499	7.52	4.00	3.07	121.5		5880	1.30	
1939		149.64		20.38	0.497	7.54	3.69	2.96	122.4		6510	1.44	
1932		149.64		20.39	0.497	7.51	4.10	2.97	118.5		7100	1.58	
1935	Sample	149.67		20.39	0.496	7.55	3.85	2.92	117.9		7770	1.72	

Coliforms test (taken prior to sampling) Self-bleed (mg/L): \_\_\_\_\_ D.O. (ppm): \_\_\_\_\_  
 Water level at time of sampling (ft base): 149.64 Turbidity at time of sampling: \_\_\_\_\_  
 Pump Settings: CRP: 2 PSI: 100 Recharge: 21 Discharge: 9  
 Comments: \_\_\_\_\_  
 PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature correct readings pH ± 0.1 Conductivity ± 3 %  
 Turbidity < 10 NTUs (if > 10 NTUs ± 10 %)  
 ORP ± 10 mV

Note:  
 If volatiles are detected in the breathing zone during the initial sampling, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (marked) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdowns to less than 0.33 feet and purge rate to less than 0.5 L/min.



TETRA TECH  
341 E. Vachon Way, Suite 400  
San Ramon, CA 94583  
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Telex (925) 381-1874

GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING

DATE 04/08/17 SITE NAME / NUMBER LHC-B2U PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
PROGRAM NAME LHC-B2U SAMPLING DEVICE:  Purging Pump  Disposable Bailer  Other  
MONITORING WELL IDENTIFICATION 352AL OVA:  FID  FID in Casing (ppm) (Initial) (vented to)  
SAMPLE I.D. 352AL-N-1702 IN BREATHING ZONE (ppm) (Initial) (vented to)  
STATIC WATER LEVEL (ft bgs) 104.87 FINAL PUMP DEPTH (ft bgs) 173.1  
WATER COLUMN (feet) 18.15 CASING/TUBE DIAMETER (Inch) 3/8" SAMPLER'S SIGNATURE [Signature]

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallons)	Well/Pump Volume Purged	Flow Rate (gal/min)	DUPLICATE SAMPLE TIME	
														WELL SAMPLE TIME	DUPLICATE SAMPLE TIME
1430	Start Pump	104.87	173.1	21.27	0.991	7.44	2.65	7.67	82.3	Colorless	2040	1.0	170		
1448		104.95		21.21	0.988	7.43	2.56	7.43	79.9		2990	1.24	150		
1451		104.91		21.11	0.986	7.43	2.61	7.17	78.4		2940	1.46			
1454		104.91		21.02	0.988	7.42	2.62	6.98	76.0		3390	1.68			
1457		104.91		20.99	0.987	7.41	3.14	6.80	74.1		3840	1.91			
1500		104.91		20.84	0.985	7.41	2.37	6.70	70.6		4290	2.13			
1503	Sample	104.90													

Colorimetric test (taken prior to sampling) Sulfide (mg/L): \_\_\_\_\_  
Water level at time of sampling (ft bgs): 104.91 Turbidity at time of sampling: 2.37 Discharge: 8  
Pump Settings: CPM: 2 RSI: 85 Recharge: 20  
Comments: \_\_\_\_\_

PARAMETERS FOR WATER QUALITY STABILIZATION  
Temperature collect readings Conductivity ± 3%  
pH = 0.1 DO ± 0.3 mg/L  
Turbidity < 10 NTUs (if > 10 NTUs ± 10%)  
WL ± 0.1 foot ORP ± 10 mV

Note:  
If volatiles are detected in the breathing zone during the initial sampling, the breathing zone will be periodically monitored during purging and sampling activities.  
All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.  
If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
Every attempt should be made to limit water level drawdown to less than 0.33 feet and pump rate to less than 0.5 L/min.





TELEPHONE  
 818-708-8888  
 818-708-8888  
 818-708-8888

**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE: 04/23/17 SITE NAME / NUMBER: LMC-600 / 600

PROGRAM NAME: LMC-600

MONITORING WELL IDENTIFICATION: 38784 / 38524

SAMPLE ID: 38784 / 38524

STATIC WATER LEVEL (ft bgs): 136.82 WELL DEPTH (ft bgs): 230.00

WATER COLUMN (ft): 93.78 CASING/TIE DIAMETER (in): 3/8

WELL PUMP VOLUME (gallons): 3182 5 v (gallons)

DUPLICATE ID: 38784 / 38524

WELL SAMPLER TIME: 1329 DUPLICATE SAMPLE TIME: 1329

PERCING DEVICE:  Perforated Pump  Rebar Pump

SAMPLING DEVICE:  Purging Pump  Removable Hailer

OVA:  P10  P10 In Casing (P10) (initials) DD (vented to) 00

DEBRATING ZONE (ft bgs) (initials) DD (vented to) 00

PROB. PUMP DEPTH (ft bgs) 217.5

SAMPLER'S SERIAL NUMBER

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (°C)	EC (microhm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallons)	Well/Pump Volumes Purged	Flow Rate (gallons/min)
1259	Start Pump	131.82	217.5	19.86	0.527	7.97	6.20	3.28	31.1	1000.00	3375	1.00	225
1314		136.85		20.18	0.534	7.93	6.33	1.67	41.4		4050	1.27	
1317		136.84		19.98	0.535	7.93	6.08	0.99	39.3		4725	1.49	
1320		136.85		19.91	0.535	7.91	5.19	0.79	35.1		5400	1.70	
1323		136.83		17.85	0.533	7.83	5.73	0.70	35.8		6075	1.91	
1326	Sample	136.83		19.78	0.532	7.87	5.54	0.41	30.5		6750	2.12	
1329	Sample	136.83											

Colimetric test (taken prior to sampling): 5.59 (mg/L) Fe' (mg/L): 0.64

Water level at time of sampling (ft bgs): 136.83 Turbidity at time of sampling: 5.59

Pump Settings: PSI 85 Reservoir: 11 Discharge: 9

Comments: PH = 0.1

Turbidity < 10 NTUs (if > 10 NTUs = 10%)

WL = 0.1 foot

CONDUCTIVITY: NO ± 0.1 mg/L

Note: If no valves are exercised in the breathing zone during the initial monitoring, the breathing zone will be periodically monitored during purging and sampling activities. All water levels and pump depths are measured from the reference point (initials) in the top of the well casing. If no reference point is observed then the device height per se shall be noticed and measurements should be corrected from this point. Every attempt should be made to limit water level drawdown to less than 0.33 feet (3.33 ft) or less than 0.5 L/min.





EXTRA TEST  
 3611 Vandewater Way, Suite 408  
 San Bernardino, CA 92404  
 Telephone (909) 251-1628  
 Telex (909) 251-1139

**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE 04/03/17 SITE NAME / NUMBER MC-200 MURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME MC-200 SAMPLING DEVICE:  Purging Pump  Disposable Balder  Other  
 MONITORING WELL IDENTIFICATION 385AN OVA:  FID  PID In Casing (ppm) (initial) (wanted to)  
 SAMPLE ID 385AN-N-1702 DUPLICATE I.D. \_\_\_\_\_ IN BREATHING ZONE (ppm) (initial) (wanted to)  
 STATIC WATER LEVEL (ft bsc) 136.89 WELL DEPTH (ft bsc) 308.48 FINAL PUMP DEPTH (ft bsc) 278.5  
 WATER COLUMN (ft) 171.79 CASING/TUBE DIAMETER (in) 3/8 SAMPLER'S SIGNATURE [Signature]  
 WELL PUMP VOLUME (V) 4681-10 3 v (gal/hr) \_\_\_\_\_ WELL SAMPLE TIME 158 DUPLICATE SAMPLE TIME \_\_\_\_\_

Time	Activity	Water Level (ft bsc)	Pump Depth (ft bsc)	Temp (°C)	EC (mS/cm)	Fe <sup>3+</sup> (mg/L)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals/hr)	Well Pump Volume Purged	Flow Rate (gal/min initial)
1050	Arrive at well	136.5											195
1118	Start pump	136.89		20.24	0.416	7.75	5.05	4.78	138.4	Colorless	4875	1.04	
1146		136.88		20.23	0.470	7.74	3.08	4.37	132.4		5460	1.17	
1149		136.89		20.23	0.473	7.73	2.54	4.42	149.7		6045	1.29	
1152		136.88		20.24	0.476	7.73	3.31	4.44	127.6		6630	1.42	
1155		136.89		20.30	0.476	7.78	2.21	4.46	120.4		7215	1.54	
1158	Sample	136.89		20.31	0.476	7.73	3.53	4.51	125.2		7800	1.67	

Colorimetric test (taken prior to sampling) Sulfide (mg/L): \_\_\_\_\_ Fe<sup>3+</sup> (mg/L): \_\_\_\_\_ D.O. (ppm): 4.5  
 Water level at time of sampling (ft bsc): 136.89 Turbidity at time of sampling: 3.53  
 Pump Settings: CPM: 3 PSI: 87 Recirculate:  Discharge: 9  
 Comments: \_\_\_\_\_  
 PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature collect readings Conductivity ± 3 %  
 pH ± 0.1 DO ± 0.3 mg/L  
 Turbidity < 10 NTUs (if > 10 NTUs ± 10 %)  
 WL ± 0.1 foot ORP ± 10 mV

Note:  
 If volatiles are detected in the breathing zone during the initial sampling, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference points (notch) in the top of the well casing.  
 If no reference point is observed from the casing top point should be notched and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdowns to less than 0.33 feet and purge rate to less than 0.5 L/min.











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GROUNDWATER MONITORING WELLS  
FIELD DATA LOG SHEET - SAMPLING

PKAC (01)

DATE: 01-4-2017 SITE NAME / NUMBER: LMC 30A PURGING DEVICE:  Peristaltic Pump  Recirc Pump  
PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Purging Pump  Disposable Bailor  Other  
MONITORING WELL IDENTIFICATION: 3860K DUPLICATE ID: \_\_\_\_\_  
SAMPLE ID: 3860K-N1702 WELL DEPTH (ft bgs): 234.50 FINAL TEMP (DEPTH) (ft bgs): 224.50  
STATIC WATER LEVEL (ft bgs): 212.35 CASING/TUBE DIAMETER (dia): 3/8 SAMPLER'S SIGNATURE: [Signature]  
WATER COLUMN (feet): \_\_\_\_\_

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	OIP (mV)	Color	Volume Purged (gallons)	Well/Pump Volume Purged	Flow Rate (gallons/min)
1058	Start Run	212.35	224.50										120
1120		212.35		23.87	0.971	7.23	2.21	6.02	-19.6	clear	2640	1.63	
1123		212.35		23.78	0.972	7.25	1.69	6.04	-10.8	clear	3000	1.17	
1126		212.35		23.78	0.972	7.25	1.83	6.00	-10.2	clear	3750	1.31	
1129		212.35		23.74	0.971	7.24	2.17	5.97	-7.8	clear	3770	1.45	
1132		212.35		23.76	0.970	7.23	1.92	5.84	-6.2	clear	4080	1.69	
1135	END PUMP	212.35		23.65	0.977	7.22	1.78	5.85	-7.2	clear	4540	1.73	
1136	Sample												

Colorimetric test (taken prior to sampling): 0.0 (ppm) 1.78 Turbidity at time of sampling: 1.78 Parameters for water quality stabilization  
 Water level at time of sampling: \_\_\_\_\_ Discharge: \_\_\_\_\_  
 Pump Settings: \_\_\_\_\_ PSI: \_\_\_\_\_ Recharge: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Note:  
 If baffles are detected in the monitoring zone during the initial screening, the brushing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (nearly) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be unbiased from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 2.5 L/min.





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**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

DATE: 05/07/11 SITE NAME / NUMBER: LMC-800 PURGING DEVICE:  Dedicated Pump  Perforated Pump  Bladder Pump  
 PROGRAM NAME: LMC-800 SAMPLING DEVICE:  Pumping Pump  Disposable Bailer  Diver  
 MONITORING WELL IDENTIFICATION: 3861D OVA:  F13  PD In Casing (Open) (Initial) \_\_\_\_\_ (vented to) \_\_\_\_\_  
 SAMPLE I.D.: 3861D-N-1782 DUPLICATE I.D.: \_\_\_\_\_ IN BREATHING ZONE (Open) (Initial) \_\_\_\_\_ (vented to) \_\_\_\_\_  
 STATIC WATER LEVEL (ft bgs): 164.17 WELL DEPTH (ft bgs): 184.50 FINAL PUMP DEPTH (ft bgs): 174.5  
 WATER COLUMN (ft): 20.39 CASING/TUBE DIAMETER (ft/in): 3/8 SAMPLER'S SIGNATURE: \_\_\_\_\_  
 WELL / PUMP VOLUME (V) (gal/ml): 3690 3 x (gal/ml) \_\_\_\_\_ WELL SAMPLE TIME: 1350 DUPLICATE SAMPLE TIME: \_\_\_\_\_

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallon)	Well/Pump Volume Purged	Flow Rate (gallon/min)
1300	Start Pump	164.11	174.5	21.92	0.877	7.44	8.74	6.50	141.8	6600	3780	1.02	110
1335		165.26		21.80	0.877	7.43	9.34	6.35	136.2		4200	1.14	
1338		165.27		21.82	0.878	7.43	9.33	6.17	133.0		4620	1.25	
1341		165.26		21.77	0.878	7.43	8.81	6.10	116.8		5040	1.37	
1344		165.25		21.74	0.877	7.43	8.32	6.04	114.2		5460	1.48	
1347		165.26		21.70	0.878	7.43	8.15	6.12	111.2		5880	1.59	
1350	Stop Pump	165.26											

Colorimetric test (taken prior to sampling) Sulfide (mg/L): \_\_\_\_\_ Fe<sup>3+</sup> (mg/L): \_\_\_\_\_ I.D. (ppm): 0.12  
 Water level at time of sampling (ft bgs): 165.26 Turbidity at time of sampling: 8.15  
 Pump Settings: CPM: 85 PSI: 85 Recharge: 22 Discharge: 8  
 Comments: MS/MSD

PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature coldest readings: pH ± 0.1 Conductivity ± 3 % DO ± 0.3 mg/L  
 Turbidity < 10 NTUs (if > 10 NTUs) (if > 10 NTUs) W.L. ± 0.1 feet ORP ± 10 mV

Note:  
 If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (notch) to the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 6.33 feet and purge rate to less than 1.5 L/min.





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**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

DATE: 04/07/17 SITE NAME / NUMBER: 446609 PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME: 446609 SAMPLING DEVICE:  Purging Pump  Disposable Baller  Other  
 MONITORING WELL IDENTIFICATION: 361F OVA:  FID  FID In Casing (ppm) (initial) \_\_\_\_\_ (vented to)  
 SAMPLE I.D.: 361F-N-1703 IN BREATHING ZONE (ppm) (ballot) \_\_\_\_\_ (vented to)  
 STATIC WATER LEVEL (ft bgs): 160.08 WELL DEPTH (ft bgs): 328.0 PUMP DEPTH (ft bgs): 313.0  
 WATER COLUMN (ft): 16.94 CASING/TUBE DIAMETER (in): 3/8 SAMPLER'S SIGNATURE: [Signature]  
 WELL PUMP VOLUME (V) (gal/ml): 380 WELL SAMPLE TIME: 1:19 DUPLICATE SAMPLE TIME: \_\_\_\_\_

Time	Asbwy	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (°C)	EC (µS/cm)	pH	Turbidity (NTU)	Disolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallon)	Well Pump Volume Purged	Flow Rate (gals/min actual)
1140	Start purg	160.94	313.0										200
1204		160.28		22.01	244.7	7.69	2.33	2.25	39.8	Clear	3800	1.00	
1267		160.08		21.99	246.5	7.40	2.93	2.15	77.8		4200	1.17	
1310		160.09		22.03	246.4	7.56	2.60	3.35	22.1		4800	1.34	
1313		160.08		22.02	247.4	7.53	2.21	4.73	47.1		5400	1.51	
1316		160.08		22.03	245.3	7.52	3.73	4.98	14.3		6000	1.68	
1319	Sample	160.09		21.58	245.7	7.51	2.25	5.00	60.3		5400	1.54	

Colorimetric test (taken prior to sampling) Sulfide (mg/L): \_\_\_\_\_ Fe<sup>2+</sup> (mg/L): \_\_\_\_\_ D.O. (ppm): 3.00  
 Water level at time of sampling (ft bgs): 160.09 Turbidity at time of sampling: 2.95  
 Pump Settings: CPM: 2 FSL: 95 Recharge: 30 Discharge: 10  
 Comments: \_\_\_\_\_  
 PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature collect readings: Conductivity = 3%  
 pH = 0.1 DO = 0.5 mg/L  
 Turbidity < 10 NTUs (if > 10 NTUs x 10%)  
 WEL = 0.15 sec ORP = 10 mV

Note:  
 If values are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (usually) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purg rate to less than 0.5 L/min.



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**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE 04/05/17 SITE NAME / NUMBER UHC-BW PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME UHC-BW SAMPLING DEVICE:  Purging Pump  Disposable Bailer  Other  
 MONITORING WELL IDENTIFICATION UHC-BW DPLICATE ID.            OVA:  FID  PID  In Casing (ppm) (Initial)            (vented to)  
 SAMPLE I.D. UHC-BW-1702 WELL DEPTH (ft) 133.20 IN BREATHING ZONE (ppm)            (vented to)  
 STATIC WATER LEVEL (ft) 65.30 CASING TUBE DIAMETER (ft) 3.8 FINAL PUMP DEPTH (ft) 185.3  
 WATER COLUMN (ft) 65.30 SAMPLER'S SIGNATURE           

WELL SAMPLE TIME 6:25 DUPLICATE SAMPLE TIME           

Time	Activity	Water Level (ft bore)	Pump Depth (ft bore)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallons)	Well/Pump Volume Purged	Flow Rate (gal/min estimate)
16:54	Start Pump	133.20	185.3										
16:10		133.22		21.48	0.816	7.29	2.58	6.91	146.7	Colorless	2460	1.03	180
16:13		133.22		21.48	0.816	7.23	5.01	6.39	149.2		3200	1.24	
16:16		133.22		21.48	0.818	7.30	2.47	6.40	140.0		3740	1.95	
16:19		133.22		21.49	0.819	7.37	3.61	6.50	180.8		4280	1.66	
16:22		133.22		21.46	0.826	7.42	2.86	6.49	129.1		4820	1.87	
16:25	Stop Pump	133.22		21.42	0.826	7.43	2.34	6.45	127.3		5360	2.08	

Colorimetric mss. (taken prior to sampling)            Sulfide (mg/L)            D.O. (ppm) 6.45  
 Water level at time of sampling (ft bore) 133.22 Turbidity at time of sampling: 2.5 Discharge: 3  
 Pump Settings: CPWC 2 PSI 95  
 Comments:           

**NOTE:**  
 If values are detected in the breathing zone during the initial assessment, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.





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**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE: 04/10/17 SITE NAME / NUMBER: 602 PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Blender Pump  
 PROGRAM NAME: LHC-602 SAMPLING DEVICE:  Purging Pump  Disposable Bailer  Other  
 MONITORING WELL IDENTIFICATION: 3862E OVA:  FID  MID in Coating (ppm) (initial) (wanted to)  
 SAMPLER I.D.: 3862E-N-1702 IN BREATHING ZONE (ppm) (initial) (wanted to)  
 STATIC WATER LEVEL (ft base): 130.57 WELL DEPTH (ft base): 280.50 FINAL PUMP DEPTH (ft base): 270.50  
 WATER COLUMN (ft base): 149.93 CASING/TUBULE DIAMETER (Min): 3/8 SAMPLER'S SIGNATURE: \_\_\_\_\_  
 WELL PUMP VOLUME (V) (gallons): 4305 WELLS SAMPLING TIME: 1532 DUPLICATE SAMPLE TIME: \_\_\_\_\_

Time	Activity	Water Level (ft base)	Pump Depth (ft base)	Temp (°C)	EC (µmS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallons)	Well Pump Volume Purged	Flow Rate (gal/min) (initial)
1425	Start pump	130.57	270.5	21.4	0.558	7.04	5.88	2.32	118.9	Colorless	7400	1.99	800
1507		130.61		21.0	0.559	7.04	4.47	2.19	108.0		7400		
1510		130.59		20.70	0.558	7.10	3.42	2.20	102.8		7600		
1513		130.60		20.75	0.558	7.22	3.30	2.37	90.0		8200		
1519		130.59		20.71	0.557	7.27	3.09	2.24	87.3		8800		
1522	Sample	130.57		20.66	0.556	7.28	3.02	2.22	86.0		9400		

Coliforms: not taken prior to sampling Sulfide (mg/L): \_\_\_\_\_ Fe<sup>2+</sup> (mg/L): \_\_\_\_\_ D.O. (ppm): 2.22  
 Water level at time of sampling (ft base): 130.57 Turbidity at time of sampling: 3.02  
 Pump Settings: CFM: 2 PSI: 95 Recharge: 20 Discharge: 10  
 Comments: \_\_\_\_\_

Note:  
 If turbidity was detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (marked) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdowns to less than 0.33 feet and purge rate to less than 0.5 L/min.





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GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING

DATE: 4-5-2017 SITE NAME/NUMBER: LMC Box PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Purging Pump  Disposable Deline  Other  
 MONITORING WELL IDENTIFICATION: 3870D OVA:  PID  PID in Camp (ppm) (initial) 0 (vented to) \_\_\_\_\_  
 SAMPLE ID: 3870D-N-1707 DPLICATE ID: \_\_\_\_\_ N BREATHING ZONE (ppm) (initial) 0 (vented to) \_\_\_\_\_  
 STATIC WATER LEVEL (ft MSL): 169.18 WELL DEPTH (ft MSL): 195 FINAL PUMP DEPTH (ft MSL): 180  
 WATER COLUMN (ft MSL): \_\_\_\_\_ CASING/TUBES DIAMETER (in): 3.00 SAMPLER'S SIGNATURE: [Signature]  
 WELL/PUMP VOLUME (ft<sup>3</sup> gal/ft): 2300 3 V (gal/ft): \_\_\_\_\_ WELL SAMPLE TIME: 178 DUPLICATE SAMPLE TIME: \_\_\_\_\_

Time	Activity	Water Level (ft MSL)	Pump Depth (ft MSL)	Temp (°C)	EC (µmS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallons)	Well/Pump Volume Purged	Flow Rate (gallons/min)
1059	Start Pur	169.18	190										180
1012		169.28		25.77	1252	7.82	4.33	5.32	-2.4	clear	2,140	1.07	
1115		169.251		25.78	1249	7.80	3.49	5.65	13.0	clear	2,880	1.25	
1118		169.33		25.80	1245	7.48	4.12	5.68	7.2	clear	3,470	1.49	
1121		169.34		25.79	1249	7.47	4.09	5.67	11.5	clear	3,460	1.72	
1124		169.35		25.77	1244	7.47	3.61	5.84	8.3	clear	4,500	1.91	
1127	End Pur	169.35		25.67	1243	7.46	3.20	5.91	14.8	clear	3,040	2.16	
1128	sample												

Differential test (taken prior to sampling) \_\_\_\_\_ Sulfide (mg/L): \_\_\_\_\_ DO (ppm): \_\_\_\_\_  
 Water level at close of sampling (ft MSL): 169.35 Turbidity at time of sampling: 3.80  
 Pump Settings: CPM: \_\_\_\_\_ PSI: \_\_\_\_\_ Recharge: \_\_\_\_\_ Discharge: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature collect readings: \_\_\_\_\_ Conductivity ± 1%  
 pH ± 0.1 DO ± 0.5 mg/L  
 Turbidity < 10 NTUs (if > 10 NTUs ± 10%)  
 ORP ± 10 mV

Note:  
 If valises are retrieved in the breathing zone during the initial screening, the breathing zone will be specifically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (probe) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.55 feet and purge rate to less than 0.5 L/min.





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**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

Page 1 of 1

DATE 04/27/11 SITE NAME / NUMBER LMC-200 PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME 387H SAMPLING DEVICE:  Purging Pump  Disposable Baller  Other  
 MONITORING WELL IDENTIFICATION 387H OVA:  FID  PID In Casing (ppm) (initial) (versed to)  
 SAMPLE I.D. 387H-N-170A IN BREATHING ZONE (ppm) (initial) (versed to)  
 STATIC WATER LEVEL (ft bwc) 138.06 WELL DEPTH (ft bwc) 245.50 FINAL PUMP DEPTH (ft bwc) 220  
 WATER COLUMN (ft bwc) 107.44 CASING/TUBE DIAMETER (in) 3/8 SAMPLER'S SIGNATURE [Signature]

Time	Activity	Water Level (ft bwc)	Pump Depth (ft bwc)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Pumped (gallons)	Well Pump Volume Pumped	Flow Rate (gallons/minute)
0909	Start Pump	138.06	220.0										
0930		138.07		20.67	0.807	7.47	1.80	4.66	199.6	Colorless	390.0	1.04	160
0933		138.07		20.73	0.811	7.43	3.18	4.99	190.2		384.0	1.19	
0936		138.07		20.74	0.813	7.43	3.29	5.11	177.5		493.20	1.34	
0939		138.07		20.79	0.816	7.44	1.67	5.13	178.0		480.0	1.49	
0942		138.07		20.70	0.816	7.44	1.23	5.20	173.9		528.0	1.64	
0945	Stop Pump	138.07		20.99	0.815	7.44	2.79	5.12	172.3		571.00	1.79	

Colorimetric test (calcon prior to sampling) Sulfide (mg/L): 138.07 D.O. (ppm): 5.12 PARAMETERS FOR WATER QUALITY STABILIZATION  
 Water level at time of sampling (ft bwc): 138.07 Turbidity at time of sampling: 2.79 Temperature: collect readings Conductivity ± 3 %  
 Pump Settings: CPM: 2 PSL: 80 Rectrate: 20 Discharge: 10 pH ± 0.1 DO ± 0.3 mg/L  
 Comments: Turbidity < 10 NTU (if > 10 NTU) ORP ± 10 mV  
 WL ± 0.1 foot

Note:  
 If variations are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.



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**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE 04/07/77 SITE NAME/NUMBER B07 PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME LHC-B07 SAMPLING DEVICE:  Purging Pump  Disposable Baller  Other  
 MONITORING WELL IDENTIFICATION 38713 OVA:  FID  PID In Casing (ppm) (Initial) (vented up)  
 SAMPLE I.D. 38713-N-1702 IN BRIBATHING ZONE (Y/N) 278 (Initial) (vented up)  
 STATIC WATER LEVEL (ft above) 139.85 FINAL PUMP DEPTH (ft above) 278  
 WATER COLUMN (ft) 155.85 SAMPLER'S SIGNATURE [Signature]

Time	Activity	Water Level (ft above)	Pump Depth (ft above)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallons)	Well/Trap Volume (gallons)	Flow Rate (gallons/min)
1042	Start purging	155.85	178.5										
1047		155.85		21.21	0.745	7.70	4.87	3.45	105.6	1000	4500	1.01	
1050		155.85		21.23	0.747	7.70	3.45	3.41	98.0		5040	1.13	
1053		150.85		21.20	0.748	7.70	4.45	3.42	99.2		5580	1.20	
1056		155.85		21.22	0.748	7.70	3.06	3.48	86.8		6120	1.38	
1059		155.85		21.27	0.749	7.70	2.83	3.51	84.6		6660	1.50	
1102	Stop purging	155.85		21.30	0.755	7.69	2.77	3.60	81.2		7300	1.62	

Color/melted wax (taken prior to sampling) 155.85 Sulfide (mg/L) --- Fe<sup>2+</sup> (mg/L) --- D.O. (ppm) 3.100  
 Water level at time of sampling (ft above) 155.85 Turbidity at time of sampling: 2.77  
 Pump Settings: PSI 85 Recharge 20 Discharge 10  
 Conductance: ---

Note:  
 If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.  
 If no reference point is observed then the casing high point should be notched and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.





75-26A-2003  
 201 E. W-105th Hwy. Dept-113  
 Dept. of Public Works (CA 93421)  
 Telephone (562) 261-1614  
 Telex (909) 261-1173

# GROUNDWATER MONITORING WELL FIELD DATA LOG SHEET - SAMPLING

DATE 4-3-2011 SITE NAME/NUMBER 1309 PURGING DEVICE:  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Purging Pump  Disposable Bottle  Other  
 MONITORING WELL IDENTIFICATION 3872L DUPLICATE FIELD. OVA:  NID  LMD  CWSM (ZPM) (initial) LS (vented to)  
 SAMPLE ID. 3872L-1-17-2 WELLS DEPTH (ft) 191.5 IN BREATHING ZONE (yes)  (initial) LS (vented to)  
 STATIC WATER LEVEL (ft) 10.12 FINAL PUMP DEPTH (ft) 174.5  
 WATER COLUMN (feet) \_\_\_\_\_ CASING/TUBE DIAMETER (in) 3/8 SAMPLER'S SIGNATURE Juan Carr  
 WELLS PUMP VOLUME (gpm) 2590 3 Y (gal/min) WELL SAMPLE TIME 3:43 DUPLICATE SAMPLE TIME \_\_\_\_\_

Time	Activity	Water Level (ft. bgs)	Pump Depth (ft. bgs)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mv)	Color	Volume Purged (gals/ml)	Well/Pump Volume Purged	Flow Rate (gal/min)
1330	Start Pump	10.12	174.5										165
1336		10.12		21.50	0.693	6.47	10.02	4.16	35.3	clear	2640	1.02	
1339		10.12		21.49	0.646	6.71	9.72	4.02	22.1	clear	3135	1.21	
1342		10.12		21.38	0.649	6.84	10.09	4.04	14.3	clear	3630	1.40	
1345		10.12		21.28	0.651	6.88	9.22	4.12	11.4	clear	4125	1.59	
1348		10.12		21.32	0.652	6.89	8.27	4.15	6.0	clear	4620	1.73	
1341		10.12		21.35	0.653	7.10	8.92	4.06	0.0	clear	5115	1.97	
1344		10.12		21.36	0.653	7.09	8.76	4.09	-2.1	clear	5610	2.17	
1347	End Pump	10.12		21.36	0.654	7.13	8.09	4.14	-9.9	clear	6105	2.36	
1349	Sample												

Colorimetric test (taken prior to sampling) 8.99 Turbidity at time of sampling: 8.99  
 Water level at time of sampling (ft. bgs): 10.12 Discharge: \_\_\_\_\_  
 Pump Settings: \_\_\_\_\_ PSI \_\_\_\_\_ GPM: \_\_\_\_\_  
 Comments: \_\_\_\_\_

PARAMETERS FOR WATER QUALITY STATION

Temperature critical readings	Conductivity ± 3 %
pH ± 0.1	DO ± 0.1 mg/L
Turbidity < 10 NTU (if > 10 NTU) ± 10 %	
WT ± 0.1 feet	ORP ± 0 mv

Note:  
 If activities are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (initial) in the top of the well casing.  
 If no reference point is observed, then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.25 feet and purge rate to less than 0.5 L/min.





WELLS TECH  
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San Francisco, CA 94109  
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**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

DATE: 4-3-17 SITE NAME/ NUMBER: LKC Rem PURGING DEVICE:  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Pumping Pump  Disposable Bailer  Other  
 MONITORING WELL IDENTIFICATION: 3872 M OVA:  FID  In Casing (ppm) (initial) 8 (vented to) \_\_\_\_\_  
 SAMPLE I.D.: 3872 M-1702 DIAGNOSTIC I.D.: \_\_\_\_\_ IN BREATHING ZONE (ppm) (initial) C (vented to) \_\_\_\_\_  
 STATIC WATER LEVEL (ft bgs): 105.89 WELL DEPTH (ft bgs): 388.50 FINAL PUMP DEPTH (ft bgs): 796.0  
 WATER COLUMN (ft) (head): \_\_\_\_\_ CASING TUBE DIAMETER (in): 3/8 SAMPLER'S SIGNATURE: John Lee  
 WELL/PUMP VOLUME (V) (gal/ml) 5060 3 v (gal/ml) \_\_\_\_\_ WELL SAMPLES/TIME: \_\_\_\_\_ DUPLICATES/SAMPLE TIME: \_\_\_\_\_

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Pumped (gal/ml)	Well Pump Volume Pumped	Flow Rate (gal/min)
1510	Start Pump	105.89	296.0										110
1516		105.89		21.03	0.552	7.17	3.61	3.8	60.8	clear	5060	1.00	
1519		105.89		20.87	0.551	6.90	3.14	3.92	52.5	clear	5790	1.07	
1522		105.89		20.72	0.553	6.95	3.33	3.95	61.0	clear	5770	1.13	
1525		105.84		20.65	0.555	6.93	2.99	4.03	57.6	clear	6050	1.76	
1528		105.84		20.52	0.555	6.88	3.80	3.96	56.7	clear	6380	1.76	
1531	End Pump	105.89		20.48	0.556	6.90	3.44	4.00	57.9	clear	6710	1.77	
1532	Sample												

Colorimetric test (taken prior to sampling) \_\_\_\_\_ Seaside (mg/L) \_\_\_\_\_ DO (ppm) \_\_\_\_\_  
 Water level at time of sampling (ft bgs): 105.84 Turbidity at time of sampling: 3.44  
 Pump Settings: CRP: \_\_\_\_\_ PSI: \_\_\_\_\_ Discharge: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature collect readings: \_\_\_\_\_ Conductivity + 1% \_\_\_\_\_  
 pH + 0.1 \_\_\_\_\_ DO = 0.3 mg/L \_\_\_\_\_  
 Turbidity < 3 NTU (if > 10 NTU + 16%) \_\_\_\_\_  
 CRP = 10 MV \_\_\_\_\_

Note:  
 If readings are detected in the breathing zone during the initial purging, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (nadir) in the top of the well casing.  
 If no reference point is observed then the casing high poles should be noticed and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 l/min.





TELETYPE  
 101 R. Via Verde Way, P.O. Box 100  
 3 - Brea, California, CA 92615  
 Telephone (714) 851-1511  
 Telex 152-252-113

**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE **4-3-2017** SITE NAME/NUMBER **Box** PURGING DEVICE:  Mechanical Pump  Disposable Pump  Bladder Pump  
 PROGRAM NAME \_\_\_\_\_ SAMPLING DEVICE:  Purging Pump  Disposable Bag/  Other  
 MONITORING WELL IDENTIFICATION **3077A** DUPPLICATE ID. \_\_\_\_\_ OVA:  FID  FID In Casing (gram) (initial) \_\_\_\_\_ (vented to) \_\_\_\_\_  
 SAMPLE ID. **3077A-1-1-1-1** IN BREATHING ZONE? (ppm) \_\_\_\_\_ (initial) \_\_\_\_\_ (vented to) \_\_\_\_\_  
 STATIC WATER LEVEL (ft bgs) **108.02** WELL DEPTH (ft bgs) **142.5** FINAL PUMP DEPTH (ft bgs) **133.5**  
 WATER COLUMN (feet) **42.48** CASING/TUBE DIAMETER (in) **3/8** SAMPLER'S SIGNATURE **Jordan Cash**  
 WELLS PUMP VOLUME (V) (gallons) **1790** WELLS SAMPLE TIME **1:55** DUPLICATE SAMPLE TIME \_\_\_\_\_

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallons)	Well/Pump Volumes Purged	Flow Rate (gallons/minute)
1125	Start Purge	108.02	132.5	22.04	1.228	7.24	6.70	4.41	44.3	clear	1450	1.09	195
1135	-	108.05	-	22.09	1.231	7.25	3.19	4.37	47.2	clear	2535	1.67	
1138	-	108.06	-	22.09	1.238	7.25	3.36	4.60	46.2	clear	3170	1.74	
1141	-	108.06	-	22.14	1.241	7.24	3.54	4.52	39.5	clear	3705	2.07	
1144	-	108.07	-	22.16	1.245	7.24	2.25	4.60	38.8	clear	4190	2.40	
1147	-	108.07	-	22.12	1.247	7.25	2.40	4.60	34.6	clear	4875	2.77	
1150	End Purge	108.07	-										
1151	Sample												

Colorimetric test (taken prior to sampling) \_\_\_\_\_ Sulfide (mg/L) \_\_\_\_\_ Fe<sup>2+</sup> (mg/L) \_\_\_\_\_ D.O. (ppm) \_\_\_\_\_  
 Water level at time of sampling (ft bgs) **108.07** Turbidity at time of sampling: **2.40** Discharge: **7**  
 Pump Settings: CFM: **3** PSI: **90** Recharge: **13**  
 Comments: \_\_\_\_\_  
 PARAMETERS FOR WATER QUALITY STANDARDIZATION  
 Temperature correction factor: \_\_\_\_\_ Conductivity ± 3 %  
 Turbidity < 10 NTU (if > 10 NTU ± 10 %)  
 WL ± 0.1 feet ORP ± 10 mV

Note:  
 If volatiles are detected in the breathing zone during the initial sampling, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (marked in the log) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.5 feet and purge rate to less than 0.5 L/min.







HERA, TEXAS  
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 San Francisco, CA 94133  
 Telephone (970) 381-1424

**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE: 04/05/11 SITE NAME / NUMBER: BW PURGING DEVICE:  Peristaltic Pump  Blender Pump  
 PROGRAM NAME: LRC-20 SAMPLING DEVICE:  Pumping Pump  Disposable Baller  Other  
 MONITORING WELL IDENTIFICATION: 38723 DVA:  FID  PID In Casing (type) (initial) (initial)  
 MONITORING WELL IDENTIFICATION: 38723 IN BREATHING ZONE (yes) (initial) (initial)  
 SAMPLE ID: 38723-N-1792 WELL DEPTH (ft base): 299.50 FINAL PUMP DEPTH (ft base): 284.5  
 STATIC WATER LEVEL (ft base): 17.09 CASING TUBE DIAMETER (ft dia): 3.51 SAMPLER'S SIGNATURE: [Signature]  
 WATER COLUMN (ft base): 182.44 WELL SAMPLE TIME: 12:10 DUPLICATE SAMPLE TIME: ---  
 WELL PUMP VOLUME (V) (gallons): 4720

Time	Activity	Water Level (ft base)	Pump Depth (ft base)	Temp (°C)	EC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallons)	Well Pump Volume Purged	Flow Rate (gallons/min)
1125	Start pump	17.09	284.5	20.62	0.661	7.55	2.30	5.00	162.5	White	4800	1.02	160
1155		17.08		20.53	0.659	7.54	2.95	5.05	160.9		5380	1.12	
1158		17.08		20.49	0.661	7.53	4.10	5.25	159.9		5460	1.21	
1201		17.08		20.34	0.658	7.46	2.44	5.18	158.9		6240	1.32	
1207		17.08		20.23	0.658	7.50	2.52	5.19	149.8		6720	1.42	
1210	Sample	17.08		20.31	0.658	7.51	2.48	5.14	149.1		7300	1.53	

Cokermetric test (taken prior to sampling) Salts (mg/L): --- Fe<sup>2+</sup> (mg/L): --- D.O. (ppm): 5.14  
 Water level at time of sampling (ft base): 17.09 Turbidity at time of sampling: 2.48 Conductivity ± 3%  
 Pump Settings: CFMC: 2 PSI: 80 Recharge: 1 Discharge: 9 DO ± 0.1 mg/L  
 Comments: --- Turbidity < 10 NTUs (if > 10 NTUs ± 10%)  
 ORP ± 10 mV

Note:  
 If valves are checked in the breathing zone during the initial ascending, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (marked) in the top of the well casing.  
 If no reference point is observed then the casing high points should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.





EXTRA TECH  
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Telephone (408) 281-1674  
Telex 950 895-119

GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING

Page 1 of 1

DATE: 4-5-2017 SITE NAME/NUMBER: LAC 30A PUMPING DEVICES:  Dedicated Pump  Peristaltic Pump  Flooded Pump  
 PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Purging Pump  Disposable Bailer  Other  
 MONITORING WELL IDENTIFICATION: 3880 OVA:  PIT  VAD  Casing (gpm) (initial)  (vented to) \_\_\_\_\_  
 SAMPLE I.D.: 3880-1/1702 DUPPLICATE I.D.: \_\_\_\_\_ X BREATHING ZONE (ppm) (initial)  (vented to) \_\_\_\_\_  
 STATK: WATER LEVEL (G.W.S.) 157.16 WELL DEPTH (F.L.S.) 174.5 FINAL PUMP DEPTH (F.L.S.) 164.5  
 WATER COLUMN (feet) \_\_\_\_\_ CASING TUBE DIAMETER (IN.) 3/8 SAMPLER'S SIGNATURE: Jordan Cook  
 WELL PUMP VOLUME (GAL) 1000 3 V (GAL) \_\_\_\_\_ WEL SAMPLE TIME 0:50 DEPLEGATE SAMPLE TIME \_\_\_\_\_

Time	Activity	Water Level (ft b10c)	Pump Depth (ft b10c)	Temp (°C)	EC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals/ft)	W/HPump Volumes Purged	Flow Rate (g/min or ml/min)
0917	Start Pump	157.16	167.15	21.84	0.637	8.06	1.82	0.96	-21.0	clear	20.40	1.05	170
0924	-	157.90	-	21.86	0.636	8.08	1.73	0.90	-38.6	clear	40.00	1.24	
0937	-	157.44	-	21.83	0.636	8.05	1.92	0.93	109.0	clear	27.60	1.17	
0940	-	157.96	-	21.82	0.635	8.06	1.87	0.84	-11.1	clear	31.60	1.0	
0946	-	157.98	-	21.46	0.693	8.10	2.03	0.71	-115.8	clear	34.80	1.79	
0948	End Pump	157.49	-	21.44	0.672	8.10	1.94	0.66	-109.7	clear	33.10	1.48	
0950	Complete												

Colimetric test (taken prior to sampling) Sulfide (mg/L): \_\_\_\_\_ U.O. (ppm): \_\_\_\_\_  
 Water level at time of sampling (ft b10c): 157.49 Turbidity at time of sampling: 1.44  
 Pump Settings: \_\_\_\_\_ PSI \_\_\_\_\_ Discharge: \_\_\_\_\_  
 Conductance: \_\_\_\_\_

PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature collected readings Conductivity + 1 %  
 pH: 0.1  
 Turbidity < 10 NTUs (if > 10 NTUs = 10%)  
 W/L = 0.1 foot ORP > 10 mV

Note:  
 If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (depth) at the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and pump rate to less than 0.5 l/min.





TR  
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Telex 0700 288-17

**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

DATE 04/14/11 SITE NAME / NUMBER B01 PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME HCC-B01 SAMPLING DEVICE:  Perching Pump  Disposable Baller  Other  
 MONITORING WELL IDENTIFICATION 49148 OVA:  PID  PID In Casing (open) (Initial) (vented to)  
 SAMPLE I.D. 448-N-130a IN BREATHING ZONE (yes) (Initial) (vented to)  
 STATIC WATER LEVEL (ft below ground) 21.44 WELL DEPTH (ft below ground) 30.2 FINAL PUMP DEPTH (ft below ground) 29.2  
 WATER COLUMN (feet) 10.56 CASING/TUBE DIAMETER (ft) 3.8 SAMPLER'S SIGNATURE [Signature]  
 WELL PUMP VOLUME (V) (gal/ml) 3370 WELL SAMPLE TIME 0913 DUPLICATE SAMPLE TIME \_\_\_\_\_

Time	Activity	Water Level (ft below)	Pump Depth (ft below)	Temp (°C)	EC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals/ml)	Well/Pump Volume Purged	Flow Rate (gals/min)
08:23	Start pump		29.2										
08:58		29.44		20.43	0.964	6.83	4.60	4.28	165.2	66.185	3275	1.60	135
09:01		29.44		20.47	0.966	6.84	3.80	3.89	152.6		3780	1.13	
09:03		29.44		20.54	0.967	6.85	2.71	3.61	151.8		4185	1.24	
09:06		29.44		20.56	0.968	6.85	2.54	3.63	148.3		4590	1.36	
09:08		29.44		20.63	0.968	6.86	2.52	3.56	143.9		4995	1.48	
09:15	Stop pump	29.44		20.69	0.969	6.86	2.85	3.49	140.9		5400	1.60	

Colorimetric test (taken prior to sampling) 349 D.O. (ppm) 2.85  
 Water level at time of sampling (ft below) 21.44 Turbidity at time of sampling: 30 Discharge: 10  
 Pump Settings: CPM: Manual PSI: 145 Recharge: 30  
 Comments: In Manual mode, 90 ml/squirt every 40 seconds, 1000 ml/squirt every 2 minutes, 2 minutes stop time. Manual mode because of very little head, 20 ft. recharge time about bladder fill.

Notes:  
 If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (noted in the top of the well casing).  
 If no reference point is observed then the casing high point should be noted and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.





TERRA INCHI  
 301 E. Ventura Blvd. Ste. 200  
 Encinitas, CA 92024  
 Telephone: (760) 941-1811  
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**GROUNDEWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE: 4-25-2017 PAGE: 1  
 PROGRAM NAME: \_\_\_\_\_  
 MONITORING WELL IDENTIFICATION: 4449C  
 SAMPLE I.D. 8/0 Sample  
 STATIC WATER LEVEL (ft bgs) 266.22 WELL DEPTH (ft bgs) 318  
 WATER COLUMN (ft bgs) \_\_\_\_\_ CASING/PIPE DIAMETER (in) \_\_\_\_\_  
 WELLS PUMP VOLUME (gals/min) 2460 DUPLICATE I.D. \_\_\_\_\_

PURGING DEVICE:  Dedicated Pump  Portable Pump  Bladder Pump  
 SAMPLING DEVICE:  Purgong Pump  Disposable Bottle  Other  
 OVA:  PID  PID in Casing (ppm) (initial) \_\_\_\_\_ (vented to) \_\_\_\_\_  
 DEBRIATHING ZONE (ft bgs): (initial) \_\_\_\_\_ (final) \_\_\_\_\_  
 FINAL PUMP DEPTH (ft bgs) 271  
 SAMPLER'S SIGNATURE: [Signature] DATE: 4/25/17  
 WELLS SAMPLE TIME: \_\_\_\_\_ DUPLICATE SAMPLE TIME: \_\_\_\_\_

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallons)	Well Pump Volume Purged	Flow Rate (gallons/min)
10:20	Static Pump	766.22											172
10:45		266.26		21.54	20919	7.41	66.8	3.49	41.3	Brown			60
10:48		266.30		21.57	20814	7.40	56.1	3.69	41.1	Brown			100
10:51		266.34		21.57	20816	7.39	51.4	4.32	39.5	Brown			70
10:54		266.30		21.49	20817	7.39	50.5	3.34	39.5	Brown			30
10:57		266.30		21.51	20819	7.38	52.7	3.40	39.1	Brown			1300
11:00													

Colorimetric test (taken prior to sampling): \_\_\_\_\_  
 Water level at time of sampling (ft bgs): \_\_\_\_\_  
 Turbidity at time of sampling: \_\_\_\_\_  
 Pump Settings: \_\_\_\_\_ PSI: \_\_\_\_\_  
 Comments: Pump ran dry due to insufficient water. Flow rate could not be maintained. Is 10 m/cycle → 120+ m/cycle with some settings. Air purged out of sample line at 11:00  
 PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature coldest readings: \_\_\_\_\_ Conductivity = J %  
 pH = 0.1  
 Turbidity < 10 NTU (if > 10 NTU, + 0.9%)  
 WT. + 2.1 feet ORP = 10 mV

Note:  
 If volatiles are detected in the breathing zone during the initial sampling, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (level) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 bar and purge rate to less than 0.3 L/min.





TERMINAL  
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**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

DATE: 04/11/77 SITE NAME / NUMBER: BCV PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME: LHC-607 SAMPLING DEVICE:  Purging Pump  Disposable Bulb  Other  
 MONITORING WELL IDENTIFICATION: A-1-1002 OVA:  FID  PID  In Cooling (ppm) (Initial) (vented to)  
 SAMPLE I.D.: A-1-CW02-N-1702 DUPLICATE I.D.: \_\_\_\_\_ IN BREATHING ZONE (ppm) (Initial) (vented to)  
 STATIC WATER LEVEL (ft base): 223.19 WELL DEPTH (ft base): 309.50 FINAL PUMP DEPTH (ft base): 351.30  
 WATER COLUMN (ft base): 134.32 CASING/TUBE DIAMETER (ft/in): \_\_\_\_\_ SAMPLER'S SIGNATURE: \_\_\_\_\_  
 WELL/PUMP VOLUME (V) (gal/ml): 5059 WELL SAMPLE TIME: 10:21 DUPLICATE SAMPLE TIME: \_\_\_\_\_

Time	Activity	Water Level (ft base)	Pump Depth (ft base)	Temp (°C)	EC (µS/cm)	pH	Ferribility (NTU)	Dissolved Oxygen (app%)	ORP (mV)	Color	Volume Purged (gal/ml)	Well Pump Volume (gallons)	Flow Rate (gallons/minute)
09:39	Start purging	223.19	351.50	23.10	0.753	7.37	22.0	3.00	-6.7	(Initial)	59.00	1.03	200
10:05		223.81		23.16	0.784	7.34	21.7	2.99	-6.7		52.00	1.15	
10:05		223.14		23.165	0.784	7.37	20.8	3.05	-4.3		124.00	1.87	
10:11		223.15		23.71	0.756	7.37	18.5	3.05	-2.9		70.00	1.38	
10:14		223.15		22.74	0.766	7.36	18.3	3.04	-2.2		76.00	1.50	
10:17		223.15		22.78	0.785	7.36	19.0	3.04	-2.7		88.00	1.66	
10:24	Stop purging												

Colorimetric test (taken prior to sampling) Sulfide (mg/L): \_\_\_\_\_ Fe<sup>2+</sup> (mg/L): \_\_\_\_\_ D.O. (ppm): 3.04  
 Water level at time of sampling (ft base): 223.15 Turbidity at time of sampling: 19.4  
 Pump Return: 2 CPM: 2 PSI: 140 Recharge: 20 Discharge: 10  
 Comments: Box a high pressure control box

PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature - surface readings: Conductivity = 3 %  
 pH = 6.1 DO + O<sub>2</sub> mg/L  
 Turbidity < 10 NTUs @ 10 ft U.S. ± 1 %  
 WT = 6.1 feet ORP = 10 mV

Note:  
 If volatiles are detected in the breathing zone during the initial purging, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (normally in the top of the well casing).  
 If no reference point is observed from the casing high point should be notched and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.



TECHNICAL SERVICE  
101 E. Van Ness Way, Suite 107  
San Bernardino, CA 92411  
Telephone: (909) 387-4874  
Toll-free (800) 391-1177

GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING

Page 1 of 1

DATE 04/13/2017 SITE NAME / NUMBER B00 PUMPING DEVICE:  Perforated Pump  Bladder Pump  
 PROGRAM NAME LHC-B00 SAMPLING DEVICE:  Pumping Pump  Disposable Bailor  Other  
 MONITORING WELL IDENTIFICATION A-1-003R DUALPLICATE ID. A-1-003R OVA:  FID  PID In Casing (ppm) (initial) (retest to)  
 SAMPLED A-1-003R-N-1702 FINAL PUMP DEPTH (ft base) 264.50 IN BREATHING ZONE (ppm) (initial) (retest to)  
 STATIC WATER LEVEL (ft base) 228.25 WELL DEPTH (ft base) 281.50 FINAL PUMP DEPTH (ft base) 264.50  
 WATER COLUMN (ft) 56.25 CASING TUBE DIAMETER (in) 3.8 SAMPLER'S SIGNATURE [Signature]  
 WELL PUMP VOLUME (V) (gallons) 3208 WELL SAMPLE TIME 0719 INDICATE SAMPLE TIME

Time	Activity	Water Level (ft base)	Pump Depth (ft base)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volumes Purged (gallons)	Well/Pump Volume Purged	Flow Rate (gallons/minute)
0807	Start pump		264.50										200
0804		228.25		22.88	0.815	6.48	16.5	3.08	3.8	color	3400	1.00	
0907		228.26		22.94	0.834	6.68	13.1	3.01	-2.8		4000	1.25	
0910		228.26		22.90	0.832	6.79	11.80	2.90	-12.4		4000	1.43	
0913		228.26		22.90	0.830	6.84	10.38	2.86	-12.0		5200	1.02	
0916		228.26		22.93	0.838	6.87	9.79	2.86	-11.1		5800	1.91	
0919	Stop	228.26		22.95	0.828	6.87	9.48	2.81	-7.4		6400	2.00	

Colorimetric test (taken prior to sampling) Sulfide (mg/L) --- Fe<sup>3+</sup> (mg/L) --- D.O. (ppm) ---  
 Water level at time of sampling (ft base): Turbidity at time of sampling: Discharge: 10  
 Pump Settings: CRN: 2 PSI: 125  
 Comments: Use a high personal conduct. level.  
 F.M.S./W.S.D.

Note:  
 If turbidity are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.  
 If no reference point is observed, then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.





TELENO TEXT  
 5115 N. Woodward Way, Suite 404  
 San Bernardino, CA 92410  
 Telephone (909) 241-1474  
 Telex 154 109-109-109

**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE: 04/10/17 SITE NAME/NUMBER: LKC-B01 PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Hydraulic Pump  
 PROGRAM NAME: LKC-B01 SAMPLING DEVICE:  Purging Pump  Disposable Bailor  Other  
 MONITORING WELL IDENTIFICATION: A-1-G-004 CVA:  FID  MID in Casing (ppm) (initial) \_\_\_\_\_ (vented to) \_\_\_\_\_  
 SAMPLE I.D.#: 1-600A-N-1702 IN BREATHING ZONE (ppm) (initial) \_\_\_\_\_ (vented to) \_\_\_\_\_  
 STATIC WATER LEVEL (ft bgs): 218.51 WELL DEPTH (ft bgs): 244.50 FINAL PUMP DEPTH (ft bgs): 233.4  
 WATER COLUMN (ft): 25.99 CASING TUBE DIAMETER (in): 3.84 SAMPLER'S SIGNATURE: [Signature]  
 WELL PUMP VOLUME (V) (gal/ml): 244.3 WELL SAMPLE TIME: 13:30 DUPLICATE SAMPLE TIME: \_\_\_\_\_

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Chlorine	Volume Pumped (gal/ml)	Well/Pump Volume Purged	Flow Rate (gal/min)
1253	Start Pump	218.51	232.4	22.87	0.867	7.33	7.67	5.97	96.6	Chlorine	2700	1.06	1.90
1311		218.53	232.4	22.96	0.865	7.33	8.04	5.91	90.1		350	1.18	
1314		218.53		22.92	0.864	7.39	7.28	5.78	81.2		2400	1.35	
1317		218.53		22.95	0.864	7.39	7.04	5.62	73.9		4050	1.52	
1320		218.53		22.85	0.864	7.39	8.22	5.63	70.7		4500	1.69	
1323		218.53		22.78	0.864	7.39	8.04	5.54	68.7		4750	1.84	
1326	Sample	218.53											

Colorimetric test (taken prior to sampling): Sulfide (mg/L): \_\_\_\_\_ Fe<sup>2+</sup> (mg/L): \_\_\_\_\_ DO (ppm): 5.54  
 Water level at time of sampling (ft bgs): 218.53 Turbidity at time of sampling: 8.04  
 Pump Settings: PSI: 115 Recharge: 22.0 Exchange: 8.00  
 Comments: \_\_\_\_\_

PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature correct readings Conductivity ± 3 %  
 pH ± 0.1 DO ± 0.3 mg/L  
 Turbidity < 10 NTUs (if > 10 NTUs ± 10 %)  
 WL ± 0.1 foot ORP ± 10 mV

Note: If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during pumping and sampling activities. All water levels and pump depths are measured from the reference point (noted) in the top of the well casing. If no reference point is observed then the casing high point should be marked and measurements should be collected from this point. Every attempt should be made to limit water level drawdown to less than 9.33 feet and purge rate to less than 0.5 L/min.



7111 BA 11271  
 341 E. Vandenberg Way, Suite 404  
 San Bernardino, CA 92408  
 Telephone (909) 251-1174  
 Telex (909) 251-1174

**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE: 04/10/17  
 PROGRAM NAME: MC-B17  
 MONITORING WELL IDENTIFICATION: A-1-C-005  
 SAMPLE I.D. # C-005-A-1-C-005  
 STATIC WATER LEVEL (ft bsl): 217.50  
 WATER COLUMN (feet): 163.00  
 WELL PUMP VOL. (GAL) (V): 5335  
 CASING TUBE DIAMETER (in): 3/8"  
 WELL SAMPLE TIME: 1:34  
 DUPLICATE SAMPLE TIME: 1:30

PURGING DEVICE:  Pressurized Pump  
 Peristaltic Pump  
 Fluidics Pump  
 SAMPLING DEVICE:  Purging Bypass  
 Disposable Bailer  
 Other  
 OVA:  FID  PID  PID In Casing (ppm)  
 IN BREATHING ZONE (yes/no) (initial) (vented to)  
 FINAL PUMP DEPTH (ft bsl): 360.50  
 SAMPLER'S SIGNATURE: [Signature]

Time	Activity	Water Level (ft bsl)	Pump Depth (ft bsl)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallons)	Well Pump Volume Purged	Flow Rate (gallons/minute)
11:53	Start pump	217.50	360.50										
11:21		217.50		22.49	0.703	7.46	6.01	0.79	-66.3	Colorless	5460	1.02	195
11:24		217.50		22.52	0.705	7.46	5.56	0.77	-70.4		6045	1.13	
11:27		217.53		22.53	0.707	7.46	4.94	0.76	-72.0		6630	1.24	
11:30		217.53		22.53	0.709	7.45	4.66	0.76	-75.0		7215	1.35	
11:33		217.53		22.52	0.713	7.45	4.20	0.75	-75.3		7800	1.46	
11:36		217.53		22.51	0.715	7.45	3.63	0.76	-72.9		8385	1.57	

Calorimetric test (taken prior to sampling) Salts (mg/L): Fe<sup>3+</sup> (mg/L): 190 (ppm): 0.76  
 Water level at time of sampling (ft bsl): 217.53  
 Turbidity at time of sampling: 3.63  
 Pump Settings: PSI: 150 Recharge: 20 Discharge: 10  
 Comment: [Blank]

Note: If vibrations are detected in the breathing zone during the initial ascending, the breathing zone will be periodically monitored during jogging and sampling activities. All water levels and pump depths are measured from the reference point (which) is the top of the well casing. If an reference point is observed then the casing high point should be marked and measurements should be collected from this point. Every attempt should be made to limit water level drawdown to less than 0.34 feet and pump rate to less than 0.5 L/min.





TRIERA TECH  
201 S. Van Ness Way Ste 100  
San Francisco, CA 94104  
Telephone: (415) 398-1831  
Fax: (415) 398-1837

**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

DATE: 05/06/11 SITE NAME / NUMBER: BVV PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Booster Pump  
 PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Purging Pump  Disposable Bubbler  Other  
 MONITORING WELL IDENTIFICATION: A-1-GW08 OVAL:  FID  PID  In Closing (ppm) \_\_\_\_\_ (initial) \_\_\_\_\_ (vented to)  
 SAMPLE I.D.: A-C108-N1702 INITIAL PUMP DEPTH (ft below): 291.50 FINAL PUMP DEPTH (ft below): 291.50  
 STATIC WATER LEVEL (ft below): 286.53 CASING/TUBE DIAMETER (in): 3/4 SAMPLER'S SIGNATURE: \_\_\_\_\_  
 WATER COLUMN (feet): 2.92 WELL PUMP VOLUME (V) (gal/min): 2585 WELL SAMPLE TIME: 1414 DUPLICATE SAMPLE TIME: \_\_\_\_\_

Time	Acidity	Water Level (ft below)	Pump Depth (ft below)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gal/min)	Well/Pump Volume Purged	Flow Rate (gal/min)
1413	200	286.53	289.5	23.90	0.856	7.23	3.19	4.42	114.4	2600	1.05	1.05	1.05
1432	200	286.57	289.5	23.92	0.853	7.23	2.61	4.10	111.3	3140	1.24	1.24	1.24
1455	200	286.55	289.5	23.90	0.852	7.23	2.21	3.87	106.1	3620	1.43	1.43	1.43
1438	200	286.55	289.5	23.89	0.851	7.23	2.32	3.81	101.8	4100	1.62	1.62	1.62
1441	200	286.53	289.5	23.89	0.850	7.24	2.34	3.71	97.9	4580	1.81	1.81	1.81
1444	200	286.55	289.5	23.93	0.848	7.23	2.51	3.59	93.7	5020	2.00	2.00	2.00

Colorimetric test (taken prior to sampling) Sulfide (mg/L): \_\_\_\_\_ Fe<sup>2+</sup> (mg/L): \_\_\_\_\_  
 Water level at time of sampling (ft below): 286.53 Turbidity at time of sampling: 2.51  
 Pump Settings: CRPM: \_\_\_\_\_ PSI: 111 Recharge: 20 Discharge: 10  
 Comments: \_\_\_\_\_  
 PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature collection settings Conductivity ± 3%  
 pH ± 0.1 UO ± 0.3 mg/L  
 Turbidity < 10 NTU's (if > 10 NTU's ± 10%)  
 CRP ± 10.0 V

**NOTE:**  
 If volatiles are detected in the breathing zone during the initial exceeding, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water level and pump depth are measured from the reference point (usually) to the top of the well casing.  
 If no reference point is observed when the casing high point should be noticed and measurement should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purg rate to less than 0.5 U/min.









TERRA TECH  
 146 S. Vanowden Way, Suite 410  
 San Bernardino, CA 92410  
 Telephone (909) 399-1400  
 Fax (909) 399-1407

**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE 04/05/17 SITE NAME / NUMBER B0V PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME \_\_\_\_\_ SAMPLING DEVICE:  Purging Pump  Disposable Bottle  Other  
 MONITORING WELL IDENTIFICATION B-1-CW11 DUCTILE IRON \_\_\_\_\_ (initials) \_\_\_\_\_ (years to)  
 SAMPLE ID. B-1-CW11-N-1702 DUCTILE IRON \_\_\_\_\_ (initials) \_\_\_\_\_ (years to)  
 STATIC WATER LEVEL (ft base) 151.05 WELL DEPTH (ft base) 334.50 IN BREATHING ZONE (ppm) \_\_\_\_\_ (years to)  
 WATER COLUMN (ft) 183.45 CASING/TUBE DIAMETER (ft) 3/8" FINAL PUMP DEPTH (ft base) 322.0 (initials) \_\_\_\_\_ (years to)  
 WELL PUMP VOLUME (V) (gallons) 5130 SAMPLER'S SIGNATURE \_\_\_\_\_ DUPLICATE SAMPLE TIME \_\_\_\_\_

Time	Activity	Water Level (ft base)	Pump Depth (ft base)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallons)	Well Pump Volume Purged	Flow Rate (gallons/min)
0835	Start pump	151.05	322.0										150
0910		151.06		20.74	0.914	7.160	2.58	0.84	181.8	Colorless	5250	1.02	
0915		151.07		20.77	0.915	7.160	2.18	0.84	178.5		5700	1.11	
0916		151.07		20.97	0.930	7.160	2.44	0.78	166.8		6150	1.20	
0919		151.07		20.98	0.931	7.160	2.39	0.77	159.6		6600	1.29	
0922		151.07		20.97	0.932	7.160	2.94	0.77	157.4		7050	1.37	
0925	Stop	151.06		20.97	0.931	7.160	2.22	0.73	151.3		7500	1.46	

Colorimetric test (taken prior to sampling) Sulfide (mg/L): \_\_\_\_\_ Fe<sup>2+</sup> (mg/L): \_\_\_\_\_ D.O. (ppm): 0.73 PARAMETERS FOR WATER QUALITY STABILIZATION  
 Water level at time of sampling (ft base): 151.06 Turbidity at time of sampling: 2.22 Temperature collect readings: \_\_\_\_\_ Conductivity ± 3%  
 Pump Settings: CRT: 2 PSI: \_\_\_\_\_ Recharge: 21.0 Discharge: 9.0 pH ± 0.1  
 Conductivity: MS/MSD Turbidity < 10 NTUs (if > 10 NTUs ± 10%)  
 ORP ± 10 mV

Note:  
 If volatiles are detected in the breathing zone during the initial excavation, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (rod) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 6.3 feet and pump rate to less than 0.5 L/min.





TE  
201 E. Valerita Way, P.O. Box 28  
San Bernardino, CA 92408  
Telephone: (909) 381-1811  
Fax: (909) 381-1812

GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING

DATE: 4-4-16 SITE NAME / NUMBER: Cam Bona PUMPING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Sounding Pump  Disposable Dabler  Other  
 MONITORING WELL IDENTIFICATION: B-1-cwrc OVA:  SW  SPS  In Casing (pump) (initial)  (vented to)  
 MONITORING WELL IDENTIFICATION: \_\_\_\_\_ IN BREATHING ZONE (yes) \_\_\_\_\_ (initial)  (vented to)  
 SAMPLE ID: B-1-cwrc-a-170-2 DPLICATE ID: \_\_\_\_\_ FINAL PUMP DEPTH (ft base): 174.5 FINAL PUMP DEPTH (ft base): 164.5  
 STATIC WATER LEVEL (ft base): 156.06 CASING/TUBE DIAMETER (in): 2.0 SAMPLER'S SIGNATURE: Johan Cook  
 WATER COLUMN (ft): \_\_\_\_\_ WELLS SAMPLE TIME: 1500 DUPLICATE SAMPLE TIME: \_\_\_\_\_  
 WELL PUMP VOLUME (gallons): 1930 3 Y (gallons): \_\_\_\_\_

Time	Activity	Water Level (ft base)	Pump Depth (ft base)	Temp (°C)	EC (microhm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volumes Purged (gallons)	Well/Pump Volumes Purged	Flow Rate (gallons/min)
1431	Start Pump	156.06	164.5										195
1444		156.06		22.88	1.129	7.53	2.82	3.24	16.4	clear	1456	1.01	
1447		156.06		22.64	1.120	7.52	1.08	3.44	11.6	clear	2535	1.71	
1450		156.06		22.53	1.128	7.57	2.14	3.56	11.3	clear	3120	1.62	
1453		156.06		22.47	1.128	7.58	1.78	3.54	13.0	clear	5705	1.47	
1456		156.06		22.45	1.128	7.57	1.37	3.44	11.8	clear	4700	2.17	
1459	End Pump	156.06		22.74	1.120	7.58	1.13	3.33	12.6	clear	4875	2.53	
1500	Sample												

Colorimetric test (taken prior to sampling)		Sulfate (mg/L)	Fe <sup>3+</sup> (mg/L)	D.O. (ppm)	PARAMETERS FOR WATER QUALITY STABILIZATION	
Water level at time of sampling (ft base):	_____	_____	Turbidity at time of sampling: _____	_____	Temperature collect. readings:	Conductivity + 1 %
Pump Settings:	CPMG: _____	PSI: _____	Recharge: _____	_____	pH: 6.2	DO = 0.3 mg/L
Comments:	_____	_____	Discharge: _____	_____	Turbidity < 3 NTUs (if > 10 NTUs + 16 %)	ORP = 10 mV
_____	_____	_____	_____	_____	_____	_____

Note:  
 If volatiles are detected in the breathing zone during the initial sensing, the breathing zone will be meticulously monitored during pumping and sampling activities.  
 All water levels and pump depths are measured from the reference point (noted) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdowns to less than 0.33 feet and pump rate to less than 0.5 L/min.





TRC  
1401 E. Van Ness Blvd. Ste. 418  
San Francisco, CA 94108  
Telephone (415) 441-4474  
FAX (415) 441-4475

**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

DATE: 6/12/17 SITE NAME / NUMBER: BDV PUMPING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME: LAC-60V SAMPLING DEVICE:  Hanging Pump  Disposable Dripper  Other  
 MONITORING WELL IDENTIFICATION: B-1-0213 DUCTILE IRON CASING (yes)  FID  FID In Casing (yes) (initial) (vented to)  
 SAMPLE ID: B-1-0213-N-1762 WELL DEPTH (ft base): 215 IN BREATHING ZONE (ft base) (initial) (vented to)  
 STATIC WATER LEVEL (ft base): 199.91 FINAL PUMP DEPTH (ft base): 205  
 WATER COLUMN (ft base): 15.19 CASING/TUBE DIAMETER (ft base): 3.8" SAMPLER'S SIGNATURE: [Signature]  
 WELL / PUMP VOLUME (V) (gallons): 0.917 3 v (gallons) WELL SAMPLE TIME: 1018 DR/PPLICATE SAMPLE TIME: ---

Time	Activity	Water Level (ft base)	Pump Depth (ft base)	Temp (°C)	EC (µmS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Pumped (gallons)	Well/Pump Volume Pumped	Flow Rate (gallons/min)
1003	Start pump	199.81	205	21.41	0.989	7.26	2.32	5.24	80.1	16.68	3400	1.12	300
1004		199.81		21.37	0.919	7.24	2.49	5.24	90.7		3400	1.36	
1009		199.80		21.39	0.917	7.24	2.05	5.25	81.4		4000	1.60	
1012		199.81		21.37	0.914	7.23	2.37	5.19	82.7		4400	1.84	
1015		199.81		21.35	0.911	7.23	2.01	5.10	84.00		5200	2.08	
1018	Stop pump	199.81		21.39	0.909	7.23	2.21	5.14	85.4		5800	2.32	

Conductometric test (taken prior to sampling) Sulfide (mg/L): --- Fe<sup>2+</sup> (mg/L): --- D.O. (ppm): 5.14 PARAMETERS FOR WATER QUALITY STABILIZATION  
 Water level at time of sampling (ft base): 199.91 Turbidity at time of sampling: 2.21 Conductivity ± 3 %  
 Pump Settings: CFM: 2 PSI: 105 Recharge: 9 pH ± 0.1 DO ± 0.3 mg/L  
 Comments: --- Turbidity < 10 NTUs (if > 10 NTUs ± 10 %) WL ± 0.1 feet ONP ± 10 mV

Note:  
 If vanilins are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.  
 If no reference point is observed then the casing high point should be notched and measurements should be collected from this point.  
 Every attempt should be made to limit water level draw-down to less than 0.33 feet and purge rate to less than 0.5 L/min.





TESTMATE  
301 E. Verdugo Park E. # 208  
San Dimas, CA 91768  
Telephone (909) 812-1874  
Toll Free 1-800-427-1277

# GROUNDEWATER MONITORING WELL FIELD DATA LOG SHEET - SAMPLING

Page 1 of 1

DATE: 4-18-2017 SITE NAME/NUMBER: BOL PUMPING DEVICE:  Dedicated Pump  Portable Pump  Handier Pump  
 PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Pumping Pump  Disposable Bailer  Other  
 MONITORING WELL IDENTIFICATION: B-1-54017 Duplicated:  OVA:  FD  MD  In casing (ppm): \_\_\_\_\_ (initial) 0 (vented to)  
 SAMPLE ID: B-1-54017-1-176-2 WELL DEPTH (ft base): 161.5 IN BREATHING ZONE (ft base): 177.3 (vented to): \_\_\_\_\_  
 STATIC WATER LEVEL (ft base): 140.73 CASING/PIPE DIAMETER (in): 3/8 SAMPLER'S SIGNATURE: [Signature]  
 WATER COLUMN (feet): 20.77 WELL SAMPLE TIME: 0831 DURATION SAMPLE TIME: \_\_\_\_\_

Time	Activity	Water Level (ft base)	Pump Depth (ft base)	Temp (°C)	Temp (°F)	SC (mg/l)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Pumped (gals/ml)	Well Pump Volume Pumped	Flow Rate (gallons/min)
0758	Start Pump	140.73	157.3	21.27	70.1	1.140	7.69	1.76	3.78	102.5	clear	2100	1.08	150
0812	-	140.73	-	21.30	70.3	1.140	7.64	1.71	4.09	156.1	clear	2650	1.3	-
0815	-	140.73	-	21.32	70.4	1.141	7.62	1.60	3.92	156.1	clear	3200	1.55	-
0818	-	140.73	-	21.30	70.3	1.142	7.62	2.13	3.92	75.5	clear	3450	1.78	-
0821	-	140.73	-	21.32	70.4	1.143	7.62	2.41	3.95	59.5	clear	3500	2.0	-
0827	-	140.73	-	21.36	70.6	1.144	7.62	1.60	3.92	60.9	clear	4250	2.34	-
0830	End Pump	140.73	-	21.37	70.5	1.144	7.61	1.70	3.79	59.3	clear	4800	2.17	-
0831	Sample													

Colorimetric test (taken prior to sampling): \_\_\_\_\_ Secchi (ft): \_\_\_\_\_  
 Water level at time of sampling (ft base): 140.73 Turbidity at time of sampling: 1.70  
 Pump Settings: CRM: \_\_\_\_\_ PSI: \_\_\_\_\_ Recharge: \_\_\_\_\_ Discharge: \_\_\_\_\_  
 Comments: \_\_\_\_\_

PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature of collection readings: \_\_\_\_\_ Conductivity ± 3%  
 pH ± 0.1: \_\_\_\_\_ DO ± 0.3 mg/L  
 Turbidity < 10 NTU (if > 10 NTU ± 20%)  
 WL ± 0.1 feet ORP ± 10 mV

Notes:  
 If voids are created in the breathing zone during the initial sampling, the breathing zone will be periodically monitored during pumping and sampling activities.  
 All water levels and pump depths are measured from the reference pole; (noted in the top of the well casing).  
 If a reference point is observed then the existing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdowns to less than 0.33 feet and pump rate to less than 0.5 L/min.





TEC  
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 Telex: 170017

**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE: 04/13/17 SITE NAME / NUMBER: CHC-802 PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME: CHC-802 SAMPLING DEVICE:  Purging Pump  Disposable Bailer  Other  
 MONITORING WELL IDENTIFICATION: B-1-0230 DUPLICATE I.D.: \_\_\_\_\_ OVA:  PID  PIZ In Casing (ppm) (initial) (vent to) (vented to)  
 SAMPLE I.D.: B-1-0230-N-1792 WELL DEPTH (ft. base): 309.50 IN BREATHING ZONE (ppm) (initial) (initial)  
 STATIC WATER LEVEL (ft. base): 141.92 CASING TUBE DIAMETER (in): 3/8" FINAL PUMP DEPTH (ft. base): 274.50 SAMPLER'S SIGNATURE: [Signature]  
 WATER COLUMN (ft. base): 167.58 WELL SAMPLE TIME: 1305 DUPLICATE SAMPLE TIME: \_\_\_\_\_  
 WELL / PUMP VOLUME (V) (gal): 467

Time	Activity	Water Level (ft. base)	Pump Depth (ft. base)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Pumped (gals/ml)	Well/Pump Volumes Pumped	Flow Rate (gal/min)
1235	Start pump	141.90	294.50										
1250		141.95		22.27	0.864	7.11	3.87	5.197	38.0	(bleed)	4750	1.02	190
1253		141.95		22.29	0.865	7.08	2.87	5.478	38.6		5320	1.14	
1256		141.95		22.17	0.865	7.05	4.17	5.163	40.1		5890	1.26	
1259		141.95		22.14	0.865	7.04	2.70	5.35	39.4		6060	1.58	
1302		141.95		22.19	0.865	7.04	2.102	5.46	39.1		7030	1.51	
1305	Sample	141.95		22.20	0.866	7.05	2.77	5.164	35.9		7600	1.63	

Colorimetric test (taken prior to sampling): Sulfide (mg/L): \_\_\_\_\_ Fe<sup>3+</sup> (mg/L): \_\_\_\_\_ D.O. (ppm): 5.164  
 Water level at time of sampling (ft. base): 141.95 Turbidity at time of sampling: 2.77 Discharge: 10  
 Pump Settings: CPM: 2 PSI: 95 Recharge: 20  
 Comments: \_\_\_\_\_

**Notes:**  
 If ventless was installed in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (note) in the top of the well casing.  
 If no reference point is observed then the casing high point should be reached and measurements should be collected from this point.  
 Every startup should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.







TRC  
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**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

DATE 04/24/17 SITE NAME / NUMBER HC-28V PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME HC-28V SAMPLING DEVICE:  Purging Pump  Disposable Bailer  Other  
 MONITORING WELL IDENTIFICATION BH-0225 OVA:  FID  PID  In Casing (open) (initial) (vented to)  
 SAMPLE ID BH-0225-N-1702 DUPLICATE ID BH-0225-FD-1702 IN BREATHING ZONE (approx) 189 (vented to)  
 STATIC WATER LEVEL (ft bosc) 187.57 WELL DEPTH (ft bosc) 195.10 FINAL PUMP DEPTH (ft bosc) 189  
 WATER COLUMN (ftosc) 7.53 CASING/TUBE DIAMETER (rim) 3/8" SAMPLER'S SIGNATURE [Signature]  
 WELL PUMP VOLUME (V) (gal/well) 0.5 3 y (gal well) 1.29 DUPLICATE SAMPLE TIME 11:29

Time	Activity	Water Level (ft bosc)	Pump Depth (ft bosc)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mv)	Color	Volume Purged (gal/well)	Well Pump Volumes Filled	Flow Rate (gal/min @ 1.5 ft/min)
11:02	Start purge	187.57	187.00	23.17	0.431	7.49	3.21	4.71	50.7	Colorless	2380	1.08	190
11:04		187.55		23.13	0.433	7.48	2.83	4.71	46.8		2850	1.25	
11:07		187.55		23.13	0.432	7.48	3.06	4.71	45.1		3420	1.42	
11:20		187.55		23.59	0.432	7.45	2.78	4.67	44.6		3990	1.90	
11:28		187.56		23.10	0.431	7.73	2.34	4.54	44.1		4560	2.17	
11:39	Sample	187.56		23.11	0.431	9.49	2.85	4.60	43.9		5130	2.44	

Colorimetric test (taken prior to sampling) Sulfide (mg/L): --- D.O. (ppm): 4.61  
 Water level at time of sampling (ft bosc): 187.56 Turbidity at time of sampling: 2.85  
 Pump Settings: CPM: 2 PSI: 95 Recharge: 2 Discharge: 9  
 Comments: ---  
 PARAMETER(S) FOR WATER QUALITY STABILIZATION  
 Temperature collected readings: pH = 0.1 DO ± 0.2 mg/L  
 Turbidity < 10 NTU (if > 10 NTU) ± 10%  
 WE ± 0.1 feet ORP ± 10 mV

**Note:**  
 If notices are observed in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (notch) at the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.



TITING 15700  
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 Telex: 254220 TITING

**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE 11/17/87 SITE NAME / NUMBER LKC-BDD PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Riposter Pump  
 PROGRAM NAME LKC-BDD SAMPLING DEVICE:  Purging Pump  Disposable Bailer  Other  
 MONITORING WELL IDENTIFICATION B-1-0087 OVA:  FID  PID  Cooling (ppm) (vented to) \_\_\_\_\_  
 SAMPLE ID B-1-0087-N-1702 IN BREATHING ZONE (Y/N) \_\_\_\_\_ (vented to) \_\_\_\_\_  
 STATIC WATER LEVEL (ft bgs) 19.87 FINAL PUMP DEPTH (ft bgs) 243.5  
 WATER COLUMN (feet) 1586.3 SAMPLER'S SIGNATURE [Signature]

WELL / PUMP VOLUME (V) (gallons) 487.0 CASING/TUBE DIAMETER (R/O) 3" DUPLICATE I.D. \_\_\_\_\_  
 WELLS SAMPLE TIME 11/17/87 Duplicates: SAMPLE TIME \_\_\_\_\_

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (°C)	EC (microhm-cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Pumped (gallons)	Well Pump Volume Percent	Flow Rate (gallons/minute)
0830	Start Pump	179.87	323.5										
0856		179.87		22.13	0.650	7.64	3.19	3.85	141.2	1001.6	4940	6.01	190
0859		179.88		22.09	0.650	7.64	2.86	3.75	135.5		5510	6.73	
0902		179.87		22.21	0.647	7.63	2.58	3.70	121.3		6080	1.25	
0905		179.88		22.22	0.649	7.64	2.40	3.72	111.4		6050	1.36	
0908		179.87		22.13	0.651	7.64	2.20	3.80	107.9		7220	1.58	
0911	Stop Pump	179.87		22.17	0.651	7.64	2.57	3.81	104.3		7790	1.60	

Colorimetric test (subson prior to sampling) Substrate (mg/L): \_\_\_\_\_ Fe<sup>3+</sup> (mg/L): \_\_\_\_\_ D.O. (ppm): 3.81  
 Water level at time of sampling (ft bgs): 179.88 Turbidity at time of sampling: 2.57  
 Pump Settings: RPM: 2 PSI: 105 Recharge: 20 Discharge: 10  
 Comments: \_\_\_\_\_

PARAMETERS FOR WATER QUALITY STANDARDIZATION  
 Temperature collect settings Conductivity ± 3 %  
 pH ± 0.1 DO ± 0.3 mg/L  
 Turbidity < 10 NTUs (if > 10 NTUs ± 10 %)  
 ORP ± 10 mV

Note:  
 If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurement should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.





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GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING

DATE 01/12/17 SITE NAME / NUMBER MLC-871 PROGRAM NAME MLC-871

MONITORING WELL IDENTIFICATION B-K0228 MURGING DEVICE:  Dedicated Pump  Portable Pump  Bladder Pump

SAMPLE I.D. 8.1-0228-N-1702 SAMPLING DEVICE:  Purging Pump  Disposable Dailer  Other

STATIC WATER LEVEL (ft base) 148.24 OVA:  PID  MID  In Casing (ppm) (initial) (vented to)

WATER COLUMN (feet) 202.24 CASING/TUBE DIAMETER (DIN) 3.18 IN BREATHING ZONE (ppm) (vented to)

WELL PUMP VOLUME (V) (gal/min) 5428 FINAL PUMP DEPTH (ft base) 335.50 SAMPLER'S SIGNATURE [Signature]

WELL PUMP VOLUME (V) (gal/min) 5428 WELLS SAMPLE TIME 0900 DUPLICATE SAMPLE TIME 0900

Time	Activity	Water Level (ft base)	Pump Depth (ft base)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gal/min)	Well Pump Volume Purged	Flow Rate (gal/min)
0810	Start Purg	148.24	335.50	19.97	0.775	7.47	6.39	2.29	-13.5	2000	55.0	1.03	190
0845		148.22		19.99	0.775	7.47	6.21	2.24	-16.8		6080	1.12	
0848		148.21		20.06	0.776	7.47	5.62	2.20	-19.1		6650	1.23	
0851		148.20		20.14	0.776	7.47	6.29	2.18	-20.3		7220	1.33	
0854		148.20		20.21	0.775	7.47	5.52	2.16	-22.1		7990	1.44	
0857		148.22		20.21	0.775	7.47	4.70	2.15	-20.0		8360	1.54	
0900	Sample	148.22		20.24	0.775	7.47							

Colorimetric test (taken prior to sampling) Sulfide (mg/L): --- Fe<sup>2+</sup> (mg/L): --- D.O. (ppm) 2.15 PARAMETERS FOR WATER QUALITY STABILIZATION

Water level at time of sampling (ft base): 148.22 Turbidity at time of sampling: 4.70 Temperature correct readings: Conductivity ± 3 %

Pump Settings: CPM: 2 PSI: 125 Recharge: 21 Discharge: 9 pH ± 0.1 DO ± 0.3 mg/L

Components: Turbidity < 10 NTU (if > 10 NTU) ± 10 % WL ± 0.1 feet ORP ± 10 mV

Note:  
If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
All water levels and pump depths are measured from the reference point (marked) in the top of the well casing.  
If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.





EXTRA TECH  
301 E. Van Ness Ave., Ste. 400  
San Francisco, CA 94108  
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24 HOURS SERVICE

GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING

DATE: 4-6-2017 SITE NAME / NUMBER: LMC 800 PUMPING DEVICE:  Dedicated Pump  Peristaltic Pump  Header Pump  
 PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Verging Pump  Disposable Bailer  Other  
 MONITORING WELL IDENTIFICATION: B-1-C-430 OVA: L NO SPD in casing (size) (initial): 0 (vent to) \_\_\_\_\_  
 SAMPLER I.D.: 3.125 in (ID) (in base) 200 IN BORE-HOLE ZONE (ID) (in) (vent to) \_\_\_\_\_  
 STATIC WATER LEVEL (ft base): 169.80 FINAL PUMP DEPTH (ft base): 190  
 WATER COLUMN (feet) \_\_\_\_\_ SAMPLER'S SIGNATURE: [Signature] WELL SAMPLE TIME: \_\_\_\_\_  
 WELLPUMP VOLUME (gals/min) 2310 3 Y (gals/min) \_\_\_\_\_ DUPLICATE SAMPLE TIME: \_\_\_\_\_

Time	Activity	Water Level (ft base)	Pump Depth (ft base)	Temp (°C)	K/C (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Perched (gals/min)	Well Pump Volume Perched	Flow Rate (gpm/min or l/min)
1400	Start Pump												120
1420		169.85		24.03	1.046	7.28	4.81	4.05	27.2	clear	2.400	1.01	
1431		169.85		23.88	1.047	7.28	4.97	3.97	27.8	clear	2.760	1.19	
1434		169.85		22.75	1.049	7.25	5.17	3.75	27.0	clear	3.120	1.35	
1437		169.85		23.85	1.047	7.23	3.88	3.84	24.2	clear	3.480	1.51	
1440		169.85		23.83	1.049	7.28	3.92	4.04	31.3	clear	3.840	1.64	
1443	Stop Pump	169.85		23.80	1.051	7.30	3.97	3.88	35.1	clear	4.200	1.92	
1444	Sample												

Calcimetric test (taken prior to sampling) 3.0 (mg/L) Turbidity at time of sampling: 3.87  
 Water level at time of sampling (ft base): 169.85 Recharge: \_\_\_\_\_  
 Pump Settings: CPM: \_\_\_\_\_ PS: \_\_\_\_\_ Discharge: \_\_\_\_\_  
 Remarks: \_\_\_\_\_

Note: (If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be immediately monitored during drilling and sampling activities.)  
 All water level acid purge devices are measured from the reference point (noted) in the top of the well casing.  
 (If no reference point is observed then the casing high point should be noted and instruments should be collected from this point.  
 Every attempt should be made to limit water level drawdowns to less than 0.33 feet and 7-10 psi to less than 0.5 L/min.





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**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE: 4-6-2017 SITE NAME / NUMBER: MC 306 PUMPING DEVICE:  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Pumping Pump  Disposable Bailer  Other  
 MONITORING WELL IDENTIFICATION: B-1-C-031 DUCTILATE SAMPLE ID#S: \_\_\_\_\_  
 SAMPLE ID: B-1-C-031-170-2 DUCTILATE SAMPLE ID#S: \_\_\_\_\_  
 STATIC WATER LEVEL (ft) 69.75 WELL DEPTH (ft) 2200  
 WATER COLUMN (ft) \_\_\_\_\_ CASING/TUBE DIAMETER (in) 3/8  
 WELL/PUMP VOLUME (gal) 2310 3 x (gal) \_\_\_\_\_  
 SAMPLER'S SIGNATURE: [Signature] DUCTILATE SAMPLE ID#S: \_\_\_\_\_

Time	Activity	Water Level (ft) (bore)	Pump Depth (ft) (bore)	Temp (°C)	EC (µm/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Filled (gal/ml)	Well Pump Volume Filled	Flow Rate (gal/min)
1231	Start Pump	69.75	120										130
1249		69.80		25.00	0.985	7.32	6.54	5.29	35.0	clear	2350	1.9	
1252		69.80		24.91	0.987	7.32	7.00	5.71	38.1	clear	270	1.8	
1255		69.80		24.73	0.941	7.32	5.24	5.85	47.4	clear	370	1.75	
1258		69.80		24.54	0.945	7.33	6.82	6.02	45.7	clear	350	1.52	
1301		69.80		24.62	0.946	7.34	7.31	6.10	47.9	clear	3400	1.04	
1304	End Pump	69.80		24.63	0.947	7.34	7.21	6.09	48.4	clear	4700	1.86	
1305	Sample												

Co-ordinate test (taken prior to sampling) Sulfide (mg/L): \_\_\_\_\_  
 Water level at time of sampling (ft) (bore): 69.80 Turbidity at time of sampling: 7.21  
 Pump Settings: \_\_\_\_\_ PSI: \_\_\_\_\_ Recharge: \_\_\_\_\_  
 Comments: \_\_\_\_\_

PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature collection: \_\_\_\_\_ Conductivity: ± 3%  
 Turbidity: < 10 NTU (if > 10 NTU ± 15%)  
 DO: ± 0.1 mg/L  
 ORP: ± 10 mV

Name: \_\_\_\_\_  
 If velocities are detected in the breathing zone during the initial venting, the breathing zone will be periodically monitored during pumping and sampling activities.  
 All water levels and pump depths are measured from the reference point (noted in the top of the well casing).  
 If no reference point is observed from the casing, high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and pump rate to less than 0.3 U/min.





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**GROUNDFWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE: 11-5-1977 SITE NAME/NUMBER: LMC BOM PURGING DEVICE:  Dedicated Pump  Bladder Pump  
 PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Perching Pump  Disposable Bail  Other  
 MONITORING WELL IDENTIFICATION: Q-1-6W32 DVA:  H<sub>2</sub>O  H<sub>2</sub>S in Cooling (ppm) (initial) 0 (ventil to)  
 SAMPLE I.D.: B-1-C-22-1-1707 IN BREATHING ZONE (ppm) (initial) 0 (ventil to)  
 STATIC WATER LEVEL (ft bgs): 148.15 FINAL PUMP DEPTH (ft bgs): 170  
 WATER COLUMN (feet): \_\_\_\_\_ SAMPLER'S SIGNATURE: Juan Cue

WELL PUMP VOLUME (V) (gallons) 2200 CASING TUBE DIAMETER (in) 3/8 WELL DEPTH (ft bgs) \_\_\_\_\_  
 WELLS PUMP DEPTH (ft bgs) \_\_\_\_\_ DYNAMIC SAMPLE TIME \_\_\_\_\_

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallons)	Well Pump Volatiles Purged	Flow Rate (gallons/min)
1222	Start Pump	148.15	170										160
1236		148.15		24.09	0.801	7.81	7.29	5.87	5.41	clear	2280	1.07	
1239		148.15		24.05	0.805	7.07	7.40	6.03	6.13	clear	2720	1.24	
1242		148.15		24.02	0.805	7.02	7.22	5.91	8.22	clear	3200	1.45	
1245		148.15		23.78	0.807	6.74	8.91	5.53	10.90	clear	3680	1.67	
1248		148.15		23.80	0.805	6.71	6.30	5.41	10.85	clear	4160	1.89	
1251	End Pump	148.15		23.74	0.806	6.75	6.94	5.42	10.82	clear	4640	2.11	
1252	Sample												

Colorimetric test (taken prior to sampling) Sulfide (mg/L): \_\_\_\_\_ Turbidity at time of sampling: 6.94 D.O. (ppm): \_\_\_\_\_  
 Water level at time of sampling (ft bgs): 148.15 Turbidity at time of discharge: \_\_\_\_\_ Discharge: \_\_\_\_\_  
 Pump Settings: CPM: \_\_\_\_\_ PSI: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Note:  
 If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (marked) in the top of the well casing.  
 If no reference point is shown and then the starting high point should be national and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 l/min.





TECHNICAL  
371 E. Highway 190, Suite 410  
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**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

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DATE: 4-6-2022 SITE NAME/NUMBER: LMC 130 PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Hydraulic Pump  
 PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Sounding Pump  Disposable Bellows  Other  
 MONITORING WELL IDENTIFICATION: B-1-4-1033 Duplicath ID: \_\_\_\_\_ OVA:  MID  MID in Casing (open) (initial) \_\_\_\_\_ (vented to)  
 SAMPLE ID: B-1-4-1033-11-1782 WELL DEPTH (ft bgs): 220 IN BREATHING ZONE (open): \_\_\_\_\_ (initial) \_\_\_\_\_ (vented to)  
 STATIC WATER LEVEL (ft bgs): 188.76 SAMPLER'S SIGNATURE: [Signature] FINAL PUMP DEPTH (ft bgs): 210  
 WATER COLUMN (ft): \_\_\_\_\_ CASING/TUBE DIAMETER (in): 3.0 Duplicath Sample Line \_\_\_\_\_

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (°C)	MC (percent)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallons)	Well Pump Volumes Purged	Flow Rate (gallons/min)
0827	Start Pump	188.76	20										120
0848		188.76		22.17	0.574	7.18	3.93	6.76	48.2	clear	25.70	1.00	
0851		188.70		21.89	0.981	7.18	3.94	6.77	47.1	clear	28.80	1.14	
0854		188.70		21.68	0.989	7.18	3.70	6.78	46.8	clear	37.00	1.79	
0857		188.70		21.63	0.986	7.20	3.85	7.38	49.5	clear	36.00	1.43	
0900		188.70		21.64	0.986	7.21	3.59	7.47	52.6	clear	39.60	1.57	
0903	END PUMP	188.70		21.77	0.988	7.22	3.68	7.54	57.4	clear	43.20	1.71	
0909	Sample												

Colorimetric test (taken prior to sampling): \_\_\_\_\_ Sulfide (mg/L): \_\_\_\_\_ DO (ppm): \_\_\_\_\_  
 Water level at time of sampling (ft bgs): 188.76 Turbidity at time of sampling: 3.68  
 Pump Settings: CPX: \_\_\_\_\_ PSI: \_\_\_\_\_ Redesign: \_\_\_\_\_ Discharge: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 pH ± 0.1: \_\_\_\_\_ DO = 0.3 mg/L  
 Turbidity < 10 NTUs (if > 10 NTUs) ± 10%  
 WE - 1.5.1 foot ORP ± 10 mV

Note:  
 If viscosities are detected in the circulating areas during the initial operations, the circulating areas will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (marked) in the top of the well casing.  
 If no reference point is observed than the casing high point should be noticed and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 l/min.





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# GROUNDWATER MONITORING WELL FIELD DATA LOG SHEET - SAMPLING

Page 1 of 1

DATE: 4-5-2017 SITE NAME/ NUMBER: L.M. B.O.M. PUMPING DEVICE:  Peristaltic Pump  Diaphragm Pump  Other

PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Purging Pump  Disposable Siphon  Other

MONITORING WELL IDENTIFICATION: B-1-6-234 UVA:  FID  HD In Casing (ppm) (initial) 0 (serial to)

SAMPLE ID: B-1-6-34-6-1702 WELT. DPTH: (ft bsc) 154.46 FN BREATHING ZONE (ftm) (initial) 0 (serial to)

STATIC WATER LEVEL (ft bsc) 154.46 WELT. DPTH: (ft bsc) 154.46 FN BREATHING ZONE (ftm) (initial) 0 (serial to)

WATER COLUMN (ft) \_\_\_\_\_ CASING/TUBE DIAMETER (dia) 3/4 SAMPLER'S SIGNATURE \_\_\_\_\_

WELL PUMP VOLUME (V) (gallon) 2160 WELT. SAMPLE TIME \_\_\_\_\_

Time	Activity	Water Level (ft bsc)	Pump Depth (ft bsc)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Pumped (gals/m)	Well Pump Volume Pumped	Flow Rate (gal/min)
1404	Start Pump												
1422		154.0		24.4	1.76	7.72	19.7	4.42	119.0	clear	2160	1.40	120
1425		154.0		25.9	1.70	7.38	8.87	4.88	111.2	clear	2500	1.17	
1428		154.50		25.86	1.18	7.34	7.71	5.20	115.7	clear	2880	1.33	
1431		154.50		25.40	1.14	6.58	8.45	6.09	154.8	clear	3240	1.50	
1434		154.0		25.48	1.13	6.57	6.56	5.98	147.7	clear	3600	1.67	
1437	End Pump	154.60		25.4	1.12	6.55	6.36	6.09	152.6	clear	3960	1.83	
1438	Sample												

Colorimetric test (ascor. prior to sampling) \_\_\_\_\_ Fe<sup>2+</sup> (mg/L): \_\_\_\_\_ D.O. (ppm): \_\_\_\_\_

Water level at time of sampling (ft bsc): 154.50 Turbidity at time of sampling: 6.36

Pump Settings: \_\_\_\_\_ PSI: \_\_\_\_\_ Discharge: \_\_\_\_\_

Comments: \_\_\_\_\_

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature collect readings: \_\_\_\_\_ Conductivity ± 3 %

pH ± 0.1 \_\_\_\_\_ DO ± 0.3 mg/L

Turbidity < 10 NTUs (if > 10 NTUs) ± 10 %

ORP ± 3 mV

Note:  
 1) Values are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 2) All water levels and pump depths are measured from the reference point (notch) at the top of the well casing.  
 3) If no reference point is observed then the casing high point should be utilized and measurements should be collected from this point.  
 4) Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 6.5 cfm.





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GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING

DATE: 04-10-2017 S.T.R. NAME / NUMBER: L-AC Box PURGING DEVICE:  Mechanical Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Sounding Pump  Disposable Boiler  Other  
 MONITORING WELL IDENTIFICATION: B-5-3-5-2017-1702 DUCTILE I.D.: \_\_\_\_\_ OVA:  JTD  JTD In Casing (ppm) (min): 0 (vented to)  
 SAMPLE I.D.: B-5-3-5-2017-1702 WELL DEPTH (ft): 349.50 IN BREATHING ZONE (ft): 345 (vented to)  
 STATIC WATER LEVEL (ft blue): 232.84 FINAL PUMP DEPTH (ft blue): 345 344.5  
 WATER COLUMN (feet): \_\_\_\_\_ CASING/COR DIAMETERS (in): 3/8 SAMPLER'S SIGNATURE: Patrick Cosin

WELL PUMP VOLUMES (V) (gal/min) 5070 DUCTILE I.D. 1.56 DUPLICATE SAMPLE TIME \_\_\_\_\_

Time	Airflow	Water Level (ft blue)	Pump Depth (ft blue)	Temp (°C)	EC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gal/min)	Well Pump Volumes Purged	Flow Rate (gal/min)
1525	Start Purge	232.81	-	-	-	-	-	-	-	-	-	-	350
1540	-	232.82	-	22.60	0.775	6.95	3.74	0.80	-54.3	clear	5250	1.681	-
1543	-	232.82	-	22.11	0.705	6.93	4.21	0.75	-48.0	clear	6300	1.74	-
1546	-	232.82	-	22.21	0.721	6.96	2.87	0.82	-57.5	clear	7350	1.45	-
1549	-	232.82	-	22.11	0.714	7.03	3.09	0.76	-59.1	clear	8400	1.6	-
1552	-	232.82	-	22.11	0.711	7.00	2.24	0.69	-59.8	clear	9450	1.76	-
1555	End Purge	232.82	-	22.10	0.716	7.01	3.42	0.65	-60.7	clear	10500	2.07	-
1556	Sample	-	-	-	-	-	-	-	-	-	-	-	-

PARAMETERS FOR WATER QUALITY STABILIZATION

Calomel electrode (taken prior to sampling)	Sulfide (mg/L):	U.O. (ppm):
Water level in time of sampling (ft blue):	Turbidity in time of sampling:	Temperature corrected readings
Pump Settings: GPM: <u>232.82</u>	PSI:	pH: <u>6.1</u>
Conductance:	Discharges:	Turbidity < 10 NTU (if > 10 NTU ± 10%)
		WL = 0.1 feet
		ORP = 0.3 mV

Note:  
 If volumes are decreased in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (marked) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be isolated from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.3 gpm.





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**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

DATE: 11/26/17 SITE NAME/NUMBER: 14C-P20 MURGING DEVICE:  Peristaltic Pump  Disposable Pump  Bladder Pump  
 PROGRAM NAME: 14C-P20 SAMPLING DEVICE:  Peristaltic Pump  Disposable Suction  Other  
 MONITORING WELL IDENTIFICATION: B-6-C-003 OVA:  FID  PID in Casing (ppm) (initial) (verified)  
 SAMPLE I.D.: B-6-C-003-N-178a DUPLICATE I.D.: B-6-C-003-PD-178a IN BREATHING ZONE (ppm) (initial) (verified)  
 STATIC WATER LEVEL (ft bsc): 235.44 WELL DEPTH (ft bsc): 399.50 FINAL PUMP DEPTH (ft bsc): 339.50  
 WATER COLUMN (ft bsc): 104.06 CASING TUBE DIAMETER (in): 3/8 SAMPLER'S SIGNATURE: [Signature]

Time	Activity	Water Level (ft bsc)	Pump Depth (ft bsc)	Temp (°C)	EC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals/min)	Well Pump Volume Purged	Flow Rate (gals/min)
1540	Start pump		399.50										180
1606		235.45		23.75	0.805	7.79	2.32	3.30	23.2	Color	4680	1.01	
1609		235.45		23.68	0.873	7.78	2.26	2.67	30.2		5280	1.13	
1612		235.45		23.56	0.873	7.77	2.27	2.43	37.9		5760	1.24	
1615		235.45		23.56	0.872	7.74	2.76	2.16	48.4		6300	1.36	
1618		235.45		23.56	0.871	7.73	2.28	2.12	50.5		6840	1.48	
1621	Stop pump	235.45		23.57	0.871	7.70	2.19	2.09	55.0		7380	1.59	

Colorimetric test (taken prior to sampling) Sulfide (mg/L): 0.09 D.O. (ppm): 2.19 PARAMETERS FOR WATER QUALITY STABILIZATION  
 Water level at time of sampling (ft bsc): 235.45 Turbidity at time of sampling: 2.19 Discharge: 10  
 Pump Settings: PSI: 135 Recharge: 10  
 Comments: lux a high pressure contact box

Notes:  
 If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (marked) in the top of the well casing.  
 If no reference point is observed from the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.11 feet and pump rate to less than 0.5 L/min.



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**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE: 07/11/17 SITE NAME / NUMBER: R00 PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME: LUCR000 SAMPLING DEVICE:  Trussing Pump  Disposable Bailer  Other  
 MONITORING WELL IDENTIFICATION: 0-6-0405 OVA:  FID  PID  In Closing (open) (initial) (vent to) (vent to)  
 SAMPLE I.D.: 6-6-605-N-1702 DUPLICATE I.D.: IN BREATHING ZONE (yes) (initial) (vent to)  
 STATIC WATER LEVEL (ft bosc): 259.30 WELL DEPTH (ft bosc): 355.0 FINAL PUMP DEPTH (ft bosc): 350.0  
 WATER COLUMN (feet): CASING/TUBE DIAMETER (in/in): 3/8 SAMPLER'S SIGNATURE: [Signature]  
 WELL / PUMP VOLUME (V) (gallons): 99.50 WELL SAMPLE TIME: 1520 DUPLICATE SAMPLE TIME: ---

Time	Activity	Water Level (ft bosc)	Pump Depth (ft bosc)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallons)	Well/Pump Volume Purged	Flow Rate (gallons/minute)
14:38	Start pump	259.30	350.0										
14:59		259.31		23.29	0.837	7.40	4.21	1.28	-164.6	Color 100	399.0	1.01	190
15:02		259.31		23.24	0.851	7.37	3.92	1.69	-155.7		454.0	1.15	
15:05		259.31		23.25	0.864	7.36	3.69	2.10	-140.0		513.0	1.30	
15:08		259.31		23.27	0.886	7.33	3.50	2.55	-15.4		570.0	1.44	
15:11		259.31		23.21	0.891	7.33	3.48	2.63	-77.0		627.0	1.57	
15:14		259.31		23.28	0.892	7.33	3.06	2.74	-61.4		684.0	1.73	
15:17		259.31		23.26	0.895	7.32	2.84	2.85	-61.7		741.0	1.88	
15:20	Sample	259.31		23.24	0.896	7.32	2.43	2.88	-58.9		798.0	2.02	

Colorimetric test (taken prior to sampling): Sulfide (mg/L): --- Fe<sup>3+</sup> (mg/L): --- D.O. (ppm): 2.88  
 Water level at time of sampling (ft bosc): 259.31 Turbidity at time of sampling: ---  
 Pump Settings: CPM: 2 FSL: 150 Recharge: 20 Discharge: 10  
 Comments: ---  
 PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature collected readings Conductivity ± 3%  
 pH ± 0.1 DO ± 0.3 mg/L  
 Turbidity < 10 NTUs (if > 10 NTUs ± 10%)  
 W.L. ± 0.1 feet OXP ± 10 mV

Note:  
 If values are detected in the breathing zone during the initial purging, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.





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**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

DATE: 04/11/17 SITE NAME / NUMBER: BRU PURGING DEVICE:  Peristaltic Pump  Rinsable Pump  
PROGRAM NAME: MC-BRU SAMPLING DEVICE:  Purging Pump  Disposable Dripper  Other

MONITORING WELL IDENTIFICATION: B10-0208 DUCTILE I.D.: \_\_\_\_\_ (inches)  
SAMPLE I.D.: 2.00 WELL DEPTH (ft base): 37.4 FINAL PUMP DEPTH (ft base): 36.0

STATIC WATER LEVEL (ft base): 26.01 CASING/TUBE DIAMETER (ft in): 4.8 SAMPLER'S SIGNATURE: \_\_\_\_\_  
WATER COLUMN (ft): 10.99 WELL SAMPLE TIME: 1357 DUPLICATE SAMPLE TIME: \_\_\_\_\_

WELL PUMP VOLUME (V) (gal/min): 410 3 V (gal/min): \_\_\_\_\_

Time	Activity	Water Level (ft base)	Pump Depth (ft base)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Pumped (gal/min)	Well Pump Volume Pumped	Flow Rate (gal/min)
1357	Start pump	26.01	36.0	23.67	0.819	7.31	9.93	1.80	-155.4	Colorless	4750	1.03	170
1358		26.15		23.88	0.925	7.25	11.97	2.63	-123.7		4760	1.10	
1358		26.15		23.96	0.955	7.22	12.40	3.00	-91.7		5070	1.28	
1359		26.15		23.99	0.962	7.20	12.77	3.28	-106.0		5780	1.41	
1359		26.15		23.96	0.963	7.20	12.96	3.26	-63.1		6290	1.53	
1359	Sample	26.15		24.02	0.963	7.20	13.6	3.44	-57.6		6800	1.65	

Colorimetric test (taken prior to sampling): \_\_\_\_\_ Salts (mg/L): \_\_\_\_\_ Fe<sup>2+</sup> (mg/L): \_\_\_\_\_ D.O. (ppm): 3.44  
Water level at time of sampling (ft base): 26.15 Turbidity at time of sampling: 13.6  
Pump Settings: CPM: 2 FSL: 162 Recalls: 20 Discharge: 10  
Parameters for Water Quality Stabilization:  
Temperature equil readings: Conductivity ± 3 %  
pH ± 0.1 DO ± 0.2 mg/L  
Turbidity < 10 NTUs (if > 10 NTUs ± 10 %)  
ORP ± 10 mV

**Notes:**  
If radon is detected in the breaching zone during the initial screening, the breaching zone will be periodically monitored during pumping and sampling activities.  
All water levels and pump depths are measured from the reference point (mark) in the top of the well casing.  
If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.











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**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE: 04/24/17 SITE NAME / NUMBER: WIC-801 PURGING DEVICE:  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME: WIC-801 SAMPLING DEVICE:  Purging Pump  Disposable Boiler  Other  
 MONITORING WELL IDENTIFICATION: B-6-C-2-D OVA:  FID  PID in casing (ppm) (initial) (vented to)  
 SAMPLE I.D.: B-6-W-N-170A DUPLICATE I.D.: \_\_\_\_\_ IN BREATHING ZONE (yes) (vent to)  
 STATIC WATER LEVEL (ft bbs): 27.14 WELL DEPTH (ft bbs): 253 FINAL PUMP DEPTH (ft bbs): 253  
 WATER COLUMN (ft): 10.86 CASING/TUBE DIAMETER (in): 3.12 SAMPLER'S SIGNATURE: \_\_\_\_\_

Time	Activity	Water Level (ft bbs)	Pump Depth (ft bbs)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volumes Purged (gals/ml)	Well Pump Volumes Purged	Flow Rate (ml/min)
1507	Start purg	247.15	253	21.45	0.700	7.44	28.5	1.80	44.4	Colorless	3150	1.04	150
1508		247.14		21.33	0.700	7.46	28.2	1.54	47.7		3600	1.87	
1531		247.15		21.37	0.700	7.45	20.3	1.84	40.7		4050	1.57	
1537		247.14		21.26	0.701	7.45	28.4	1.06	45.3		4500	1.49	
1540		247.15		21.11	0.702	7.44	25.7	1.00	44.8		4950	1.65	
1543		247.15		23.95	0.702	7.42	24.6	0.94	43.9		5400	1.78	
1544	Sample	247.15		23.90	0.702	7.40	24.3	0.94	43.2				

Well Sample Time: 1510 DUPLICATE SAMPLE TIME: \_\_\_\_\_  
 Coliforms test (taken prior to sampling) Sulfide (mg/L): \_\_\_\_\_ DO (ppm): 0.94  
 Water level at time of sampling (ft bbs): 27.15 Turbidity at time of sampling: 21.5  
 Pump Settings: CRN: 2 PSL: 120 Recharge: 19 Discharge: 1  
 Conductivity: DO ± 0.1  
 TDS: Turbidity < 10 NTUs (if > 10 NTUs ± 10%)  
 ORP: ORP ± 10 mV

Note:  
 If ventiles are disturbed in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 8.5 L/min.





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**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

Page 1 of 1

DATE 04/01/17 SITE NAME / NUMBER LAC-802 FORCING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME LAC-802 SAMPLING DEVICE:  Pumping Pump  Disposable Bailor  Other  
 MONITORING WELL IDENTIFICATION B-10-CW14 DUCTILE I.D. \_\_\_\_\_ (Initial) \_\_\_\_\_ (Initial)  
 SAMPLE ID B-10-CW14-N-1782 IN BREATHING ZONE (ppm) \_\_\_\_\_ (vented to) \_\_\_\_\_  
 STATIC WATER LEVEL (ft. bgs) 240.85 WELL DEPTH (ft. bgs) 3169.50 FINAL PUMP DEPTH (ft. bgs) 354.5  
 WATER COLUMN (feet) 128.65 CASING/TUBE DIAMETER (in) 3/8 SAMPLER'S SIGNATURE \_\_\_\_\_  
 WELL / PUMP VOLUME (V) (gal/vol) 4892 3 v (gal/vol) \_\_\_\_\_ WELL SAMPLE TIME 1147 DUPLICATE SAMPLE TIME \_\_\_\_\_

Time	Activity	Water Level (ft. bgs)	Pump Depth (ft. bgs)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Filled (gal/vol)	Well/Pump Volume Filled	Flow Rate (gal/min)
1103	Shutdown	240.85	354.5	23.57	0.756	7.34	2.17	3.19	94.3	Colorless	4930	1.01	110
1132		240.80		23.64	0.755	7.34	2.74	3.19	81.3		5440	1.11	
1135		240.84		23.59	0.754	7.34	2.20	3.17	73.4		5950	1.22	
1138		240.80		23.64	0.754	7.34	2.10	3.17	66.3		6460	1.32	
1141		240.80		23.79	0.754	7.35	2.22	3.17	59.3		6970	1.43	
1144		240.80		23.78	0.753	7.35	2.11	3.16	55.3		7480	1.53	
1147	Sample	240.80											

Colorimetric test (taken prior to sampling) Sulfide (mg/L): \_\_\_\_\_ Fe<sup>2+</sup> (mg/L): \_\_\_\_\_ D.O. (ppm): 3.16  
 Water Level at time of sampling (ft. bgs): 240.86 Turbidity at time of sampling: 2.1  
 Pump Settings: CPM: 2 PSI: 140 Recharge: 9  
 Comments: \_\_\_\_\_  
 PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature coolant readings: \_\_\_\_\_ Conductivity ± 3%  
 pH: ± 0.1 DO ± 0.3 mg/L  
 Turbidity < 10 NTUs (if > 10 NTUs ± 10%)  
 WFL ± 0.1 foot ORP ± 10 mV

Note:  
 If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during pumping and sampling activities.  
 All water level and pump depths are measured from the reference point (notch) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and pump rate to less than 0.5 L/min.



# GROUNDWATER MONITORING WELL FIELD DATA LOG SHEET - SAMPLING

DATE: 04/14/11 SITE NAME / NUMBER: MC-100 PURGING DEVICE:  Perforated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME: MC-100 SAMPLING DEVICE:  Perforated Pump  Disposable Bailer  Other  
 MONITORING WELL IDENTIFICATION: B-6-CW-16 OVA:  FID  FID in Casing (open) (initial) (vented to) (vented to)  
 SAMPLE I.D.: \_\_\_\_\_ IN BREATHING ZONE (open) (initial) (vented to) (vented to)

STATIC WATER LEVEL (ft bgs): 282.04 WELL DEPTH (ft bgs): 216.5 PUMP DEPTH (ft bgs): \_\_\_\_\_  
 WATER COLUMN (ft bgs): 128.0 CASING TUBE DIAMETER (in): \_\_\_\_\_  
 WELL/PUMP VOLUME (V) (gal/min): 290.5 SAMPLER'S SIGNATURE: [Signature] WELL SAMPLE TIME: \_\_\_\_\_

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (°C)	T.C. (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals/min)	WCS Pump Volumes Purged	Flow Rate (gallons/minute)
<div style="border: 1px solid black; padding: 5px; display: inline-block;">           B-6-CW-16            P1101M            P5000            251.5            custom         </div>													

Colorimetric test (taken prior to sampling): \_\_\_\_\_ Sulfide (mg/L): \_\_\_\_\_ Fe<sup>2+</sup> (mg/L): \_\_\_\_\_ B.O. (ppm): \_\_\_\_\_  
 Water level at time of sampling (ft bgs): \_\_\_\_\_ Turbidity at time of sampling: \_\_\_\_\_ Discharge: \_\_\_\_\_  
 Pump Settings: \_\_\_\_\_ PSI: \_\_\_\_\_  
 Comments: Unable to sample well, water top of pump  
is pump intake is out of water.

PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature at sampling: \_\_\_\_\_ Conductivity: \_\_\_\_\_  
 pH: \_\_\_\_\_ DO: \_\_\_\_\_ mg/L  
 Turbidity (NTU): \_\_\_\_\_  
 WCS: \_\_\_\_\_

**Note:**  
 If waterline are dislocated in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 8.3 feet and purge rate to less than 0.5 L/min.





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261 E. Woodloch Way, Suite 456  
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GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING

DATE: 04/25/17 SITE NAME / NUMBER: BW PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME: LHC-BW SAMPLING DEVICE:  Purging Pump  Disposable Isolator  Other  
 MONITORING WELL IDENTIFICATION: B-6-C-Well OYA:  FID  PID  In Closing (ppm) (initial) (verified to)  
 SAMPLE I.D.: B-6-C-Well-1702 IN BREATHING ZONE (ppm) (initial) (verified to)  
 STATIC WATER LEVEL (ft bsec): 250.90 WELL DEPTH (ft bsec): 260 FINAL PUMP DEPTH (ft bsec): 260  
 WATER COLUMN (ft) 11 CASING/TUBE DIAMETER (in): 3/8" SAMPLER'S SIGNATURE: [Signature]  
 WELL / PUMP VOLUME (V) (gallons): 3050 WELL SAMPLE TIME: 111 DUPLICATE SAMPLE TIME: \_\_\_\_\_

Time	Activity	Water Level (ft bsec)	Pump Depth (ft bsec)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallons)	Well/Pump Volume Purged	Flow Rate (gallons/minute)
1412	Start pump	250.92	260.0										
1416		250.92		22.23	1.012	4.22	33.4	6.54	49.0	6004	3090	1.01	0.20
1429		250.92		22.27	1.012	6.33	30.2	6.75	47.7	10	3740	1.23	
1432		250.92		22.14	1.013	6.42	31.1	6.50	46.7		4400	1.44	
1435		250.92		21.95	1.012	6.44	28.4	6.49	47.8		5060	1.60	
1438		250.92		21.80	1.012	6.42	27.8	6.47	48.5		5720	1.88	
1441	Sample	250.92		21.73	1.011	6.45	27.2	6.49	48.6		6380	2.09	

Colorimetric test (taken prior to sampling) sulfate (mg/L): \_\_\_\_\_ Fe<sup>2+</sup> (mg/L): \_\_\_\_\_ D.O. (ppm): \_\_\_\_\_  
 Water level at time of sampling (ft bsec): 250.92 Turbidity at time of sampling: \_\_\_\_\_  
 Pump Settings: RPM: 2 PSI: 130 Recharge: 20 Discharge: 10  
 Comments: Flow a high pressure control loop.

Note: If volatiles are detected in the breathing zone during the initial ascending, the breathing zone will be periodically monitored during purging and sampling activities.

All water levels and pump depths are measured from the reference point (marked in the top of the well casing). If no reference point is observed then the casing high point should be marked and measurements should be collected from this point. Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 L/min.





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GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING

DATE: 4-11-2017 SITE NAME/NUMBER: Mc Bay PURGING DEVICE:  Dedicated Pump ;  Purgeless Pump ;  Siphon Pump  
 PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Pumping Pump ;  Disposable Siphon ;  Other  
 MONITORING WELL IDENTIFICATION: C-1-CW-2 OVA:  HD  HD in Casing (ppm) (fraction)  (vented to) \_\_\_\_\_  
 SAMPLE I.D.: C-1-CW-2-M-1-7120 IN BREATHING ZONE? (ppm) (inhal.)  (vented to) \_\_\_\_\_  
 STATIC WATER LEVEL: (ft. bgs) 770.85 FINAL PUMP DEPTH (ft. bgs) 386.5  
 WATER COLUMN (feet): \_\_\_\_\_ SAMPLER'S SIGNATURE: \_\_\_\_\_  
 WELL/PUMP VOLUME (V) (gal/ml) 5225 CASING/TUBE DIAMETER (in) 3/8 WELL SAMPLER TIME: 12:33 MULTI-CATCH SAMPLER TIME: \_\_\_\_\_

Time	Activity	Water Level (ft. bgs)	Pump Depth (ft. bgs)	Temp (°C)	EC (µm/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gal/ml)	Well/Pump Volumes Purged	Flow Rate (gal/min or l/min)
1202	Start Pump	770.85	386.5										210
1227		770.85		22.01	0.817	7.42	4.44	0.55	-93.3	clear	5250	1.00	
1236		770.85		21.97	0.817	7.42	4.21	0.55	-95.7	clear	5840	1.13	
1237		770.85		21.83	0.818	7.40	3.93	0.50	-95.2	clear	6510	1.25	
1236		770.85		22.00	0.820	7.39	4.59	0.47	-94.1	clear	7110	1.37	
1239		770.85		22.70	0.812	7.40	3.28	0.45	-94.7	clear	7770	1.49	
1247	End Pump	770.85		22.92	0.826	7.41	3.70	0.46	-98.7	clear	8400	1.61	
1247	SAMPLE												

Colorimetric test (taken prior to sampling) Sulfide (mg/L): \_\_\_\_\_ D.O. (ppm): \_\_\_\_\_  
 Water level at time of sampling (ft. bgs): 770.85 Turbidity at time of sampling: 3.74  
 Pump Settings: \_\_\_\_\_ PSI: \_\_\_\_\_ Recharge: \_\_\_\_\_ Discharge: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 Conductivity: 200 ± 0.5 µg/L  
 Turbidity: < 10 NTU (if > 10 NTU is 10 %)  
 ORP: ± 0.1 mV

Note:  
 If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 A) Water levels and pump depths are measured from the reference point (normal) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdowns to less than 0.35 feet and purgework to less than 0.5 l/min.





TABLE TECH  
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 Telex 0202 885-179

**GROUNDWATER MONITORING WELL:  
 FIELD DATA LOG SHEET - SAMPLING**

DATE 01-25-75 SITE NAME/NUMBER WMC 304 PURGING DEVICE:  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Purging Pump  Disposable Boiler  Other  
 MONITORING WELL IDENTIFICATION: W-1-6003 DUA: 1-10-75 (initial) 0 (voided in)  
 SAMPLE ID: 61-6003-1702 IN BREATHING ZONE (ppm): \_\_\_\_\_ (initial) 0 (voided in)  
 STATIC WATER LEVEL (ft) 271.07 WELL DEPTH (ft) 318 FINAL PUMP DEPTH (ft) 277.5  
 WATER COLUMN (ft) \_\_\_\_\_ CASING/TUBE DIAMETER (in) 3/8 SAMPLER'S SIGNATURE [Signature]  
 WELL PUMP VOLUME (V) (gal/m) 30 WELL SAMPLE TIME: \_\_\_\_\_ DUA: 1-10-75

Time	Activity	Water Level (ft) (blue)	Pump Depth (ft) (blue)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gal) (amp)	Well/Pump Volumes Purged	Flow Rate (gal/min) (ml/min)
1341	Start purge	271.07	277.5										
1402		271.07		21.24	0.772	7.33	2.48	4.34	45.4	1 clear	2350	1.01	110
1405		271.07		21.50	0.772	7.34	3.13	4.30	45.4	2 clear	3400	1.12	
1408		271.07		21.38	0.772	7.34	2.40	4.23	46.7	2 clear	3740	1.23	
1411		271.07		21.46	0.773	7.35	2.30	4.14	47.9	2 clear	4070	1.31	
1414		271.07		21.67	0.774	7.35	1.99	4.09	50.0	2 clear	4400	1.45	
1417	End purge	271.07		21.67	0.775	7.35	1.84	4.08	51.5	2 clear	4790	1.56	
1418	Sample												

Colorimetric test (taken prior to sampling) Scalide (mg/L) \_\_\_\_\_ D.O. (ppm): \_\_\_\_\_  
 Water level at time of sampling (ft) (blue): 271.07 Turbidity at time of sampling: 1.84  
 Pump Settings: CPM: \_\_\_\_\_ FSL: \_\_\_\_\_ Discharge: \_\_\_\_\_  
 Conductivity: \_\_\_\_\_

**Notes:**  
 If volatiles are detected in the breathing zone during the initial purging, the breathing zone will be periodically rechecked during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (notch) in the top of the well casing.  
 If no reference point is observed from the casing high point, should be notched and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 l/min.





TECHNICAL  
2012, Yuba City, TX 75801  
San Francisco, CA 94111  
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**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

DATE: 04/04/17 SITE NAME / NUMBER: BBU PURGING DEVICE:  Dedicated Pump  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME: LACC-BBU SAMPLING DEVICE:  Purging Pump  Disposable Bailer  Other  
 MONITORING WELL IDENTIFICATION: C-1-CW05 OVA:  FID  PID In Casing (ppm) (initial) (vented to)  
 SAMPLE ID: SPD-GF-CW05-N-178a DPLICATE I.D. 3805 IN BREATHING ZONE (ppm) (initial) (vented to)  
 STATIC WATER LEVEL (ft bsec): 250.47 WELL DEPTH (ft bsec): 384.90 FINAL PUMP DEPTH (ft bsec): 380.5  
 WATER COLUMN (ft): 132.43 CASING/TUBE DIAMETER (ft): 3/8" SAMPLER'S SIGNATURE: [Signature]  
 WELL PUMP VOLUME (Y) (gal/min): 5289 WELL SAMPLE TIME: 10:52 DUPLICATE SAMPLE TIME:   

Time	Activity	Water Level (ft bsec)	Pump Depth (ft bsec)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Pumped (gals/min)	Well Pump Volume Pumped	Flow Rate (gal/min)
0910	Start Pump		380.5										300
0937		250.50		21.84	0.705	7.52	3.74	0.87	163.4		5100	1.02	
0940		250.49		21.90	0.701	7.52	4.08	0.87	148.6		6000	1.14	
0943		250.50		21.94	0.702	7.52	3.79	0.80	131.9		6600	1.05	
0946		250.41		21.92	0.704	7.51	0.99	0.79	104.7		7200	1.30	
0949		250.50		21.96	0.704	7.52	4.62	0.78	122.3		7800	1.48	
0952	Sample	252.49		21.99	0.704	7.52	4.20	0.78	118.4		8400	1.59	

Colorimetric test (taken prior to sampling) Sulfide (mg/L):    Fe<sup>2+</sup> (mg/L):    D.O. (ppm):     
 Water level at time of sampling (ft bsec): 252.49 Turbidity at time of sampling:     
 Pump Settings: RPM: 2 PSI: 150 Recharge: 10  
 Comments: Use a high pressure control box

PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature collect readings Conductivity ± 3 %  
 pH ± 0.1 DO ± 0.3 mg/L  
 Turbidity < 10 NTUs (if > 10 NTUs ± 10 %)  
 ORP ± 10 mV

Note:  
 If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (notch) at the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and pump rate to less than 0.5 L/min.





TETRA TECH  
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GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING

DATE: 11-13-2017 SIC NAME / NUMBER: LAJAC BRYN PURGING DEVICE:  Mechanical Pump  Variable Pump  Bladder Pump  
 PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Weighing Pump  Disposable Bottle  Other  
 MONITORING WELL IDENTIFICATION: C-1-26-07 DUCTILE IRON: \_\_\_\_\_ (initial) \_\_\_\_\_ (vented to) \_\_\_\_\_  
 SAMPLE I.D.: C-1-26-07-11-17-2 WELL ID: \_\_\_\_\_ IN BREATHING ZONE (PUMP): \_\_\_\_\_ (initial) \_\_\_\_\_ (vented to) \_\_\_\_\_  
 STATIC WATER LEVEL (in hole): 263.62 WELL DEPTH (ft hole): 312.0  
 WATER COLUMN (feet): \_\_\_\_\_ CASING/TUBE DIAMETER (in): 3/4 SAMPLER'S SIGNATURE: [Signature]  
 WELL PUMP VOLUME (V) (gallons): 38.05 WELL SAMPLE TIME: \_\_\_\_\_ DUPLICATE SAMPLE TIME: 1500

Time	Activity	Water Level (ft hole)	Pump Depth (ft hole)	Temp (°C)	EC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallons)	Well Pump Volume Purged	Flow Rate (gallons/minute)
1444	Start Pump	263.62	312										
1444		263.62		19.46	0.749	6.15	8.1	1.76	-36	cloudy	5900	1.02	
1447		263.62		24.38	0.742	6.24	18.6	1.59	-8.9	cloudy	6740	1.13	
1450		263.62		24.19	0.745	6.52	18.2	1.47	-19.1	cloudy	4680	1.23	
1453		263.62		24.21	0.745	6.58	16.4	1.45	-15.3	cloudy	5678	1.33	
1456		263.62		24.16	0.745	6.63	17.2	1.43	-4.7	cloudy	5678	1.43	
1459	End Pump	263.62		24.11	0.745	6.67	17.1	1.43	-21.3	cloudy	5850	1.54	
1500	Sample												

Colorimetric test (if any prior to sampling): \_\_\_\_\_ Sulfide (mg/L): \_\_\_\_\_ DO (ppm): \_\_\_\_\_  
 Water level at time of sampling (ft. hole): 263.62 Turbidity at time of sampling: 17.4  
 Pump Settings: CPM: \_\_\_\_\_ PSI: \_\_\_\_\_ Rotations: \_\_\_\_\_ Discharges: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 pH ± 0.1  
 Turbidity ± 0.1 NTU (if > 10 NTU ± 10%)  
 W. 10.1 Sec  
 ORP = 10 mV

Note:  
 If volatiles are detected in the breathing zone during the initial operations, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (usually to the top of the well casing).  
 If no reference point is observed from the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and pump rate to less than 0.5 L/min.





TESTATED!  
 N.E. Venable, Inc., 2000  
 2000 Venable, Inc., 2000  
 Telephone (800) 311-1674  
 Telex (922) 188-178

**GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING**

DATE: 4-11-2017 SINE NAME / NUMBER: LMC BOU MURGING DEVICE:  Hydraulic Pump  Blaise Pump  
 PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Pumping Pump  Disposable Bailer  Other  
 MONITORING WELL IDENTIFICATION: C-1-CW08 (initial) 0 (vented to)  
 SAMPLE I.D.: C-1-CW08 4-17082 (initial) 0 (vented to)  
 STATIC WATER LEVEL (ft bgs): 263.33 WELL DEPTH (ft bgs): 292  
 WATER COLUMN (feet): \_\_\_\_\_ CASING/LINE DIAMETER (in): 3.88 SAMPLER'S SIGNATURE: [Signature]  
 WELLS/PUMP VOLUME (V) (gal/ml): 3850 WELL-SAMPLE TIME: 608 DUPLICATE SAMPLE TIME: \_\_\_\_\_

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (C)	EC (micro/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Pumped (gal/ml)	Well Pump Volumes Pumped	Flow Rate (gal/min)
1532	Start Pump	263.33	185										
1546		267.34		23.45	0.966	6.98	4.71	7.43	87.8	clear	3500	1.04	250
1549		267.34		23.07	0.972	6.50	4.74	6.23	63.8	clear	4750	1.27	
1552		263.34		23.89	0.970	6.36	3.97	5.82	67.6	clear	5000	1.49	
1555		263.34		23.81	0.965	6.36	3.82	5.43	55.6	clear	5750	1.72	
1558		263.34		23.70	0.963	6.45	3.89	5.40	53.4	clear	6500	1.94	
1601		263.34		23.60	0.963	6.47	3.49	5.39	52.1	clear	7250	2.16	
1604	End Pump	263.34		23.64	0.962	6.48	3.82	5.38	53.4	clear	8000	2.39	
1605	sample												

Calorimetric test (taken prior to sampling): \_\_\_\_\_ DO (ppm): \_\_\_\_\_  
 Water level at time of sampling (ft bgs): 263.34 Turbidity at time of sampling: 3.82  
 Pump Settings: \_\_\_\_\_ PSI: \_\_\_\_\_ Recharge: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**Note**  
 If volatiles are detected in the breathing zone during the initial sampling, the breathing zone will be periodically monitored during pumping and sampling activities.  
 All water levels and pump depths are measured from the reference point (marked in the top of the well casing).  
 If an reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and pump rate to less than 0.5 l/min.





ANALYSIS  
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**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

DATE: 4-7-2017 SITE NAME / NUMBER: MC 204 PUMPING DEVICE:  Diaphragm Pump  Peristaltic Pump  Handker Pump  
 PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Purging Pump  Disposable Bailer  Other  
 MONITORING WELL IDENTIFICATION: MW-03 GVA:  FED  WPD in Casing (ppm) (initial) 0 (vented to)  
 SAMPLE ID: MW-03-M-17-1 IN BREATHING ZONE (ppm) (initial) 0 (vented to)  
 STATIC WATER LEVEL (ft bgs): 257.06 WELL DEPTH (ft bgs): 283 FINAL PUMP DEPTH (ft bgs): 270  
 WATER COLUMN (ft bgs): \_\_\_\_\_ CASING/TUBE DIAMETER (in): 3/8 SAMPLER'S SIGNATURE: [Signature]  
 WELLS/PUMP VOLUME (V) (gals/ml): 3100 WELL SAMPLE TIME: 1258 DUPLICATE SAMPLE TIME: \_\_\_\_\_

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (°C)	EC (µmS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals/ml)	Wells/Pump Volume Purged	Flow Rate (gals/min)
1226	Start Pump	257.06	270										
1242	-	257.07	-	23.46	0.956	7.27	2.62	5.27	50.3	clear	3200	1.00	2.00
1245	-	257.07	-	23.46	0.957	7.24	2.49	5.82	50.6	clear	3900	1.19	
1248	-	257.07	-	23.13	0.942	7.16	2.39	5.82	53.0	clear	4400	1.36	
1251	-	257.07	-	23.05	0.935	7.05	1.87	5.71	53.3	clear	5000	1.56	
1254	-	257.07	-	22.85	0.936	7.14	1.79	5.77	54.1	clear	5600	1.75	
1257	End Pump	257.07	-	22.48	0.935	7.12	1.64	5.84	55.5	clear	6100	1.91	
1258	Sample												

Colorimetric test (taken prior to sampling): \_\_\_\_\_ Sulfide (mg/L): \_\_\_\_\_ Fe<sup>2+</sup> (mg/L): \_\_\_\_\_  
 Water level at time of sampling (ft bgs): 257.07 Turbidity at time of sampling: 1.64  
 Pump Settings: \_\_\_\_\_ PSI: \_\_\_\_\_ Recharge: \_\_\_\_\_ Discharge: \_\_\_\_\_  
 Conductivity: \_\_\_\_\_

**PARAMETERS FOR WATER QUALITY STABILIZATION**  
 Temperature at time of sampling: \_\_\_\_\_ Conductivity = 3 %  
 pH = 0.1 \_\_\_\_\_ 20 ± 0.5 mg/L  
 Turbidity < 10 NTU (if > 10 NTU = 10 %) \_\_\_\_\_  
 WL = 0.1 feet \_\_\_\_\_ ORP ± 10 mV \_\_\_\_\_

**Note:**  
 If volatiles are detected in the breathing zone during the initial sequencing, the breathing zone will be periodically monitored during sampling and sampling activities.  
 All water levels and pump depths are measured from the reference point (point) in the top of the well casing.  
 If no reference point is observed from the casing high point, should be monitored and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdowns to less than 0.33 feet and pump rate to less than 2.5 L/min.





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# GROUNDWATER MONITORING WELL FIELD DATA LOG SHEET - SAMPLING

DATE: 4-10-2017 SITE NAME / NUMBER: LMC BOLL FURGING DEVICE:  Packaged Pump  Portable Pump  Booster Pump  
 PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Surface Pump  Disposable Reel  Other  
 MONITORING WELL IDENTIFICATION: MW-04 DUAL GAGE I.D.: \_\_\_\_\_ OVA:  JED  JED in Casing (ppm) (initial)  (vent to)  
 SAMPLE I.D.: MW-04-N-1702 WELL DEPTH (ft bgs): 209.5 IN BREATHING ZONE: (ppm) (initial)  (vent to)  
 STATIC WATER LEVEL (ft bgs): 240.80 CASING/TUBING DIAMETER (in): 3.0 FINAL PUMP DEPTH (ft bgs): 236.0 SAMPLER'S SIGNATURE: [Signature]

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (°C)	EC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gal/ml)	Well Pump Volumes Purged	Flow Rate (g/min)
0822	Start Pump	240.80	209.5	21.15	0.945	7.23	1.82	5.72	66.7	clear	3700	1.03	160
0842	-	240.86	-	21.14	0.948	7.22	1.89	5.78	54.2	clear	3800	1.19	-
0845	-	240.86	-	21.30	0.953	7.21	1.95	5.85	48.4	clear	4160	1.34	-
0846	-	240.86	-	21.34	0.954	7.20	1.78	5.70	45.7	clear	4660	1.50	-
0851	-	240.86	-	21.34	0.956	7.20	2.15	5.74	41.9	clear	5120	1.65	-
0854	-	240.86	-	21.58	0.955	7.20	1.90	5.60	39.7	clear	5500	1.81	-
0857	Stop Pump	-	-	-	-	-	-	-	-	-	-	-	-
0858	Sample	-	-	-	-	-	-	-	-	-	-	-	-

WELL SAMPLE TIME: 0858 DUAL GAGE SAMPLE TIME: \_\_\_\_\_  
 Conductometric Test (taken prior to sampling) 240.80 Se. (ft bgs): \_\_\_\_\_ D.O. (ppm): \_\_\_\_\_  
 Water level at time of sampling (ft bgs) \_\_\_\_\_ Turbidity at time of sampling: 1.90 Discharge: \_\_\_\_\_  
 Pump Settings: \_\_\_\_\_ PS: \_\_\_\_\_  
 Comments: \_\_\_\_\_

PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature without readings: \_\_\_\_\_ Conductivity ± 3%  
 pH: 7.1 DO = 0.3 mg/L  
 Turbidity < 10 NTU (if > 10 NTU ± 10%)  
 WT: 4.01 gms ORP: 4.0 mV

Note:  
 Probes are checked in the breathing zone during the initial screening, the breathing zone will be periodically monitored during pumping and sampling activities.  
 All water levels and pump depths are measured from the reference point (marked) in the top of the well casing.  
 If no reference point is observed then the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdowns to less than 0.50 feet and purge rate to less than 0.3 L/min.





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GROUNDWATER MONITORING WELL  
 FIELD DATA LOG SHEET - SAMPLING

DATE: 4-7-2011      SCHEMATIC NUMBER: CMC BOM      FLUSHING DEVICE:  Multistage Pump     Peristaltic Pump     Bladder Pump  
 PROGRAM NAME: \_\_\_\_\_      SAMPLING DEVICE:  Surging Pump     Ingersoll Rand     Other  
 MONITORING WELL IDENTIFICATION: MW-017      OVAL:  HD     YTD     Leaking (ppm)    (initial) 0    (vented in) \_\_\_\_\_  
 SAMPLE ID: MW-07-A-1702      IN BREATHING ZONE (ppm)    255    (initial) \_\_\_\_\_  
 STATIC WATER LEVEL (ft bgs): 757.87      FINAL PUMP DEPTH (ft bgs)    281.3    (vented to) \_\_\_\_\_  
 WATER COLUMN (feet)    CASING/TUBING DIAMETER (in)    3/8      SAMPLER'S SIGNATURE: [Signature]  
 WELL/PUMP VOLUME (V) (gallons)    3050      WELL SAMPLE TIME: \_\_\_\_\_      DUPLICATE SAMPLE TIME: 1026

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallons)	Well/Pump Volume Purged	Flow Rate (gallons/min)
0834	Start Pump	237.87	286										100
0910	-	237.87	-	20.65	0.927	7.20	1.32	5.63	114.3	clear	300	1.07	
0913	-	237.87	-	20.70	0.930	7.19	1.14	5.75	102.1	clear	340	1.11	
0916	-	237.87	-	20.70	0.931	7.18	1.35	5.53	95.8	clear	370	1.21	
0919	-	237.87	-	20.72	0.932	7.18	1.30	5.81	85.3	clear	400	1.31	
0922	-	237.87	-	20.72	0.934	7.18	1.28	5.84	74.7	clear	430	1.41	
0925	End Pump	237.87	-	20.71	0.934	7.18	1.36	5.59	78.8	clear	460	1.51	
0926	Sample												

Colorimetric test (taken prior to sampling)      Salinity (mg/L): \_\_\_\_\_      D.O. (ppm): \_\_\_\_\_  
 Water level at time of sampling (ft bgs): 237.87      Turbidity at time of sampling: 1.35  
 Pump Settings:      CPM: \_\_\_\_\_      PS: \_\_\_\_\_      Discharge: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Note:  
 If water is increased in the breathing zone during the initial period, the breathing zone will be periodically examined during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (note) in the log of the well casing.  
 If no reference point is observed then the rising high point should be marked and measurements should be collected from that point.  
 Every attempt should be made to limit water level drawdown to less than 0.33 feet and purge rate to less than 0.5 U/min.





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**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

DATE: 4-7-2011 SITE NAME/NUMBER: LAC BOX PROGRAM NAME: \_\_\_\_\_  
 MONITORING WELL IDENTIFICATION: MWD-8 PUMPING DEVICE:  Hydrostatic Pump  Peristaltic Pump  Sucker Pump  
 SAMPLER I.D.: 2.00 in (5.08 cm) SAMPLING DEPTH: 255 SAMPLING DEPTH: 255  Disposable Bailer  Other  
 STATIC WATER LEVEL (ft bgs): 143.32 OVA: 1.11 10.10 in casing (ppm) (initial) 8 (ventil to)  
 WATER COLUMN (feet) \_\_\_\_\_ IN BREATHING ZONE (ppm) \_\_\_\_\_ (ventil to)  
 WELL PUMP VOLUME (V) (gallons): 3050 SAMPLER'S SIGNATURE: [Signature] DUPLICATE SAMPLE TIME: \_\_\_\_\_  
 CASING/TUBE DIAMETER (INS): 3/8 FINAL PUMP DEPTH (ft bgs): 255 DUPLICATE SAMPLE TIME: \_\_\_\_\_

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (°C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallons)	Well Pump Volume Purged	Flow Rate (gal/min)
1024	Start Pump	243.33	255	23.72	0.934	7.25	2.22	4.61	48.5	Yellow	3150	1.03	150
1045	-	243.33	-	23.19	0.937	7.23	2.64	5.9	58.0	low yellow	2600	1.18	-
1048	-	243.33	-	23.21	0.936	7.23	2.09	6.03	58.3	low yellow	4050	1.33	-
1051	-	243.33	-	23.35	0.935	7.22	1.88	6.00	58.3	low yellow	4950	1.46	-
1057	-	243.33	-	23.13	0.934	7.22	1.97	5.74	60.0	low	5400	1.62	-
1100	End Pump	243.33	-	23.09	0.932	7.22	1.72	5.32	54.8	clear	2850	1.77	-
1101	Sample	-	-	-	-	-	-	-	-	-	-	-	-

Colorimetric test (taken prior to sampling) \_\_\_\_\_ DO: (ppm): \_\_\_\_\_  
 Water level at time of sampling (ft bgs): 243.33 Turbidity at time of sampling: 1.72  
 Pump Settings: CFM: \_\_\_\_\_ PSI: \_\_\_\_\_ Discharge: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 Parameters for Water Quality Stabilization: \_\_\_\_\_  
 Temperature collect results: \_\_\_\_\_ Conductivity ± 3%  
 pH ± 0.1: \_\_\_\_\_ DO ± 0.3 mg/L  
 Turbidity < 10 NTU (if > 10 NTU) \_\_\_\_\_  
 W.C. L.S. Test: \_\_\_\_\_ ORP ± 10 mV

Note:  
 If volatiles are detected in the breathing zone during the initial screening, the breathing zone will be periodically rechecked during pumping and sampling activities.  
 All water levels and pump depths are measured from the reference point (marked) in the top of the well casing.  
 If no reference point is observed from the casing, high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to final water level drawdown to less than 0.13 feet and purge rate to less than 0.1 l/min.





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# GROUNDWATER MONITORING WELL FIELD DATA LOG SHEET - SAMPLING

DATE: 4-25-2017 SITE NAME/NUMBER: LA C 264 PURGING DEVICE:  Discharged Pump  Peristaltic Pump  Modular Pump  
 PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Purging Pump  Disposable Boiler  Other  
 MONITORING WELL IDENTIFICATION: SW-1 OVA:  FID  SPD  CAS-1 (opp) (initial) 0 (vent to) \_\_\_\_\_  
 SAMPLE I.D.: SW-1-17C2 IN BREATHING ZONE (ppm) \_\_\_\_\_ (initial) 0 (vent to) \_\_\_\_\_  
 STATIC WATER LEVEL (Elev) 244.87 FINAL PUMP DEPTH (ft) 260  
 WATER COLUMN (feet) \_\_\_\_\_ SAMPLER'S SIGNATURE: [Signature]  
 WELLS PUMP VOLUME (gals) 2960 WELL DEPTH (ft) 360 WELL SAMPLE TIME 0:32 DUPLICATE SAMPLE TIME \_\_\_\_\_

Time	Activity	Water Level (ft) (block)	Pump Depth (ft) (block)	Temp (°C)	EC (µS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals/ml)	WAD/Pump Volume Purged	Flow Rate (gal/min)
0747	Start Purge	244.87	260	20.36	0.403	7.74	2.01	5.24	150.5	CLW	3240	1.03	16.0
0806		244.87		20.36	0.407	7.75	1.76	5.24	141.0	CLW	3520	1.19	
0809		244.87		20.34	0.406	7.75	1.82	5.38	127.1	CLW	4000	1.35	
0812		244.87		20.37	0.405	7.75	1.48	5.24	114.6	CLW	4480	1.57	
0815		244.87		20.34	0.401	7.75	1.64	5.40	111.7	CLW	4960	1.66	
0821	END Purge	244.87		20.41	0.403	7.75	1.57	5.20	103.3	CLW	5440	1.84	
0822	Sample												

Colorimetric test (taken prior to sampling) Saltside (mg/L): \_\_\_\_\_ Turbidity at time of sampling: 1.57 B.O. (ppm): \_\_\_\_\_  
 Water level at time of sampling (ft) (block): 244.87 Turbidity at time of sampling: \_\_\_\_\_ Discharge: \_\_\_\_\_  
 Pump Settings: CPME \_\_\_\_\_ Recharge: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Notes:  
 If volatiles are detected in the breathing zone during the initial set-up, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (marked) in the top of the well casing.  
 If no reference point is observed, the casing high point should be marked and measurements should be collected from this point.  
 Every attempt should be made to limit water level drawdown to less than 3.33 feet and purge rate to less than 0.5 L/min.





**GROUNDWATER MONITORING WELL  
FIELD DATA LOG SHEET - SAMPLING**

DATE: 4-10-2017 SITE NAME / NUMBER: 6-ME-BOW PURGING DEVICE:  Peristaltic Pump  Bladder Pump  
 PROGRAM NAME: \_\_\_\_\_ SAMPLING DEVICE:  Purging Pump  Disposable Sailer  Other  
 MONITORING WELL IDENTIFICATION: SW-8 OVA:  LID  SPD in Casing (open) (initial) \_\_\_\_\_ (vented to) \_\_\_\_\_  
 SAMPLE I.D.: SW-5-6-17-2 DUPLICATE I.D.: \_\_\_\_\_ IN BREATHING ZONE (ppm) \_\_\_\_\_  
 STATIC WATER LEVEL (ft bgs): 235.34 WELL DEPTH: (ft bgs) 249.5 FINAL PUMP DEPTH (ft bgs) 249.0  
 WATER COLUMN (feet) \_\_\_\_\_ CASING/PISTON DIAMETER (ft/in) 2 1/8 SAMPLER'S SIGNATURE: [Signature]  
 WELL/PUMP VOLUME (V) (gallons) 2730 WELL SAMPLE TIME: 1320 DUPLICATE SAMPLE TIME: \_\_\_\_\_

Time	Activity	Water Level (ft bgs)	Pump Depth (ft bgs)	Temp (C)	EC (mS/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gallons)	Well Pump Volume Purged	Flow Rate (gal/min)
1241	Start Site	235.34	249.0										120
1304		235.34		25.06	1.076	7.31	11.21	4.76	18.3	clear	2760	1.51	
1307		235.34		24.85	1.071	7.32	10.82	4.57	18.3	clear	3120	1.44	
1310		235.34		24.80	1.071	7.33	9.75	4.57	18.3	clear	3480	1.27	
1313		235.34		24.55	1.064	7.29	8.78	4.59	20.6	clear	3840	1.41	
1316		235.34		24.50	1.060	7.26	7.85	4.48	20.4	clear	4200	1.54	
1319	End Pump	235.34		24.52	1.064	7.31	8.62	4.45	20.1	clear	4560	1.67	
1320	Stop												

Coliform test (taken prior to sampling) \_\_\_\_\_ Su. file (mg/L): \_\_\_\_\_  
 Water level at time of sampling (ft bgs): 235.34 Turbidity or time of sampling: 8.60  
 Pump Settings: \_\_\_\_\_ PSI: \_\_\_\_\_ Recharge: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 PARAMETERS FOR WATER QUALITY STABILIZATION  
 Temperature correction: \_\_\_\_\_ Conductivity: 1.3 %  
 pH: \_\_\_\_\_ DO = 0.3 mg/L  
 Turbidity < 10 NTU (if > 10 NTU) \_\_\_\_\_ ORP = 10 mV  
 W. < 0.1 foot \_\_\_\_\_

**Note:**  
 If turbidity is detected in the breathing zone during the initial sampling, the breathing zone will be periodically monitored during purging and sampling activities.  
 All water levels and pump depths are measured from the reference point (noted in the top of the well casing).  
 If no reference point is observed from the casing high point should be noted and measurements should be collected from this point.  
 Every attempt should be made to limit water level draw-down to less than 0.33 feet and purge rate to less than 0.5 GPM.

# Monitoring Well Inspection Form

Well ID: <b>38807</b>	Date: <b>4-26-2017</b>
Inspection Conducted By: <b>J. Cook</b>	

As-built depth of well?	Measured depth of well?	Difference?
Condition of bottom of well?	Soft tag?	Yes      No      Firm tag?      Yes      No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msl), total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input type="checkbox"/>	
Well cap is present and is watertight?	<input type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

**Additional comments:**

Replace Gasket, Tap threads  
Replace Bolts, Replace tag



# Monitoring Well Inspection Form

Well ID: <u>3830 Q</u>	Date: <u>4/26/17</u>
Inspection Conducted By: <u>J. SPATER</u>	

As-built depth of well?	Measured depth of well?			Difference?		
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible in exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e. no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msf), total as built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input type="checkbox"/>	
Well cap is present and is water tight?	<input type="checkbox"/>	<input type="checkbox"/>	
Top-of casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

**Additional comments:**

REPLACED GASKET, TAP BOLT HOLDS  
ADD TAG

# Monitoring Well Inspection Form

Well ID: <u>38305</u>	Date: <u>4/26/17</u>
Inspection Conducted By: <u>R. SABATER</u>	

As-built depth of well?		Measured depth of well?		Difference?	
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault: (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msl), total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well cap is present and is watertight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional comments:

REPLACED GASKET, BOLT HOLES RETAPPED  
TAG ADDED

# Monitoring Well Inspection Form

Well ID: <b>BB31Q</b>	Date: <b>4/26/17</b>
Inspection Conducted By: <b>R. SAGATER</b>	

As-built depth of well?	Measured depth of well?			Difference?		
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the area around the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (we name, number, top-of-casing elevation in msl, total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Well cap is present and is watertight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional comments:

**GASKET ADDED, REPLACED BOLTS**

**ADD TAG**



# Monitoring Well Inspection Form

Well ID: <u>3850m</u>	Date: <u>4/24/17</u>
Inspection Conducted By: <u>C. CHOU</u>	

As-built depth of well?	Measured depth of well?			Difference?	
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	
Is the area round the well "flooded"?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name, number, top-of-casing elevation in msl, total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input type="checkbox"/>	
Well cap is present and is watertight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional comments:

ADDED GASKET, TAP BOLT HOLES, NEW RESULTS,  
ADDED TAG

# Monitoring Well Inspection Form

Well ID: <u>3850N</u>	Date: <u>4/24/17</u>
Inspection Conducted By: <u>C. Chou</u>	

As-built depth of well?	Measured depth of well?			Difference?	
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and leaks are both)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top of casing elevation (if not), total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Well cap is present and is watertight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional comments:

ADDED GASKET & TAG, RETAPPED HOLES

# Monitoring Well Inspection Form

Well ID: <b>3850H</b>	Date: <b>4/24/17</b>
Inspection Conducted By: <b>R SWABER</b>	

As-built depth of well?	Measured depth of well?		Difference:			
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msl), total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well cap is present and is watertight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional comments:  
**ADDED GASKET, RETAPPED, TAGGED**



# Monitoring Well Inspection Form

Well ID: <u>3850P</u>	Date: <u>4/24/17</u>
Inspection Conducted By: <u>C. Chou</u>	

As-built depth of well?	Measured depth of well?			Difference?	
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	
Is the area around the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/run, per. top-of-casing elevation, etc.), (date as built/depth)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input type="checkbox"/>	
Well cap is present and is watertight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: <u>3850Q</u>	Date: <u>4/24/17</u>
Inspection Conducted By: <u>R. SABBATER</u>	

As-built depth of well?	Measured depth of well?	Difference?
Condition of bottom of well?	Soft tag? Yes No	Firm tag? Yes No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and o-rings are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msl), total as-built depth)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Well cap is present and is watertight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: <u>3850R</u>	Date: <u>4/24/17</u>
Inspection Conducted By: <u>R. SKEATOR</u>	

As-built depth of well?	Measured depth of well?			Difference?	
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	No

Maintenance Item:	Yes	No	Comments:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the area around the well flooded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surface pit exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/camber, top-of-casing elevation (if used), total as-built depth)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well cap is present and is watertight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Additional comments:

ADDED GASKET & TAG, NEW BOLTS



# Monitoring Well Inspection Form

Well ID: <u>3850 S</u>	Date: <u>4/24/17</u>
Inspection Conducted By: <u>C. Chow</u>	

As-built depth of well?	Measured depth of well?	Difference?
Condition of bottom of well?	Soft tag?	Yes    No
		Firm tag?    Yes    No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>		
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>		
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>		
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>		
Guard posts (if present) are in good condition?	<input checked="" type="checkbox"/>		
Is the area around the well flooded?		<input checked="" type="checkbox"/>	
Surface pvc exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>		
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>		
Does vault gasket need to be replaced?		<input checked="" type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msl), total as-built depth)		<input checked="" type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?		<input checked="" type="checkbox"/>	
Well cap is present and is watertight?	<input checked="" type="checkbox"/>		
Top-of-casing survey mark exists and is legible?	<input checked="" type="checkbox"/>		

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: <b>3850T</b>	Date: <b>4-26-17</b>
Inspection Conducted By: <b>J. Cook</b>	

As-built depth of well?	Measured depth of well?	Difference?				
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface seal exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e. no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top of casing elevation (in msl), total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well cap is present and is watertight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional comments:

# Monitoring Well Inspection Form

Well ID: <b>305U</b>	Date: <b>4.28.17</b>
Inspection Conducted By: <b>J Cook</b>	

As-built depth of well?	Measured depth of well?	Difference?				
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in mill), total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Well cap is present and is watertight?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional comments:

**Gasket, well tag, top & replace bolts**



# Monitoring Well Inspection Form

Well ID: <u>3850U</u>	Date: <u>4/26/17</u>
Inspection Conducted By: <u>P. SHERMAN</u>	

As-built depth of well?	Measured depth of well?			Difference?	
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the area around the well loaded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no cracking, water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well monument per, top-of-casing elevation (m.d.), total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well cap is present and is watertight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: <u>3860W</u>	Date: <u>4/20/17</u>
Inspection Conducted By: <u>R. SREATER</u>	

As-built depth of well?	Measured depth of well?			Difference?		
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment.
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in feet), total as-built depth)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Well cap is present and is watertight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing, survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: <b>3851M</b>	Date: <b>4.26.17</b>
Inspection Conducted By: <b>J. Cook</b>	

As-built depth of well?	Measured depth of well?	Difference?				
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comments:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in ms), total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Well cap is present and is watertight?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional comments:

**Relabel well, Replace well tag. Tap & Replace Bolts, Replace gasket**



# Monitoring Well Inspection Form

Well ID: <b>3051N</b>	Date: <b>4-26-17</b>
Inspection Conducted By: <b>3. Cook</b>	

As-built depth of well?	Measured depth of well?	Difference?				
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	✓	No	
Surrounding area is free of vegetation, waste, and debris	✓	No	
Well name is present and legible on exterior of well?	Yes	No ✓	
Protective casing is not damaged or corroded?	✓	No	
Guard posts (if present) are in good condition?	<del>Yes</del>	<del>No</del>	
Is the area round the well flooded?	Yes	No ✓	
Surface pad exists and is not cracked or deteriorated?	✓	No	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	✓	No	
Does vault gasket need to be replaced?	✓	No	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in feet), total as-built depth)	Yes	No ✓	
Locks are present and in good condition (i.e., no rust)?	<del>Yes</del>	<del>No</del>	
Well cap is present and is watertight?	Yes	✓	
Top-of-casing survey mark exists and is legible?	Yes	✓	

Additional comments:  
**Relabel well, Replace well tag, Top & Replace bolts  
 Replace gasket.**

# Monitoring Well Inspection Form

Well ID: <u>3851P</u>	Date: <u>1/26/17</u>
Inspection Conducted By: <u>R. GIBBARD</u>	

As-built depth of well?	Measured depth of well?			Difference?	
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msl), total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well cap is present and is watertight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: 3852-af	Date: 4/24/17
Inspection Conducted By: C. CHOU	

As-built depth of well?	Measured depth of well?			Difference:		
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the area round the well flooded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket? <i>Added</i>
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msl), total as-built depth)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Added</i>
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Well cap is present and is watertight?	<input type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

**Additional comments:**



# Monitoring Well Inspection Form

Well ID: <u>3852E</u>	Date: <u>4/24/17</u>
Inspection Conducted By: <u>C. CHOU</u>	

As-built depth of well?	Measured depth of well?			Difference?		
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	✓	No	
Surrounding area is free of vegetation, waste, and debris	✓	No	
Well name is present and legible on exterior of well?	✓	No	
Protective casing is not damaged or corroded?	✓	No	
Guard posts (if present) are in good condition?	✓	No	
Is the area round the well flooded?	✓	No	
Surface pad exists and is not cracked or deteriorated?	✓	No	
Well vault (if present) is in good condition? (i.e. no standing water and bolts are tight)	✓	No	
Does vault gasket need to be replaced?	✓	No	Outside diameter of vault gasket?
Well tag is present within well measurement and is legible? (well name/number, top of casing elevation (in msl), total as-built depth)	✓	No	
Locks are present and in good condition (i.e., no rust)?	✓	No	
Well cap is present and is watertight?	✓	No	
Top of casing survey mark exists and is legible?	Yes	No	

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: <del>3852 H</del> 3852 H	Date: 4/24/17
Inspection Conducted By: C. CHOU	

As-built depth of well?	Measured depth of well?			Difference?		
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	✓		
Surrounding area is free of vegetation, waste, and debris	✓		
Well name is present and legible on exterior of well?		✓	
Protective casing is not damaged or corroded?	✓		
Guard posts (if present) are in good condition?		✓	
Is the area round the well flooded?	✓		
Surface pail exists and is not cracked or deteriorated?	✓		
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	✓		
Does vault gasket need to be replaced?	✓		Outside diameter of vault gasket? <i>Added</i>
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in feet), total as-built depth)	✓		<i>Added</i>
Locks are present and in good condition (i.e., no rust)?		✓	
Well cap is present and is watertight?			
Top-of-casing survey mark exists and is legible?		✓	

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: <u>3852-J</u>	Date: <u>4/26/17</u>
Inspection Conducted By: <u>R. SABATER</u>	

As-built depth of well?	Measured depth of well?			Difference?	
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	
Is the area around the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msl), total as-built depth)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input type="checkbox"/>	
Well cap is present and is watertight?	<input type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Additional comments:**



# Monitoring Well Inspection Form

Well ID: <u>3852K</u>	Date: <u>4/20/17</u>
Inspection Conducted By: <u>R. SABARWA</u>	

As-built depth of well?	Measured depth of well?			Difference?	
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the area around the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top-of casing elevation (in msl), total as-built depth)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well cap is present and is watertight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Top-of casing survey mark exists and is legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: <u>3852L</u>	Date: <u>4/26/17</u>
Inspection Conducted By: <u>R. SARGENT</u>	

As-built depth of well?	Measured depth of well?	Difference?
Condition of bottom of well?	Soft tag?	Yes    No
	Firm tag?	Yes    No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Well name is present and legible on exterior of well?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Protective casing is not damaged or corroded?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Guard posts (if present) are in good condition?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Is the area round the well flooded?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	<u>FLOODED. STANDING WATER REMOVED. BOLTS TIGHTENED</u>
Does vault gasket need to be replaced?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Outside diameter of vault gasket? <u>ADDED</u>
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (mmsl), total as-built depth)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<u>ADDED</u>
Locks are present and in good condition (i.e., no rust)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	<u>RUSTED</u>
Well cap is present and is watertight?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: <u>3852A</u>	Date: <u>4/24/17</u>
Inspection Conducted By: <u>C. CHOU</u>	

As built depth of well?	Measured depth of well?			Difference?			
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No	

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<del>STAYING WATER REMOVED, REPAIRED</del>
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket? <u>REPLACED</u>
Well tag is present within well monument and is legible? (well tag number, top of casing elevation, and depth as built depth)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>ADDED</u>
Locks are present and in good condition (i.e., no rust)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well cap is present and is water tight?	<input type="checkbox"/>	<input type="checkbox"/>	
Top of casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

**Additional comments:**



# Monitoring Well Inspection Form

Well ID: <u>3852A</u>	Date: <u>5/24/17</u>
Inspection Conducted By: <u>C. Cotton</u>	

As-built depth of well?	Measured depth of well?			Difference?		
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	✓		
Surrounding area is free of vegetation, waste, and debris	✓		
Well name is present and legible on exterior of well?	✓		
Protective casing is not damaged or corroded?	✓	<del>✓</del>	
Guard posts (if present) are in good condition?		✓	
Is the area around the well floored?		✓	
Surface pad exists and is not cracked or deteriorated?	✓		
Well vault (if present) is in good condition? (ie. no standing water and bolts are tight)	✓		STANDING WATER REMOVED. RE-TIGHTENED
Does vault gasket need to be replaced?	✓		Outside diameter of vault gasket? REPLACED
Well tag is present within well manurement and is legible? (well name/number, top of casing elevation (meters), total as-built well)	✓		ADDED
Locks are present and in good condition (ie. no rust)?	✓	<del>✓</del>	
Well cap is present and is watertight?			
Top of casing survey mark exists and is legible?		✓	

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: <u>38603</u>	Date: <u>4/26/17</u>
Inspection Conducted By: <u>R. SABATER</u>	

As-built depth of well?	Measured depth of well?			Difference?	
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	✓		
Surrounding area is free of vegetation, waste, and debris.	✓		
Well name is present and legible on exterior of well?	✓		
Protective casing is not damaged or corroded?	✓		
Guard posts (if present) are in good condition?	✓		
Is the area around the well flooded?		✓	
Surface pad exists and is not cracked or deteriorated?	✓		
Well vault (if present) is in good condition? (i.e., no standing water and no core light)		✓	
Does vault gasket need to be replaced?	✓		Outside diameter of vault gasket? <u>ADDED</u>
Well tag is present within well monument and is legible? (see name/number, top of casing, elevation (if used), total well depth)		✓	<u>ADDED</u>
Locks are present and in good condition (i.e., no rust)?	✓		<u>ADDED</u>
Well cap is present and is watertight?	✓		
Top-of-casing survey mark exists and is legible?	✓		

**Additional comments**

# Monitoring Well Inspection Form

Well ID: <u>3860K</u>	Date: <u>4/26/17</u>
Inspection Conducted By: <u>R. SKEATER</u>	

As-built depth of well?	Measured depth of well?			Difference?		
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket? <u>ADDED/REPLACED</u>
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msl), total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>ADDED</u>
Locks are present and in good condition (i.e. no rust)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>PGHPA BOLTS</u>
Well cap is present and is watertight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

**Additional comments:**



# Monitoring Well Inspection Form

Well ID: <u>3861 D</u>	Date: <u>4/20/17</u>
Inspection Conducted By: <u>R. SABATOR</u>	

As-built depth of well?	Measured depth of well?			Difference?			
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No	

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	Yes ✓	No	
Surrounding area is free of vegetation, waste, and debris	Yes ✓	No	
Well name is present and legible on exterior of well?	Yes ✓	No	
Protective casing is not damaged or corroded?	Yes ✓	No	
Guard posts (if present) are in good condition?	Yes	No ✓	
Is the area round the well flooded?	Yes	No ✓	
Surface pad exists and is not cracked or deteriorated?	Yes ✓	No	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	Yes ✓	No	<u>REINSPECTION</u>
Does vault gasket need to be replaced?	Yes ✓	No	Outside diameter of vault gasket? <u>ADD IT</u>
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msl), total as-built depth)	Yes	No ✓	<u>ADD IT</u>
Locks are present and in good condition (i.e., no rust)?	Yes	No ✓	
Well cap is present and is watertight?	Yes	No ✓	
Top-of-casing survey mark exists and is legible?	Yes	No ✓	

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: <u>3861E</u>	Date: <u>4/26/17</u>
Inspection Conducted By: <u>R. SABARER</u>	

As-built depth of well?	Measured depth of well?	Difference?				
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>REMOVED</u>
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket? <u>ADDED</u>
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msl), total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>ADDED</u>
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Well cap is present and is watertight?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: <u>3861F</u>	Date: <u>4/26/17</u>
Inspection Conducted By: <u>R. SIBATER</u>	

As-built depth of well?	Measured depth of well?			Difference?	
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and leaks are tight)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>RETIRED</u>
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket? <u>ADDED</u>
Well tag is present within well monument and is legible? (well name/number, well casing elevation in ft, total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>ADDED</u>
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Well cap is present and is watertight?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

**Additional comments:**



# Monitoring Well Inspection Form

Well ID: <del>3862-D</del> 3862D	Date: 4/24/17
Inspection Conducted By: C. Llew	

As-built depth of well?	Measured depth of well?	Difference?				
Condition of bottom of well?	Split tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	✓	0	
Surrounding area is free of vegetation, waste, and debris	✓	0	
Well name is present and legible on exterior of well?	✓	0	
Protective casing is not damaged or corroded?	✓	0	
Guard posts (if present) are in good condition?		✓	
Is the area round the well flooded?		✓	
Surface pad exists and is not cracked or deteriorated?	✓	✓	
Well vault (if present) is in good condition? i.e., no standing water and bolts are tight	✓		
Does vault gasket need to be replaced?	✓	0	Outside diameter of vault gasket? Added
Well tag is present within well monument and is legible? (well name/number, top of casing elevation in feet, total as-built depth)	✓	0	Added
Locks are present and in good condition (i.e., no rust)?		✓	
Well cap is present and is watertight?	✓	0	
Top-of-casing survey mark exists and is legible?		✓	

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: <del>3862E</del> 3862E	Date: 4/24/17
Inspection Conducted By: C. CHOU	

As-built depth of well?	Measured depth of well?			Difference?		
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>		
Surrounding area is free of vegetation, waste, and debris?	<input checked="" type="checkbox"/>		
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>		
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>		
Guard posts (if present) are in good condition?		<input checked="" type="checkbox"/>	
Is the area around the well flooded?		<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?			
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>		STANDING WATER RE-INSPECTED
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>		Outside diameter of vault gasket? REPLACED
Well tag is present within well monument and is legible? (we can confirm location, casing elevation, depth, total as built well)	<input checked="" type="checkbox"/>		MOVED
Locks are present and in good condition (i.e., no rust)?		<input checked="" type="checkbox"/>	
Well cap is present and is watertight?			
Top of casing survey mark exists and is legible?		<input checked="" type="checkbox"/>	

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: <b>38700</b>	Date: <b>4-26-17</b>
Inspection Conducted By: <b>J. Cook</b>	

As-built depth of well?	Measured depth of well?		Difference?			
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Some water
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket? 1.98' Diamond Plate Vault
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msl), total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Well cap is present and is watertight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional comments:  
 Replaced well tag. added bolt  
 Missing 1 bolt (small size ~ 3/8" / 7/16")



# Monitoring Well Inspection Form

Well ID: <u>2871 H</u>	Date: <u>4/26/17</u>
Inspection Conducted By: <u>R. SABATER</u>	

As-built depth of well?	Measured depth of well?			Difference?			
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No	

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	Yes ✓	No	
Surrounding area is free of vegetation, waste, and debris	Yes ✓	No	
Well name is present and legible on exterior of well?	Yes ✓	No	
Protective casing is not damaged or corroded?	Yes ✓	No	
Guard posts (if present) are in good condition?	Yes	No ✓	
Is the area around the well flooded?	Yes	No ✓	
Surface pad exists and is not cracked or deteriorated?	Yes ✓	No	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	Yes ✓	No	<b>POTHOLE DIED</b>
Does vault gasket need to be replaced?	Yes ✓	No	Outside diameter of vault gasket? <b>ADDED</b>
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msl), total as-built depth)	Yes ✓	No	<b>ADDED</b>
Locks are present and in good condition (i.e., no rust)?	Yes ✓	No	
Well cap is present and is watertight?	Yes	No	
Top-of-casing survey mark exists and is legible?	Yes	No ✓	

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: <u>3871 J</u>	Date: <u>4/26/17</u>
Inspection Conducted By: <u>R. SABATER</u>	

As-built depth of well?	Measured depth of well?			Difference?	
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	✓	No	
Surrounding area is free of vegetation, waste, and debris	✓	No	
Well name is present and legible on exterior of well?	✓	No	
Protective casing is not damaged or corroded?	✓	No	
Guard posts (if present) are in good condition?	No	✓	
Is the area around the well flooded?	No	✓	
Surface pad exists and is not cracked or deteriorated?	✓	No	
Well vault (if present) is in good condition? (i.e., no staining, water and leaks the light)	✓	No	<del>RETAGGED</del>
Does vault gasket need to be replaced?	✓	No	Outside diameter of vault gasket? <u>ADDED</u>
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in ft), total as-built depth)	✓	No	<u>ADDED</u>
Locks are present and in good condition (i.e., no rust)?	✓	No	
Well cap is present and is watertight?	No	✓	
Top of casing survey mark exists and is legible?	No	✓	

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: <u>3872K</u>	Date: <u>4/24/17</u>
Inspection Conducted By: <u>C. CHUM</u>	

As-built depth of well?	Measured depth of well?			Difference?	
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the area round the well covered?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no staining, water and locks are tight)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Does vault gasket need to be replaced?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Outside diameter of vault gasket? <u>ADDED</u>
Well tag is present within well monument and is legible? (well name/number, total casing elevation in feet, total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>ADDED</u>
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>PINNA BOLTS</u>
Well cap is present and is watertight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

**Additional comments:**



# Monitoring Well Inspection Form

Well ID: <u>3872L</u>	Date: <u>4/24/17</u>
Inspection Conducted By: <u>C. C. H. U.</u>	

As-built depth of well?	Measured depth of well?			Difference?		
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	✓		
Surrounding area is free of vegetation, waste, and debris	✓		
Well name is present and legible on exterior of well?	✓		
Protective casing is not damaged or corroded?	✓		
Guard posts (if present) are in good condition?		✓	
Is the area round the well flooded?		✓	
Surface pad exists and is not cracked or deteriorated?	✓		
Well vault (if present) is in good condition? (i.e. no standing water and no leaks or debris)	✓		<u>RETHREADED</u>
Does vault gasket need to be replaced?		✓	Outside diameter of vault gasket? <u>ADDED</u>
Well tag is present within well monument and is legible? (see name/number, top of casing depth or firm tag, total as-built depth)	✓		
Locks are present and in good condition (i.e., no rust)?		✓	
Well cap is present and is watertight?			
Top of casing survey mark exists and is legible?			

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: <u>3872M</u>	Date: <u>4/24/17</u>
Inspection Conducted By: <u>C. Chou</u>	

As-built depth of well?	Measured depth of well?			Difference?		
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	✓		
Surrounding area is free of vegetation, waste, and debris	✓		
Well name is present and legible on exterior of well?	✓		
Protective casing is not damaged or corroded?	✓		
Guard posts (if present) are in good condition?		✓	
Is the area around the well flooded?		✓	
Surface pad exists and is not cracked or deteriorated?	✓		
Well vault (if present) is in good condition (i.e., no standing water and bolts are tight)?	✓		<u>RETRACED</u>
<b>Does vault gasket need to be replaced?</b>		✓	Outside diameter of vault gasket? <u>REPLACED 4/24</u>
Well tag is present within well monument and is legible? (well name/number, top of casing elevation (if exist), total existing depth)	✓		<u>ADDED</u>
Locks are present and in good condition (i.e., no rust)?		✓	
Well cap is present and is watertight?		✓	
Top-of-casing survey mark exists and is legible?		✓	

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: <u>3872N</u>	Date: <u>4/24/17</u>
Inspection Conducted By: <u>CHARLIE CHOU</u>	

As-built depth of well?	Measured depth of well?			Difference?	
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	✓		
Surrounding area is free of vegetation, waste, and debris	✓		
Well name is present and legible on exterior of well?	✓		
Protective casing is not damaged or corroded?	✓		
Guard posts (if present) are in good condition?		✓	
Is the area around the well flooded?		✓	
Surface pad exists and is not cracked or deteriorated?	✓		
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	✓		<u>REPLACED</u>
Does vault gasket need to be replaced?	✓		Outside diameter of vault gasket? <u>ADDED</u>
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation in msl, total as built depth)	✓		<u>ADDED</u>
Locks are present and in good condition (i.e., no rust)?		✓	
Well cap is present and is watertight?			
Top-of-casing survey mark exists and is legible?			

**Additional comments:**



# Monitoring Well Inspection Form

Well ID: <u>38120</u>	Date: <u>4/24/17</u>
Inspection Conducted By: <u>C. CHOU</u>	

As-built depth of well?	Measured depth of well?			Difference?	
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>REINSPECTED 4/24/17</u>
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in feet), total as-built depth)	<input type="checkbox"/>	<input type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well cap is present and is watertight?	<input type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input type="checkbox"/>	

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: <u>38725</u>	Date: <u>4/24/17</u>
Inspection Conducted By: <u>C. CHOU</u>	

As-built depth of well?	Measured depth of well?	Difference?				
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>BOLT HOLES RETIGHTENED 4/24/17</u>
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket? <u>added 4/24/17</u>
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msl), total as-built depth)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>added on 4/24/17</u>
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Well cap is present and is watertight?	<input type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input type="checkbox"/>	

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: A-1-CW02 Date: 4/26/17  
 Inspection Conducted By: I. SPATER

As-built depth of well?		Measured depth of well?			Difference?	
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket? <b>ADDED</b>
Well tag is present within well monument and is legible? (we name, number, top-of-casing elevation (if any), total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<b>ADDED</b>
Locks are present and in good condition (i.e., no rust)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>PERMA BOLCS</b>
Well cap is present and is watertight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Additional comments:**



# Monitoring Well Inspection Form

Well ID: <u>A-1-C-103R</u>	Date: <u>4/26/17</u>
Inspection Conducted By: <u>P. STUBBINS</u>	

As-built depth of well?	Measured depth of well?			Difference?			
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No	

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket? <u>ADDED</u>
Well tag is present within well monument and is legible? (w/ name/number, top of casing elevation in msl, total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>ADDED</u>
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>PENTON BOLTS</u>
Well cap is present and is watertight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Additional comments:**

# Monitoring Well Inspection Form

Well ID: <b>A-10-C-007</b>	Date: <b>4-26-2011</b>
Inspection Conducted By: <b>J. Cook</b>	

As-built depth of well?	Measured depth of well?			Difference?		
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Cracked Pad</b>
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in feet), total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Well cap is present and is watertight?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional comments:

**Relabel well; Replace well tag, Top & Replace bolts  
Replace gasket.**

# Monitoring Well Inspection Form

Well ID: <u>B-1-cwll</u>	Date: <u>4.26.17</u>
Inspection Conducted By: <u>J. Cook</u>	

As-built depth of well?	Measured depth of well?			Difference?			
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No	

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msl), total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Well cap is present and is watertight?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional comments:

Relabel well, add well tag  
well vault lid does not have bolt holes



# Monitoring Well Inspection Form

Well ID: <b>B-1-612</b>	Date: <b>4-26-17</b>
Inspection Conducted By: <b>3 Cook</b>	

As-built depth of well?	Measured depth of well?	Difference?
Condition of bottom of well?	Soft tag?	Yes
	No	Firm tag?
	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	✓	No	
Surrounding area is free of vegetation, waste, and debris	✓	No	
Well name is present and legible on exterior of well?	No	✓	
Protective casing is not damaged or corroded?	✓	No	
Guard posts (if present) are in good condition?	No	No	
Is the area round the well flooded?	No	✓	
Surface pad exists and is not cracked or deteriorated?	✓	No	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	✓	No	
Does vault gasket need to be replaced?	✓	No	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top of casing elevation in ft., total as built depth)	No	✓	
<b>Locks are present and in good condition (i.e., no rust)?</b>	No	No	
Well cap is present and is water tight?	No	✓	
Top of casing survey mark exists and is legible?	No	✓	

**Additional comments:**

**Re-label well, add well tag.**  
**Vault lid has no bolt holes**

# Monitoring Well Inspection Form

Well ID: <b>B-1-1-2-16</b>	Date: <b>4-26-11</b>
Inspection Conducted By: <b>J. Cook</b>	

As-built depth of well?	Measured depth of well?	Difference?				
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	✓	No	
Surrounding area is free of vegetation, waste, and debris	✓	No	
Well name is present and legible on exterior of well?	✓	No	
Protective casing is not damaged or corroded?	✓	No	
Guard posts (if present) are in good condition?	✓	No	
Is the area round the well flooded?	Yes	No ✓	
Surface pad exists and is not cracked or deteriorated?	✓	No	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	✓	No	
Does vault gasket need to be replaced?	✓	No	Outside diameter of vault gasket? <b>larger than purchased gaskets</b>
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msl), total as-built depth)	No	Yes ✓	
Locks are present and in good condition (i.e., no rust)?	✓	No	
Well cap is present and is watertight?	✓	No	
Top-of-casing survey mark exists and is legible?	✓	No	

Additional comments:

**Add well tag. Re-Tap and add bolts.**

# Monitoring Well Inspection Form

Well ID: <u>B-1-CW17</u>	Date: <u>4/24/17</u>
Inspection Conducted By: <u>C. CHOU</u>	

As-built depth of well?	Measured depth of well?			Difference?	
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top of casing elevation (in msl), total as-built depth)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<del>NO</del> WELL TAG ADDED 4/24/17
Locks are present and in good condition (i.e., no rust)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well cap is present and is watertight?	<input type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

**Additional comments:**

BOLT HOLES RETIGHTENED & POINTY BOLTS IN PLACE



# Monitoring Well Inspection Form

Well ID: <u>B-1-1000</u>	Date: <u>4-20-17</u>
Inspection Conducted By: <u>J. Cook</u>	

As-built depth of well?		Measured depth of well?			Difference?	
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the area around the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (i.e. name/number, top-of-casing elevation (feet), total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Well cap is present and is watertight?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

**Additional comments:**

Relabel well, Replace tag & Replace Bolts gasket is too small.

# Monitoring Well Inspection Form

Well ID: <u>B-1-CW25</u>	Date: <u>4/24/17</u>
Inspection Conducted By: <u>C. CHOU</u>	

As-built depth of well?	Measured depth of well?			Difference?		
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	✓		
Surrounding area is free of vegetation, waste, and debris	✓		
Well name is present and legible on exterior of well?	✓		
Protective casing is not damaged or corroded?	✓		
Guard posts (if present) are in good condition?		✓	
Is the area around the well flooded?		✓	
Surface pad exists and is not cracked or deteriorated?	✓		
Well vault (if present) is in good condition? (i.e., no seeping water and bolts are tight)	✓		
Does vault gasket need to be replaced?	✓		Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top of casing elevation (in ft), as-built depth)	✓		<u>ADDED 4/24/17</u>
Locks are present and in good condition (i.e., no rust)?		✓	
Well cap is present and is watertight?			
Top-of-casing survey mark exists and is legible?		✓	

Additional comments:

BOLT HOLES RETHREADED. NEED TO REPLACE W/ CURRENT LIST DOES NOT HAVE BOLT HOLES.

# Monitoring Well Inspection Form

Well ID: <b>B-1-cul/27</b>	Date: <b>4/24/17</b>
Inspection Conducted By: <b>C. CHOU</b>	

As-built depth of well?	Measured depth of well?			Difference?		
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and balls are tight)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<b>STANDING WATER. REMOVED</b>
Does vault gasket need to be replaced?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Outside diameter of vault gasket? NEW GASKET ADDED 4/24/17</b>
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msl), total-as-built depth)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>ADDED 4/24/17</b>
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Well cap is present and is watertight?	<input type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

**Additional comments:**

**BOLT NUTS REMOVED & POINT BOLTS IN PLACE**



# Monitoring Well Inspection Form

Well ID: <b>B1-CW29</b>	Date: <b>4-26-17</b>
Inspection Conducted By: <b>J. COOL</b>	

As-built depth of well?	Measured depth of well?			Difference?		
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in ms), total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Well cap is present and is watertight?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Additional comments:

well cap needs to be replaced. Vault lid is large. No gasket, no bolts. added well tag

# Monitoring Well Inspection Form

Well ID: <b>B-56202</b>	Date: <b>6/26/17</b>
Inspection Conducted By: <b>S. Cook</b>	

As-built depth of well?	Measured depth of well?			Difference?			
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No	

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Guard wall ok</b>
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Outside diameter of vault gasket?</b>
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msl), total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Well cap is present and is watertight?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional comments:

Replace gasket, Tap & Replace Bolts  
Replace well Tag

# Monitoring Well Inspection Form

Well ID: <b>B-5-CW03</b>	Date: <b>4-26-17</b>
Inspection Conducted By: <b>J. Col</b>	

As-built depth of well?	Measured depth of well?	Difference?				
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	✓	No	
Surrounding area is free of vegetation, waste, and debris	✓	No	
Well name is present and legible on exterior of well?	✓	No	
Protective casing is not damaged or corroded?	✓	No	
Guard posts (if present) are in good condition?	✓	No	Guard well ok
Is the area round the well flooded?	Yes	No ✓	
Surface pad exists and is not cracked or deteriorated?	✓	No	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	✓	No	
Does vault gasket need to be replaced?	✓	No	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msl), total as-built depth)	✓	No ✓	
Locks are present and in good condition (i.e., no rust)?	Yes	No ✓	
Well cap is present and is watertight?	Yes	No ✓	
Top-of-casing survey mark exists and is legible?	Yes	No ✓	

Additional comments:

Replace gasket, Tap & Replace Bolts  
Replace well tag



# Monitoring Well Inspection Form

Well ID: <u>22-PW01</u>	Date:
Inspection Conducted By:	

As-built depth of well?	Measured depth of well?	Difference?
Condition of bottom of well?	Soft tag? Yes No	Firm tag? Yes No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the area around the well flooded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no staining, water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in msl), total as-built depth)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>ADDEN</b>
Locks are present and in good condition (i.e., no rust)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well cap is present and is watertight?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Top-of-casing survey mark exists and is legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Additional comments:**

**EMCO WFL BOX**

# Monitoring Well Inspection Form

Well ID: <u>Tt-PW02</u>	Date: <u>4/26/17</u>
Inspection Conducted By: <u>R. SABATER</u>	

As-built depth of well?	Measured depth of well?	Difference?				
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	✓	✗	
Surrounding area is free of vegetation, waste, and debris	✓	✗	
Well name is present and legible on exterior of well?	✗	✓	
Protective casing is not damaged or corroded?	✓	✗	
Guard posts (if present) are in good condition?	✗	✓	
Is the area round the well flooded?	✗	✓	
Surface pad exists and is not cracked or deteriorated?	✓	✗	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	✓	✗	
Does vault gasket need to be replaced?	✗	✓	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name, number, top-of-casing elevation (in ms), total as-built depth)	✓	✗	<b>ADDED</b>
Locks are present and in good condition (i.e., no rust)?	✗	✓	
Well cap is present and is watertight?	✓	✗	
Top-of-casing survey mark exists and is legible?	✓	✗	

**Additional comments:**

ENCO well box

# Monitoring Well Inspection Form

Well ID: <u>SW-01</u>	Date: <u>4-26-17</u>
Inspection Conducted By: <u>J. Coe</u>	

As-built depth of well?	Measured depth of well?			Difference?			
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No	

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area is free of vegetation, waste, and debris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well name is present and legible on exterior of well?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Protective casing is not damaged or corroded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Guard posts (if present) are in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	
Is the area round the well flooded?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Surface pad exists and is not cracked or deteriorated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does vault gasket need to be replaced?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top-of-casing elevation (in ml), total as-built depth)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Locks are present and in good condition (i.e., no rust)?	<input type="checkbox"/>	<input type="checkbox"/>	
Well cap is present and is watertight?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	well cap will not fit. need to modify top of casing.
Top-of-casing survey mark exists and is legible?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

**Additional comments:**  
Re-labeled well. Add well tag, Replace all Bolts & re-tap hole, Replace gasket



# Monitoring Well Inspection Form

Well ID: <b>5W-05</b>	Date: <b>4-26-17</b>
Inspection Conducted By: <b>J. Cook</b>	

As-built depth of well?	Measured depth of well?			Difference?		
Condition of bottom of well?	Soft tag?	Yes	No	Firm tag?	Yes	No

Maintenance Item:	Yes	No	Comment:
Well is visible and accessible?	✓	No	
Surrounding area is free of vegetation, waste, and debris	✓	No	
Well name is present and legible on exterior of well?	✓	No	
Protective casing is not damaged or corroded?	✓	No	
Guard posts (if present) are in good condition?	<del>Yes</del>	<del>No</del>	
Is the area round the well flooded?	Yes	No ✓	
Surface pad exists and is not cracked or deteriorated?	✓	No	
Well vault (if present) is in good condition? (i.e., no standing water and bolts are tight)	✓	No	
Does vault gasket need to be replaced?	Yes	No ✓	Outside diameter of vault gasket?
Well tag is present within well monument and is legible? (well name/number, top of casing elevation (ft msl), total as-built depth)	Yes	No ✓	
Locks are present and in good condition (i.e., no rust)?	Yes	No ✓	
Well cap is present and is watertight?	✓	No	
Top-of-casing survey mark exists and is legible?	✓	No	

Additional comments:

*Replace well tag.  
EMCO vault.*

Second Quarter 2017 Groundwater Elevation Data

Field Personnel: R. SEBASTIAN

Field Personnel: \_\_\_\_\_

Well ID	Date Measured	Time Measured	2016 Depth to groundwater (feet blue)	2017 Depth to groundwater (feet blue)	Comments
1880			151.50		
1928			200.25		
1810J			229.72		
1830S			229.57		
1831G	4/18/17	1022	191.03	198.30	
1830A	4/20/17	1002	218.95	228.15	
1850N			197.12		
1850Q			191.50		
1850R			191.19		
1850S			190.16		
1850T	4/19/17	1428	213.52	224.58	
1850U	4/19/17	1414	218.94	228.25	
1851V			225.70		
1850W			225.41		
1851M			185.21		
1851N			184.47		
1852F	4/18/17	1001	142.37	148.03	
1852G	4/18/17		144.46		BOLT on MID STACK. REFORMED LATER
1852H	4/18/17	1010	146.35	149.65	
1852I	4/18/17	0945	156.95	164.95	
1852M	4/18/17	0915	132.62	136.91	
1852N	4/18/17	0921	137.12	137.94	
1860J			197.06		
1860K			204.45		
1861D			157.62		
1861E			136.87		
1861F			153.70		
1862D	4/18/17	0831	127.27	133.36	

Second Quarter 2017 Groundwater Elevation Data

Field Personnel: R. SREATOR

Field Personnel: \_\_\_\_\_

Well ID	Date Measured	Time Measured	2016 Depth to groundwater (feet btoe)	2017 Depth to groundwater (feet btoe)	Comments
18720	4/18/17	0835	129.68	130.38	
18721			162.47		
38713	4/18/17	0846	131.25	138.19	
38711	4/18/17	0852	127.26	132.80	
18721	4/18/17	0808	125.03	110.68	
18724	4/18/17	0812	106.58	106.58	
18728	4/18/17	<del>0820</del> 0820	107.86	108.49	
18720	4/18/17	0749	14.71	120.81	
38720	4/18/17	0754	114.93	120.87	
18725	4/18/17	0757	111.32	117.30	
19450			258.89		
SW-			227.34		
SW-5			227.00		
A-1-CW01			215.24		
A-1-CW03K			219.75		
A-1-CW04			211.19		
A-1-CW05			219.30		
A-1-CW07	4/19/17	1445	211.63	DRY	TD = 210.54
A-1-CW08	4/19/17	1435	211.86	226.60	
A-1-CW09			201.92		
B-1-CW11			144.80		
B-1-CW12			161.22		
B-1-CW13			132.03		
B-1-CW14			179.70		
B-1-CW17			133.62		
B-1-CW20			124.75		
B-1-CW25			175.16		
B-1-CW27			173.09		



**Second Quarter 2017 Groundwater Elevation Data**

**Field Personnel:** \_\_\_\_\_

**Field Personnel:** \_\_\_\_\_

Well ID	Date Measured	Time Measured	2016 Depth to groundwater (feet blos)	2017 Depth to groundwater (feet blos)	Comments
B-1-CW28			185.41		
B-1-CW29			165.43		
B-5-CW02			236.32		
B-5-CW03			226.07		
B-6-CW02			227.02		
B-6-CW05			250.23		
B-6-CW08			252.66		
B-6-CW09			253.89		
B-6-CW10	4/19/17	1506	248.54	247.00	
B-6-CW14	4/19/17	1458	232.58	240.76	
B-6-CW16			242.94		
B-6-CW17			266.05		
C-1-CW02			264.23		
C-1-CW03			264.43		
C-1-CW05			246.49		
C-1-CW05			Dry		
C-1-CW12	4/19/17	0939	250.78	264.71	
C-1-CW18	4/19/17	0930 <del>0930</del>	256.61	264.40	
MW-01			Dry		
MW-02			Dry		
MW-03			249.08		
MW-04			232.90		
MW-05			235.25		
MW-08			208.95		
MW-07			229.81		
MW-08			233.15		
T1-PW-01			150.00		
T1-PW-02			141.49		

**Second Quarter 2017 Groundwater Elevation Data**

**Field Personnel:** \_\_\_\_\_

**Field Personnel:** \_\_\_\_\_

Well ID	Date Measured	Time Measured	2016 Depth to groundwater (feet btoe)	2017 Depth to groundwater (feet btoe)	Comments
OW-VO1A-R			158.68		
OW-VO1B-R			157.55		
OW-VO2A-R			164.15		
OW-VO2B-R			164.15		
OW-VO3A-R			168.45		
OW-VO3B-R			167.69		
OW-VO4A			179.48		
OW-VO4B			173.89		
OW-VO5A			185.92		
OW-VO5B			180.12		
OW-VO6A			194.22		
OW-VO6B			193.80		
OW-VO7A			205.32		
OW-VO7B			201.40		
OW-VO1A					
OW-VO5B					

Second Quarter 2017 Groundwater Elevation Data

Field Personnel: \_\_\_\_\_

Field Personnel: \_\_\_\_\_

Well ID	Date Measured	Time Measured	2016 Depth to groundwater (feet btoe)	2017 Depth to groundwater (feet btoe)	Comments
3630	4/12/17	0435	151.90	151.29	TOC
4916			262.25		
38300	4-18-17	1501	229.12	235.16	BTOC
38305	4-18-17	1510	229.12	235.31	BTOC
38310	RS		191.05		
38304	RS		218.95		
38307	4-20-17	1111	197.12	203.01	BTOC
38302	4-20-17	1113	191.80	198.28	top of sounding tube
38308	4-20-17	1114	194.19	198.35	BTOC
38305	<del>4-20-17</del>		<del>191.80</del>	<del>203.01</del>	<del>BTOC</del>
38304	RS		218.94		
3850U	RS		218.94		
3850V	4-18-2017	0955	225.06	233.75	TOP of sounding tube
3850W	4-18-2017	1343	225.41	233.45	Top of sounding tube
3851A	4-14-17	1012	185.21	191.19	TOC
3851B	4-4-17	1009	181.12	180.44	TOC
3851F	RS		142.77		
3852G	RS		141.06		
3857H	RS		146.25		
3852L	RS		156.93		
3853M	RS		142.62		
3852N	RS		157.32		
3860J	<del>4-18-17</del> 4-20-17	0901	197.06	203.54	TOC
3860K	4-18-17	1028	204.45	212.21	TOC
3861D	4-14-17	0940	152.67	164.20	TOC
3861E	4-14-17	0944	154.82	163.60	TOC
3861F	4-14-17	0937	154.70	159.44	BTOC
3861D	RS		129.22		



Second Quarter 2017 Groundwater Elevation Data

Field Personnel: \_\_\_\_\_

Field Personnel: \_\_\_\_\_

Well ID	Date Measured	Time Measured	2016 Depth to groundwater (feet btoe)	2017 Depth to groundwater (feet btoe)	Comments
38701	RS	0747	124.08		TOC
38701	4-18-2017	0747	162.47	169.28	FOC
3871H	RS		131.21		
3871J	RS		127.26		
3872L	RS		105.09		
3872M	RS		100.88		
3872N	RS		102.68		
3872O	RS		112.70		
3872R	RS		111.91		
3872S	RS		111.32		
404AC			258.59		
SW-1	4/18/17	0815	237.91	244.75	TOC
SW-5	4/18/17	0827	227.00	<del>235.37</del>	TOC
A-1-CW02	4-14-17	1045	216.20	222.80	TOC
A-1-CW03R	4-14-17	1042	219.75	226.96	TOC
A-1-CW04	4-14-17	1403	211.19	217.52	TOC
A-1-CW05	4-14-17	1414	209.70	216.18	TOC
A-1-CW07	RS		211.61		
A-1-CW08	RS		217.80		
A-1-CW09	4-18-2017	1217	201.92	217.67	TOC
B-1-CW11	4-19-17	0737	141.80	150.40	TOC
B-1-CW12	4-19-17	0735	151.22	155.58	TOC
B-1-CW13	4-20-17	0817	192.03	200.65	TOC
B-1-CW16	4-14-17	1029	171.70	186.44	TOC
B-1-CW17	4-19-17	0909	135.64	140.51	TOC
B-1-CW20	4-19-17	0921	134.75	140.55	TOC
B-1-CW25	4-19-17	0820	178.16	185.95	TOC
B-1-CW27	4-19-17	0816	172.68	179.36	TOC

Second Quarter 2017 Groundwater Elevation Data

Field Personnel: \_\_\_\_\_

Field Personnel: \_\_\_\_\_

Well ID	Date Measured	Time Measured	2016 Depth to groundwater (feet bslc)	2017 Depth to groundwater (feet bslc)	Comments
B-1-CW28	4/20/17	08:30	185.41	191.69	TOC
B-1-CW29	4-19-2017	07:51	165.43	171.26	TOC TO 171.65'
B-5-CW02	4-18-2017	14:32	226.87	232.60	BTOC
B-5-CW03	4/18/17	14:40	236.07	228.35	DRY TD
B-6-CW12	4-18-2017	10:06	237.02	234.04	BTOC
B-6-CW15	4/18/17	13:23	250.73	252.07	TOC
B-6-CW18	4-19-2017	12:56	252.66	259.40	BTOC
B-6-CW19	4-19-2017	12:59	253.19	257.95	top of sampling tube, DRY
B-6-CW10	RS		238.74		
B-6-CW14	RS		232.48		
B-6-CW16	4-18-2017	14:00	242.94	250.78	TOC
B-6-CW17	4-19-2017	13:31	266.63	271.93	BTOC
C-1-CW02	4-18-17	12:57	264.33	270.59	TOC
C-1-CW03	4-18-17	13:00	263.63	271.01	TOC
C-1-CW05	4-18-17	12:31	246.29	251.71	TOC
C-1-CW06	4-18-17	12:40	Dry	247.12	DRY TD
C-1-CW07	RS		256.78		
C-1-CW08	RS		256.61		
MW-01	4-18-2017	09:01	Dry	240.25	DRY TD
MW-02	4-18-2017	08:55	Dry	238.71	DRY TD
MW-03	4-18-2017	08:43	240.15	257.09	TOC
MW-04	4-18-2017	09:27	222.40	240.90	TOC
MW-05	4/18/17	09:09	235.25	243.04	TOC
MW-06	4/18/17	09:15	206.94	241.04	DRY TD
MW-07	4-18-17	09:44	229.81	243.26	243.26 TOC
MW-08	4/17/17	09:34	235.16	237.82	TOC
T1-PW-01	11-20-17	11:31	150.00	156.66	BTOC
T1-PW-02	2/20/17	11:48	141.49	147.45	BTOC



Second Quarter 2017 Groundwater Elevation Data

Field Personnel: \_\_\_\_\_

Field Personnel: \_\_\_\_\_

Well ID	Date Measured	Time Measured	2016 Depth to groundwater (feet btoc)	2017 Depth to groundwater (feet btoc)	Comments
OW-V01A-R	4-14-17	0853	154.18	167.62	Btoc
OW-V01B-R	4-14-17	0857	157.55	162.48	Btoc
OW-V02A-P	4-14-17	0843	161.15	179.15	Btoc
OW-V02B-R	4-14-17	0847	161.15	164.71	Btoc
OW-V03A-R	4-14-17	0827	168.45	176.72	Btoc
OW-V03B-R	4-14-17	0830	167.89	169.19	Btoc
OW-V04A	4-20-17	0852	179.48	185.85	Top of sanding tube
OW-V04B	4-20-17	0855	173.69	182.23	Top of sanding tube
OW-V05A	4-20-17	1103	183.92	199.13	Top of sanding tube
OW-V05B	4-20-17	1104	180.12	188.40	Top of sanding tube
OW-V06A	4-20-17	1110	194.22	202.23	Top of sanding tube
OW-V06B	4-20-17	1109	193.50	197.72	Top of sanding tube
OW-V07A	4-20-17	1119	205.37	211.94	Top of sanding tube
OW-V07B	4-20-17	1125	201.70	207.95	Top of well cap
OW-V08A	4-10-17	0955	RECORDED	192.61	Btoc
OW-V08B	4-24-17	0758	—	191.44	Btoc

B-1-CW30	4-14-17	0751	169.80		TOC
B-1-CW31	4-14-17	0744	170.54		TOC
B-1-CW32	4-14-17	0914	148.16		TOC
B-1-CW33	4-14-17	0807	189.80		TOC
B-1-CW34	4-14-17	0730	154.32		TOC

Light  
Band

4  
11  
5  
7



# Appendix C

## Hydrographs for Select Monitoring Wells

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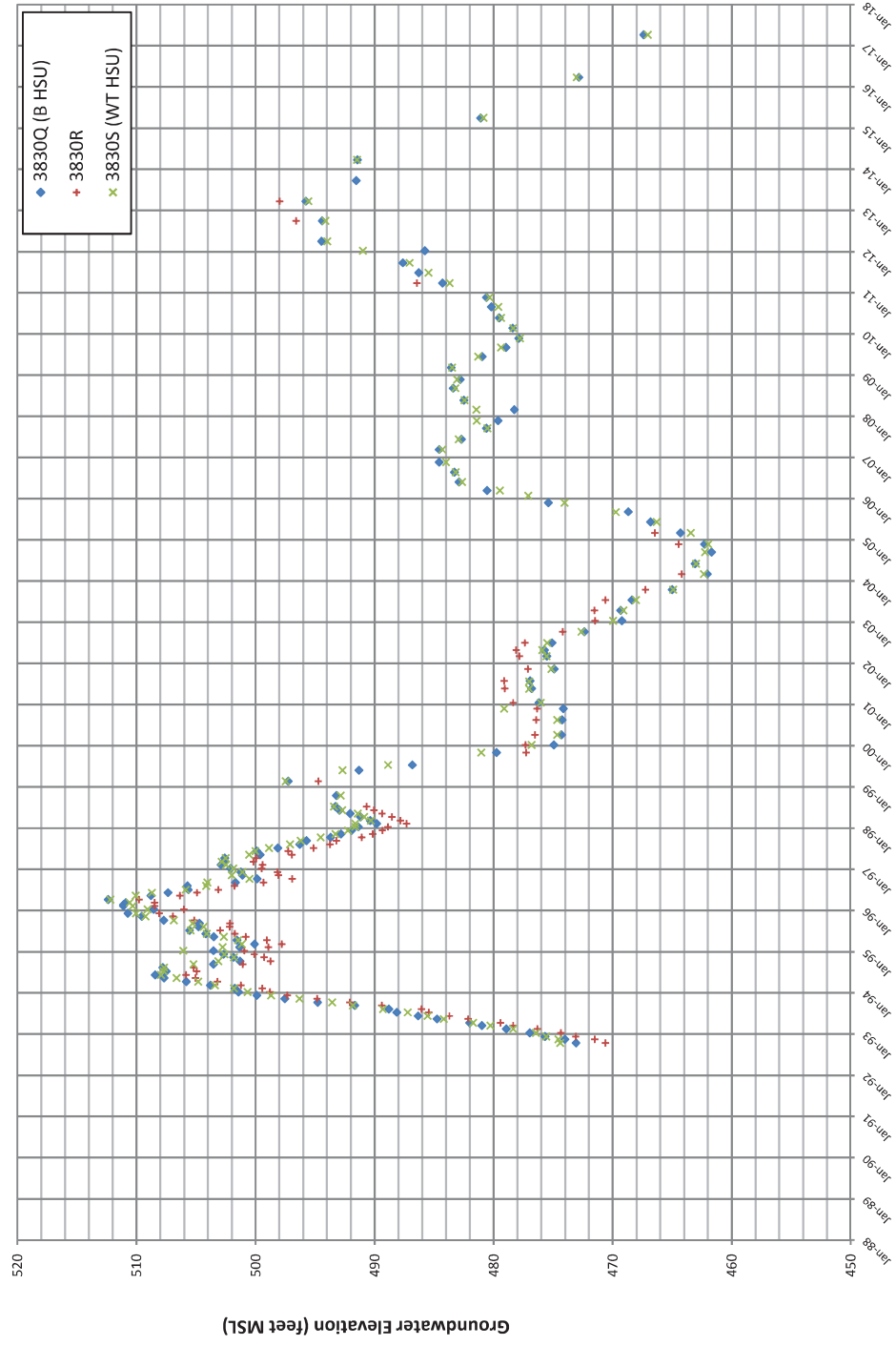
Annual Groundwater Monitoring Report, Second Quarter 2017

Lockheed Martin Corporation

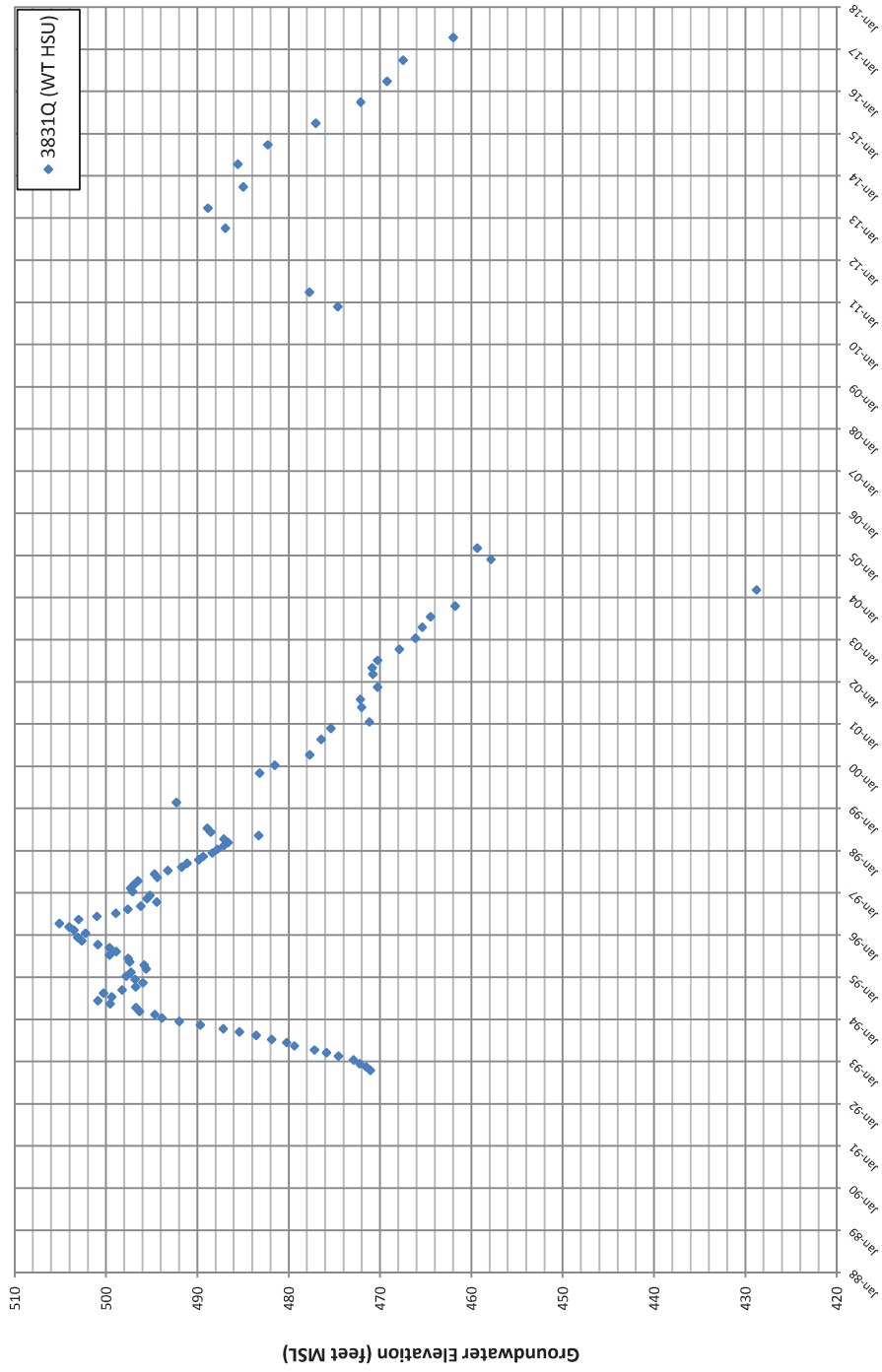
Burbank Operable Unit, Burbank, CA

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Appendix C  
Graph C-1  
Time Series Hydrograph - 3830Q, 3830R, and 3830S

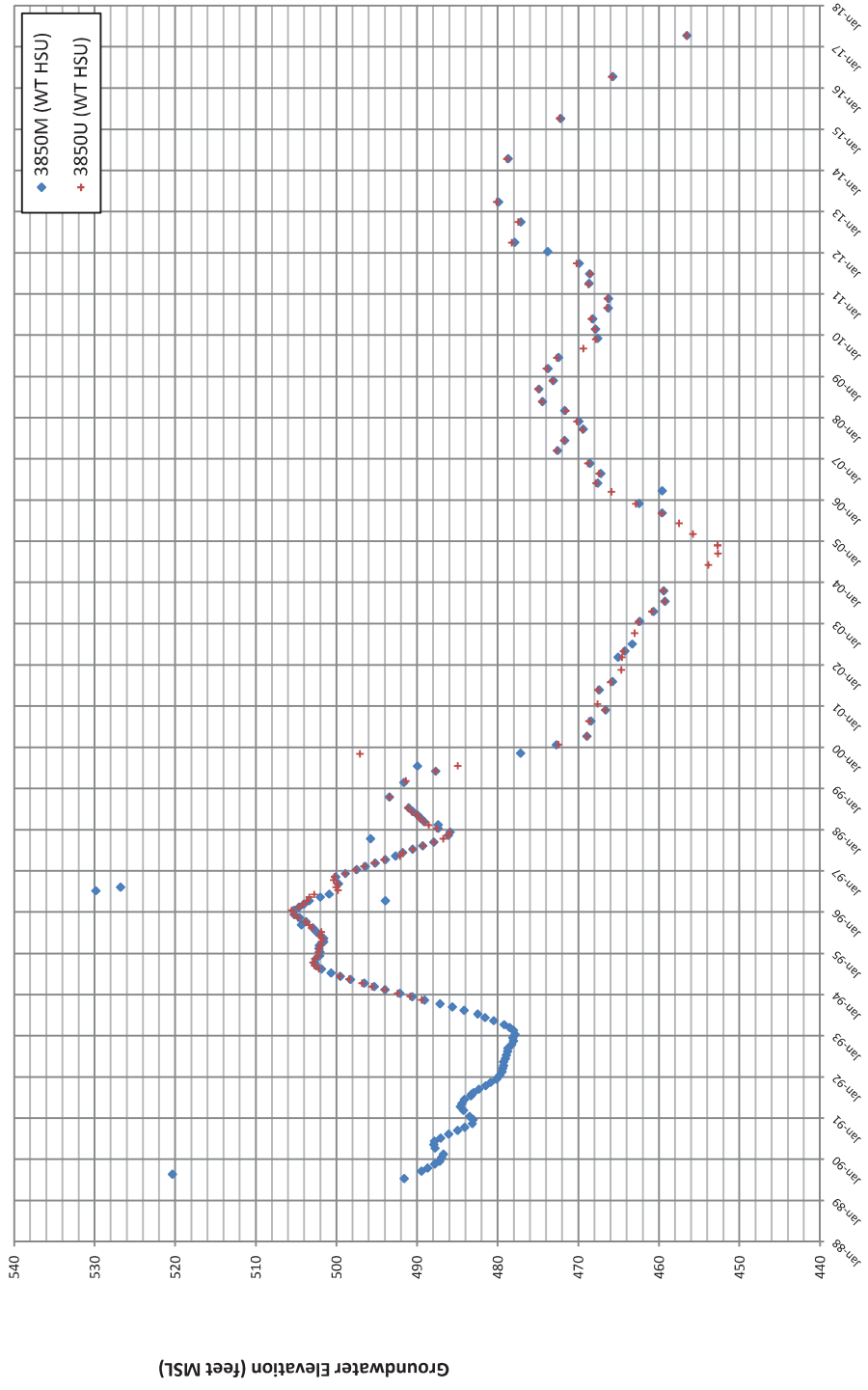


Appendix C  
Graph C-2  
Time Series Hydrograph - 3831Q

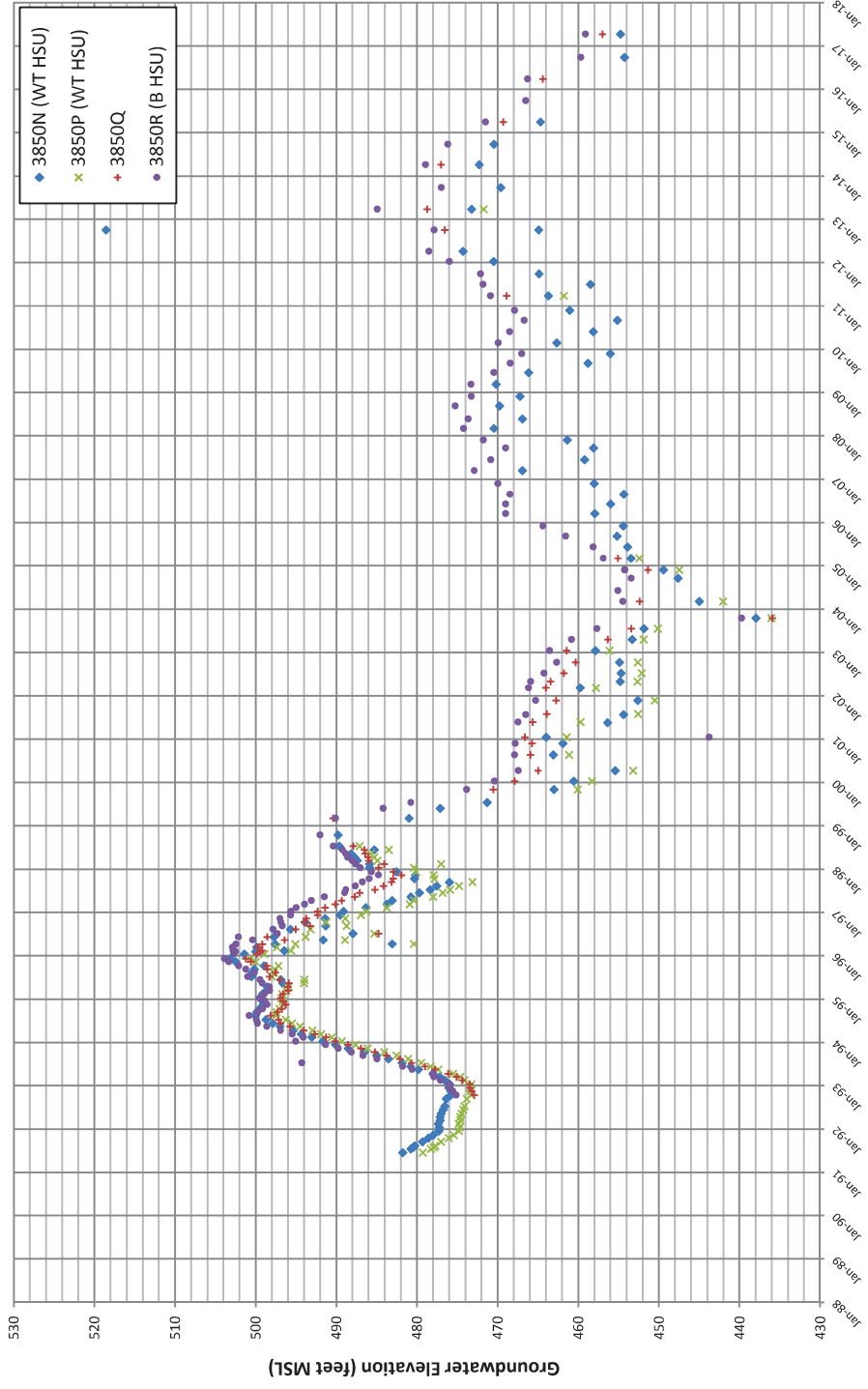




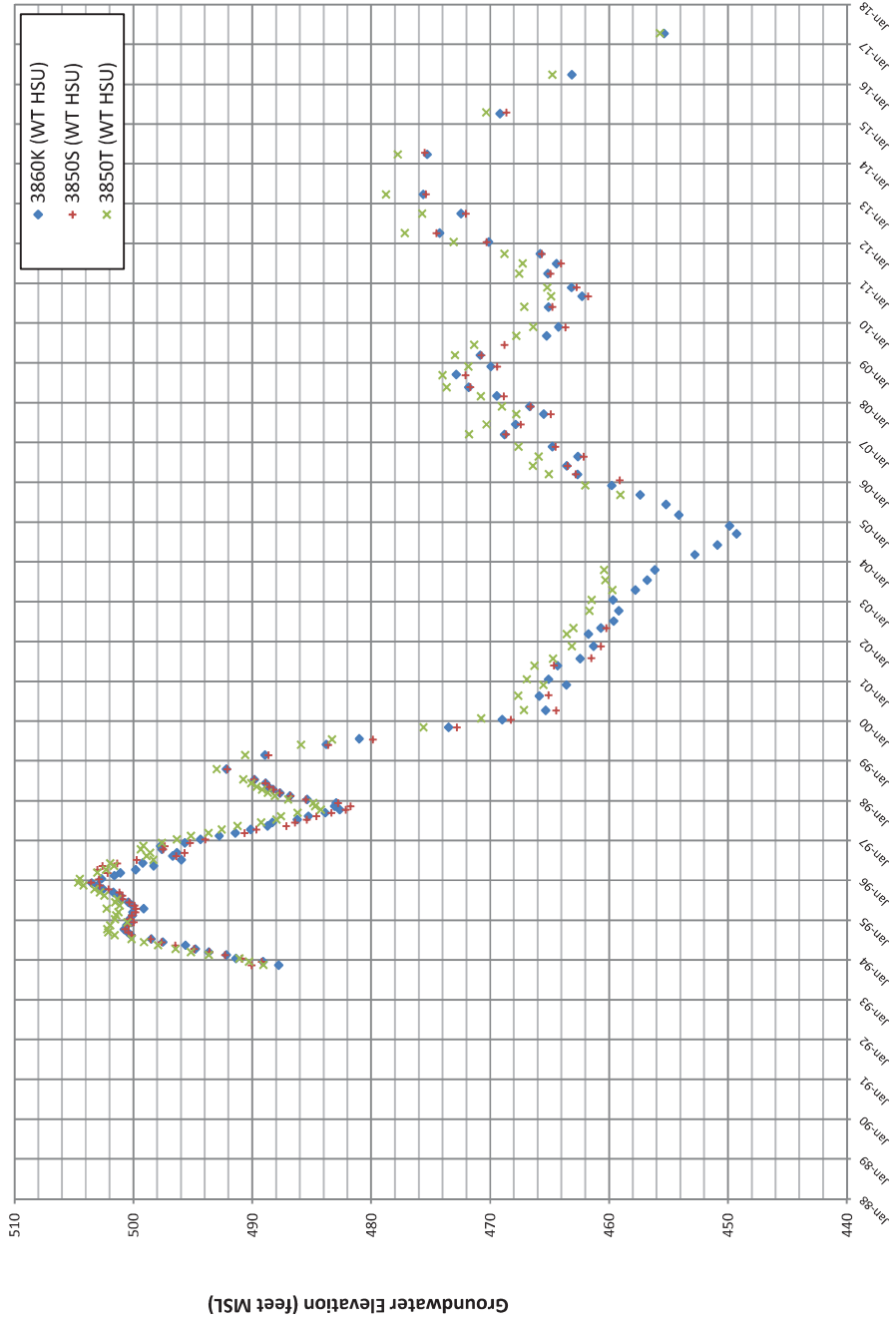
Appendix C  
Graph C-3  
Time Series Hydrograph - 3850M and 3850U



Appendix C  
Graph C-4  
Time Series Hydrograph - 3050N, 3850Q, 3850P, and 3850R

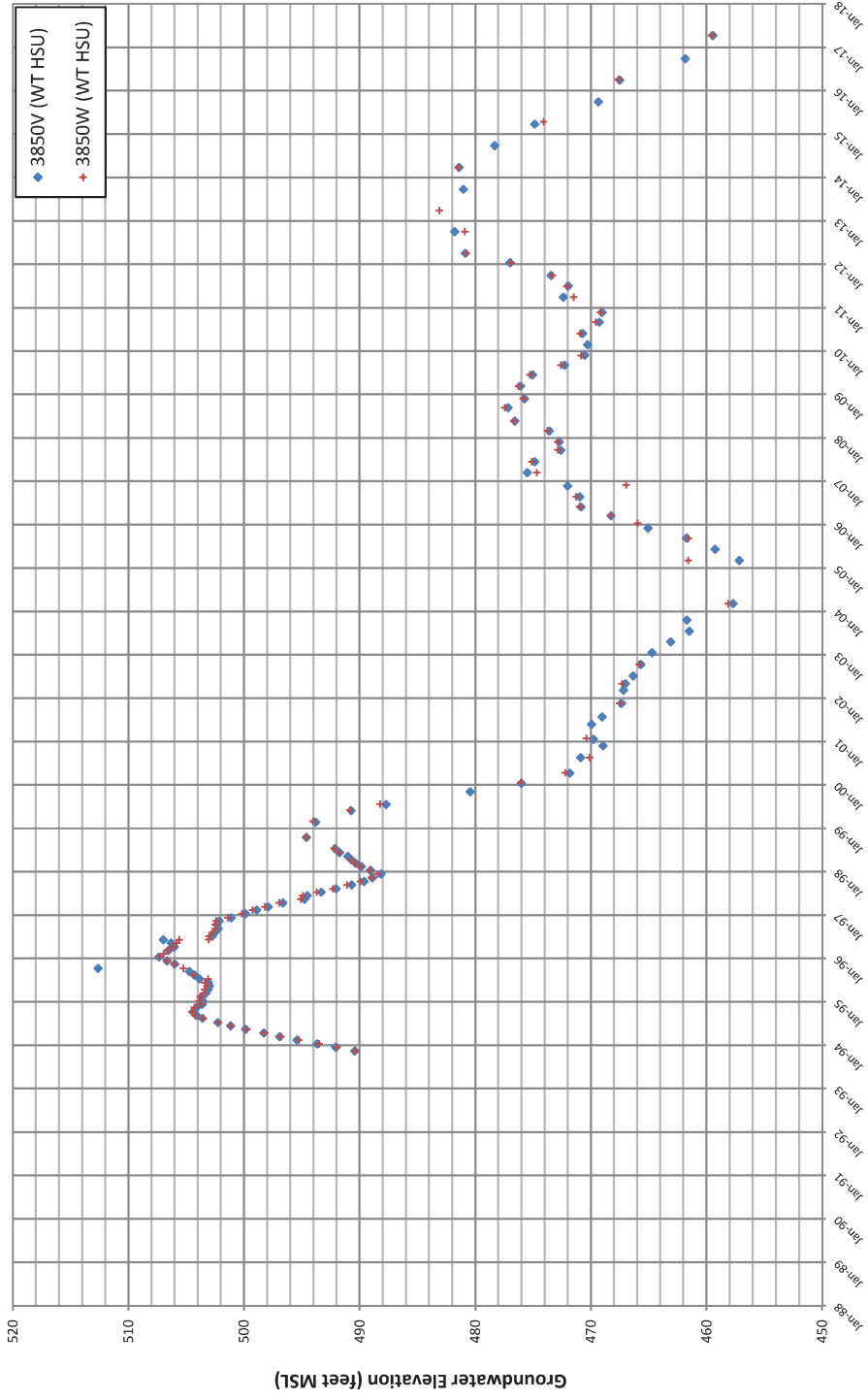


Appendix C  
Graph C-5  
Time Series Hydrograph - 3860K, 3850S, and 3850T

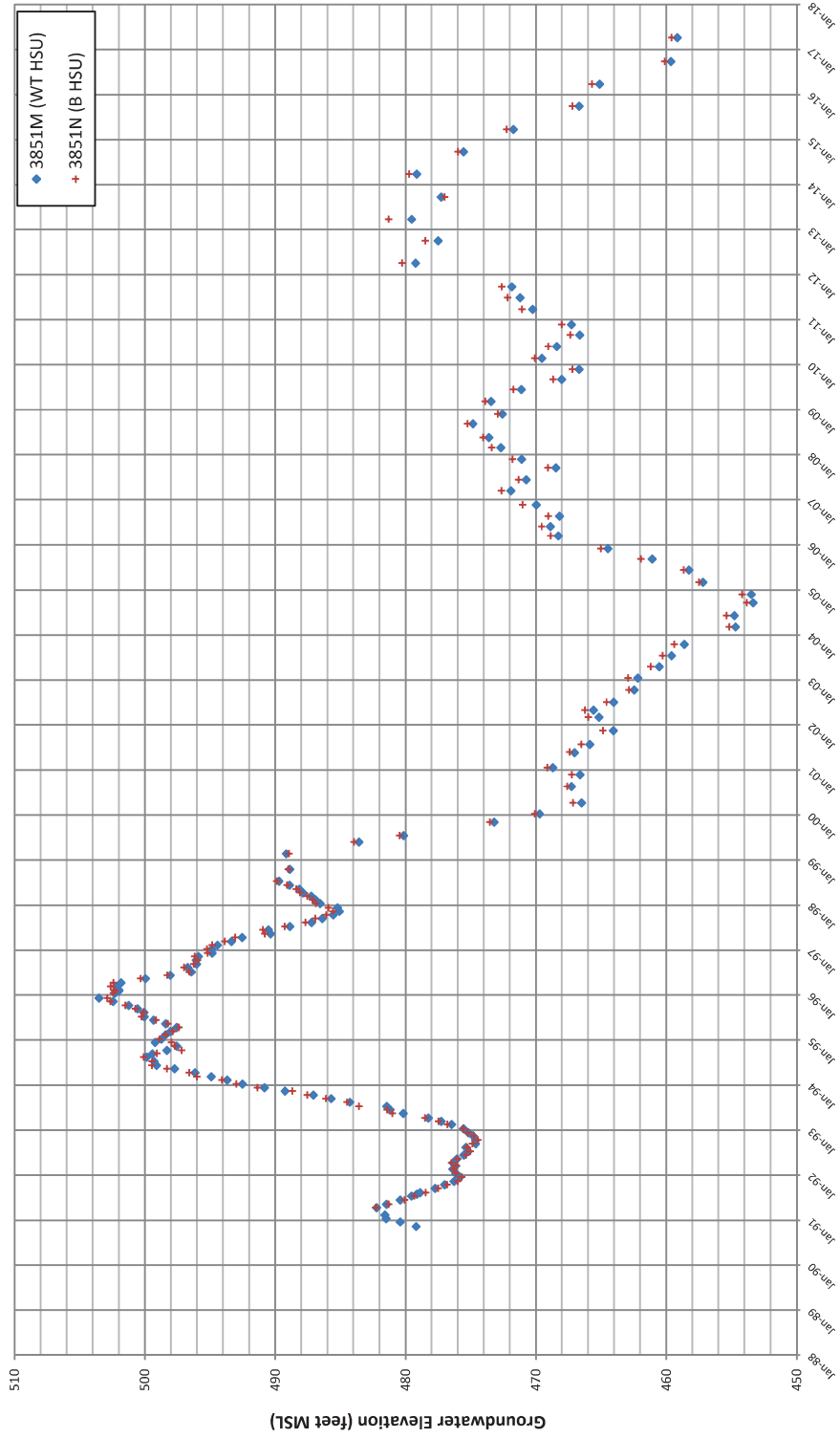




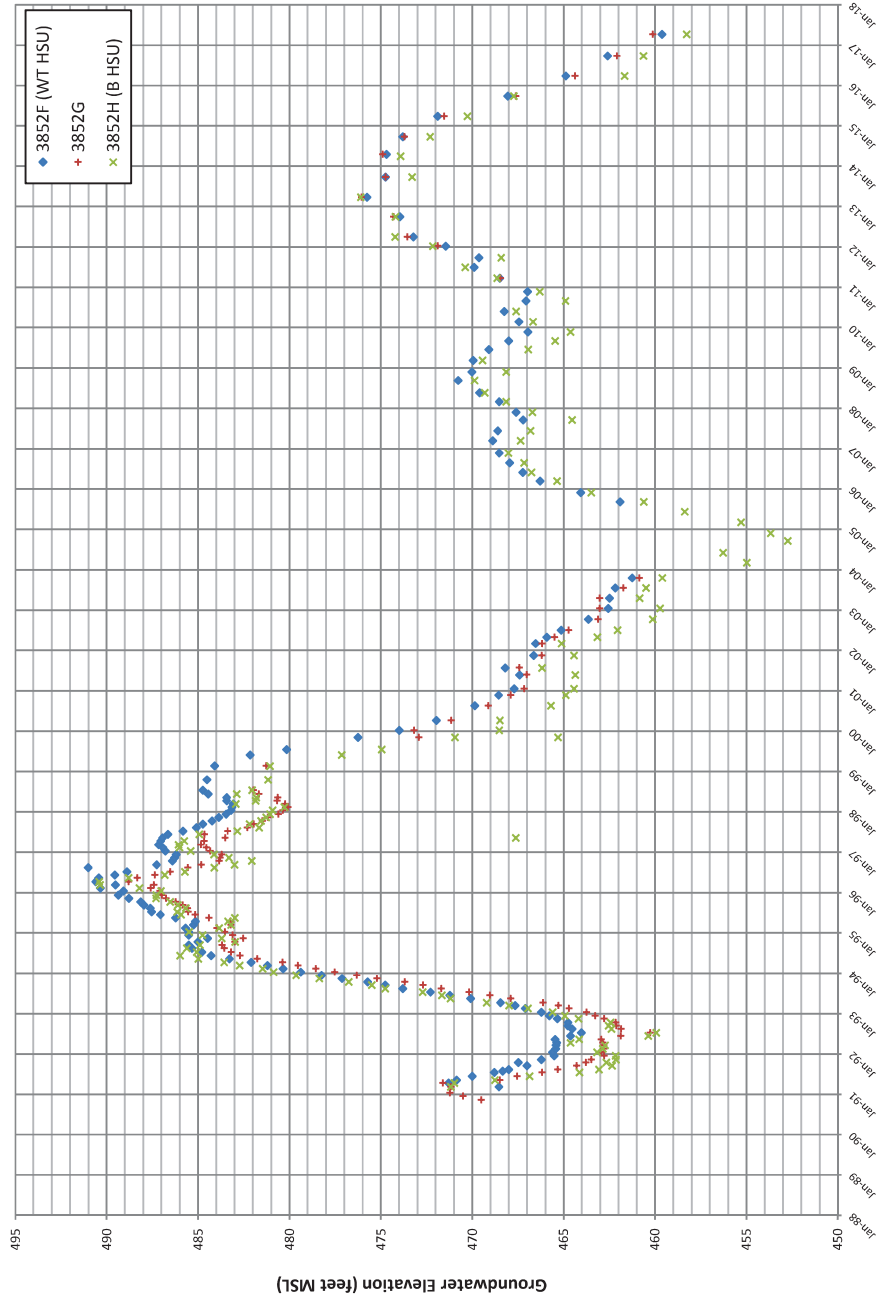
Appendix C  
Graph C-6  
Time Series Hydrograph - 3850V and 3850W



Appendix C  
Graph C-7  
Time Series Hydrograph - 3851M and 3851N

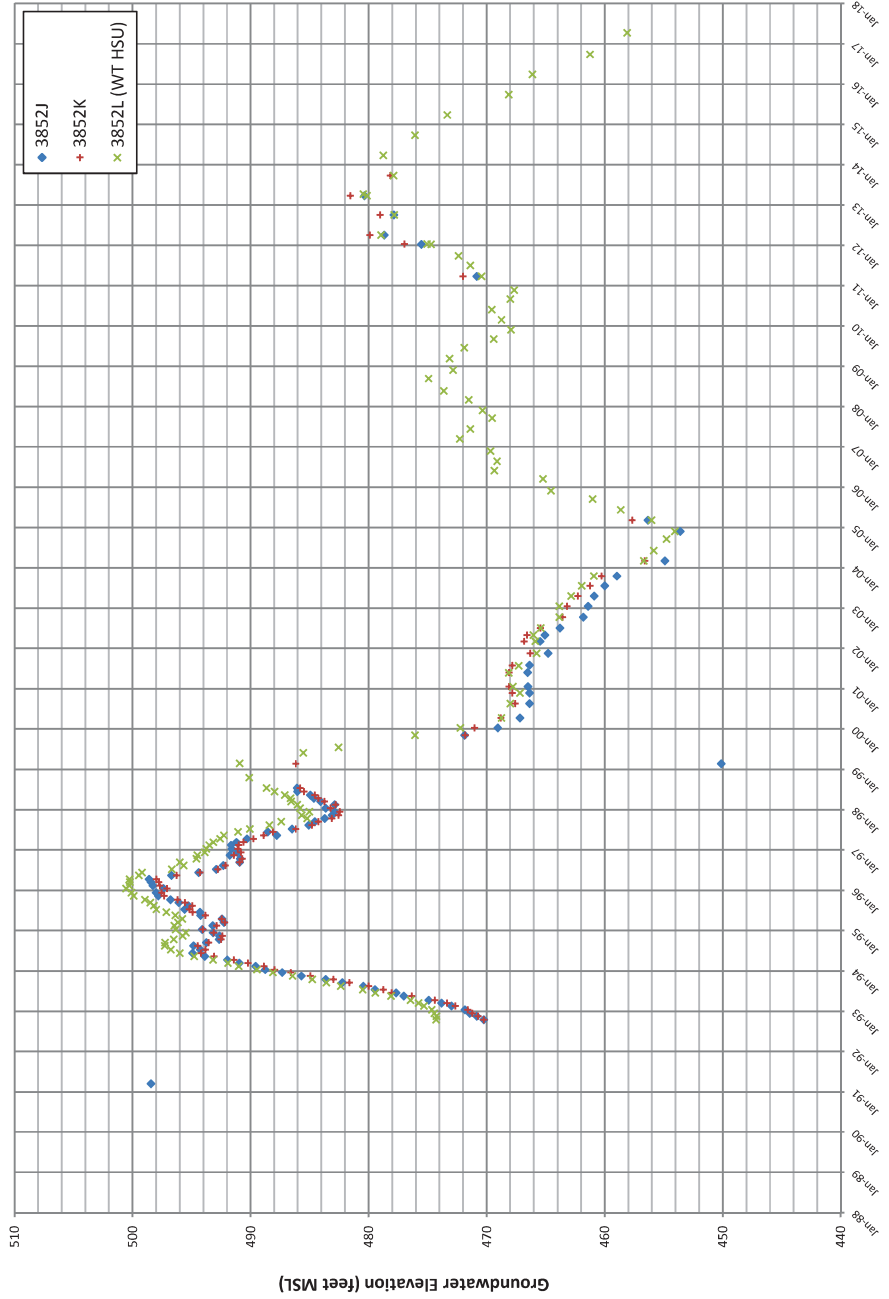


Appendix C  
Graph C-8  
Time Series Hydrograph - 3852F, 3852G, and 3852H

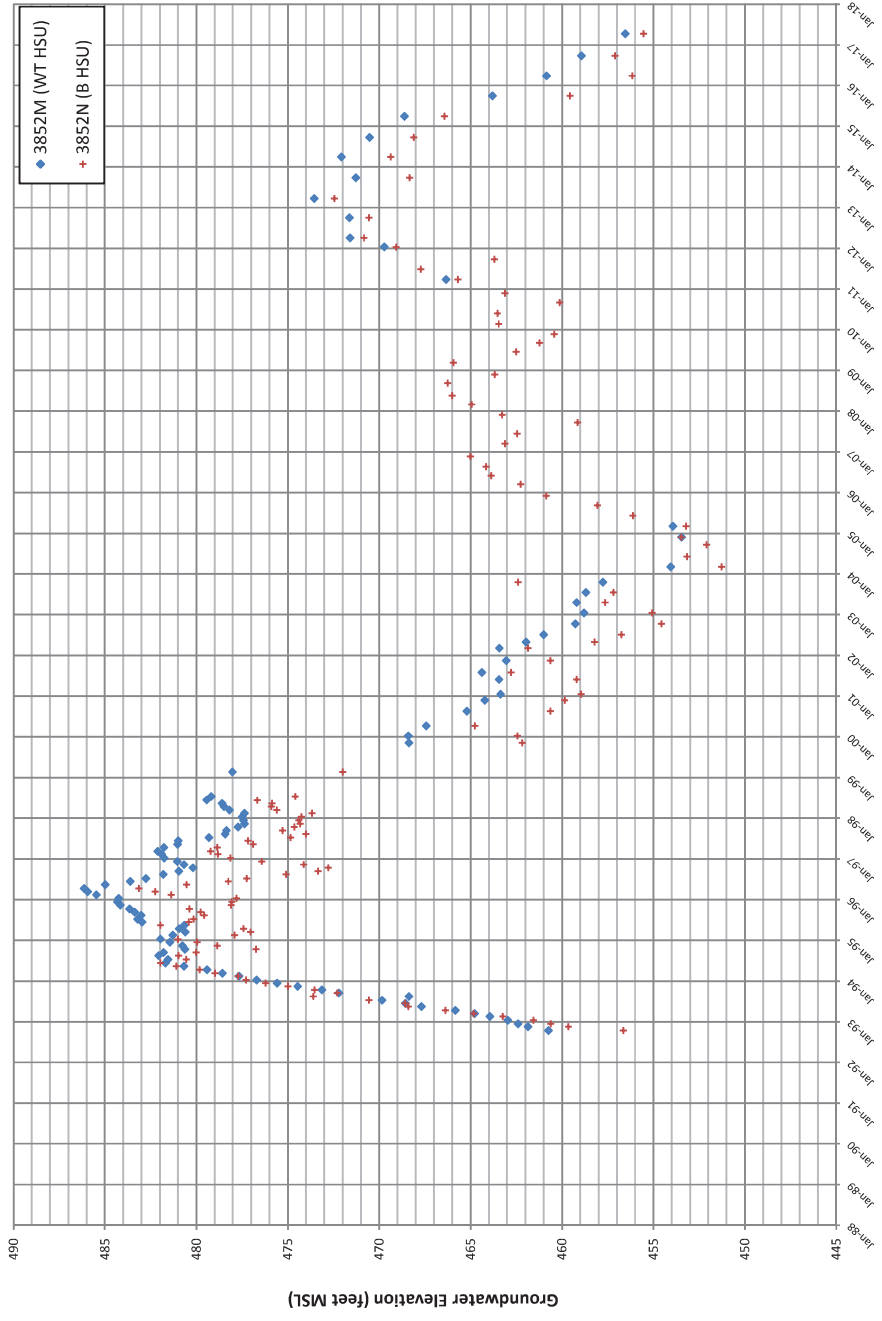




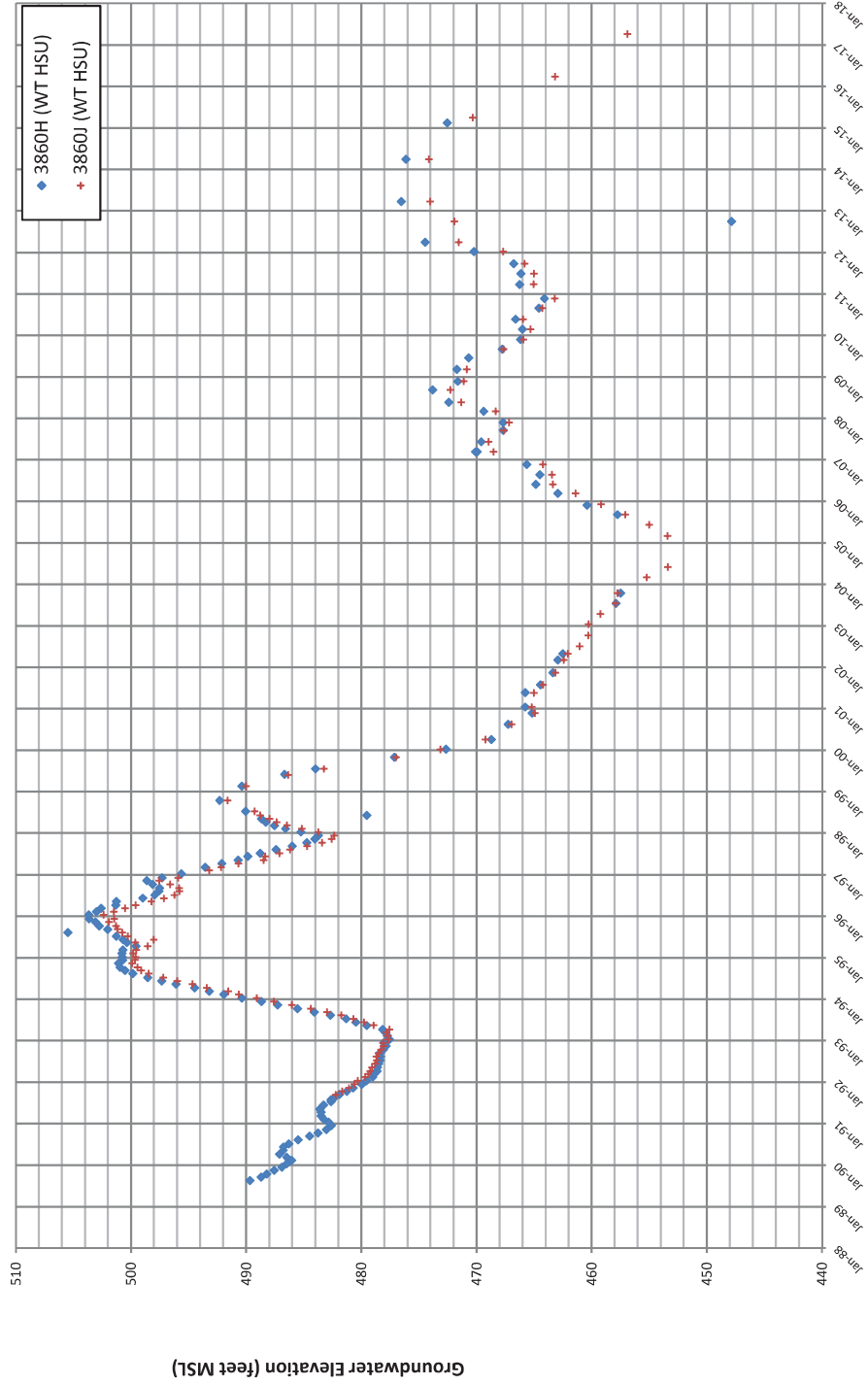
Appendix C  
Graph C-9  
Time Series Hydrograph - 3852J, 3852K, and 3852L



Appendix C  
Graph C-10  
Time Series Hydrograph - 3852M and 3852N

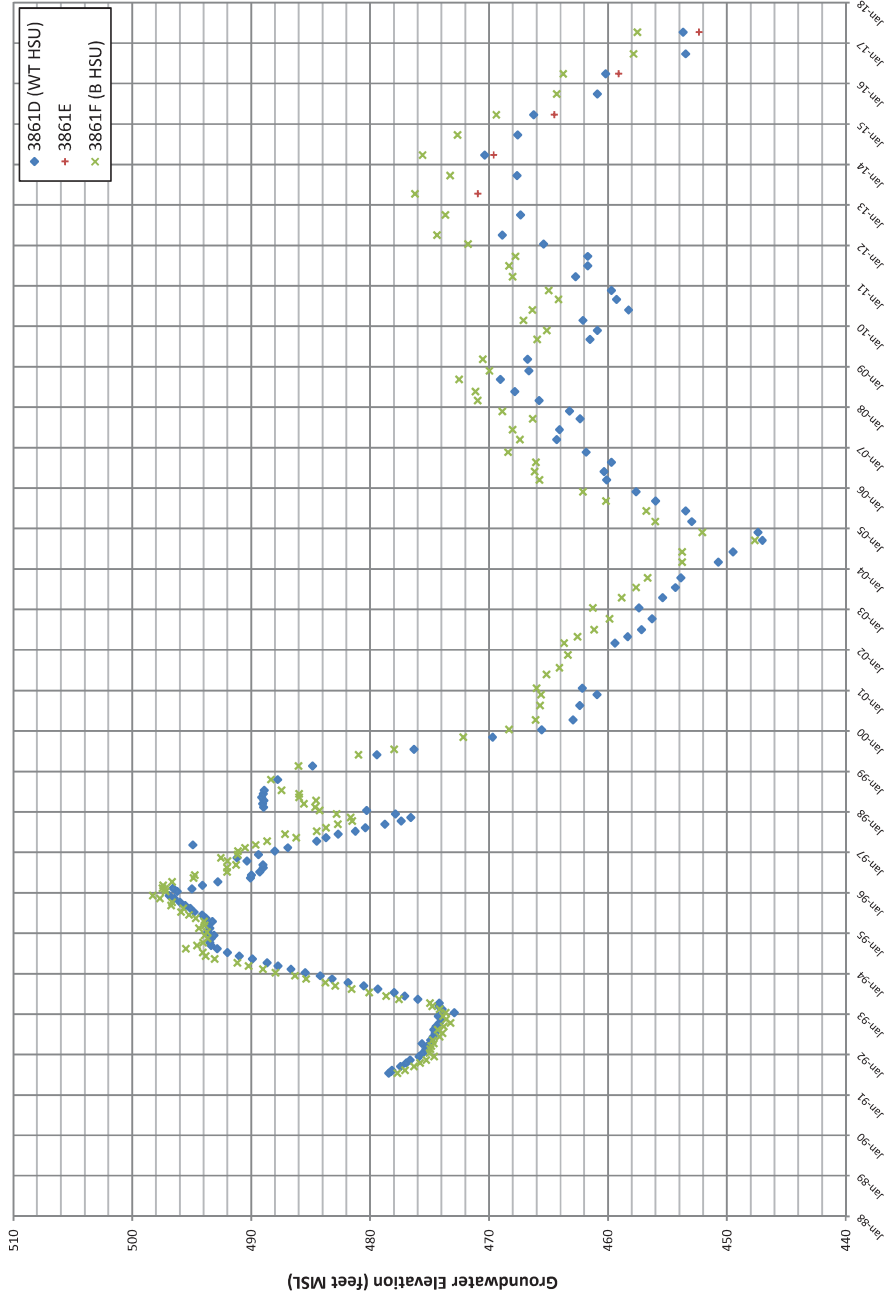


Appendix C  
Graph C-11  
Time Series Hydrograph - 3860H and 3860J

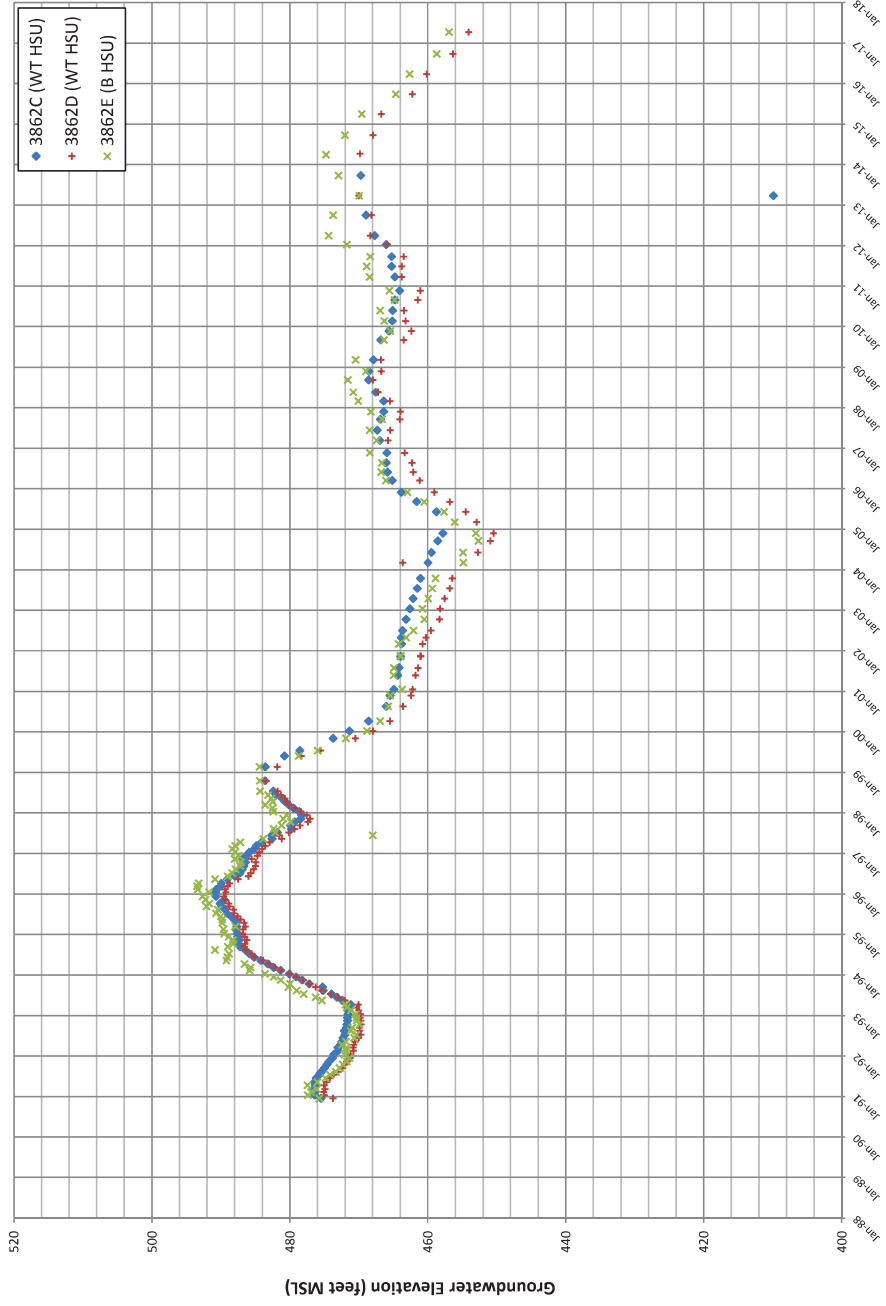




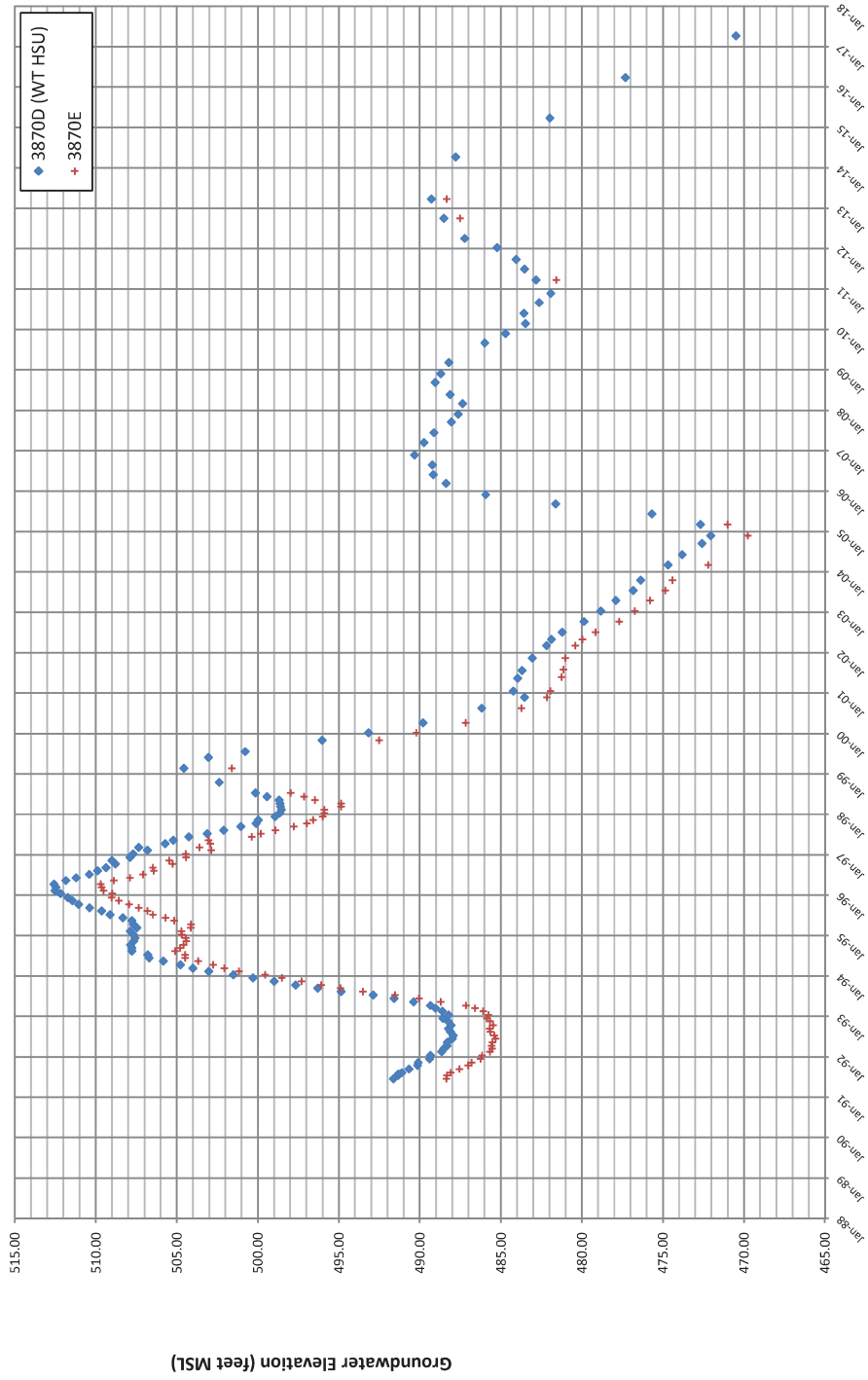
Appendix C  
Graph C-12  
Time Series Hydrograph - 3861D, 3861E, and 3861F



Appendix C  
Graph C-13  
Time Series Hydrograph - 3862C, 3862D, and 3862E

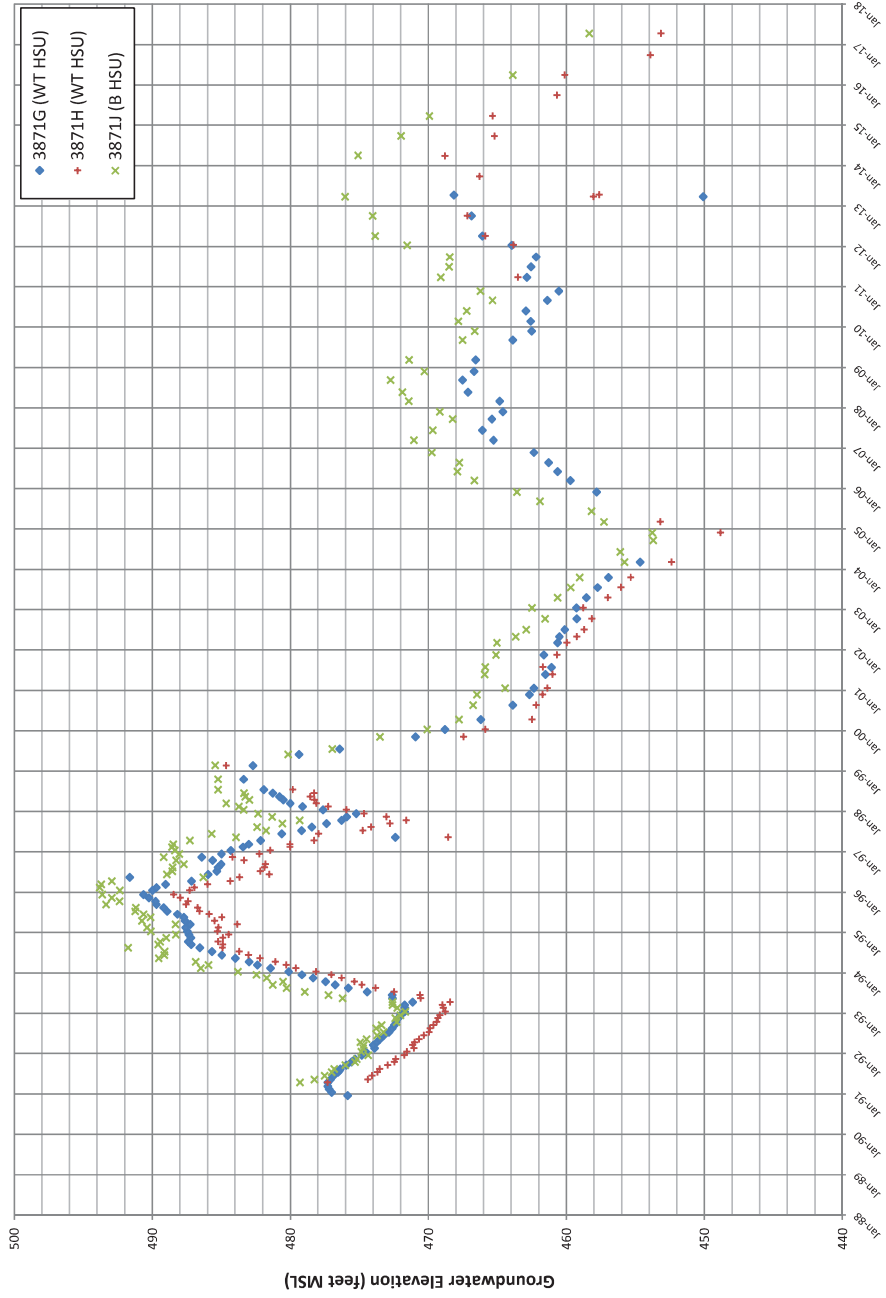


Appendix C  
Graph C-14  
Time Series Hydrograph - 3870D and 3870E

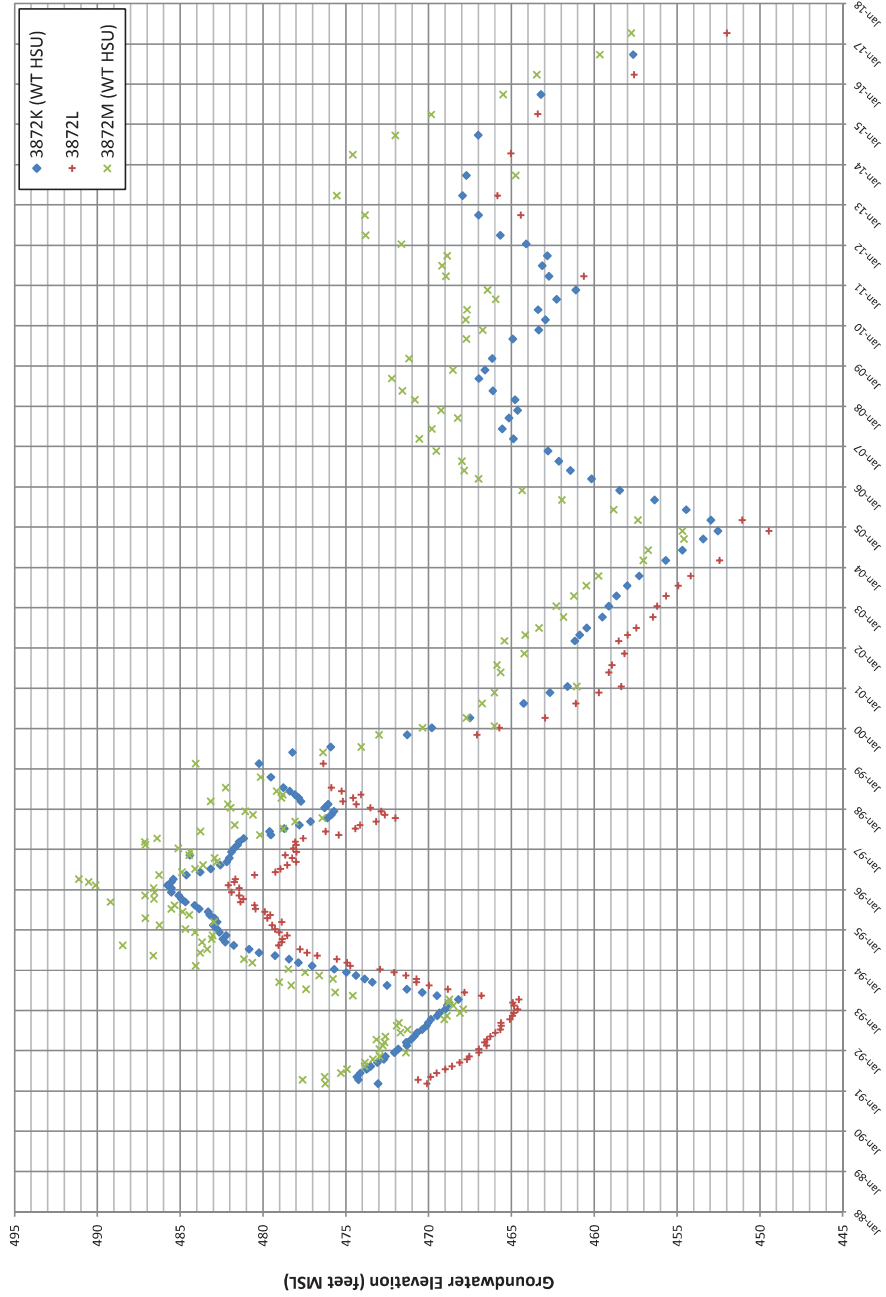




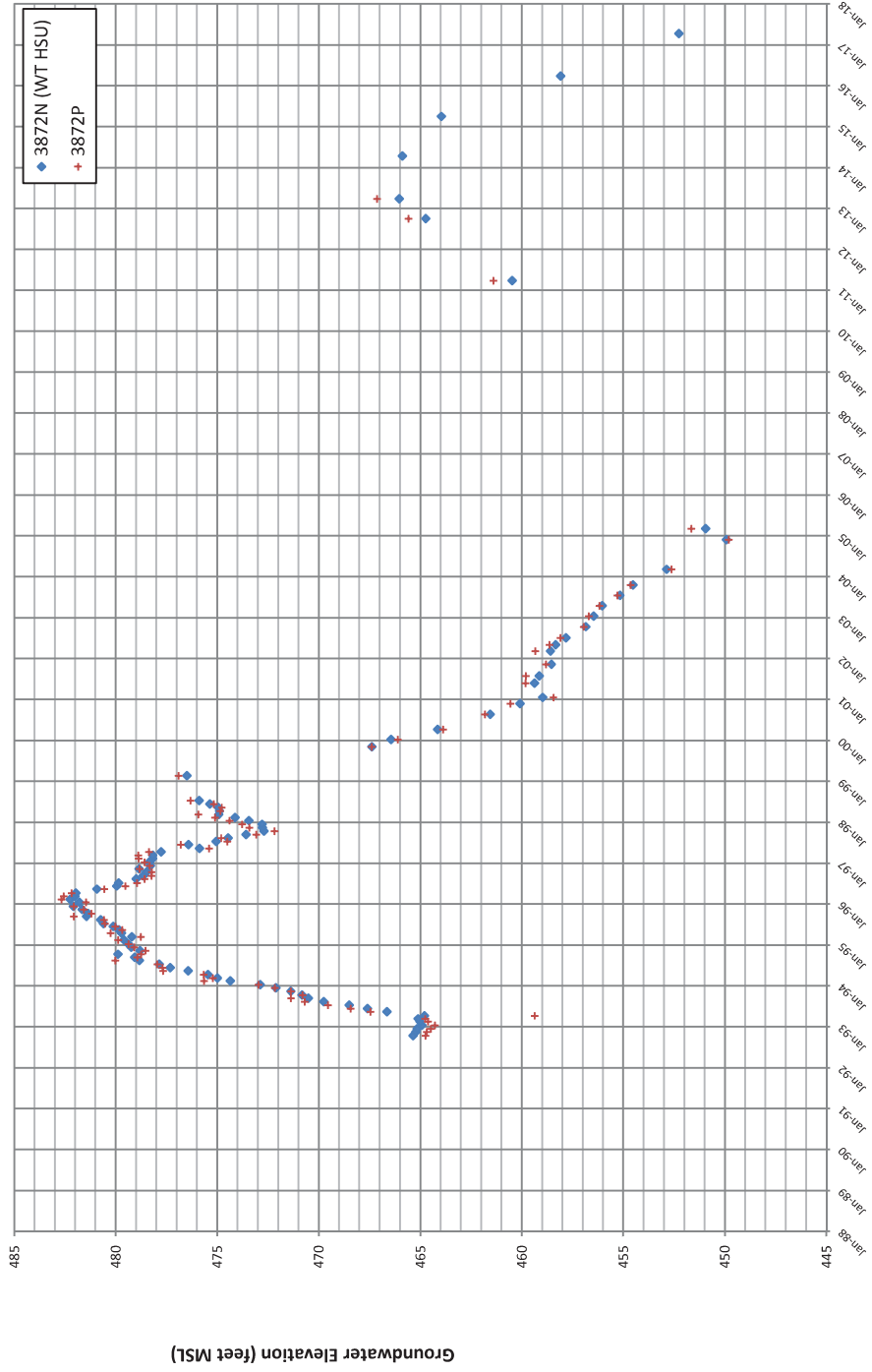
Appendix C  
Graph C-15  
Time Series Hydrograph - 3871G, 3871H, and 3871J



Appendix C  
Graph C-16  
Time Series Hydrograph - 3872K, 3872L, and 3872M

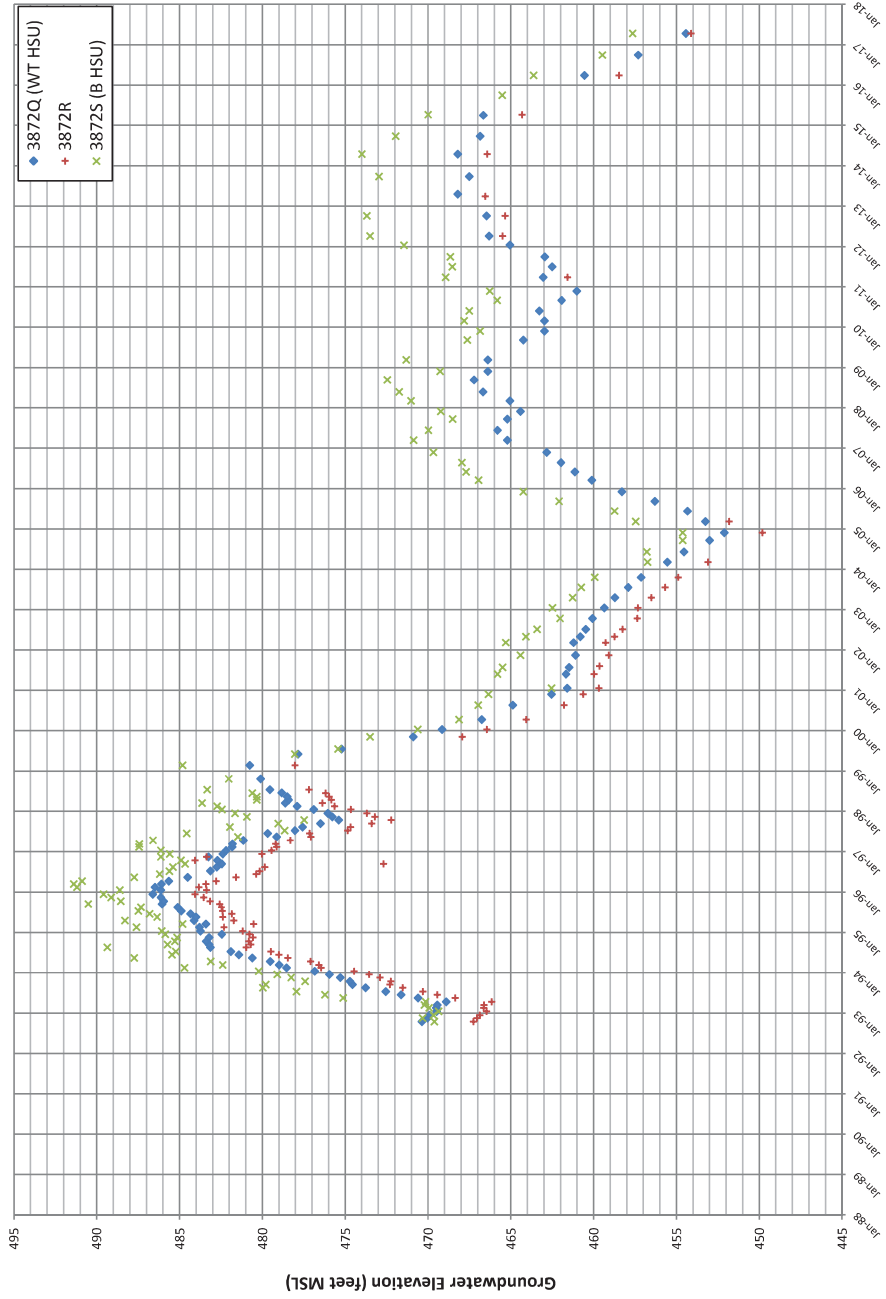


Appendix C  
Graph C-17  
Time Series Hydrograph - 3872N and 3872P

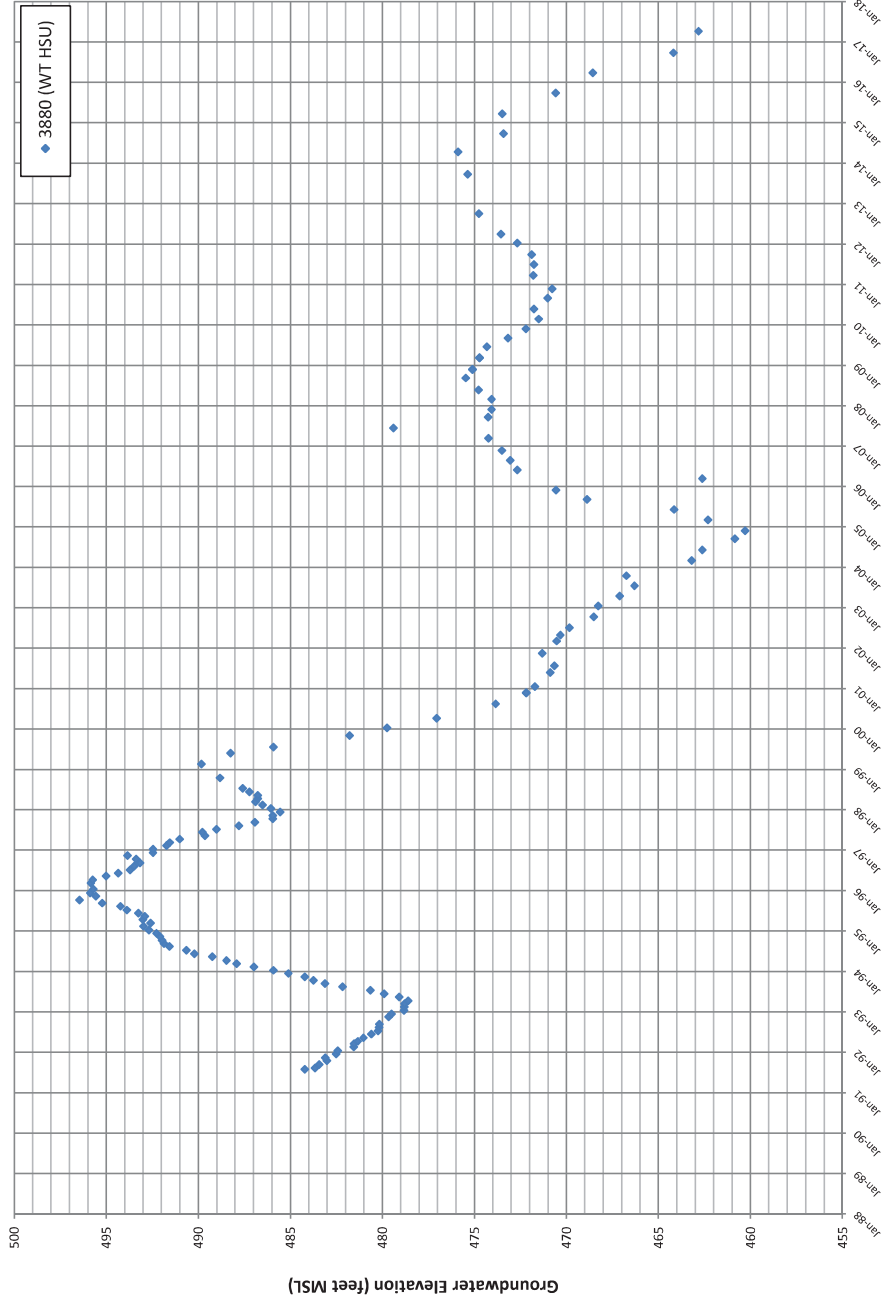




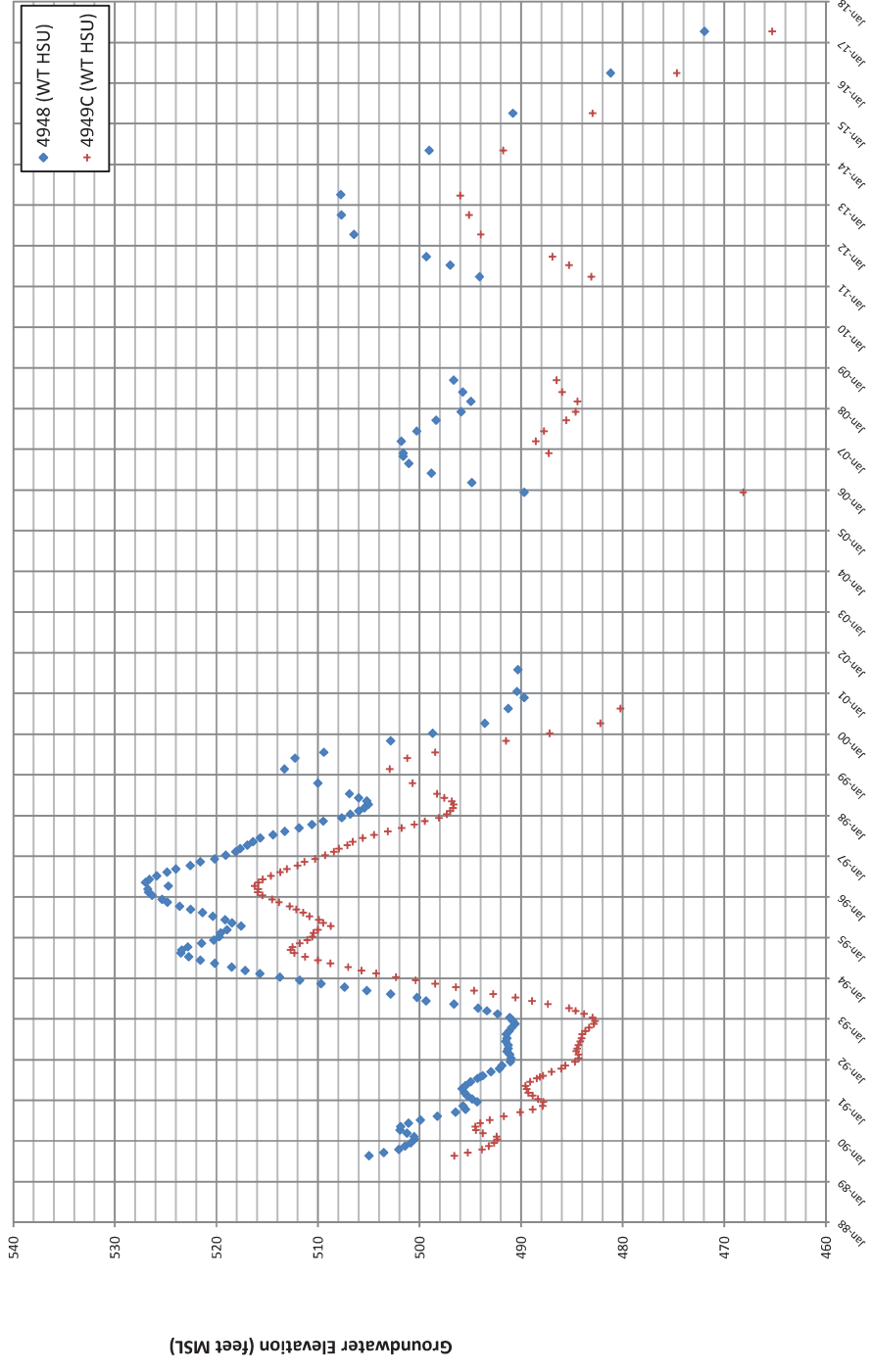
Appendix C  
Graph C-18  
Time Series Hydrograph - 3872Q, 3872R, and 3872S



Appendix C  
Graph C-19  
Time Series Hydrograph - 3880

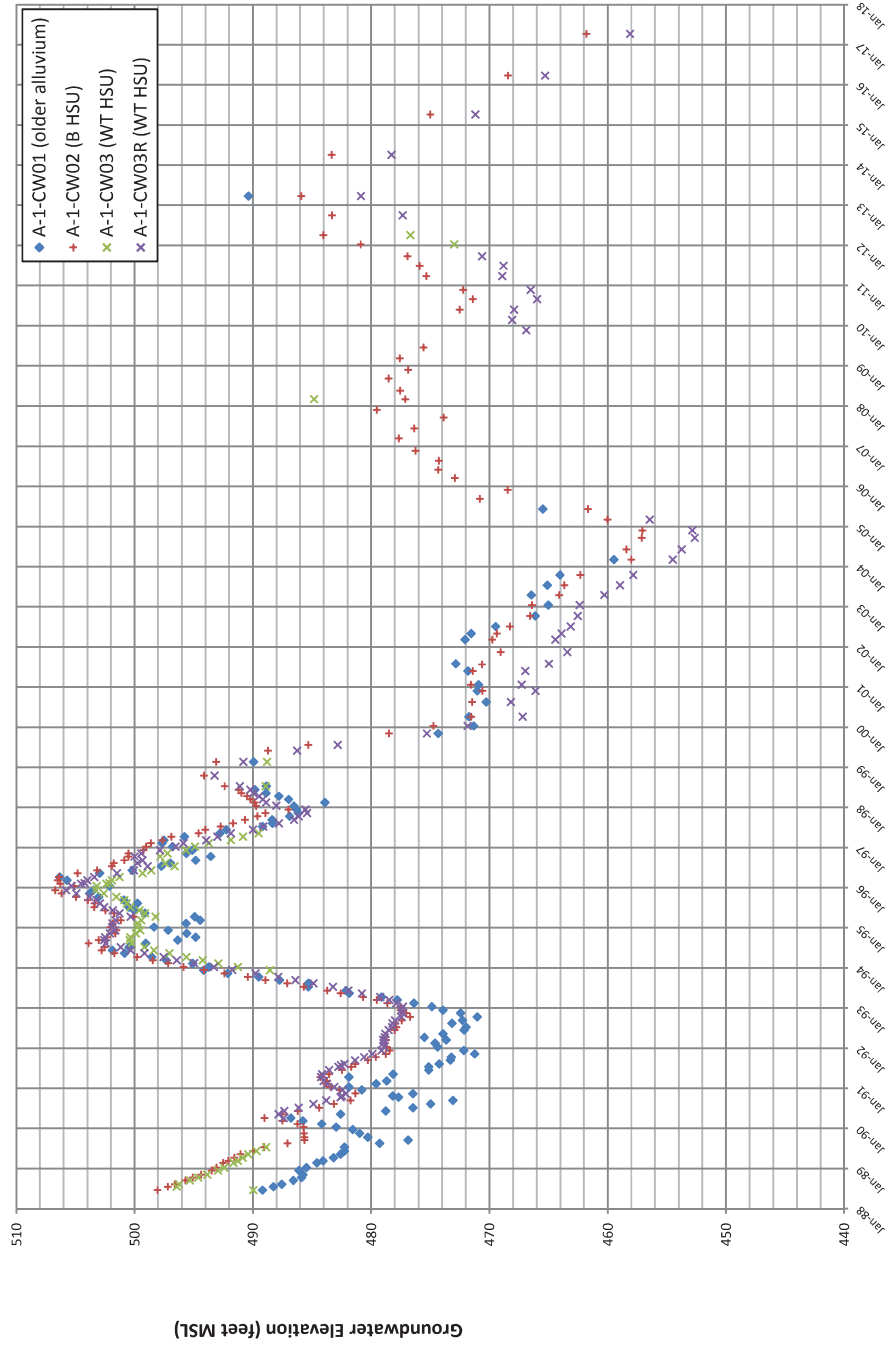


Appendix C  
Graph C-20  
Time Series Hydrograph - 4948 and 4949C



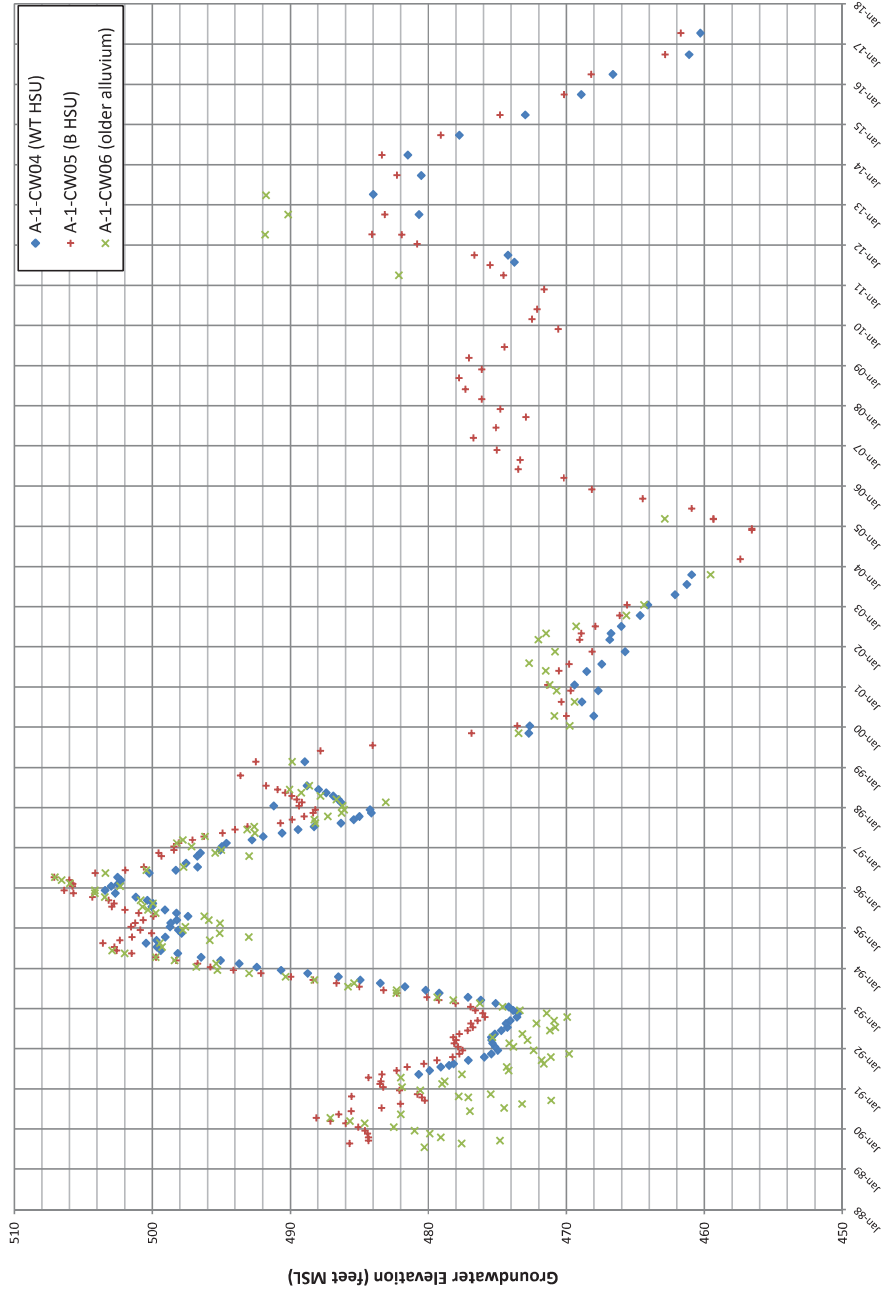


Appendix C  
Graph C-21  
Time Series Hydrograph - A-1-CW01, A-1-CW02, A-1-CW03, and A-1-CW03R

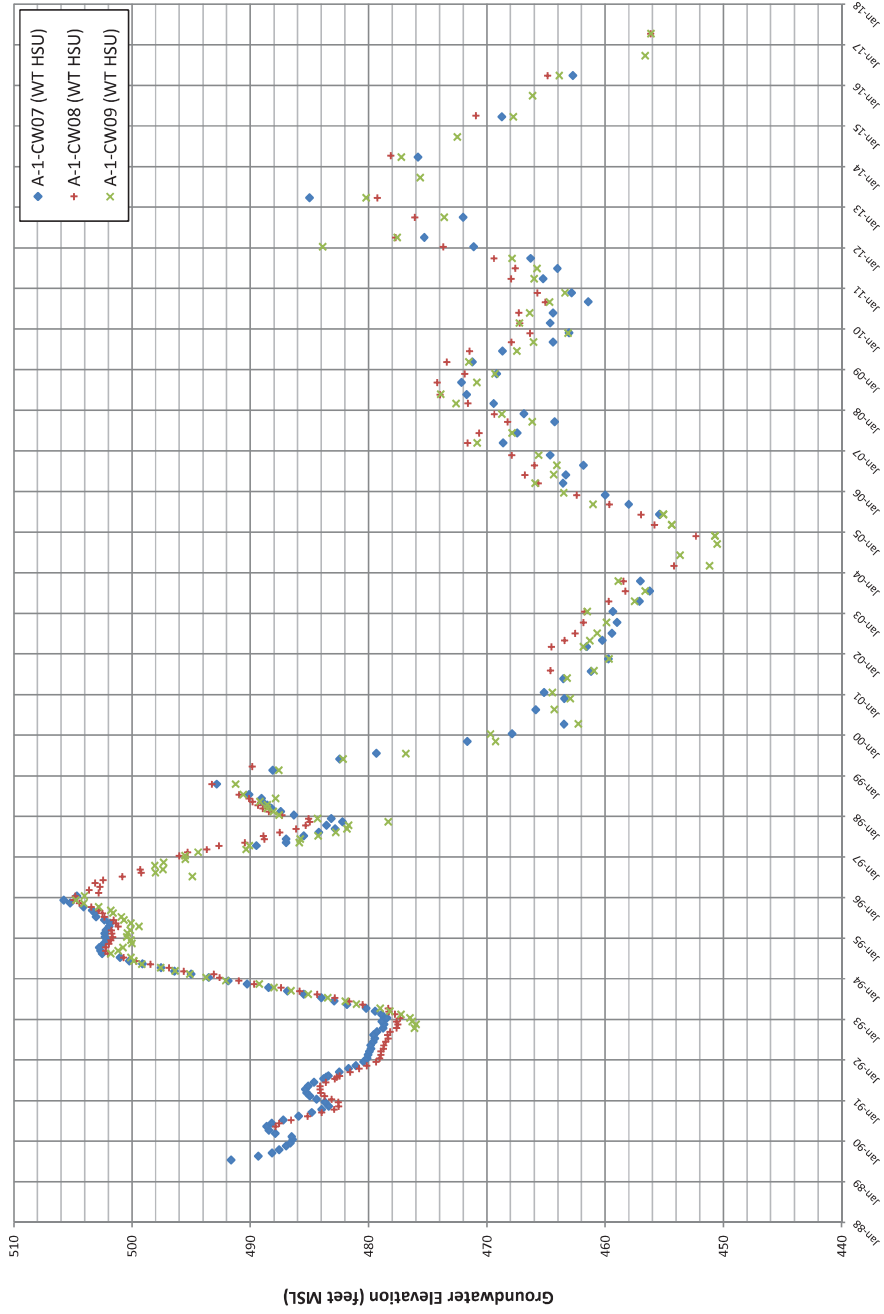


Appendix C  
Graph C-22

Time Series Hydrograph - A-1-CW04, A-1-CW05, and A-1-CW06

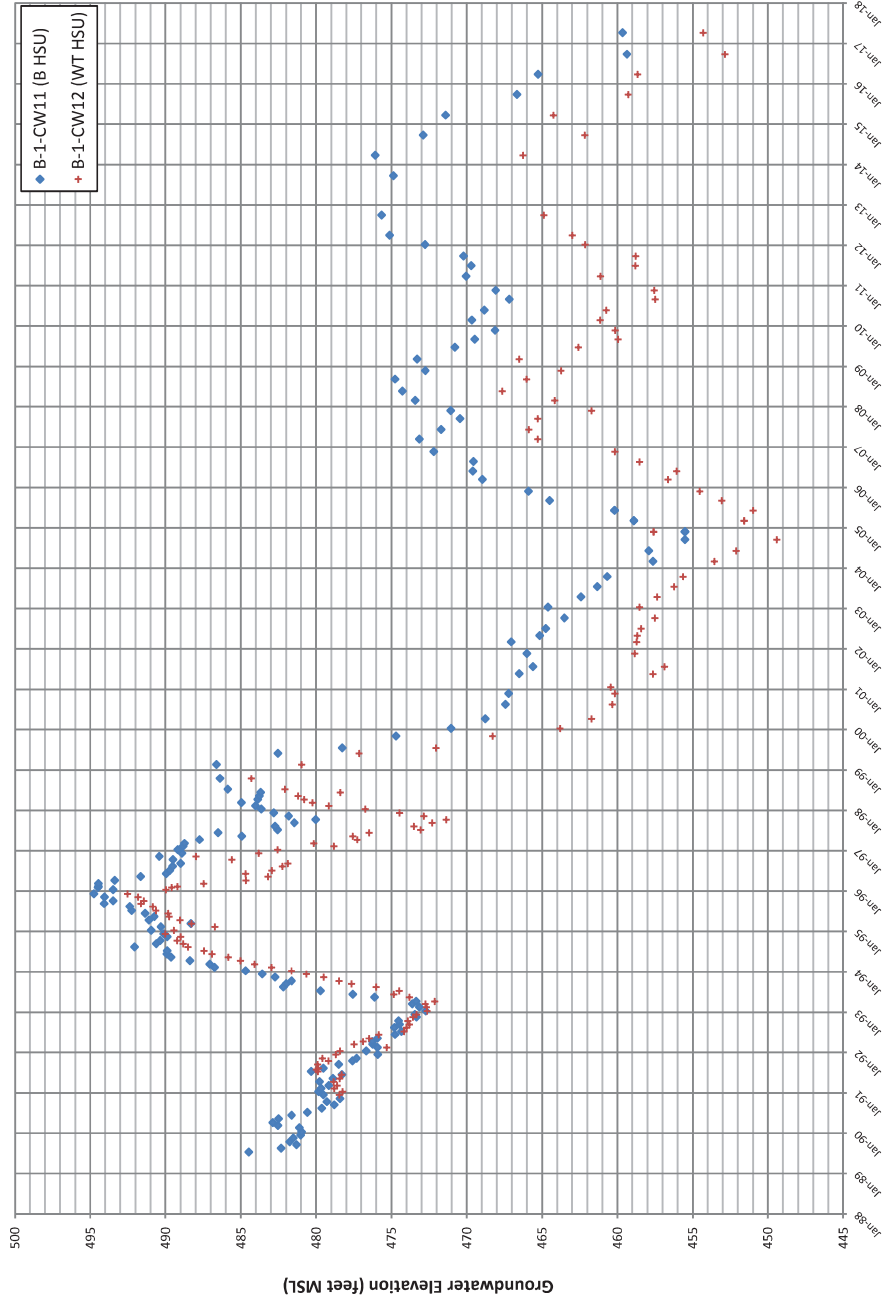


Appendix C  
Graph C-23  
Time Series Hydrograph - A-1-CW07, A-1-CW08, and A-1-CW09

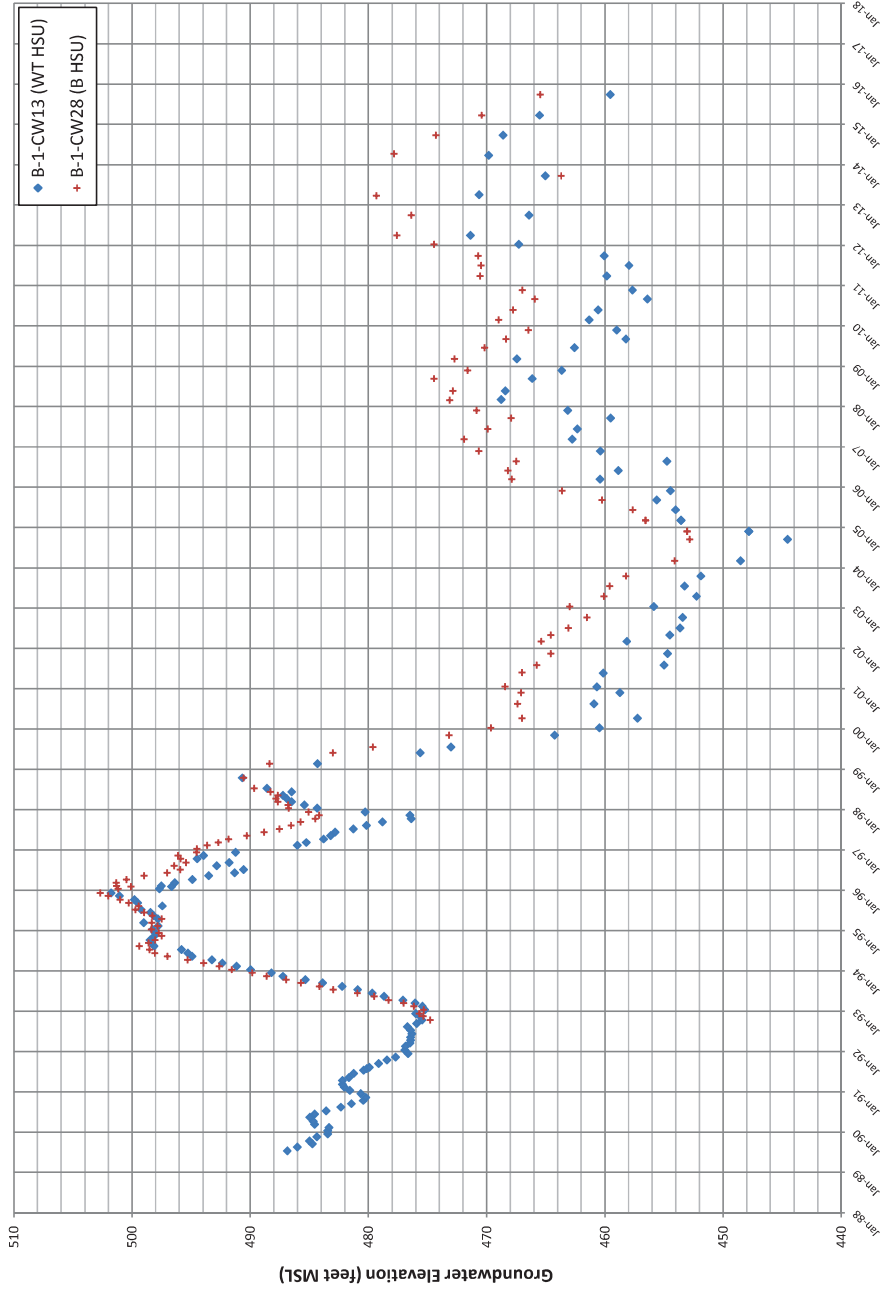




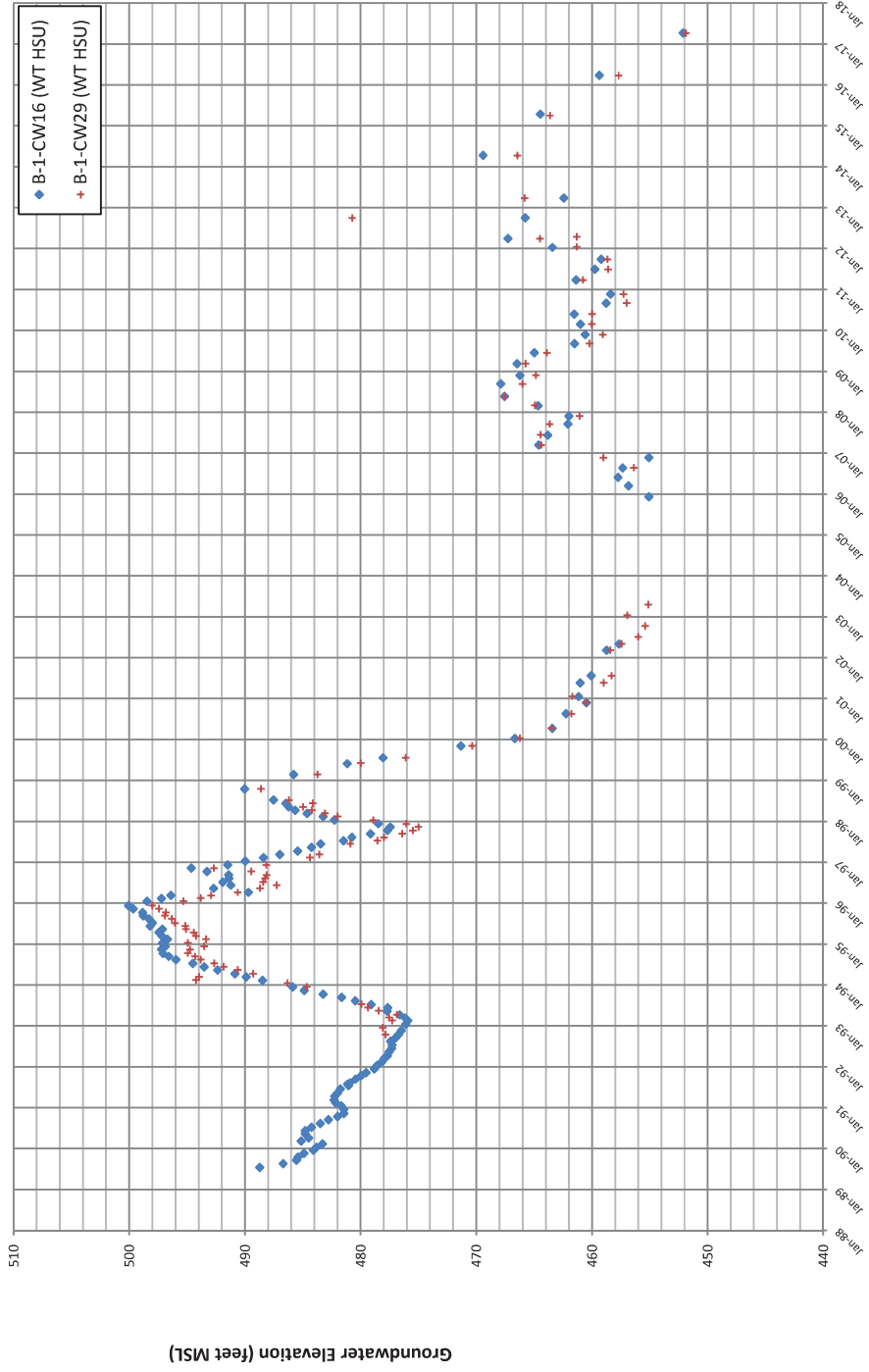
Appendix C  
Graph C-24  
Time Series Hydrograph - B-1-CW11 and B-1-CW12



Appendix C  
Graph C-25  
Time Series Hydrograph - B-1-CW13 and B-1-CW28

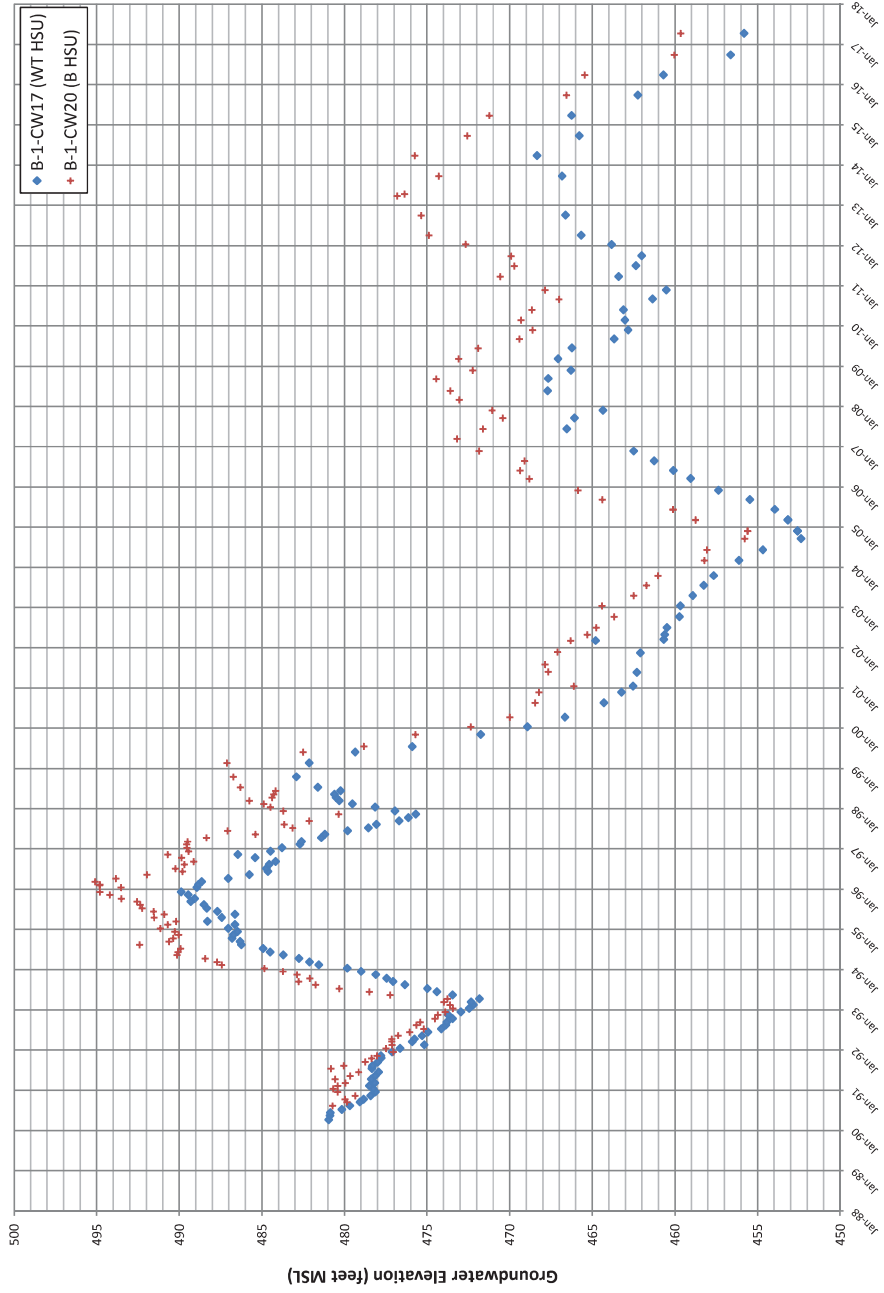


Appendix C  
Graph C-26  
Time Series Hydrograph - B-1-CW16 and B-1-CW29

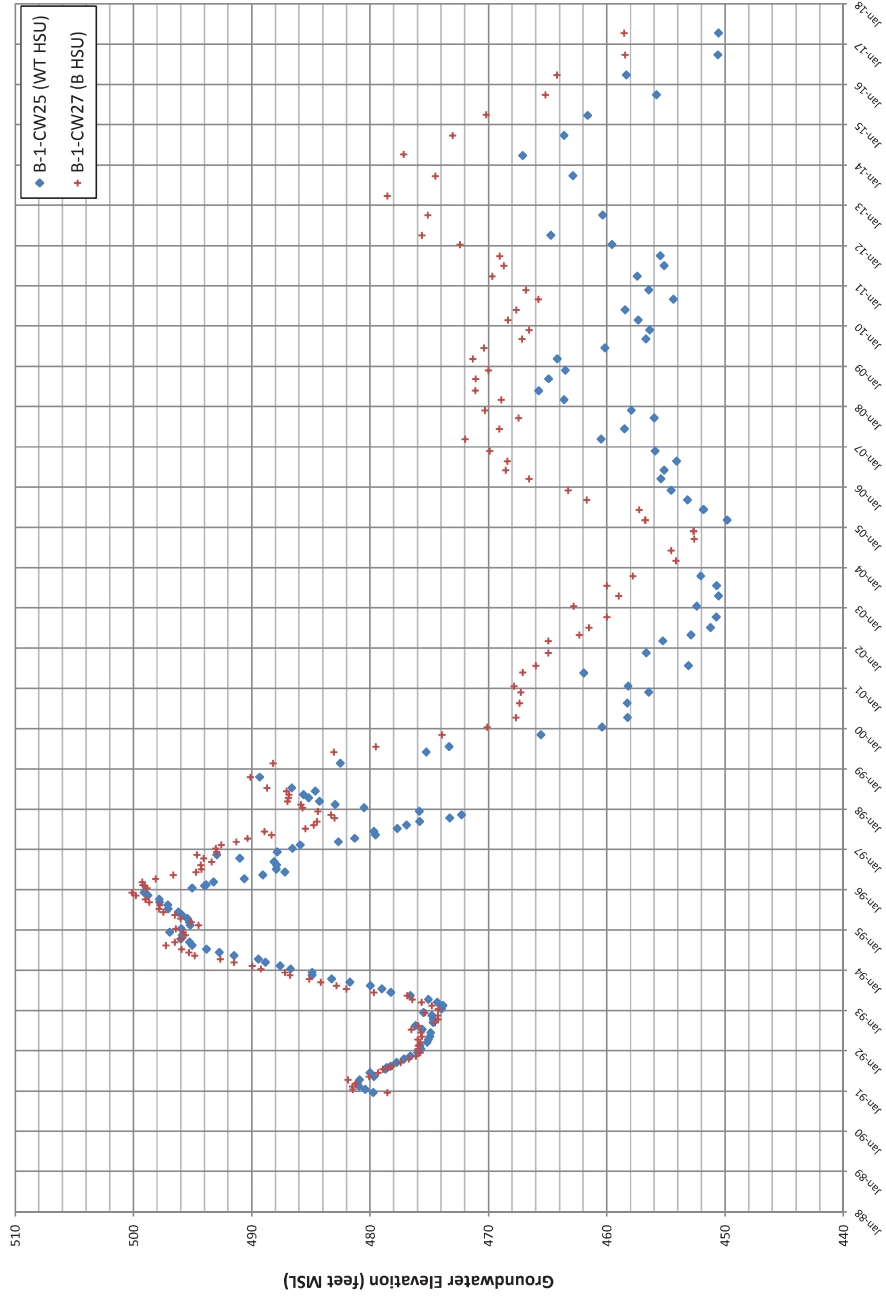




Appendix C  
Graph C-27  
Time Series Hydrograph - B-1-CW17 and B-1-CW20

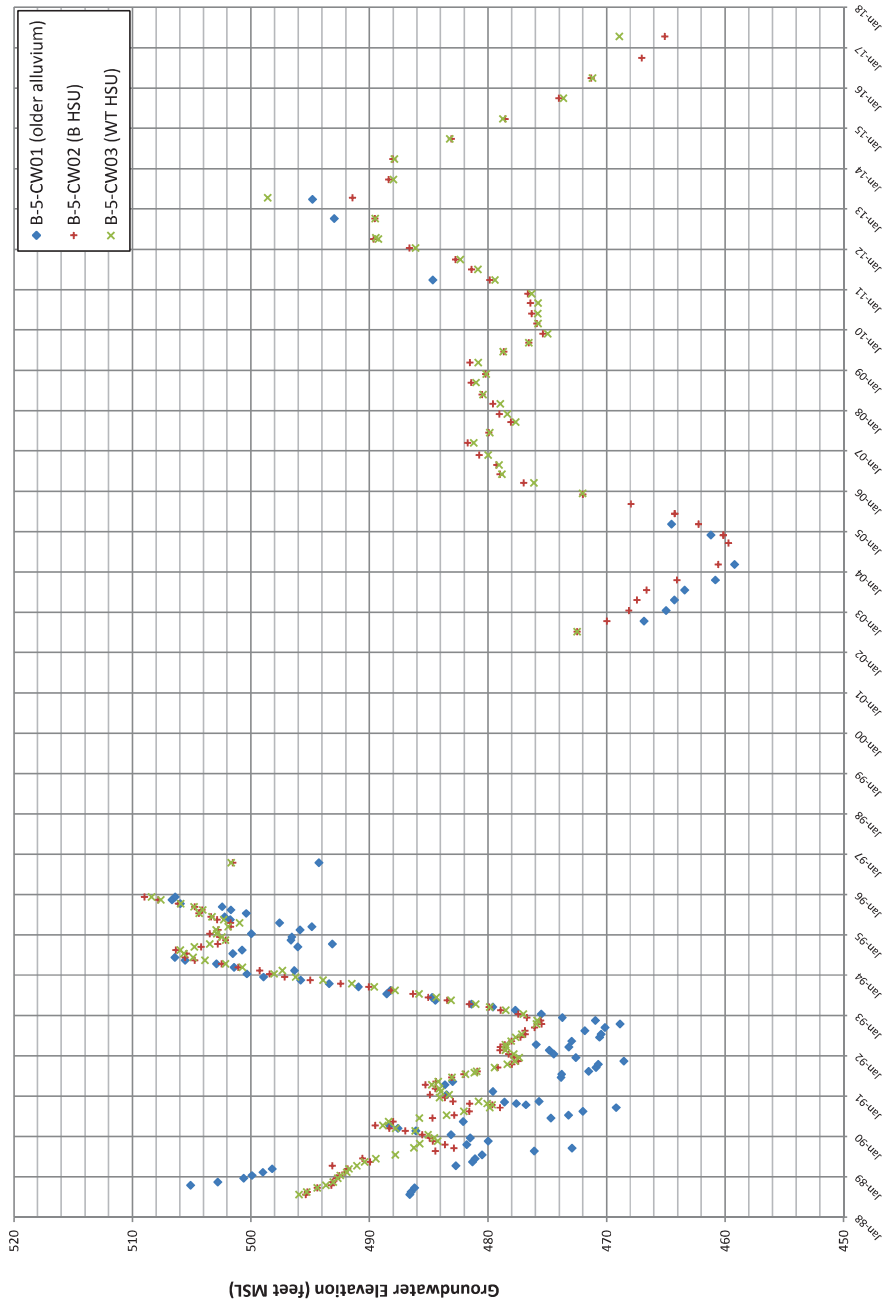


Appendix C  
Graph C-28  
Time Series Hydrograph - B-1-CW25 and B-1-CW27



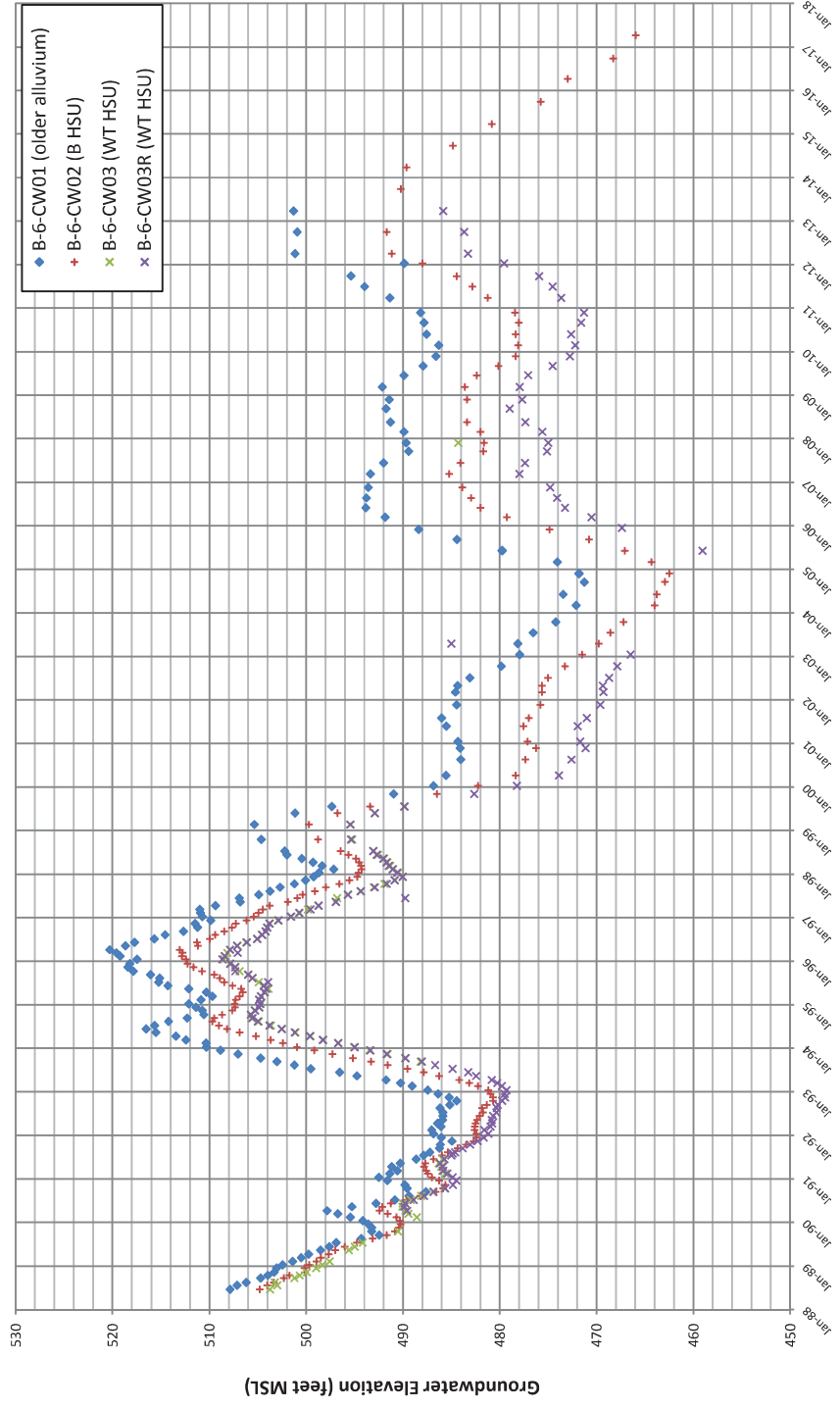
Appendix C  
Graph C-29

Time Series Hydrograph - B-5-CW01, B-5-CW02, and B-5-CW03

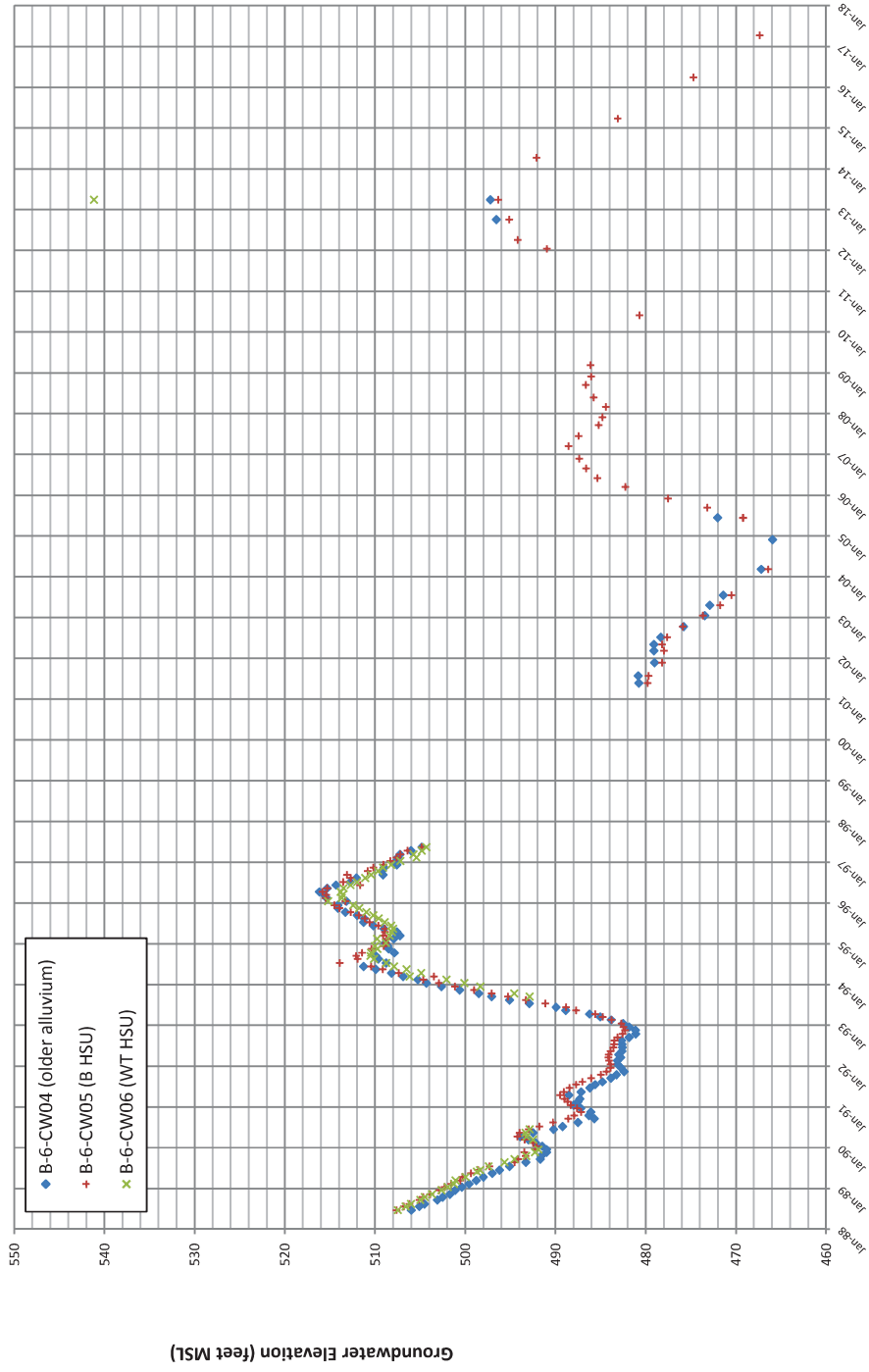




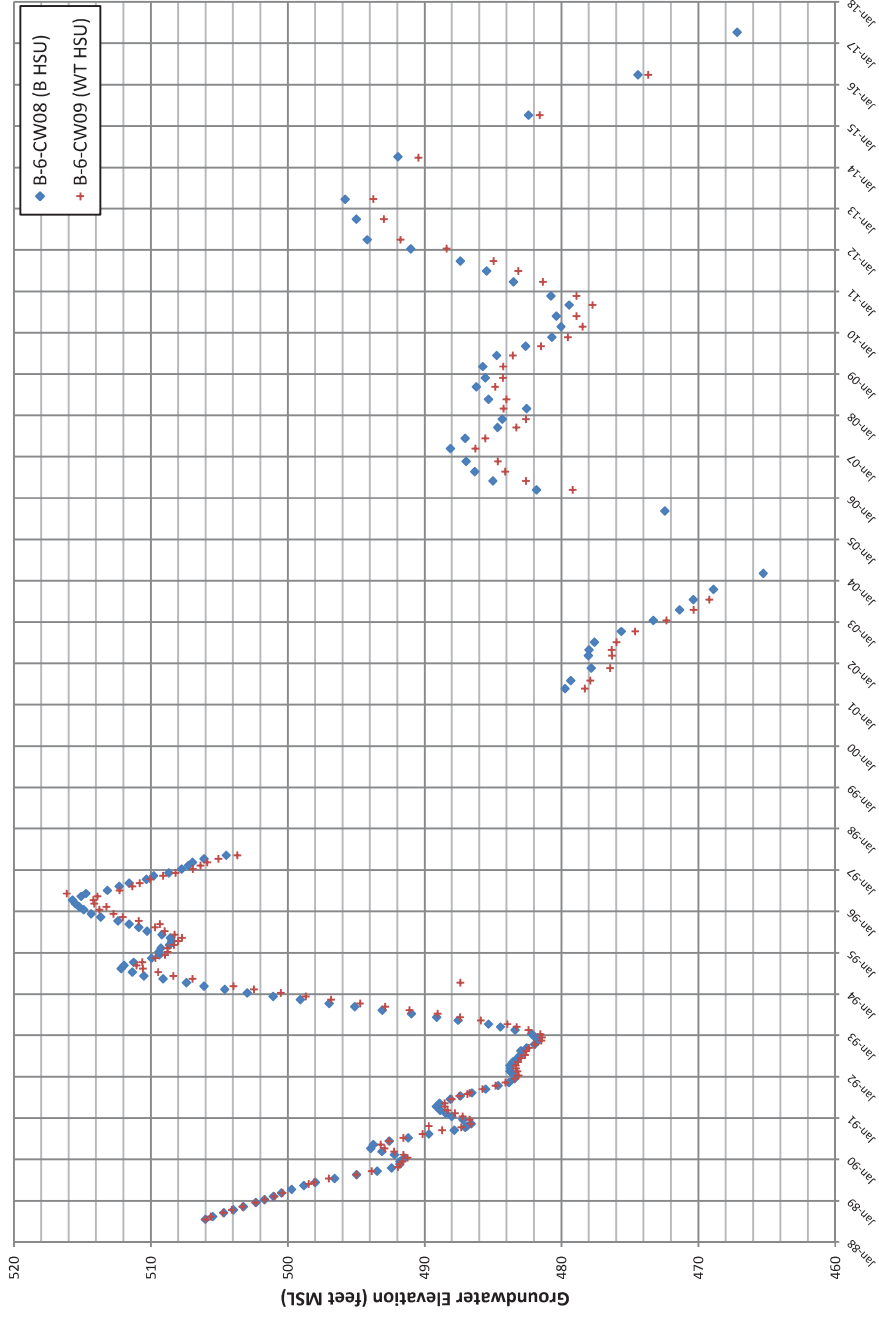
Appendix C  
Graph C-30  
Time Series Hydrograph - B-6-CW01, B-6-CW02, B-6-CW03, and B-6-CW03R



Appendix C  
 Graph C-31  
 Time Series Hydrograph - B-6-CW04, B-6-CW05, and B-6-CW06

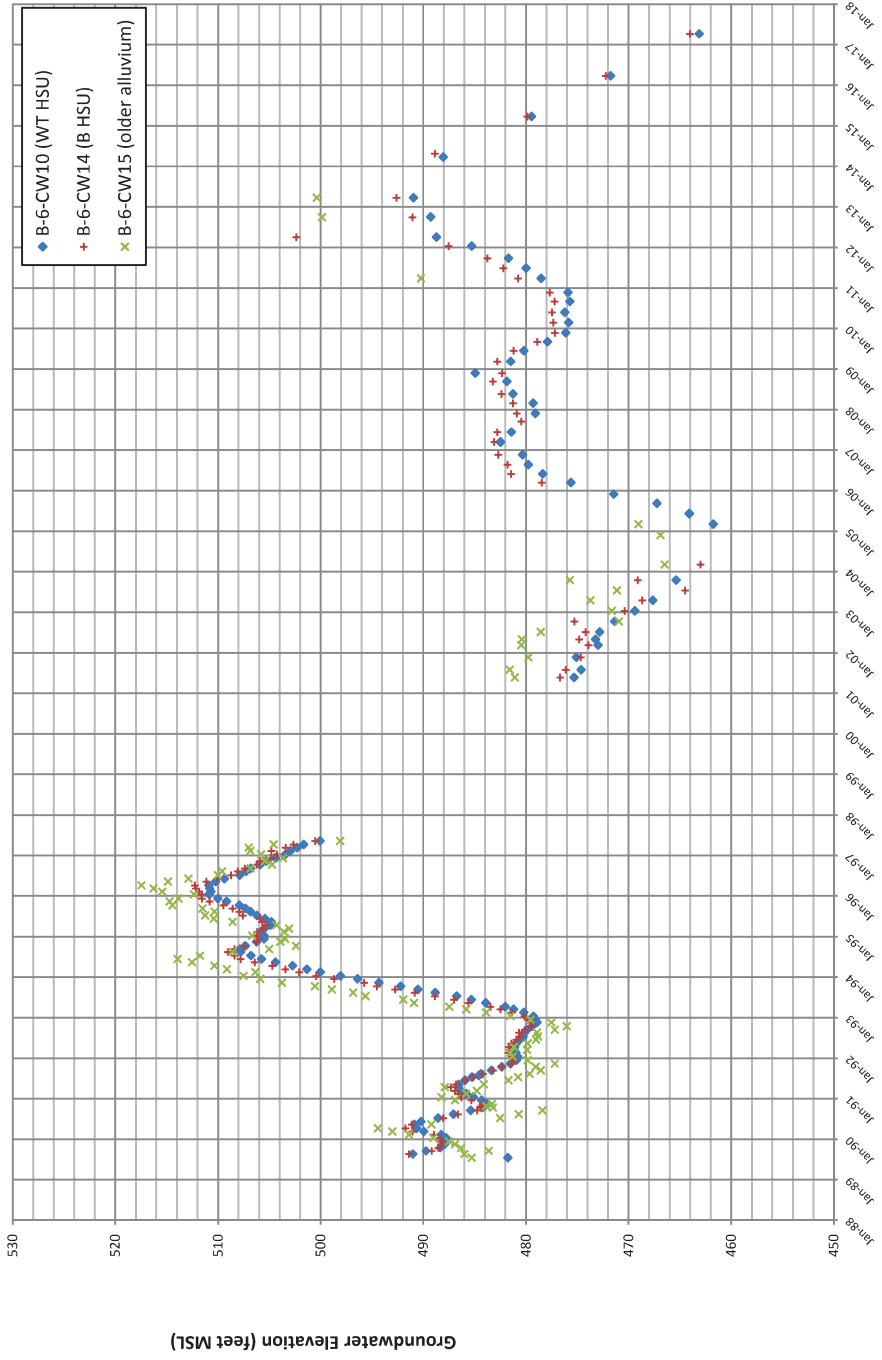


Appendix C  
Graph C-32  
Time Series Hydrograph - B-6-CW08 and B-6-CW09

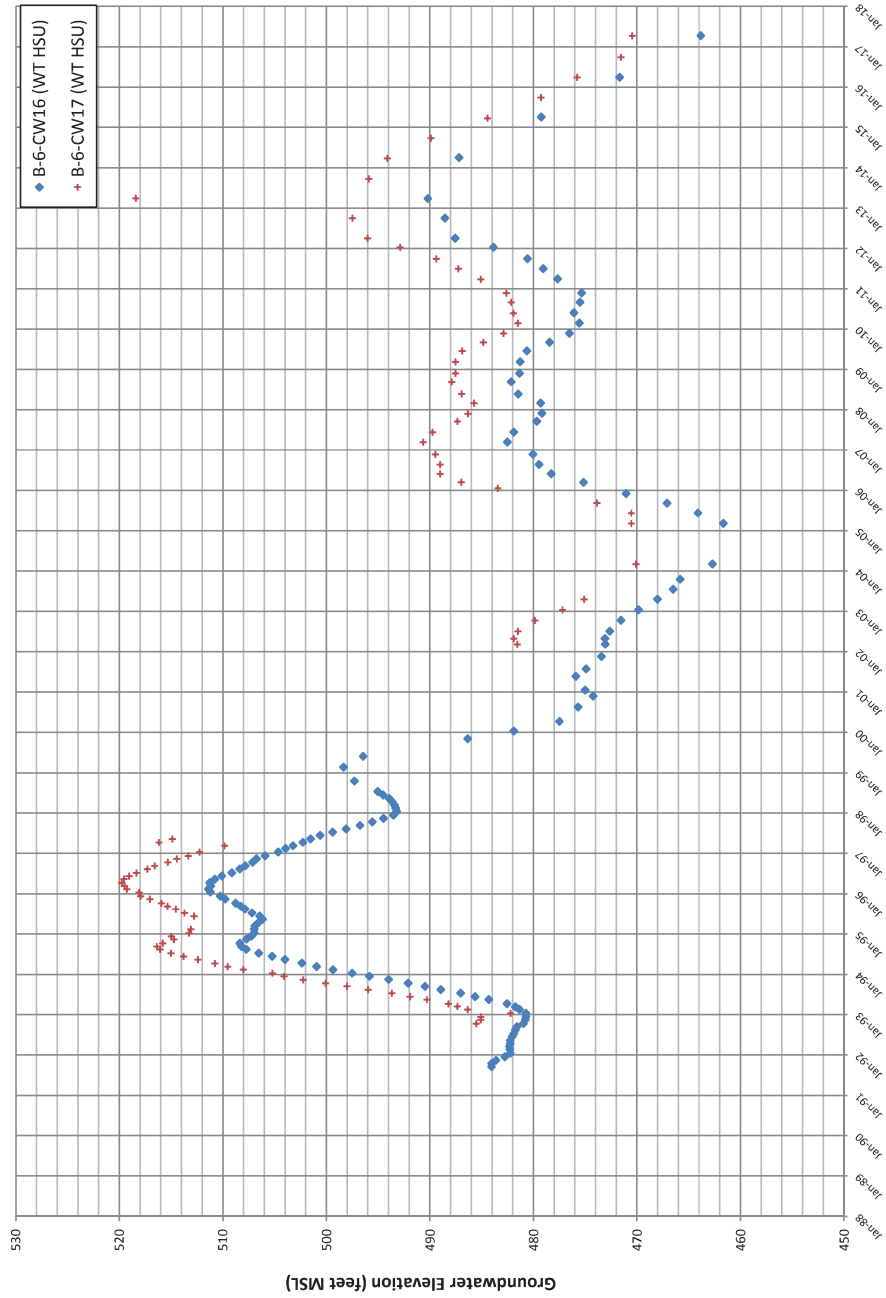




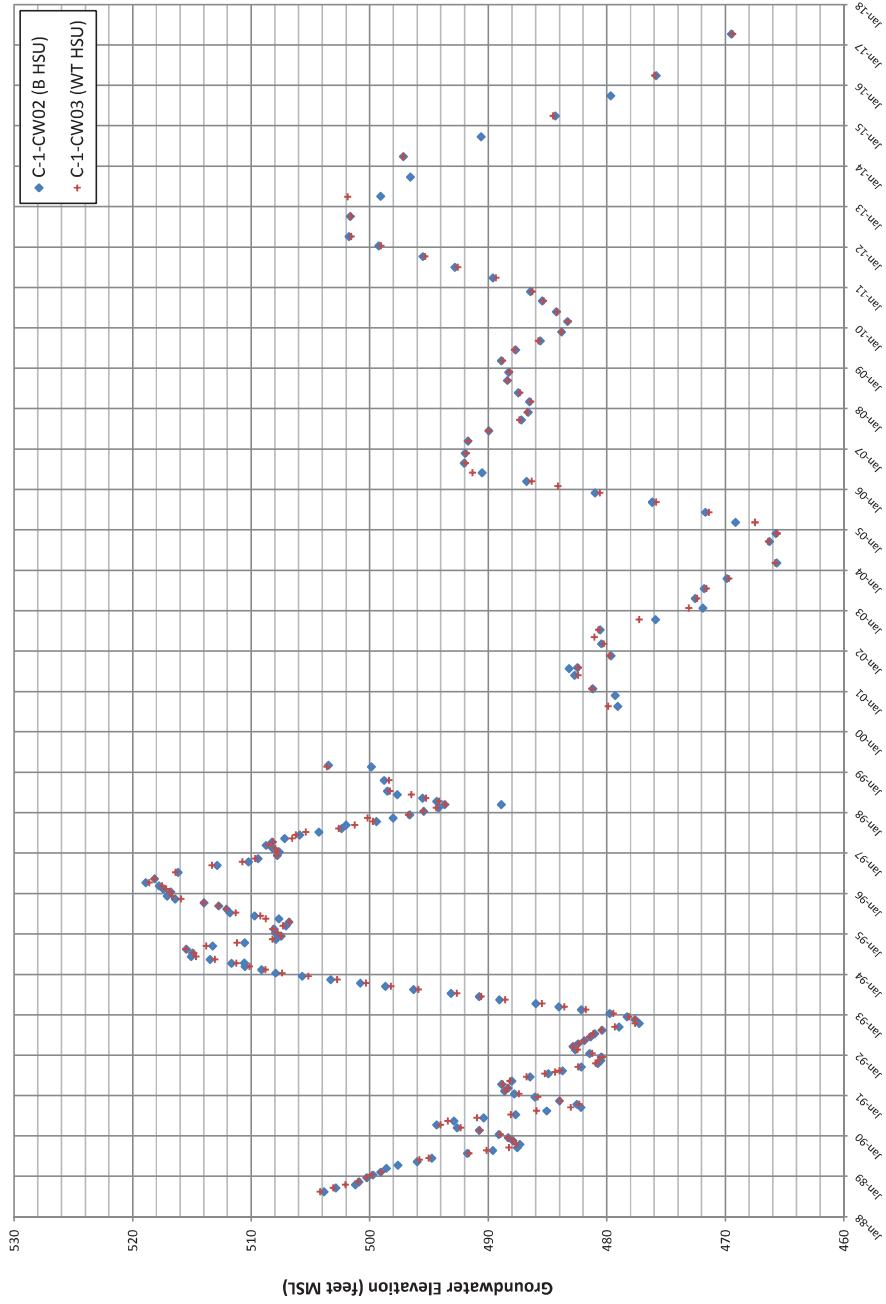
Appendix C  
Graph C-33  
Time Series Hydrograph - B-6-CW10, B-6-CW14, and B-6-CW15



Appendix C  
Graph C-34  
Time Series Hydrograph - B-6-CW16 and B-6-CW17



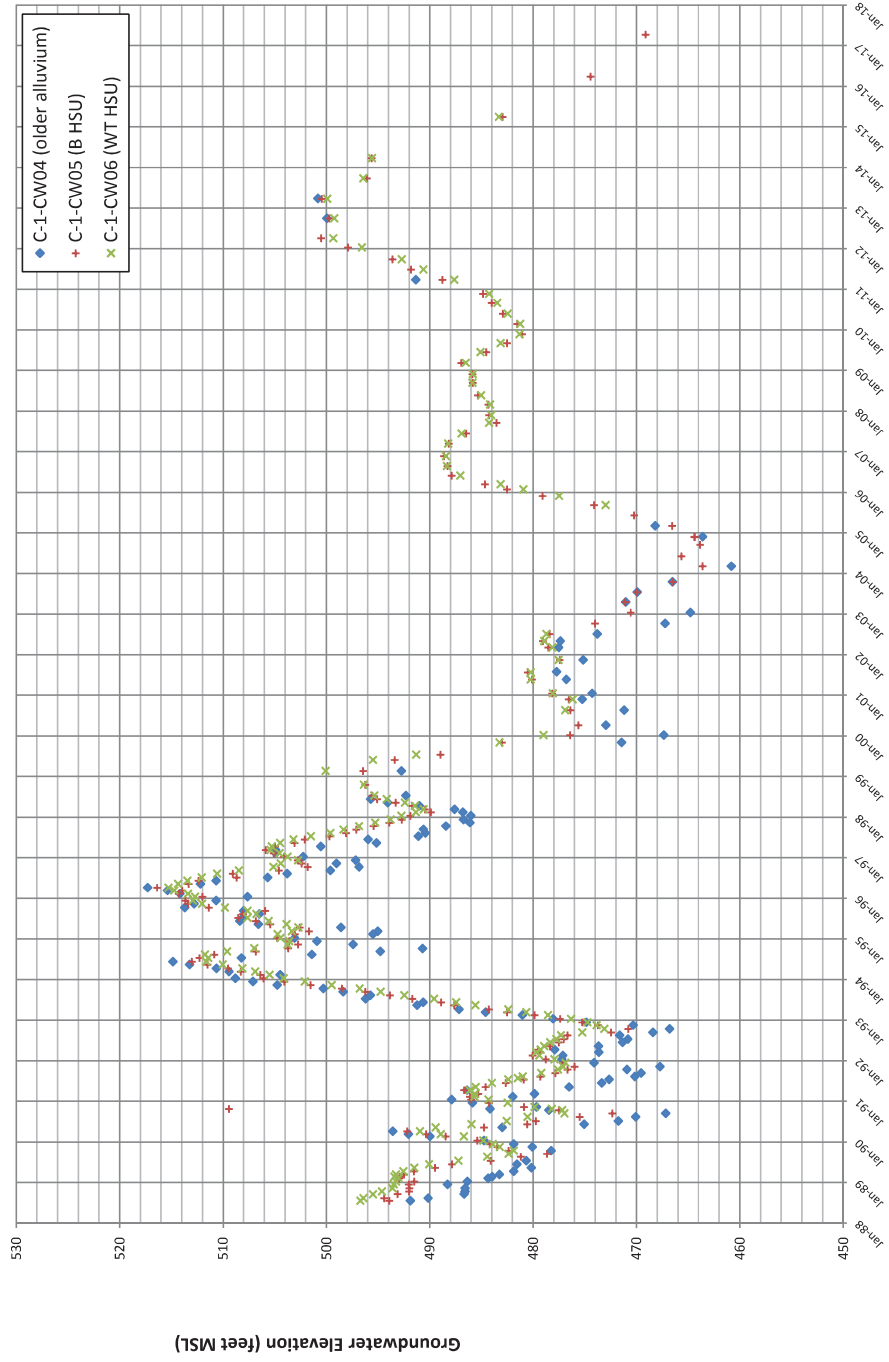
Appendix C  
Graph C-35  
Time Series Hydrograph - C-1-CW02 and C-1-CW03



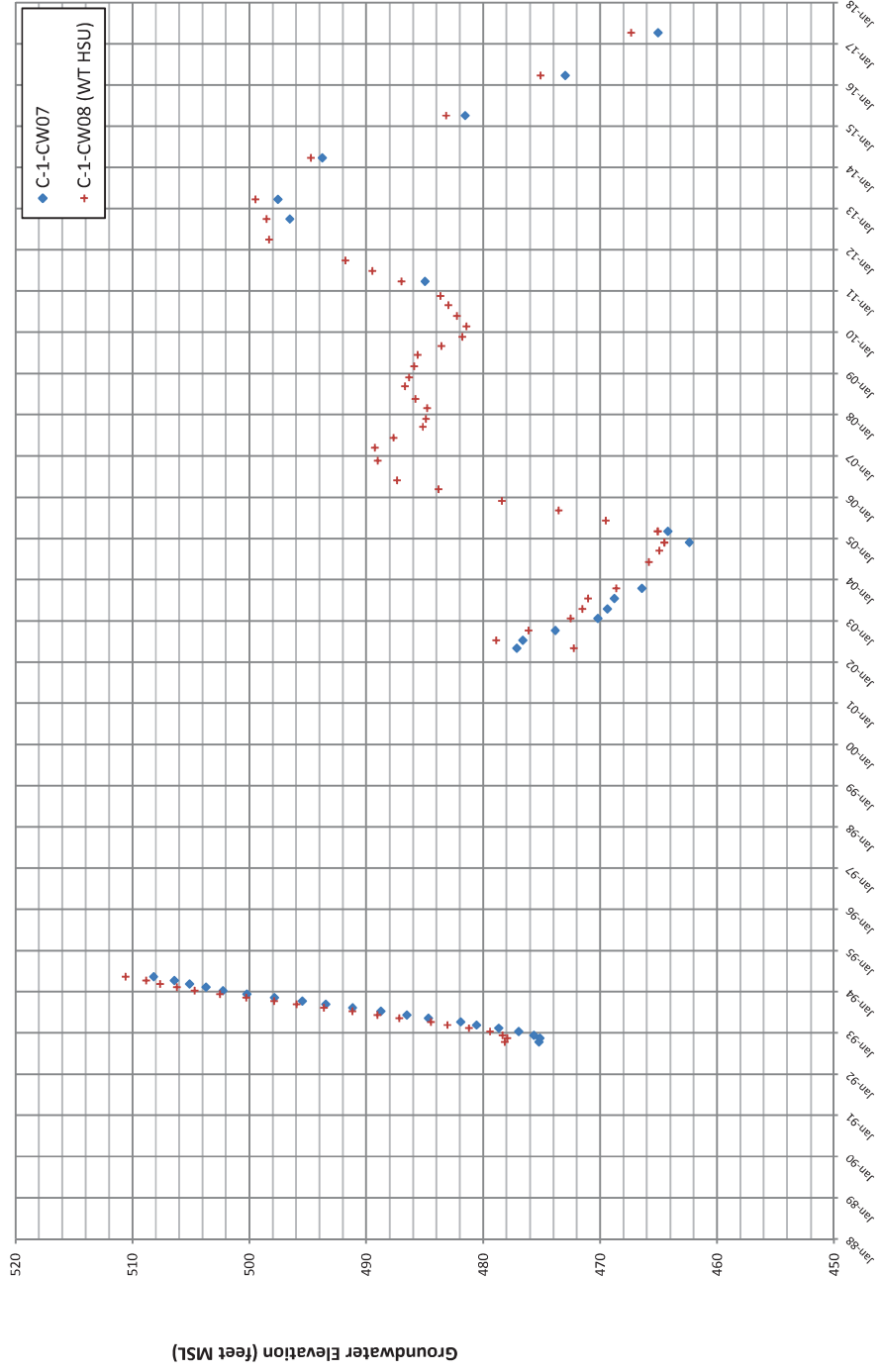


Appendix C  
Graph C-36

Time Series Hydrograph - C-1-CW04, C-1-CW05, and C-1-CW06



Appendix C  
Graph C-37  
Time Series Hydrograph - C-1-CW07 and C-1-CW08



# Appendix D

## Data Validation Summary

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Annual Groundwater Monitoring Report, Second Quarter 2017

Lockheed Martin Corporation

Burbank Operable Unit, Burbank, CA



**TETRA TECH, INC.**  
**DATA VALIDATION SUMMARY REPORT**

**TO:** Thomas Villeneuve, Project Manager; Robert Sabater, Deputy Project Manager

**FROM:** Michael Wilson, Senior Chemist

**DATE:** May 31, 2017

**SUBJECT:** One Hundred Percent Data Validation Review for the Burbank Operational Unit (BOU) Groundwater Sample Analyses Data Results from Eurofins Calscience Laboratory in Garden Grove, CA

**Introduction**

This report summarizes the findings from data validation efforts conducted on one hundred percent of the sample data results for Lockheed Martin Corporation's (LMC) BOU soil project. The validation guidance used in evaluating the data is presented in the current versions of *USEPA National Functional Guidelines for Inorganic Data Review* and *USEPA National Functional Guidelines for Organic Data Review*. The data were audited at a Level II effort. The Level II effort requires review of all applicable Quality Control (QC) sample results as it relates to the field data under review. Level II effort also determines the usability of the data based on the Data Quality Objectives (DQOs) for the project.

**Executive Summary**

The Eurofins Calscience data for the project were contained in one Sample Delivery Groups (SDGs) designated as 17-01-0944.

The total data set consisted of 5460 individual (per analyte) results from environmental samples analyses. The number of samples per analytical method (or method group) is given below.

1. Sixty five samples for Hexavalent Chromium by Method E218.6
2. Sixty five samples for Total Chromium by Method SW6020
3. Sixty five samples for VOCs by Method SW8260B
4. Sixty five samples for 1,2,3-Trichloropropane by Method SW8270C M Isotope Dilution
5. Sixty five samples for 1,4-Dioxane by Method SW8270M

The samples were logged into the lab under compliant Chain of Custody documentation with no exceptions noted. The samples were analyzed in one or two preparation batch per analytical method per SDG. All QC samples were reviewed and if the QC result caused the data to be qualified the reason for the qualification was identified.

The data showed the laboratory analyzed all samples in accordance with method guidelines. The instances where qualification was required are listed below and explained under individual method sections. All other data is of known precision and accuracy and did not require any qualification and can be used as stated.

All data for this BOU sampling event were usable for their intended purpose.

## Evaluation Criteria

The data were evaluated by results from the following Quality Control (QC) entities.

- Method/Field Blanks
- Laboratory Control Samples
- Holding Times
- Surrogate Recovery (Organic Methods)
- Spiked and Field Duplicate Compliance
- Calibration Compliance
- Compound Identification
- Analytical Method Compliance

Chain-of-Custody (COC) forms were reviewed and no unresolved discrepancies were noted.

## Evaluation of Accuracy, Precision, Representativeness, Comparability, and Completeness

1. Accuracy is established by reviewing spiked sample analysis. A blank spike (LCS) measures the accuracy of the instrument and the LCS results for this data set were all found to be within control limits. Therefore, accuracy for the BOU project meets the Data Quality Objectives (DQO).
2. Precision is established by calculating the RPD values for MS/MSD pairs and field duplicates. The RPD values calculated for the BOU project show that >95% of the RPD calculated were within control limits. Therefore, the precision for the BOU projects meets the DQO.
3. Representativeness is established by using standard field sampling techniques. Because the field sampling was conducted under approved work plans and by following an established SOP, the sampling is judge to have adequate representativeness. The DQO was met.
4. Comparability of the data is preserved if the analytical analyses are conducted under approved and vetted EPA analytical methods. Because the EPA methods are constructed with comparability built into the methods. By using approved analytical methods for the BOU project, the BOU data is comparable. The DQO was met.
5. Completeness is measured by determine the amount of valid data produced by the laboratory as compared to the total possible data from the chain. This data set had no rejected data and all samples were analyzed as per the chains. Therefore, the data completeness is 100% which is above the 90% criterion. The DQO was met.

## Validation Qualifiers and Comment Descriptors Definitions

### Qualifier Definitions

The upper case letters are used to denote NFG allowed qualifiers.

- J- Estimated. The associated numerical value is an estimated quantity with a negative bias. The analyte was detected but the reported value may not be accurate or precise. The data are usable as estimated values.

- J+ Estimated. The associated numerical value is an estimated quantity with a positive bias. The analyte was detected but the reported value may not be accurate or precise. The data are usable as estimated values.
- J Estimated. The associated numerical value is an estimated quantity. It is not possible to assess the direction of the potential bias. The analyte was detected but the reported value may not be accurate or precise. The "J" qualification indicates the data fell outside the QC limits, but the exceedance was not sufficient to cause rejection of the data. The data the data are usable as estimated values.
- R Rejected. The data is unusable (the compound or analyte may or may not be present). Use of the "R" qualifier indicates a significant variance from functional guideline acceptance criteria. Either resampling or reanalysis is necessary to determine the presence or absence of the rejected analyte.
- U Not detected. Analyses were performed for the compound or analyte, but it was not detected. The "U" designation is also applied to suspected blank contamination. The "U" flag is used to qualify any result that is detected in an environmental sample and associated blank at less than the PQL. For example, when any blank has a detection of the analyte that is below the PQL, and any associated field samples to that blank that also has detections of analytes below the PQL, then the samples are qualified as not detected at the PQL level. However, the data result is not censored by using the default PQL level and instead have the blank level reported in the sample qualified as not detected.
- UJ Estimated/Not detected. Analyses were performed for the compound or analyte, but it was not detected and the sample quantitation or detection limit is an estimated quantity due to poor accuracy or precision. This qualification is also used to flag possible false negative results in the case where low bias in the analytical system is indicated by low calibration response, surrogate, or other spike recovery.

#### Qualifier Descriptor Comments

- a: The analyte was found in the method blank.
- b: The surrogate spike recovery was outside control limits.
- c: The Matrix Spike and/or Matrix Spike Duplicate recoveries were outside control limits.
- d: The Laboratory Control Sample (LCS) recovery was outside control limits.
- e: A holding time violation occurred.
- f: The duplicate samples Relative Percent Difference (RPD) was outside the control limit.
- g: The datum met prescribed method criteria.
- h: The method requires a confirmation result, but none was performed.
- k: The analyte was found in a field blank.
- l: The second column confirmation result indicates the analyte was not confirmed.



- p: The result was qualified based on professional judgment.
- q: The analyte detection was below the Practical Quantitation Limit (PQL).
- r: The result is above the instrument's calibration range.
- t: The sample temperature was outside acceptance criteria.
- n: The laboratory case narrative indicated a QC problem.

## **1.0 Hexavalent Chromium by Method E218.6**

### **1.1 Method/Field Blanks**

The method blanks and field blanks reported no detections of target analytes above the detection limit. One method blank was extracted for each preparation batch. The method blanks were compliant with the analytical method.

### **1.2 Laboratory Control Samples**

The laboratory control sample (LCS) analysis showed the method required spiked analytes were recovered within control limits. One LCS was extracted for each preparation batch. The LCSs were compliant with the analytical method.

### **1.3 Holding Times**

All extraction and analysis holding times were in compliance.

### **1.4 Surrogate Recovery**

Surrogates do not apply to method E218.6

### **1.5 Spiked and Field Duplicate Compliance**

The matrix spike/matrix spike duplicate analyses and field duplicates were performed and found to be in compliance with the control limits.

### **1.6 Calibration Compliance**

The calibration of the analytical instrument met criteria.

### **1.7 Compound Identification**

All reported compound detections were identified by the correct retention time.

### **1.8 Analytical Method Compliance**

The Level II data review showed the data to be method compliant.

## **1.9 Conclusions**

Based on the results of this Level II Data Validation effort, it is concluded that the data for method E218.6 are usable as reported. The target analyte identifications are considered correct and reliable. The DQOs were satisfied as per the Work Plan and the data is usable for its intended purpose. The DQOs were satisfied as per the Work Plan and the data is usable for its intended purpose.

## **2.0 Total Chromium by Method SW6020**

### **2.1 Method/Field Blanks**

The method and field blanks showed no Chromium detections.

### **2.2 Laboratory Control Samples**

The laboratory control sample (LCS) analysis showed the method required spiked analytes were recovered within control limits. One LCS was extracted for each preparation batch. The LCSs were compliant with the analytical method.

### **2.3 Holding Times**

All extraction and analysis holding times were met.

### **2.4 Surrogate Recovery**

This method does not use surrogates.

### **2.5 Spiked and Field Duplicate Compliance**

The matrix spike/matrix spike duplicate analyses were performed and found they were in compliance with control limits.

Field duplicate results that exceeded the RPD requirement cause 0.18% of the data to be qualified as estimated and assigned a "J" qualifier. The estimated data is usable as estimated values

### **2.6 Calibration Compliance**

The calibration of the analytical instrument met criteria.

### **2.7 Compound Identification**

Compound identification meet method guidelines.

### **2.8 Analytical Method Compliance**

The Level II data review showed the data to be method compliant.

## **2.9 Conclusions**

Based on the results of this Level II Data Validation effort, it is concluded that the data for method SW6010B are usable as reported and qualified. The target analyte identifications are considered correct and reliable. The DQOs were satisfied as per the Work Plan and the data is usable for its intended purpose.

### **3.0 Volatile Organic Compounds (VOCs) by Method SW8260B**

#### **3.1 Method/Field Blanks**

The method blanks reported no detection of a target analyte. One method blank was extracted for each preparation batch.

Field blank contamination caused 0.12% of the data to be qualified as not detected and assigned a “U” qualifier. The data is usable as not detected values.

#### **3.2 Laboratory Control Samples**

The laboratory control sample (LCS) analysis showed the method required spiked analytes were recovered within control limits. One LCS was extracted for each preparation batch. The LCSs were compliant with the analytical method.

#### **3.3 Holding Times**

All extraction and analysis holding times were met.

#### **3.4 Surrogate Recovery**

All surrogates were within limits.

#### **3.5 Spiked and Field Duplicate Compliance**

The matrix spike/matrix spike duplicate analyses and field duplicates were performed and found there were in compliance except as listed below.

MS/MSD recovery outside control limits caused 0.025% of the data to be qualified as estimated and assigned a “J” qualifier. The estimated data is usable for the intended purpose.

#### **3.6 Calibration Compliance**

The calibration of the analytical instrument met criteria.

#### **3.7 Compound Identification**

All compounds were correctly identified.

#### **3.8 Analytical Method Compliance**

The Level II data review showed the data to be method compliant.

#### **3.9 Conclusions**

Based on the results of this Level II Data Validation effort, it is concluded that the data for method SW8260B are usable as reported and qualified. The target analyte identifications are considered correct and reliable. The DQOs were satisfied as per the Work Plan and the data is usable for its intended purpose.



#### **4.0 Low Level 1,2,3-Trichloropropane by Method SW8260B SIM**

##### **4.1 Method/Field Blanks**

The method blanks and field blanks reported no detection of a target analyte. One method blank was extracted for each preparation batch.

##### **4.2 Laboratory Control Samples**

The laboratory control sample (LCS) analysis showed the method required spiked analytes were recovered within control limits. One LCS was extracted for each preparation batch. The LCSs were compliant with the analytical method.

##### **4.3 Holding Times**

All extraction and analysis holding times were met.

##### **4.4 Surrogate Recovery**

All surrogates were within limits.

##### **4.5 Spiked and Field Duplicate Compliance**

The matrix spike/matrix spike duplicate analyses and field duplicates were performed and found they were in compliance with the control limits except as listed below.

MS/MSD recovery outside control limits caused 9.2% of the data to be qualified as estimated and assigned a "J" qualifier. The estimated data is usable for the intended purpose.

##### **4.6 Calibration Compliance**

The calibration of the analytical instrument met criteria.

##### **4.7 Compound Identification**

All compounds were correctly identified.

##### **4.8 Analytical Method Compliance**

The Level II data review showed the data to be method compliant.

##### **4.9 Conclusions**

Based on the results of this Level II Data Validation effort, it is concluded that the data for method SW8260B SIM are usable as reported and qualified. The target analyte identifications are considered correct and reliable. The DQOs were satisfied as per the Work Plan and the data is usable for its intended purpose.

## **5.0 Low level 1,4-Dioxane by Method SW8270C ID**

### **5.1 Method/Field Blanks**

The method blanks and field blanks reported no detection of a target analyte. One method blank was extracted for each preparation batch.

### **5.2 Laboratory Control Samples**

The laboratory control sample (LCS) analysis showed the method required spiked analytes were recovered within control limits. One LCS was extracted for each preparation batch. The LCSs were compliant with the analytical method.

### **5.3 Holding Times**

All extraction and analysis holding times were met.

### **5.4 Surrogate Recovery**

All surrogates were within limits.

### **5.5 Spiked and Field Duplicate Compliance**

The matrix spike/matrix spike duplicate analyses and field duplicates were performed and found there were no results outside control limits

### **5.6 Calibration Compliance**

The calibration of the analytical instrument met criteria.

### **5.7 Compound Identification**

All compounds were correctly identified.

### **5.8 Analytical Method Compliance**

The Level II data review showed the data to be method compliant.

### **5.9 Conclusions**

Based on the results of this Level II Data Validation effort, it is concluded that the data for method SW8270C ID are usable as reported and qualified. The target analyte identifications are considered correct and reliable. The DQOs were satisfied as per the Work Plan and the data is usable for its intended purpose.

# Appendix E

## Trend Analysis

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Annual Groundwater Monitoring Report, Second Quarter 2017

Lockheed Martin Corporation

Burbank Operable Unit, Burbank, CA



Appendix E

Trend Analysis (Period Q1-1996 to Q2-2017)  
2017 Annual Groundwater Monitoring Report  
Lockheed Martin Corporation  
Burbank Operable Unit, Burbank, CA

Well	1,2,3-Trichloropropane										1,4-Dioxane										Tetrachloroethylene (PCE)									
	Number of Samples	Number of Deceptions	Mean (µg/L)	LR Slope	LR All Samples	LR Trend	M-K Trend	Magnitude of Trend (µg/L/yr)	Number of Samples	Number of Deceptions	Mean (µg/L)	LR Slope	LR All Samples	LR Trend	M-K Trend	Magnitude of Trend (µg/L/yr)	Number of Samples	Number of Deceptions	Mean (µg/L)	LR Slope	LR All Samples	LR Trend	M-K Trend	Magnitude of Trend (%/yr)						
38300	19	5	0.075	-4.5E-04	No	NT	PD	-8.21	-0.006	19	2	0.28	-1.2E-05	No	S	NT	NT	20	20	3.40	-4.0E-04	No	D	D	-7.30					
38305	20	5	0.079	-2.4E-04	No	NT	NT			20	11	1.30	7.4E-05	No	NT	NT	NT	26	26	16.0	-2.1E-04	No	D	D	-3.83					
38310	8	3	0.15	-8.0E-04	No	D	D	-14.6	-0.022	7	6	1.40	-3.4E-05	No	S	NT	D	9	18.0	18.0	-4.1E-04	No	D	D	-7.48					
3850M	7	4	0.025	4.6E-04	No	I	I	8.40	0.021	4	3	0.74	-8.6E-04	No	S	S	S	17	17	4.500	-4.5E-04	No	D	D	-8.21					
3850N	24	24	1.40	-7.2E-04	No	D	D	-13.1	-0.18	19	12	1.70	-2.7E-04	No	PD	D	D	35	34	460	-3.1E-04	No	D	D	-5.66					
3850R	14	5	0.0081	4.2E-04	No	I	PI	7.67	0.00062	7	4	1.10	1.9E-04	No	NT	NT	33	33	130	1.6E-04	No	I	I	2.92						
3851M	11	6	1.70	1.2E-03	No	I	NT			6	6	1.70	6.6E-05	No	NT	S	S	9	9	440	-3.5E-04	No	D	D	-6.39					
3851N	7	0	0.096	8.8E-05	No	NT	S			8	2	0.47	-9.5E-05	No	S	S	S	19	19	41	-3.9E-04	No	D	D	-7.12					
3852F	9	2	0.012	-5.9E-04	No	D	PD	-10.8	-0.0013	7	2	0.40	1.6E-04	No	NT	S	S	19	19	29	-7.9E-04	No	D	D	-14.4					
3852H	8	5	0.057	5.0E-04	No	PI	NT			6	2	0.59	3.8E-04	No	NT	PI	PI	16	14	130	-3.8E-05	No	S	S						
3852H	11	10	0.38	1.8E-05	No	NT	NT			7	1	0.34	-1.7E-04	No	PD	PD	PD	20	20	18.0	-1.6E-04	No	D	D	-2.92					
3852M	9	7	0.090	4.9E-04	No	I	PI	8.94	0.0080	6	1	0.34	-2.2E-04	No	D	D	D	20	11	0.64	-3.6E-05	No	NT	NT						
3852M	6	6	0.13	6.8E-04	No	I	I	12.4	0.016	6	1	0.30	-8.2E-05	No	S	S	S	8	8	32	-1.6E-04	No	D	D	-2.92					
3852N	6	2	0.0062	-4.9E-04	No	PD	NT			6	0	0.31	-2.1E-04	Yes	ND	ND	D	7	8.80	7	8.80	-1.1E-04	No	D	-2.01					
3860K	15	15	25	3.5E-04	No	I	NT			6	3	0.62	-7.7E-05	No	S	S	S	18	18	33	-3.1E-05	No	D	D	-4.93					
3861F	8	4	0.015	-5.4E-05	No	NT	NT			6	0	0.31	-2.1E-04	Yes	ND	ND	D	17	17	320	-4.7E-04	No	D	D	-8.58					
3862D	9	7	0.020	1.8E-04	No	PI	NT			5	0	0.32	-2.2E-04	Yes	ND	ND	D	16	16	31	-2.5E-04	No	D	D	-4.56					
3862E	9	7	0.018	1.2E-04	No	NT	NT			7	2	0.42	-1.6E-04	No	PD	D	D	18	18	250	-3.0E-04	No	D	D	-5.48					
3870D	5	0	0.0080	1.4E-07	Yes	ND	ND			5	2	0.39	-9.5E-04	No	D	D	D	20	20	88	-2.2E-04	No	D	D	-4.02					
3871H	6	6	0.17	-2.8E-04	No	D	D	-5.11	-0.0087	5	3	0.56	-1.3E-03	No	D	D	D	8	0	0.21	-3.7E-04	Yes	ND	ND	-3.10					
3871J	6	0	0.0073	1.3E-04	Yes	ND	ND			6	0	0.31	-1.2E-04	Yes	ND	ND	D	7	3	5.00	-6.1E-04	No	D	NT						
3872L	5	5	0.054	6.4E-04	No	I	I	11.7	0.006	5	0	0.26	-1.9E-04	Yes	ND	ND	D	7	7	770	-3.6E-04	No	D	NT						
3872M	9	1	0.0056	-2.2E-04	No	NT	NT			7	0	0.34	-2.2E-04	Yes	ND	ND	D	20	20	13.0	-1.2E-04	No	D	D	-2.19					
3872N	5	5	0.34	9.8E-05	No	NT	NT			5	2	0.36	-8.0E-04	No	D	S	S	7	7	790	-8.0E-06	No	D	S						
3872Q	14	13	0.26	-4.9E-04	No	D	D	-8.94	-0.023	14	0	0.28	-1.7E-04	Yes	ND	ND	D	8	8	710	-2.6E-04	No	D	D	-4.75					
3872S	6	2	0.0025	-6.6E-04	No	D	NT			6	0	0.26	-5.5E-05	Yes	ND	ND	D	8	3	1.30	-3.8E-04	No	D	PD	-6.94					
3880	6	1	0.0014	-1.9E-04	No	S	S			5	0	0.26	-1.9E-04	Yes	ND	ND	D	6	1	0.29	-3.9E-04	No	D	S						
4948	5	0	0.00080	1.4E-07	Yes	ND	ND			5	1	0.31	-7.9E-04	No	D	PD	PD	8	8	34	-5.6E-05	No	S	S						
4949C	5	0	0.0079	-1.6E-04	Yes	ND	ND			4	0	0.27	1.3E-04	Yes	ND	ND	D	12	10	12.0	6.9E-06	No	I	NT						
A-1-CW02	5	0	0.00080	1.4E-07	Yes	ND	ND			5	4	0.63	-9.3E-04	No	PD	S	S	5	5	78	-7.5E-04	No	S	S						
A-1-CW03R	7	7	7.40	-7.5E-04	No	D	D	-13.7	-1.01	6	5	1.70	-3.5E-04	No	S	PD	PD	11	11	160	7.3E-05	No	NT	S						
A-1-CW04	6	5	6.10	1.6E-03	No	I	I	29	1.78	5	5	1.80	6.4E-05	No	NT	S	S	14	14	600	-5.8E-04	No	D	D	-10.6					
A-1-CW05	6	0	0.0073	-5.5E-04	Yes	ND	ND			4	4	2.20	1.1E-04	No	NT	S	S	16	16	79	-3.4E-04	No	D	D	-6.21					
A-1-CW07	18	18	70	-4.9E-04	No	D	D	-8.94	-6.26	14	6	29	4.2E-04	No	NT	PI	PI	27	27	660	-1.4E-04	No	D	D	-2.56					
A-1-CW08	13	13	55	1.4E-04	No	PI	PI	2.56	1.41	12	7	1.10	2.4E-04	No	NT	NT	NT	19	19	180	-1.9E-04	No	D	D	-3.47					
A-1-CW09	21	20	4.40	3.7E-04	No	I	I	6.75	0.30	7	5	1.70	5.2E-04	No	I	I	I	33	33	310	-5.7E-04	No	D	D	-10.4					
B-1-CW11	6	1	0.0015	1.8E-04	No	NT	NT			6	5	1.70	2.3E-04	No	PI	NT	NT	7	7	440	2.0E-04	No	I	NT						
B-1-CW12	25	8	0.023	-5.0E-04	No	PD	NT			14	2	0.72	-2.5E-04	No	PD	NT	NT	36	36	180	-3.9E-04	No	D	D	-7.12					
B-1-CW13	24	24	16.0	3.0E-04	No	I	I	5.48	0.88	15	8	0.80	3.1E-04	No	I	I	I	32	32	1,200	-3.7E-04	No	D	D	-6.75					
B-1-CW17	24	13	0.28	-2.9E-04	No	NT	NT			12	5	0.96	4.9E-04	Yes	ND	NT	NT	33	33	1,300	-1.1E-04	No	D	S						
B-1-CW20	15	1	0.027	2.0E-04	No	NT	NT			9	0	0.35	-1.8E-04	Yes	ND	NT	NT	34	29	730	-3.4E-04	No	D	S						
B-1-CW25	12	9	0.093	-5.7E-05	No	NT	NT			6	4	1.10	1.4E-04	No	NT	NT	NT	35	35	1,000	-3.8E-04	No	D	D	-6.21					
B-1-CW27	23	5	0.015	-3.1E-04	No	PD	NT			18	0	0.28	-1.7E-04	Yes	ND	NT	NT	34	34	34	-1.8E-04	No	D	D	-3.29					
B-1-CW28	14	1	0.030	5.9E-06	No	I	NT			7	2	0.39	-5.2E-05	No	S	S	S	37	36	25	2.0E-04	No	I	I	3.65					
B-1-CW29	6	0	0.013	-5.1E-03	Yes	ND	ND			4	0	0.29	2.9E-04	Yes	ND	NT	NT	25	25	1,100	-3.3E-04	No	D	D	-6.02					
B-1-CW30	2	0	0.0013	0.0E+00	Yes	N/A	N/A			2	0	0.14	0.0E+00	Yes	N/A	N/A	N/A	2	2	82	0.0E+00	No	N/A	N/A						
B-1-CW31	2	0	0.0013	0.0E+00	Yes	N/A	N/A			2	0	0.1	0.0E+00	Yes	N/A	N/A	N/A	2	2	35	0.0E+00	No	N/A	N/A						
B-1-CW32	2	2	0.098	0.0E+00	No	N/A	N/A			2	0	0.14	0.0E+00	Yes	N/A	N/A	N/A	2	2	11.0	0.0E+00	No	N/A	N/A						
B-1-CW33	2	0	1.0	0.0E+00	No	N/A	N/A			2	2	1.80	0.0E+00	Yes	N/A	N/A	N/A	2	2	510	0.0E+00	No	N/A	N/A						
B-1-CW34	2	0	0.0013	0.0E+00	Yes	N/A	N/A			2	0	0.14	0.0E+00	Yes	N/A	N/A	N/A	2	2	11.0	0.0E+00	No	N/A	N/A						
B-5-CW02	23	2	0.0042	3.1E-05	No	NT	NT			20	10	0.90	8.5E-05	No	NT	S	S	24	24	36	-1.0E-03	No	D	D	-18.3					

Appendix E

Trend Analysis (Period Q1-1996 to Q2-2017)  
2017 Annual Groundwater Monitoring Report  
Lockheed Martin Corporation  
Burbank Operable Unit, Burbank, CA

Well	1,2,3-Trichloropropane										1,4-Dioxane										Tetrachloroethylene (PCE)									
	Number of Samples	Number of Deceptions	Mean (µg/L)	L/R Slope	All Samples ND	L/R Trend	M-K Trend	Magnitude of Trend (%/yr)	(µg/L/yr)	Number of Samples	Number of Deceptions	Mean (µg/L)	L/R Slope	All Samples ND	L/R Trend	M-K Trend	Magnitude of Trend (%/yr)	(µg/L/yr)	Number of Samples	Number of Deceptions	Mean (µg/L)	L/R Slope	All Samples ND	L/R Trend	M-K Trend	Magnitude of Trend (%/yr)				
B-5-CW03	16	16	29	1.1E-04	No	NT	PI	2.01	0.58	15	8	9.00	4.7E-04	No	NT	NT			17	17	36	-5.4E-04	No	D	D	-9.86				
B-6-CW02	15	3	0.071	-1.9E-05	No	NT	NT			13	0	0.27	-1.9E-04	Yes	ND	ND			6	6	0.61	1.8E-04	No	PI	I	3.29				
B-6-CW05	5	0	0.0008	1.4E-07	Yes	ND	ND			5	0	0.26	-1.9E-04	Yes	ND	ND			6	5	2.60	-8.3E-05	No	S	S					
B-6-CW08	9	1	0.14	-7.4E-04	No	NT	NT			9	2	0.34	-5.2E-05	No	S	NT			7	7	46	-1.8E-04	No	D	PD	-3.29				
B-6-CW10	7	7	0.72	1.4E-04	No	PI	NT			6	5	1.10	-4.6E-04	No	PD	D	-8.40	-0.09	8	8	160	-2.0E-04	No	D	D	-3.65				
B-6-CW14	13	3	0.23	-5.6E-04	No	NT	NT			12	7	0.88	6.3E-04	No	I	I	11.5	0.10	8	8	97	6.1E-05	No	NT	NT					
B-6-CW16	16	2	0.039	-3.9E-04	No	PD	NT			10	1	0.27	-2.0E-04	No	S	S			15	15	110	-3.7E-04	No	D	D	-6.75				
B-6-CW17	13	4	0.062	-4.0E-04	No	NT	D	-7.30	-0.005	12	5	0.45	3.8E-04	No	I	I	6.94	0.03	8	8	190	-2.7E-04	No	D	D	-4.93				
C-1-CW02	22	3	0.044	1.7E-05	No	NT	NT			19	6	0.50	2.6E-04	No	I	PI	4.75	0.02	28	27	2.40	-1.6E-04	No	D	D	-2.92				
C-1-CW03	21	3	0.027	-7.7E-05	No	NT	NT			17	9	1.2	-2.1E-04	No	NT	D	-3.83	-0.05	25	25	8.90	-1.8E-04	No	D	D	-3.29				
C-1-CW05	21	3	0.0052	1.4E-04	No	NT	NT			19	3	0.31	5.9E-05	No	NT	PI	1.08	0.00	23	22	1.10	5.9E-05	No	NT	S					
C-1-CW06	16	1	0.0040	4.7E-05	No	NT	NT			15	4	0.41	4.6E-04	No	I	I	8.40	0.03	22	22	50	-1.3E-04	No	PD	D	-2.74				
C-1-CW07	4	0	0.00088	-1.4E-04	Yes	ND	NT			5	5	2.80	-2.0E-04	No	S	S			5	5	17.0	-6.0E-04	No	S	S					
C-1-CW08	22	3	0.0060	-1.7E-05	No	NT	NT			19	8	1.00	2.4E-04	No	NT	PI	4.4	0.04	20	20	61	-7.2E-04	No	D	D	-13.1				
MW-03	18	18	3.20	7.4E-04	No	I	I	55	6.57	4	4	18.0	5.1E-03	No	I	I	93	16.8	4	4	130	1.0E-03	No	PI	NT					
MW-04	16	16	1.10	1.1E-03	No	I	I	13.5	0.43	18	8	1.00	3.9E-04	No	I	I	7.12	0.07	18	18	71	-7.3E-05	No	S	S					
MW-07	16	16	0.36	9.9E-04	No	I	I	20	0.22	16	4	0.76	4.2E-04	No	I	PI	7.67	0.06	16	16	53	-9.0E-05	No	S	S					
MW-08	16	16	1.30	8.6E-04	No	I	I	18.1	0.07	17	3	0.26	1.5E-04	No	NT	NT			17	17	41	-1.4E-06	No	D	D					
SW-1	10	1	0.0020	-1.0E-05	No	NT	NT	15.7	0.20	17	8	4.80	6.0E-04	No	I	I	11.0	0.53	17	17	100	-1.9E-04	No	D	D	-3.47				
SW-5	10	3	0.0042	-2.2E-04	No	NT	NT			12	2	0.63	-2.2E-04	No	NT	NT			21	0	0.60	-3.1E-04	Yes	ND	ND					
Notes:										11	10	100	-1.3E-03	No	D	D	-24	-24	19	19	260	-2.0E-04	No	D	D	-4.75				

Trend Categories and Definitions	1,2,3-Trichloropropane (# wells)	% Total	1,4-Dioxane (# wells)	% Total	Tetrachloroethylene (PCE) (# wells)	% Total
"N/A" - Insufficient Data (< 4 sampling events)	5		5		5	
Blank-No data	0		0		0	
"ND" - Non Detect	10	14	16	23.19	2	2
"NT" - No Trend	33	48	13	18.84	7	7
"S" - Stable	2	3	14	20.29	14	14
"I" - Increasing	11	16	9	13.04	3	3
"PI" - Probably Increasing	4	6	6	8.70	0	0
"D" - Decreasing	7	10	8	11.59	41	41
"PD" - Probably Decreasing	2	3	3	4.35	2	2
	69	100	69	100.00	69	69

Appendix E

Trend Analysis (Period Q1-1996 to Q2-2017)  
2017 Annual Groundwater Monitoring Report  
Lockheed Martin Corporation  
Burbank Operable Unit, Burbank, CA

ε of Trend (µg/Lyrr)	Trichloroethylene (TCE)										Hexavalent Chromium										Total Chromium									
	Number of Samples	Number of Deceptions	Mean (µg/L)	L.R. Slope	L.R. Trend	M-K Trend	Magnitude of Trend (%/yrr)	Magnitude of Trend (µg/Lyrr)	All Samples	L.R. Trend	M-K Trend	Magnitude of Trend (%/yrr)	Magnitude of Trend (µg/Lyrr)	Number of Samples	Number of Deceptions	Mean (µg/L)	L.R. Slope	L.R. Trend	M-K Trend	Magnitude of Trend (%/yrr)	Magnitude of Trend (µg/Lyrr)	All Samples	L.R. Trend	M-K Trend	Magnitude of Trend (%/yrr)	Magnitude of Trend (µg/Lyrr)				
-0.25	20	4	0.51	-3.6E-04	D	D	-6.57	-0.03	No	D	D	-5.84	-0.01	19	7	0.11	-3.2E-04	PD	D	-5.84	-0.01	20	13	3.50	-1.5E-04	No	S	PD	-2.74	
-0.61	26	9	6.2	2.1E-04	PI	PI	3.83	2.38	No	PD	PD	-2.92	-1.93	21	20	3.20	-2.9E-04	No	S	NT	NT	24	14	5.50	3.0E-05	No	NT	NT	NT	
-1.35	9	6	66	-1.6E-04	PD	D	-2.92	-1.93	No	PD	S	-2.92	-1.93	8	7	2.80	-6.7E-04	No	S	S	NT	7	10.0	2.0E-05	No	NT	NT	NT	NT	
-3.70	17	17	720	-4.8E-04	D	D	-3.29	-2.4	No	D	D	-8.58	-5.9	22	22	3.00	-2.4E-04	No	NT	NT	-5.48	-1.20	11	6	4.30	1.5E-04	No	PD	NT	NT
-2.6	35	35	460	-4.7E-04	D	D	-8.58	-5.9	No	D	D	-8.58	-5.9	22	22	2.2	-3.0E-04	No	NT	NT	-5.48	-1.20	26	26	3.4	-1.2E-04	No	PD	NT	NT
3.80	33	33	10.0	7.7E-05	No	NT	1.41	0.14	No	D	NT	1.41	0.14	9	4	0.13	1.2E-04	No	NT	NT	0.82	0.01	16	7	4.50	8.0E-05	No	NT	NT	NT
-28.11	9	6	62	-8.0E-06	No	NT	-6.02	-2.11	No	D	NT	-6.02	-2.11	19	16	3.40	-1.2E-04	No	NT	PD	-2.19	-0.07	5	5	5.30	-1.3E-04	No	S	S	S
-2.92	19	19	35	-3.3E-04	No	D	-6.02	-2.11	No	D	D	-6.02	-2.11	16	16	3.40	-1.2E-04	No	NT	PD	-2.19	-0.07	21	12	5.20	1.7E-04	No	NT	NT	NT
-4.18	19	15	8.90	-8.1E-04	No	D	-14.8	-1.32	No	D	D	-14.8	-1.32	8	8	0.59	1.2E-04	No	NT	PI	2.19	0.01	11	6	3.60	8.6E-05	No	NT	NT	NT
-0.53	20	20	2.20	-1.9E-04	No	PD	-2.01	-0.36	No	PD	NT	-2.01	-0.36	7	7	1.80	6.1E-06	No	NT	PI	2.19	0.01	10	8	7.20	-2.8E-05	No	NT	NT	NT
-0.93	20	18	18.0	-1.1E-04	No	D	-2.01	-0.36	No	D	D	-2.01	-0.36	8	8	1.20	4.5E-05	No	NT	PI	0.82	0.01	11	6	3.60	1.1E-04	No	NT	NT	NT
-0.18	8	8	5.60	-3.7E-05	No	NT	-2.01	-0.36	No	NT	NT	-2.01	-0.36	11	9	1.60	1.2E-04	No	NT	NT	0.82	0.01	11	6	3.60	1.1E-04	No	NT	NT	NT
-0.93	8	8	2.1	-1.1E-04	No	D	-2.01	-0.42	No	D	D	-2.01	-0.42	6	6	0.86	2.4E-04	No	NT	NT	-2.01	-0.06	7	6	4.10	-1.9E-04	No	D	PD	-3.47
-0.18	18	18	9.50	-2.7E-04	No	D	-4.93	-0.47	No	D	D	-4.93	-0.47	6	6	1.70	-9.0E-07	No	D	D	-2.01	-0.06	9	8	13.0	1.3E-04	No	I	I	2.37
-1.82	21	21	690	-1.3E-04	No	D	-3.47	-1.64	No	D	D	-3.47	-1.64	8	8	2.10	-1.7E-04	No	S	S	-2.01	-0.06	12	5	4.00	3.0E-04	No	NT	PI	5.48
-2.7	17	17	620	-4.2E-04	No	D	-7.67	-4.8	No	D	D	-7.67	-4.8	7	7	4.20	-4.2E-05	No	S	S	-2.01	-0.06	10	10	8.40	-8.5E-05	No	PD	PD	-1.55
-1.41	16	16	13.0	-2.2E-04	No	D	-4.02	-0.52	No	D	D	-4.02	-0.52	7	7	2.70	7.7E-05	No	NT	PI	1.41	0.04	10	6	4.50	2.0E-04	No	NT	NT	NT
-13.7	17	17	640	-2.6E-04	No	D	-4.75	-3.0	No	D	D	-4.75	-3.0	8	8	13.0	-2.1E-04	No	D	D	-3.83	-0.50	11	10	14.0	-4.2E-05	No	S	PD	-0.77
-3.5	20	20	60	-1.5E-04	No	D	-2.74	-1.64	No	D	D	-2.74	-1.64	8	8	1.30	-1.2E-04	No	S	S	-3.83	-0.50	11	5	2.60	3.4E-05	No	NT	NT	-0.11
-18.3	5	0	0.22	-1.3E-04	Yes	ND	-2.74	-1.64	Yes	ND	ND	-2.74	-1.64	5	4	10.0	4.8E-03	No	PI	I	88	8.76	4	4	59	-1.1E-03	No	NT	NT	NT
-18.3	8	8	3.10	2.6E-05	No	NT	-10.0	-0.29	No	NT	NT	-10.0	-0.29	6	6	4.90	-1.3E-04	No	S	NT	88	8.76	6	6	21	9.9E-05	No	NT	NT	NT
-0.28	7	2	2.90	-5.5E-04	No	D	-10.0	-0.29	No	D	D	-10.0	-0.29	6	6	4.70	-1.2E-04	No	S	S	-10.0	-0.29	6	6	11.0	-2.0E-05	No	S	S	S
-0.28	20	20	3.90	-4.7E-05	No	PD	-0.86	-0.03	No	PD	NT	-0.86	-0.03	5	5	2.90	8.5E-04	No	NT	NT	-0.86	-0.03	5	5	9.7	-5.1E-05	No	S	S	S
-3.4	8	8	2.70	-3.6E-05	No	D	-5.84	-1.58	No	D	D	-5.84	-1.58	5	4	3.10	-5.7E-06	No	D	D	-5.84	-1.58	10	6	4.30	1.8E-04	No	NT	S	S
-0.09	3	3	1.70	-4.1E-04	No	D	-7.48	-0.13	No	D	D	-7.48	-0.13	6	6	5.70	-7.6E-05	No	S	S	-7.48	-0.13	6	6	11.0	8.7E-07	No	I	S	S
-4.90	6	0	0.21	6.6E-05	Yes	ND	-7.48	-0.13	Yes	ND	ND	-7.48	-0.13	14	14	6.00	1.7E-04	No	NT	NT	-7.48	-0.13	13	13	22	1.4E-04	No	NT	NT	NT
-1.69	8	8	5.20	-9.3E-05	No	S	-1.70	-0.09	No	S	PD	-1.70	-0.09	5	5	0.97	1.8E-04	No	NT	S	-1.70	-0.09	5	5	5.30	-1.2E-04	No	S	S	S
-6.24	12	11	5.70	-3.6E-05	No	NT	-0.66	-0.04	No	NT	PD	-0.66	-0.04	4	4	1.10	-1.4E-04	No	S	S	-0.66	-0.04	7	6	9.50	6.8E-05	No	NT	NT	NT
-6.24	5	5	6.20	-2.5E-04	No	S	-0.66	-0.04	No	S	S	-0.66	-0.04	5	3	0.27	6.4E-04	No	NT	NT	-0.66	-0.04	4	4	3.30	1.2E-03	No	NT	NT	NT
-6.24	11	11	32	9.4E-05	No	NT	-0.66	-0.04	No	NT	NT	-0.66	-0.04	6	4	0.34	8.6E-05	No	NT	NT	-0.66	-0.04	5	5	2.30	4.5E-04	No	NT	NT	NT
-6.24	14	14	170	-5.3E-04	No	D	-9.67	-1.64	No	D	D	-9.67	-1.64	6	6	0.82	-1.4E-04	No	S	S	-9.67	-1.64	6	4	1.50	4.8E-04	No	I	NT	NT
-6.24	27	27	700	-4.7E-05	No	D	-6.21	-0.38	No	D	D	-6.21	-0.38	5	2	0.14	-6.0E-04	No	NT	NT	-6.21	-0.38	9	4	2.10	-1.2E-05	No	NT	NT	NT
-3.2	33	33	110	-5.2E-04	No	S	-9.49	-10.4	No	S	S	-9.49	-10.4	6	6	1.30	-1.4E-04	No	PD	D	-8.58	-0.11	22	16	6.10	2.5E-04	No	I	NT	NT
-12.8	5	5	1.20	-3.0E-04	No	PD	-9.49	-10.4	No	PD	D	-9.49	-10.4	15	7	9.60	-2.9E-04	No	NT	NT	-9.49	-10.4	15	7	6.20	1.9E-04	No	NT	NT	NT
-8.1	36	36	590	-4.6E-04	No	D	-8.40	-5.0	No	D	D	-8.40	-5.0	7	7	2.20	-2.2E-04	No	S	S	-8.40	-5.0	8	8	6.20	-1.3E-04	No	D	D	-2.37
-6.9	33	33	790	-2.6E-04	No	D	-4.75	-3.7	No	D	D	-4.75	-3.7	28	28	2.2	-2.2E-04	No	D	D	-4.02	-0.88	31	30	6.7	-3.2E-04	No	D	D	-5.84
-6.9	32	32	230	-2.2E-04	No	D	-4.02	-9.23	No	D	D	-4.02	-9.23	19	9	1.80	-1.2E-04	No	S	S	-4.02	-0.88	7	7	2.90	1.0E-04	No	NT	NT	NT
-6.9	34	34	5.10	-4.4E-04	No	D	-8.03	-0.41	No	D	D	-8.03	-0.41	32	32	3.7	-1.9E-04	No	D	D	-3.47	-1.28	33	32	4.1	-1.2E-04	No	D	D	-2.19
-1.12	35	35	350	-4.8E-04	No	D	-8.76	-3.1	No	D	D	-8.76	-3.1	10	10	3.00	-3.0E-04	No	D	D	-5.48	-0.16	18	12	4.70	1.3E-04	No	NT	S	S
0.91	37	36	4.90	-4.2E-05	No	S	-4.47	-0.40	No	S	D	-4.47	-0.40	8	8	6.90	-2.5E-04	No	PD	PD	-4.56	-0.31	17	14	9.10	4.0E-05	No	NT	S	S
-6.6	25	25	42	-2.6E-04	No	S	-8.40	-3.53	No	S	S	-8.40	-3.53	8	8	3.20	-8.0E-05	No	S	NT	-4.56	-0.31	16	9	3.90	2.3E-04	No	PI	NT	NT
-6.6	2	2	160	0.0E+00	No	N/A	-8.40	-3.53	No	N/A	N/A	-8.40	-3.53	18	18	0.53	-5.5E-04	No	S	S	-4.56	-0.31	9	9	3.80	1.6E-04	No	NT	NT	NT
-6.6	2	2	26	0.0E+00	No	N/A	-8.40	-3.53	No	N/A	N/A	-8.40	-3.53	2	2	7.80	0.0E+00	No	N/A	N/A	-4.56	-0.31	2	2	38	0.0E+00	No	N/A	N/A	N/A
-6.6	2	2	87	0.0E+00	No	N/A	-8.40	-3.53	No	N/A	N/A	-8.40	-3.53	2	2	10.0	0.0E+00	No	N/A	N/A	-4.56	-0.31	2	2	44	0.0E+00	No	N/A	N/A	N/A
-6.6	2	2	210	0.0E+00	No	N/A	-8.40	-3.53	No	N/A	N/A	-8.40	-3.53	2	2	0.70	0.0E+00	No	N/A	N/A	-4.56	-								



Appendix E

Trend Analysis (Period Q1-1996 to Q2-2017)  
2017 Annual Groundwater Monitoring Report  
Lockheed Martin Corporation  
Burbank Operable Unit, Burbank, CA

Trichloroethylene (TCE)												Hexavalent Chromium												Total Chromium														
ε of Trend (µg/L/yr)	Number of Samples	Number of Deceptions	Mean (µg/L)	L/R	All Samples	L/R	Trend	M-K Trend	Magnitude of Trend (%/yr)	Trend	M-K Trend	Magnitude of Trend (µg/L/yr)	Number of Samples	Number of Deceptions	Mean (µg/L)	L/R	All Samples	L/R	Trend	M-K Trend	Magnitude of Trend (%/yr)	Trend	M-K Trend	Magnitude of Trend (µg/L/yr)	Number of Samples	Number of Deceptions	Mean (µg/L)	L/R	All Samples	L/R	Trend	M-K Trend	Magnitude of Trend (%/yr)	Trend	M-K Trend	Magnitude of Trend (µg/L/yr)		
																																					ε of Trend (µg/L/yr)	Number of Samples
-3.55	17	0	44	D	No	D	PD	PD	-9.31	ND	ND	-4.10	17	16	1.60	No	No	I	PI	7.30	PI	PI	NT	NT	17	13	4.60	No	No	NT	NT	NT	NT	NT	NT	5.29	0.13	
0.02	19	0	0.19	ND	Yes	ND	ND	ND	-7.2E-05	No	No	0.03	14	14	0.79	No	No	I	PI	4.02	PI	PI	NT	NT	4	6	2.40	No	No	PI	PI	PI	NT	NT	NT	NT	0.13	
-1.51	5	3	0.51	PD	No	PD	S	S	-1.0E-03	No	No	-0.08	5	3	0.09	No	No	NT	NT	S	S	NT	NT	11	6	12.0	No	No	NT	NT	NT	NT	NT	NT	NT	NT	5.29	0.13
-5.84	8	8	5.80	PD	No	PD	D	D	-7.7E-05	No	No	-0.43	6	5	0.06	No	No	PI	PI	NT	NT	NT	NT	7	7	2.70	No	No	NT	NT	NT	NT	NT	NT	NT	NT	5.29	0.13
-7.43	8	8	8.80	PD	No	PD	D	D	-1.41	No	No	-0.43	6	5	0.53	No	No	PI	PI	NT	NT	NT	NT	7	7	2.70	No	No	NT	NT	NT	NT	NT	NT	NT	NT	5.29	0.13
-9.36	15	15	26	D	No	D	D	D	-6.39	No	No	-1.66	13	13	1.00	No	No	S	S	S	S	S	S	13	10	2.90	No	No	D	D	D	D	D	D	D	D	-3.47	-0.10
-0.07	28	2	0.22	D	No	D	D	D	-4.20	No	No	-0.46	12	12	1.40	No	No	NT	NT	PD	PD	PD	PD	13	8	4.10	No	No	PI	PI	PI	PI	PI	PI	PI	PI	7.85	0.42
-0.29	25	14	0.65	D	No	D	D	D	-2.56	No	No	-0.02	20	15	0.39	No	No	NT	NT	S	S	S	S	24	10	2.60	No	No	NT	NT	NT	NT	NT	NT	NT	NT	7.85	0.42
-1.37	23	1	0.20	S	No	S	S	S	-4.38	No	No	-3.9	21	6	0.07	No	No	NT	NT	S	S	S	S	21	15	4.10	No	No	NT	NT	NT	NT	NT	NT	NT	NT	-4.75	-0.11
-8.02	22	22	890	D	No	D	D	D	-4.38	No	No	-3.9	19	18	0.74	No	No	NT	NT	PD	PD	PD	PD	22	10	2.40	No	No	D	D	D	D	D	D	D	D	-2.01	-0.07
-8.02	20	19	10	D	No	D	D	D	-16.1	No	No	-1.59	21	11	0.32	No	No	NT	NT	PD	PD	PD	PD	21	11	2.70	No	No	NT	NT	NT	NT	NT	NT	NT	NT	-2.01	-0.07
	4	4	52	NT	No	NT	NT	NT	-2.92	No	No	-0.55	4	4	1.10	No	No	S	S	S	S	S	S	3	2	2.70	No	No	NT	NT	NT	NT	NT	NT	NT	NT	-2.01	-0.07
	18	18	19	D	No	D	D	D	-2.92	No	No	-0.55	18	17	2.00	No	No	PI	PI	NT	NT	NT	NT	18	13	4.60	No	No	NT	NT	NT	NT	NT	NT	NT	NT	-2.01	-0.07
	16	16	15	PD	No	PD	D	D	-2.92	No	No	-0.44	16	15	1.40	No	No	NT	NT	PD	PD	PD	PD	15	12	3.70	No	No	D	D	D	D	D	D	D	D	-2.01	-0.07
	17	17	10	D	No	D	D	D	-2.56	No	No	-0.25	17	16	1.30	No	No	NT	NT	NT	NT	NT	NT	16	12	4.10	No	No	NT	NT	NT	NT	NT	NT	NT	NT	-2.01	-0.07
-3.47	17	17	44	PD	No	PD	D	D	-3.83	No	No	-1.69	17	14	1.40	No	No	PI	PI	NT	NT	NT	NT	16	12	4.40	No	No	I	I	I	I	I	I	I	I	-2.01	-0.07
-12.3	21	10	2.40	D	No	D	D	D	-3.47	No	No	-4.85	12	12	4.80	No	No	S	S	S	S	S	S	13	13	140	No	No	D	D	D	D	D	D	D	D	-2.01	-0.07
	19	19	140	D	No	D	D	D	-3.47	No	No	-4.85	11	11	27	No	No	D	D	D	D	D	D	11	11	76	No	No	NT	NT	NT	NT	NT	NT	NT	NT	-2.01	-0.07

Trichloroethylene (TCE)					Hexavalent Chromium					Total Chromium				
% Total	# wells	% Total	# wells	% Total	# wells	% Total	# wells	% Total	# wells	% Total	# wells	% Total	# wells	% Total
2.90	3	4	0	0	0	0	0	0	0	0	0	0	0	0
10.14	9	13	9	13	23	33.33	23	33.33	23	33.33	40	58.82	40	58.82
20.29	9	13	9	13	21	30.43	21	30.43	21	30.43	13	19.12	13	19.12
4.35	1	1	1	1	5	7.25	5	7.25	5	7.25	3	4.41	3	4.41
0.00	1	1	1	1	5	7.25	5	7.25	5	7.25	1	1.47	1	1.47
59.42	39	57	39	57	9	13.04	9	13.04	9	13.04	6	8.82	6	8.82
2.90	7	10	7	10	6	8.70	6	8.70	6	8.70	5	7.35	5	7.35
100.00	69	100	69	100	69	100.00	69	100.00	69	100.00	68	100.00	68	100.00

# Appendix F

## BOU Extraction Well Performance

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Annual Groundwater Monitoring Report, Second Quarter 2017

Lockheed Martin Corporation

Burbank Operable Unit, Burbank, CA

Appendix F

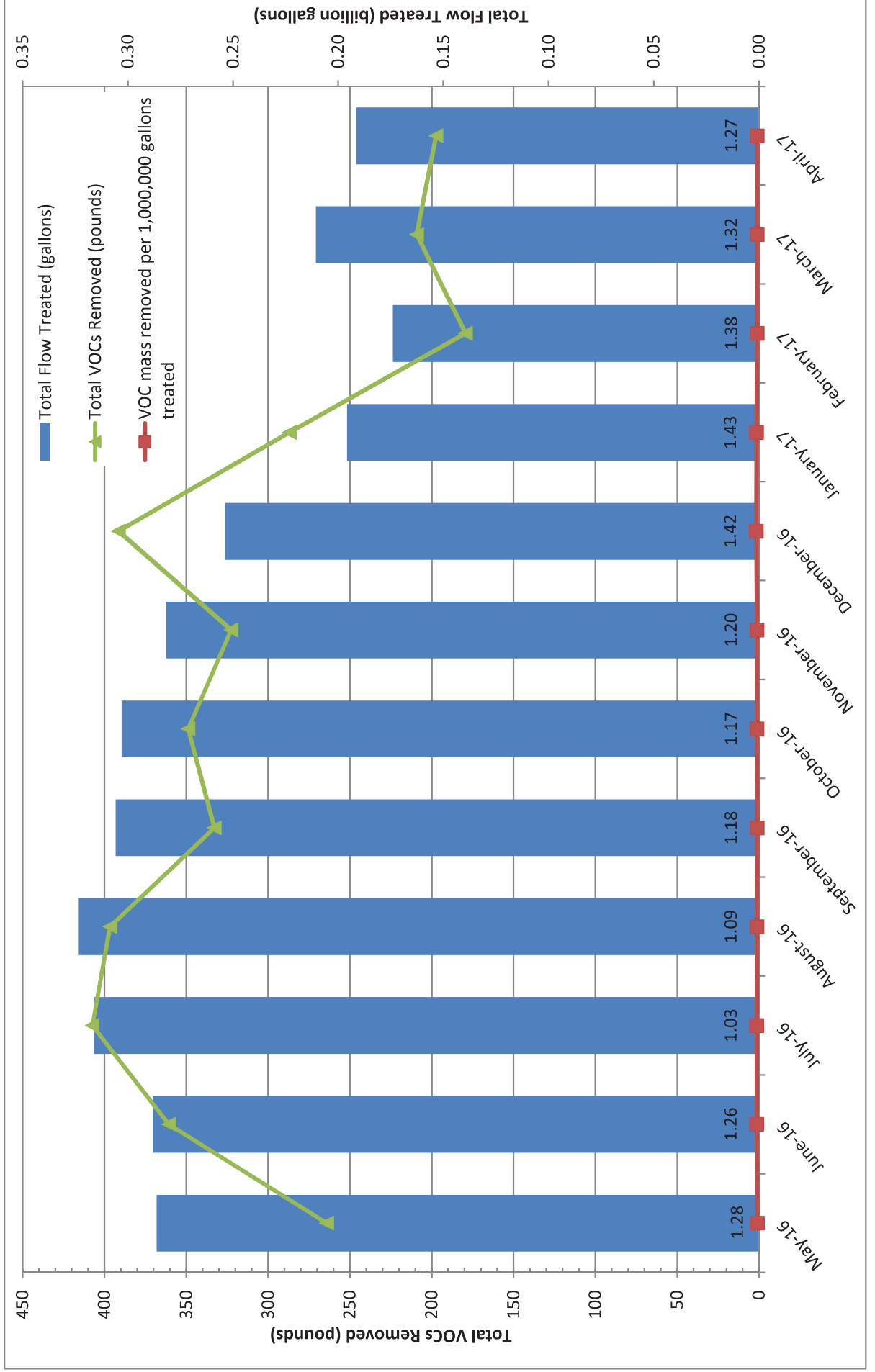
BOU Cummulative Mass Removal Summary (January 1996 - April 2016)  
 2016 Annual Groundwater Montoring Report  
 Lockheed Martin Corporation  
 Burbank Operable Unit, Burbank, CA

<b>Year</b>	<b>Total Flow Treated (gallons)</b>	<b>Cummulative Flow Treated (gallons)</b>	<b>Total VOC Mass Removed (pounds)</b>	<b>Cummulative VOC Mass Removed (pounds)</b>
1996	2,250,086,147	2,250,086,147	27,663	27,663
1997	3,408,059,569	5,658,145,716	28,519	56,182
1998	371,154,459	6,029,300,175	3,908	60,090
1999	3,956,423,830	9,985,724,005	39,569	99,659
2000	3,194,062,916	13,179,786,921	24,036	123,695
2001	3,146,371,256	16,326,158,177	20,575	144,271
2002	3,357,074,416	19,683,232,593	17,356	161,627
2003	2,942,948,496	22,626,181,089	14,827	176,454
2004	3,204,536,159	25,830,717,248	11,547	188,000
2005	2,274,141,614	28,104,858,862	6,818	194,819
2006	3,364,467,193	31,469,326,055	10,286	205,105
2007	3,153,855,623	34,623,181,678	7,513	212,618
2008	2,280,818,078	36,903,999,756	4,784	217,402
2009	3,280,836,166	40,184,835,922	6,706	224,108
2010	3,282,379,861	43,467,215,783	6,160	230,268
2011	3,355,059,726	46,822,275,509	5,870	236,138
2012	3,543,049,805	50,365,325,314	5,384	241,522
2013	3,637,576,057	54,002,901,370	5,164	246,686
2014	3,114,113,237	57,117,014,607	3,707	250,393
2015	3,365,140,780	60,482,155,387	4,368	254,761
2016	3,133,756,552	63,615,911,939	3,789	258,550
2017 (Jan - April)	771,530,941	64,387,442,880	873	255,634



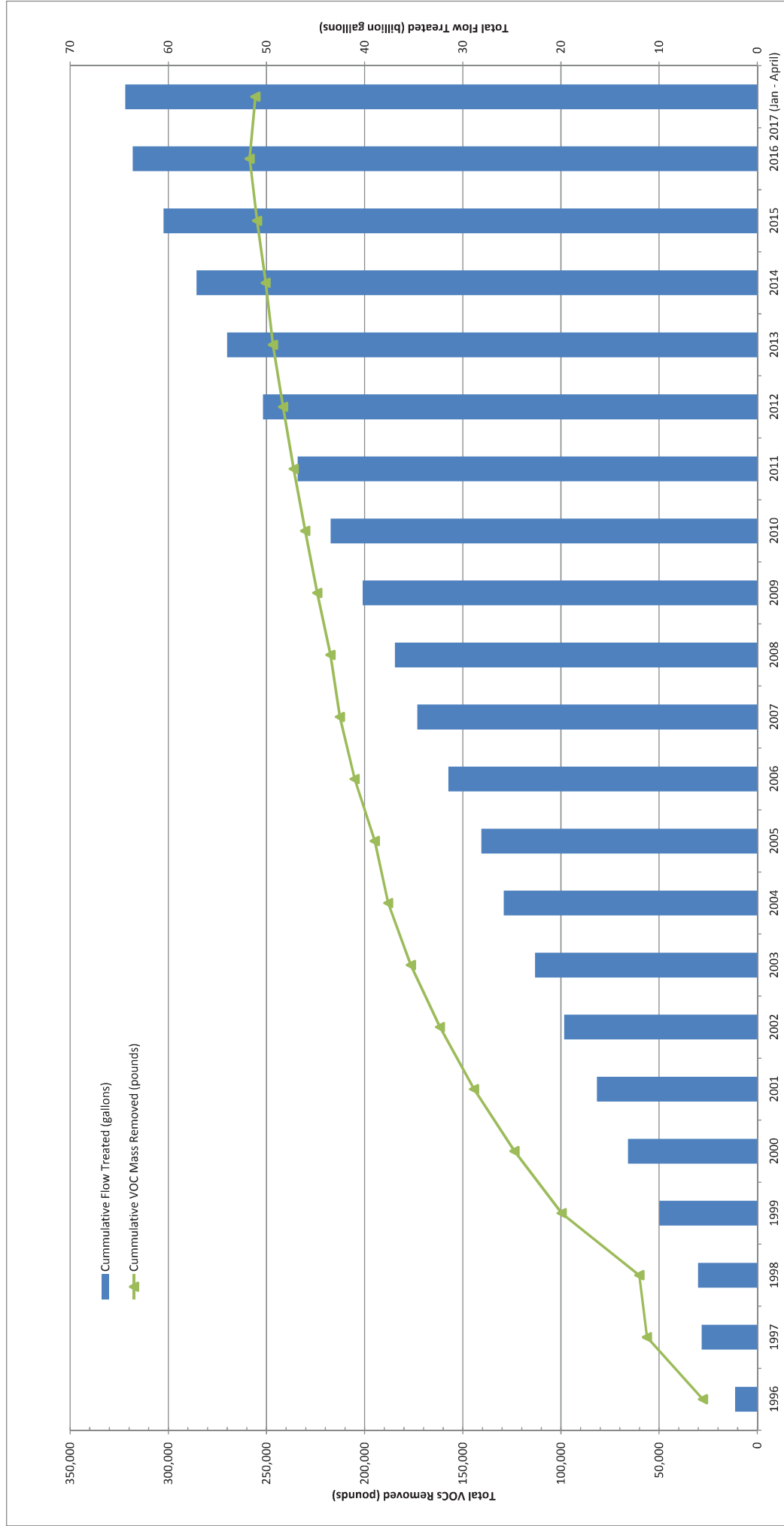
Appendix F

Monthly Mass Removed (May 2016 - April 2017)  
 Burbank Operable Unit Water Treatment Plant  
 2017 Annual Groundwater Monitoring Report  
 Lockheed Martin Corporation  
 Burbank Operable Unit, Burbank, CA



Appendix F

Cumulative Mass Removed (January 1996 - April 2017)  
 Burbank Operable Unit Water Treatment Plant  
 2017 Annual Groundwater Monitoring Report  
 Lockheed Martin Corporation  
 Burbank Operable Unit, Burbank, CA



# Appendix G

## Laboratory Analytical Results

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Annual Groundwater Monitoring Report, Second Quarter 2017

Lockheed Martin Corporation

Burbank Operable Unit, Burbank, CA



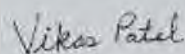

**WORK ORDER NUMBER: 17-04-1908**
*The difference is service*


AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**
**Client:** Tetra Tech, Inc.

**Client Project Name:** LMC BOU

**Attention:** Robert Sabater  
 301 E. Vanderbilt Way, Suite 450  
 San Bernardino, CA 92408-3562



 Approved for release on 05/10/2017 by:  
 Vikas Patel  
 Project Manager

ResultLink ▶

Email your PM ▶

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



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Work Order Number: 17-04-1908

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 04/25/17. They were assigned to Work Order 17-04-1908.

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

**Holding Times:**

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

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

**Quality Control:**

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

**Subcontractor Information:**

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

**Additional Comments:**

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

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





Calscience

## QC Association Summary

Work Order: 17-04-1908

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<u>Client Sample ID</u>	<u>Method Name</u>	<u>Type</u>	<u>Ext Name</u>	<u>Instrument</u>	<u>MS/MSD/SDP</u>	<u>LCS/LCSD</u>
C-1-CW03-N-17Q2	EPA 218.6 Hexavalent Chromium Low Level		N/A	IC 16	170425S01	170425L01
C-1-CW03-N-17Q2	EPA 6020 ICP/MS Metals		EPA 3020A Total	ICP/MS 03	170502SA4	170502LA4A
C-1-CW03-N-17Q2	EPA 8260B Volatile Organics		EPA 5030C	GC/MS FFF	170505S003	170505L003
C-1-CW03-N-17Q2	EPA 8260B SIM Emergent Volatiles		EPA 5030C	GC/MS M	170502S030	170502L048
C-1-CW03-N-17Q2	1,4-Dioxane by EPA 8270C (M) Isotope Dilution		EPA 3510C	GC/MS DDD	170427S08	170427L08
SW-1-N-17Q2	EPA 218.6 Hexavalent Chromium Low Level		N/A	IC 16	170425S01	170425L01
SW-1-N-17Q2	EPA 6020 ICP/MS Metals		EPA 3020A Total	ICP/MS 03	170502SA4	170502LA4A
SW-1-N-17Q2	EPA 8260B Volatile Organics		EPA 5030C	GC/MS FFF	170505S003	170505L003
SW-1-N-17Q2	EPA 8260B SIM Emergent Volatiles		EPA 5030C	GC/MS M	170502S030	170502L048
SW-1-N-17Q2	1,4-Dioxane by EPA 8270C (M) Isotope Dilution		EPA 3510C	GC/MS DDD	170427S08	170427L08
LTB-20170425	EPA 8260B Volatile Organics		EPA 5030C	GC/MS FFF	170505S003	170505L003
LTB-20170425	EPA 8260B SIM Emergent Volatiles		EPA 5030C	GC/MS M	170502S030	170502L048
3850U-N-17Q2	EPA 218.6 Hexavalent Chromium Low Level		N/A	IC 16	170425S01	170425L01
3850U-N-17Q2	EPA 6020 ICP/MS Metals		EPA 3020A Total	ICP/MS 03	170502SA4	170502LA4A
3850U-N-17Q2	EPA 8260B Volatile Organics		EPA 5030C	GC/MS FFF	170505S003	170505L003
3850U-N-17Q2	EPA 8260B Volatile Organics	R	EPA 5030C	GC/MS UU	170506S005	170506L015
3850U-N-17Q2	EPA 8260B SIM Emergent Volatiles		EPA 5030C	GC/MS M	170504S023	170504L054
3850U-N-17Q2	1,4-Dioxane by EPA 8270C (M) Isotope Dilution		EPA 3510C	GC/MS DDD	170427S08	170427L08
B-6-CW16-N-17Q2	EPA 218.6 Hexavalent Chromium Low Level		N/A	IC 16	170425S01	170425L01
B-6-CW16-N-17Q2	EPA 6020 ICP/MS Metals		EPA 3020A Total	ICP/MS 03	170502SA4	170502LA4A
B-6-CW16-N-17Q2	EPA 8260B Volatile Organics		EPA 5030C	GC/MS FFF	170505S003	170505L003
B-6-CW16-N-17Q2	EPA 8260B SIM Emergent Volatiles		EPA 5030C	GC/MS M	170504S023	170504L054
B-6-CW16-N-17Q2	1,4-Dioxane by EPA 8270C (M) Isotope Dilution		EPA 3510C	GC/MS DDD	170427S08	170427L08

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## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-1908  
Project Name: LMC BOU  
Received: 04/25/17

Attn: Robert Sabater

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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
C-1-CW03-N-17Q2 (17-04-1908-1)						
Chromium, Hexavalent	0.88		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00266		0.00100	mg/L	EPA 6020	EPA 3020A Total
Bromodichloromethane	0.34	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.74		0.50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	0.38	J	0.20*	ug/L	EPA 8260B	EPA 5030C
SW-1-N-17Q2 (17-04-1908-2)						
Chromium, Hexavalent	5.6		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00653		0.00100	mg/L	EPA 6020	EPA 3020A Total
Bromodichloromethane	0.80		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	3.3		0.50	ug/L	EPA 8260B	EPA 5030C
LTB-20170425 (17-04-1908-3)						
Acetone	5.0	J	4.0*	ug/L	EPA 8260B	EPA 5030C
3850U-N-17Q2 (17-04-1908-4)						
Chromium, Hexavalent	0.87		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00919		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,1-Trichloroethane	0.23	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,1,2-Trichloro-1,2,2-Trifluoroethane	4.9		0.50	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	6.9		0.50	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	1.3		1.0	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	0.44	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	0.35	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Chloroform	1.5		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	19		0.50	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	0.35	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	27		1.0	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	1.6		0.12	ug/L	EPA 8260B SIM	EPA 5030C
1,4-Dioxane	1.4		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C
B-6-CW16-N-17Q2 (17-04-1908-5)						
Chromium, Hexavalent	1.4		0.020	ug/L	EPA 218.6	N/A
Chromium	0.0289		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,1-Trichloroethane	0.42	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.3		0.50	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	8.4		0.50	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	0.46	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.84		0.50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	6.9		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	3.9		0.50	ug/L	EPA 8260B	EPA 5030C

\* MDL is shown



## Detections Summary

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Client: Tetra Tech, Inc.	Work Order: 17-04-1908
301 E. Vanderbilt Way, Suite 450	Project Name: LMC BOU
San Bernardino, CA 92408-3562	Received: 04/25/17

Attn: Robert Sabater

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**Client SampleID**

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
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Subcontracted analyses, if any, are not included in this summary.




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\* MDL is shown





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: N/A  
Method: EPA 218.6  
Units: ug/L

Project: LMC BOU

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW03-N-17Q2	17-04-1908-1-K	04/25/17 14:18	Aqueous	IC 16	N/A	04/25/17 20:42	170425L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	0.88	0.020	0.0099	1.00	

SW-1-N-17Q2	17-04-1908-2-K	04/25/17 08:22	Aqueous	IC 16	N/A	04/25/17 20:53	170425L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	5.6	0.020	0.0099	1.00	

3850U-N-17Q2	17-04-1908-4-L	04/25/17 11:07	Aqueous	IC 16	N/A	04/25/17 21:04	170425L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	0.87	0.020	0.0099	1.00	

B-6-CW16-N-17Q2	17-04-1908-5-K	04/25/17 14:41	Aqueous	IC 16	N/A	04/25/17 21:15	170425L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	1.4	0.020	0.0099	1.00	

Method Blank	099-14-567-240	N/A	Aqueous	IC 16	N/A	04/25/17 18:58	170425L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 3020A Total  
Method: EPA 6020  
Units: mg/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW03-N-17Q2	17-04-1908-1-L	04/25/17 14:18	Aqueous	ICP/MS 03	05/02/17	05/08/17 15:35	170502LA4A

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00266	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SW-1-N-17Q2	17-04-1908-2-L	04/25/17 08:22	Aqueous	ICP/MS 03	05/02/17	05/08/17 15:38	170502LA4A

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00653	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3850U-N-17Q2	17-04-1908-4-M	04/25/17 11:07	Aqueous	ICP/MS 03	05/02/17	05/08/17 15:40	170502LA4A

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00919	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW16-N-17Q2	17-04-1908-5-L	04/25/17 14:41	Aqueous	ICP/MS 03	05/02/17	05/08/17 15:43	170502LA4A

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.0289	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	096-06-003-5560	N/A	Aqueous	ICP/MS 03	05/02/17	05/03/17 17:11	170502LA4A

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	ND	0.00100	0.000402	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW03-N-17Q2	17-04-1908-1-M	04/25/17 14:18	Aqueous	GC/MS DDD	04/27/17	04/28/17 16:56	170427L08

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	104	56-123	
1,4-Dioxane-d8(IDS-IS)	41	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SW-1-N-17Q2	17-04-1908-2-K	04/25/17 08:22	Aqueous	GC/MS DDD	04/27/17	04/28/17 17:12	170427L08

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	112	56-123	
1,4-Dioxane-d8(IDS-IS)	39	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3850U-N-17Q2	17-04-1908-4-M	04/25/17 11:07	Aqueous	GC/MS DDD	04/27/17	04/28/17 17:27	170427L08

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	1.4	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	112	56-123	
1,4-Dioxane-d8(IDS-IS)	40	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW16-N-17Q2	17-04-1908-5-M	04/25/17 14:41	Aqueous	GC/MS DDD	04/27/17	04/28/17 17:43	170427L08

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	106	56-123	
1,4-Dioxane-d8(IDS-IS)	39	30-120	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-216-1023	N/A	Aqueous	GC/MS DDD	04/27/17	04/28/17 15:37	170427L08

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	116	56-123	
1,4-Dioxane-d8(IDS-IS)	42	30-120	

Return to Contents

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW03-N-17Q2	17-04-1908-1-A	04/25/17 14:18	Aqueous	GC/MS FFF	05/05/17	05/05/17 11:01	170505L003

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	0.34	0.50	0.20	1.00	J
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.74	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	0.38	0.50	0.20	1.00	J
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	87	68-120			
Dibromofluoromethane	103	80-127			

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	105	80-128	
Toluene-d8	97	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SW-1-N-17Q2	17-04-1908-2-A	04/25/17 08:22	Aqueous	GC/MS FFF	05/05/17	05/05/17 16:15	170505L003

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	0.80	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	3.3	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	88	68-120			
Dibromofluoromethane	103	80-127			

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



## Analytical Report

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<p>Tetra Tech, Inc. 301 E. Vanderbilt Way, Suite 450 San Bernardino, CA 92408-3562</p> <p>Project: LMC BOU</p>	<p>Date Received: 04/25/17 Work Order: 17-04-1908 Preparation: EPA 5030C Method: EPA 8260B Units: ug/L</p>	<p>Page 6 of 18</p>
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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	106	80-128	
Toluene-d8	96	80-120	





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20170425	17-04-1908-3-A	04/25/17 06:30	Aqueous	GC/MS FFF	05/05/17	05/05/17 16:46	170505L003

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	5.0	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	89	68-120			
Dibromofluoromethane	102	80-127			

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/25/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-1908
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 9 of 18

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	105	80-128	
Toluene-d8	100	80-120	



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3850U-N-17Q2	17-04-1908-4-A	04/25/17 11:07	Aqueous	GC/MS FFF	05/05/17	05/05/17 17:18	170505L003

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	0.23	0.50	0.20	1.00	J
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	4.9	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	6.9	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	1.3	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	0.44	0.50	0.20	1.00	J
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	0.35	0.50	0.20	1.00	J
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	1.5	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	19	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	0.35	0.50	0.20	1.00	J
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	85	68-120	
Dibromofluoromethane	105	80-127	
1,2-Dichloroethane-d4	106	80-128	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Toluene-d8	97	80-120	

<u>Client Sample Number</u>	<u>Lab Sample Number</u>	<u>Date/Time Collected</u>	<u>Matrix</u>	<u>Instrument</u>	<u>Date Prepared</u>	<u>Date/Time Analyzed</u>	<u>QC Batch ID</u>
<b>3850U-N-17Q2</b>	<b>17-04-1908-4-2</b>	<b>04/25/17 11:07</b>	<b>Aqueous</b>	<b>GC/MS UU</b>	<b>05/06/17</b>	<b>05/06/17 17:34</b>	<b>170506L015</b>

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Tetrachloroethene	27	1.0	0.40	2.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	94	68-120	
Dibromofluoromethane	116	80-127	
1,2-Dichloroethane-d4	102	80-128	
Toluene-d8	100	80-120	

Return to Contents

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW16-N-17Q2	17-04-1908-5-A	04/25/17 14:41	Aqueous	GC/MS FFF	05/05/17	05/05/17 17:49	170505L003

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	0.42	0.50	0.20	1.00	J
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.3	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	8.4	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	0.46	0.50	0.20	1.00	J
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.84	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	6.9	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	3.9	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	86	68-120			
Dibromofluoromethane	103	80-127			

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





## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/25/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-1908
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 15 of 18

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	103	80-128	
Toluene-d8	99	80-120	




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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-025-4683	N/A	Aqueous	GC/MS FFF	05/05/17	05/05/17 09:58	170505L003

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	87	68-120			
Dibromofluoromethane	101	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	105	80-128	
Toluene-d8	95	80-120	

<u>Client Sample Number</u>	<u>Lab Sample Number</u>	<u>Date/Time Collected</u>	<u>Matrix</u>	<u>Instrument</u>	<u>Date Prepared</u>	<u>Date/Time Analyzed</u>	<u>QC Batch ID</u>
<b>Method Blank</b>	<b>099-10-025-4687</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC/MS UU</b>	<b>05/06/17</b>	<b>05/06/17 14:30</b>	<b>170506L015</b>

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Tetrachloroethene	ND	0.50	0.20	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	92	68-120	
Dibromofluoromethane	109	80-127	
1,2-Dichloroethane-d4	102	80-128	
Toluene-d8	99	80-120	



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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW03-N-17Q2	17-04-1908-1-H	04/25/17 14:18	Aqueous	GC/MS M	05/02/17	05/02/17 18:38	170502L048

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	109	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SW-1-N-17Q2	17-04-1908-2-H	04/25/17 08:22	Aqueous	GC/MS M	05/02/17	05/02/17 19:08	170502L048

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	105	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20170425	17-04-1908-3-C	04/25/17 06:30	Aqueous	GC/MS M	05/02/17	05/02/17 14:39	170502L048

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	110	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3850U-N-17Q2	17-04-1908-4-F	04/25/17 11:07	Aqueous	GC/MS M	05/04/17	05/04/17 16:37	170504L054

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	1.6	0.12	0.062	25.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	99	80-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW16-N-17Q2	17-04-1908-5-F	04/25/17 14:41	Aqueous	GC/MS M	05/04/17	05/04/17 16:07	170504L054

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	106	80-120	

Method Blank	099-15-118-497	N/A	Aqueous	GC/MS M	05/02/17	05/02/17 11:40	170502L048
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	113	80-120	

Method Blank	099-15-118-498	N/A	Aqueous	GC/MS M	05/04/17	05/04/17 15:37	170504L054
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	106	80-120	

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



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
C-1-CW03-N-17Q2	Sample	Aqueous	IC 16	N/A	04/25/17 20:42	170425S01				
C-1-CW03-N-17Q2	Matrix Spike	Aqueous	IC 16	N/A	04/25/17 21:26	170425S01				
C-1-CW03-N-17Q2	Matrix Spike Duplicate	Aqueous	IC 16	N/A	04/25/17 21:38	170425S01				
<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	0.8780	10.00	11.11	102	11.23	103	85-121	1	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 3005A Filt.  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-2243-3	Sample	Aqueous	ICP/MS 03	05/02/17	05/03/17 17:26	170502SA4
17-04-2243-3	Matrix Spike	Aqueous	ICP/MS 03	05/02/17	05/03/17 17:16	170502SA4
17-04-2243-3	Matrix Spike Duplicate	Aqueous	ICP/MS 03	05/02/17	05/03/17 17:19	170502SA4

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium	0.01167	0.1000	0.1098	98	0.1151	103	73-133	5	0-11	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

Page 3 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
C-1-CW03-N-17Q2	Sample	Aqueous	GC/MS DDD	04/27/17	04/28/17 16:56	170427S08
C-1-CW03-N-17Q2	Matrix Spike	Aqueous	GC/MS DDD	04/27/17	04/28/17 16:08	170427S08
C-1-CW03-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS DDD	04/27/17	04/28/17 16:24	170427S08

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,4-Dioxane	ND	20.00	18.77	94	20.08	100	50-130	7	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

Page 4 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-05-0457-2	Sample	Aqueous	GC/MS UU	05/06/17	05/06/17 15:07	170506S005
17-05-0457-2	Matrix Spike	Aqueous	GC/MS UU	05/06/17	05/06/17 15:44	170506S005
17-05-0457-2	Matrix Spike Duplicate	Aqueous	GC/MS UU	05/06/17	05/06/17 16:21	170506S005

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	9.721	97	10.12	101	75-125	4	0-20	
Carbon Tetrachloride	ND	10.00	10.37	104	11.00	110	69-135	6	0-20	
Chlorobenzene	ND	10.00	9.910	99	10.42	104	75-125	5	0-20	
1,2-Dibromoethane	ND	10.00	10.07	101	10.70	107	75-126	6	0-20	
1,2-Dichlorobenzene	ND	10.00	10.08	101	10.74	107	75-125	6	0-20	
1,2-Dichloroethane	ND	10.00	9.838	98	10.28	103	75-127	4	0-20	
1,1-Dichloroethene	ND	10.00	10.01	100	10.47	105	66-126	4	0-20	
Ethylbenzene	ND	10.00	10.55	105	10.76	108	75-125	2	0-20	
Toluene	ND	10.00	9.880	99	10.33	103	75-125	4	0-20	
Trichloroethene	ND	10.00	9.697	97	10.06	101	75-125	4	0-20	
Vinyl Chloride	ND	10.00	9.919	99	10.87	109	52-142	9	0-20	
p/m-Xylene	ND	20.00	20.54	103	21.19	106	75-125	3	0-20	
o-Xylene	ND	10.00	10.37	104	10.76	108	75-127	4	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	9.717	97	10.19	102	71-131	5	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
C-1-CW03-N-17Q2	Sample	Aqueous	GC/MS FFF	05/05/17	05/05/17 11:01	170505S003
C-1-CW03-N-17Q2	Matrix Spike	Aqueous	GC/MS FFF	05/05/17	05/05/17 11:32	170505S003
C-1-CW03-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS FFF	05/05/17	05/05/17 12:04	170505S003

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloroethene	ND	10.00	8.016	80	8.551	86	66-126	6	0-20	
1,2-Dibromoethane	ND	10.00	9.626	96	9.716	97	75-126	1	0-20	
1,2-Dichlorobenzene	ND	10.00	9.409	94	9.654	97	75-125	3	0-20	
1,2-Dichloroethane	ND	10.00	9.134	91	9.339	93	75-127	2	0-20	
Benzene	ND	10.00	9.102	91	9.186	92	75-125	1	0-20	
Carbon Tetrachloride	ND	10.00	9.433	94	9.832	98	69-135	4	0-20	
Chlorobenzene	ND	10.00	9.480	95	9.602	96	75-125	1	0-20	
Ethylbenzene	ND	10.00	9.358	94	9.535	95	75-125	2	0-20	
Toluene	ND	10.00	9.174	92	9.413	94	75-125	3	0-20	
Trichloroethene	ND	10.00	9.199	92	9.424	94	75-125	2	0-20	
Vinyl Chloride	ND	10.00	10.03	100	10.30	103	52-142	3	0-20	
o-Xylene	ND	10.00	9.261	93	9.646	96	75-127	4	0-20	
p/m-Xylene	ND	20.00	18.41	92	19.06	95	75-125	3	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	9.469	95	9.598	96	71-131	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1547-5	Sample	Aqueous	GC/MS M	05/02/17	05/02/17 12:10	170502S030
17-04-1547-5	Matrix Spike	Aqueous	GC/MS M	05/02/17	05/02/17 13:09	170502S030
17-04-1547-5	Matrix Spike Duplicate	Aqueous	GC/MS M	05/02/17	05/02/17 13:40	170502S030

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	ND	0.02000	0.02290	114	0.02860	143	72-132	22	0-20	3,4

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
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Project: LMC BOU

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
3850U-N-17Q2	Sample	Aqueous	GC/MS M	05/04/17	05/04/17 16:37	170504S023
3850U-N-17Q2	Matrix Spike	Aqueous	GC/MS M	05/04/17	05/04/17 19:48	170504S023
3850U-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS M	05/04/17	05/04/17 20:18	170504S023

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	1.568	0.5000	2.210	128	1.928	72	72-132	14	0-20	



## Quality Control - PDS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 3005A Filt.  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDS Batch Number
17-04-2243-3	Sample	Aqueous	ICP/MS 03	05/02/17 00:00	05/03/17 17:26	170502SA4
17-04-2243-3	PDS	Aqueous	ICP/MS 03	05/02/17 00:00	05/03/17 18:43	170502SA4

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>PDS Conc.</u>	<u>PDS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium	0.01167	0.1000	0.1065	95	75-125	



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-14-567-240</b>	<b>LCS</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/25/17 19:10</b>	<b>170425L01</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	10.00	10.00	100	95-107	



RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/25/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-1908
San Bernardino, CA 92408-3562	Preparation:	EPA 3020A Total
	Method:	EPA 6020
Project: LMC BOU		Page 2 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>096-06-003-5560</b>	<b>LCS</b>	<b>Aqueous</b>	<b>ICP/MS 03</b>	<b>05/02/17</b>	<b>05/03/17 17:14</b>	<b>170502LA4A</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium		0.1000	0.1065	106	80-120	





## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/25/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-1908
San Bernardino, CA 92408-3562	Preparation:	EPA 3510C
Project: LMC BOU	Method:	EPA 8270C (M) Isotope Dilution

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-16-216-1023</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/27/17</b>	<b>04/28/17 15:53</b>	<b>170427L08</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,4-Dioxane		20.00	18.96	95	50-130	



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-10-025-4687</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS UU</b>	<b>05/06/17</b>	<b>05/06/17 13:17</b>	<b>170506L015</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		10.00	9.336	93	80-120	73-127	
Carbon Tetrachloride		10.00	10.33	103	80-129	72-137	
Chlorobenzene		10.00	9.716	97	80-120	73-127	
1,2-Dibromoethane		10.00	10.07	101	80-120	73-127	
1,2-Dichlorobenzene		10.00	10.05	101	80-120	73-127	
1,2-Dichloroethane		10.00	9.782	98	80-122	73-129	
1,1-Dichloroethene		10.00	9.275	93	77-120	70-127	
Ethylbenzene		10.00	9.964	100	80-120	73-127	
Toluene		10.00	9.478	95	80-120	73-127	
Trichloroethene		10.00	9.401	94	80-120	73-127	
Vinyl Chloride		10.00	9.328	93	63-135	51-147	
p/m-Xylene		20.00	19.64	98	80-120	73-127	
o-Xylene		10.00	9.983	100	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	9.464	95	75-123	67-131	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/25/17  
Work Order: 17-04-1908  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-10-025-4683</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS FFF</b>	<b>05/05/17</b>	<b>05/05/17 09:26</b>	<b>170505L003</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
1,1-Dichloroethene		10.00	8.192	82	77-120	70-127	
1,2-Dibromoethane		10.00	9.132	91	80-120	73-127	
1,2-Dichlorobenzene		10.00	9.539	95	80-120	73-127	
1,2-Dichloroethane		10.00	9.204	92	80-122	73-129	
Benzene		10.00	8.806	88	80-120	73-127	
Carbon Tetrachloride		10.00	8.809	88	80-129	72-137	
Chlorobenzene		10.00	9.346	93	80-120	73-127	
Ethylbenzene		10.00	9.267	93	80-120	73-127	
Toluene		10.00	9.267	93	80-120	73-127	
Trichloroethene		10.00	8.964	90	80-120	73-127	
Vinyl Chloride		10.00	9.828	98	63-135	51-147	
o-Xylene		10.00	9.522	95	80-120	73-127	
p/m-Xylene		20.00	18.80	94	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	8.968	90	75-123	67-131	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/25/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-1908
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
Project: LMC BOU	Method:	EPA 8260B SIM
		Page 6 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-118-497</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>05/02/17</b>	<b>05/02/17 10:40</b>	<b>170502L048</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,2,3-Trichloropropane		0.02000	0.01880	94	72-132	





## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/25/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-1908
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
Project: LMC BOU	Method:	EPA 8260B SIM
		Page 7 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-118-498</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>05/04/17</b>	<b>05/04/17 15:07</b>	<b>170504L054</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,2,3-Trichloropropane		0.02000	0.01720	86	72-132	

## Sample Analysis Summary Report

Work Order: 17-04-1908

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 218.6	N/A	1065	IC 16	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 8260B	EPA 5030C	996	GC/MS UU	2
EPA 8260B	EPA 5030C	996	GC/MS FFF	2
EPA 8260B SIM	EPA 5030C	486	GC/MS M	2
EPA 8270C (M) Isotope Dilution	EPA 3510C	928	GC/MS DDD	1

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

**CHAIN-OF-CUSTODY RECORD**

Date 4/25/2017  
 Page 1 of 1

**17-04-1808**  
 TWO NO. / LAB USE ONLY

LABORATORY CLIENT: TEXACO BEAM INC  
 ADDRESS: 301E VANDERBILT WAY SUITE 450  
 CITY: SAN BERNARDINO CA STATE: CA ZIP: 92410  
 TEL: 909-381-1674 EMAIL:  
 CLIENT PROJECT NAME / NO.: LMC Beam  
 PROJECT CONTRACT: Robert Sabantes  
 GLOBAL ID:  
 P.O. NO.: 1017-280-135076 6/1/16/08  
 LAB CONTACT OR CLIENT NO.:  
 SALES/REP: FRANK STANON  
Stanton Calk  
Missouri Caliber

TURNAROUND TIME (rush surcharges may apply to any TAT not STANDARD):  
 SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD  
 COELT EDI  OTHER  
 SPECIAL INSTRUCTIONS:

**REQUESTED ANALYSIS**  
 Please check box if fill in blank as needed.

TPH  CR-CR  CR-CA  
 TPH  RD  ERD  
 Field Filtered  
 Preserved  
 Unpreserved

VOCs (859)  
 VOCs (859)  
 Condensates (859)  
 Prep (859)  En Cap  Tank Cap  
 SVOCs (8570)  
 Residues (809)  
 PCBs (8082)  
 PAHs  B270  B270 SML  
 T22 Metals  B210/ATX  B210/ATX  
 (CVD)  P196  P198  218B  
 I.H. Dioxin  
 Hex CA  
 PCB/MS Metals  
 1,2,3 TCP

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.
		DATE	TIME		
1	C-1-CW03-04702	4/25/17	1413	W	13
2	SW-1-N-1702	4/25/17	0822	W	13
3	LTB-2010125	4/25/17	0630	W	13
4	3XSDU-N-1702	4/25/17	1109	W	13
5	B-6-CW06N-1702	4/25/17	1441	W	13

Received by: (Signature) [Signature] Date: 4/25/2017 Time: 1630  
 Received by: (Signature) [Signature] Date: 04/25/17 Time: 1830  
 Received by: (Signature) [Signature] Date: \_\_\_\_\_ Time: \_\_\_\_\_





SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: TETRA TECH

DATE: 04/25/2017

TEMPERATURE: (Criteria: 0.0°C - 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC (CF: 0.0°C); Temperature (w/o CF): 3.2 °C (w/ CF): 3.2 °C;  Blank  Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)

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

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature:  Air  Filter

Checked by: 804

CUSTODY SEAL:

Cooler  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: 804

Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: 1017

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples .....  Yes  No  N/A

COC document(s) received complete .....  Yes  No  N/A

Sampling date  Sampling time  Matrix  Number of containers

No analysis requested  Not relinquished  No relinquished date  No relinquished time

Sampler's name indicated on COC .....  Yes  No  N/A

Sample container label(s) consistent with COC .....  Yes  No  N/A

Sample container(s) intact and in good condition .....  Yes  No  N/A

Proper containers for analyses requested .....  Yes  No  N/A

Sufficient volume/mass for analyses requested .....  Yes  No  N/A

Samples received within holding time .....  Yes  No  N/A

Aqueous samples for certain analyses received within 15-minute holding time

pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen .....  Yes  No  N/A

Proper preservation chemical(s) noted on COC and/or sample container .....  Yes  No  N/A

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics  Total Metals  Dissolved Metals

Container(s) for certain analysis free of headspace .....  Yes  No  N/A

Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)

Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation .....  Yes  No  N/A

CONTAINER TYPE:

(Trip Blank Lot Number: 170328A)

Aqueous:  VOA  VOA<sup>h</sup>  VOA<sub>na2</sub>  100PJ  100PJ<sub>na2</sub>  125AGB  125AGB<sup>h</sup>  125AGB<sup>p</sup>  125PB

125PB<sub>znna</sub>  250AGB  250CGB  250CGB<sub>s</sub>  250PB  250PB<sub>n</sub>  500AGB  500AG<sub>J</sub>  500AG<sub>J</sub><sub>s</sub>

500PB  1AGB  1AGB<sub>na2</sub>  1AGB<sub>s</sub>  1PB  1PB<sub>na</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  EnCores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_

Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (\_\_\_\_\_)  \_\_\_\_\_  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 1017

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>·H<sub>2</sub>O, znna = Zn(CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH

Reviewed by: 68A

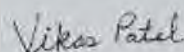

**WORK ORDER NUMBER: 17-04-1778**
*The difference is service*


AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**
**Client:** Tetra Tech, Inc.

**Client Project Name:** LMC BOU

**Attention:** Robert Sabater  
 301 E. Vanderbilt Way, Suite 450  
 San Bernardino, CA 92408-3562



 Approved for release on 05/10/2017 by:  
 Vikas Patel  
 Project Manager

ResultLink ▶

Email your PM ▶

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

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 Work Order Number: 17-04-1778

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 04/24/17. They were assigned to Work Order 17-04-1778.

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

**Holding Times:**

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

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

**Quality Control:**

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

**Subcontractor Information:**

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

**Additional Comments:**

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

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





Calscience

## QC Association Summary

Work Order: 17-04-1778

Page 1 of 1

<u>Client Sample ID</u>	<u>Method Name</u>	<u>Type</u>	<u>Ext Name</u>	<u>Instrument</u>	<u>MS/MSD/SDP</u>	<u>LCS/LCSD</u>
LTB-20170424	EPA 8260B Volatile Organics		EPA 5030C	GC/MS L	170504S018	170504L022
LTB-20170424	EPA 8260B SIM Emergent Volatiles		EPA 5030C	GC/MS M	170501S019	170501L036
B-1-CW25-N-17Q2	EPA 218.6 Hexavalent Chromium Low Level		N/A	IC 16	170424S01	170424L01
B-1-CW25-N-17Q2	EPA 6020 ICP/MS Metals		EPA 3020A Total	ICP/MS 03	170426SA1	170426LA1
B-1-CW25-N-17Q2	EPA 8260B Volatile Organics		EPA 5030C	GC/MS L	170504S018	170504L022
B-1-CW25-N-17Q2	EPA 8260B Volatile Organics	R	EPA 5030C	GC/MS L	170504S018	170504L022
B-1-CW25-N-17Q2	EPA 8260B SIM Emergent Volatiles		EPA 5030C	GC/MS M	170426S017	170426L041
B-1-CW25-N-17Q2	1,4-Dioxane by EPA 8270C (M) Isotope Dilution		EPA 3510C	GC/MS DDD	170425S04	170425L04
B-1-CW25-FD-17Q2	EPA 218.6 Hexavalent Chromium Low Level		N/A	IC 16	170424S01	170424L01
B-1-CW25-FD-17Q2	EPA 6020 ICP/MS Metals		EPA 3020A Total	ICP/MS 03	170426SA1	170426LA1
B-1-CW25-FD-17Q2	EPA 8260B Volatile Organics		EPA 5030C	GC/MS L	170504S018	170504L022
B-1-CW25-FD-17Q2	EPA 8260B Volatile Organics	R	EPA 5030C	GC/MS L	170504S018	170504L022
B-1-CW25-FD-17Q2	EPA 8260B SIM Emergent Volatiles		EPA 5030C	GC/MS M	170426S017	170426L041
B-1-CW25-FD-17Q2	1,4-Dioxane by EPA 8270C (M) Isotope Dilution		EPA 3510C	GC/MS DDD	170425S04	170425L04
B-6-CW10-N-17Q2	EPA 218.6 Hexavalent Chromium Low Level		N/A	IC 16	170424S01	170424L01
B-6-CW10-N-17Q2	EPA 6020 ICP/MS Metals		EPA 3020A Total	ICP/MS 03	170426SA1	170426LA1
B-6-CW10-N-17Q2	EPA 8260B Volatile Organics		EPA 5030C	GC/MS L	170504S018	170504L022
B-6-CW10-N-17Q2	EPA 8260B SIM Emergent Volatiles		EPA 5030C	GC/MS M	170501S019	170501L036
B-6-CW10-N-17Q2	1,4-Dioxane by EPA 8270C (M) Isotope Dilution		EPA 3510C	GC/MS DDD	170425S04	170425L04

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R = Rerun



## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-1778  
Project Name: LMC BOU  
Received: 04/24/17

Attn: Robert Sabater

Page 1 of 1

### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-1-CW25-N-17Q2 (17-04-1778-2)						
Chromium, Hexavalent	3.8		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00801		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.92		0.50	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	0.62		0.50	ug/L	EPA 8260B	EPA 5030C
Acetone	4.1	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Chloroform	2.6		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	19		0.50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	72		2.0	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.022		0.0050	ug/L	EPA 8260B SIM	EPA 5030C
B-1-CW25-FD-17Q2 (17-04-1778-3)						
Chromium, Hexavalent	3.8		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00793		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.82		0.50	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	0.51		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	2.1		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	15		0.50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	72		2.0	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.022		0.0050	ug/L	EPA 8260B SIM	EPA 5030C
B-6-CW10-N-17Q2 (17-04-1778-4)						
Chromium, Hexavalent	0.28		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00255		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.34	J	0.24*	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.86	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	0.50	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Chloroform	1.7		0.50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	30		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	13		0.50	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	0.35	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	1.5		0.12	ug/L	EPA 8260B SIM	EPA 5030C

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

\* MDL is shown



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: N/A  
Method: EPA 218.6  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW25-N-17Q2	17-04-1778-2-G	04/24/17 11:29	Aqueous	IC 16	N/A	04/24/17 22:22	170424L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	3.8	0.020	0.0099	1.00	

B-1-CW25-FD-17Q2	17-04-1778-3-G	04/24/17 11:29	Aqueous	IC 16	N/A	04/24/17 22:33	170424L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	3.8	0.020	0.0099	1.00	

B-6-CW10-N-17Q2	17-04-1778-4-K	04/24/17 15:46	Aqueous	IC 16	N/A	04/24/17 22:45	170424L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	0.28	0.020	0.0099	1.00	

Method Blank	099-14-567-239	N/A	Aqueous	IC 16	N/A	04/24/17 20:19	170424L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 3020A Total  
Method: EPA 6020  
Units: mg/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW25-N-17Q2	17-04-1778-2-I	04/24/17 11:29	Aqueous	ICP/MS 03	04/26/17	04/27/17 13:04	170426LA1

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00801	0.00100	0.000402	1.00	

B-1-CW25-FD-17Q2	17-04-1778-3-H	04/24/17 11:29	Aqueous	ICP/MS 03	04/26/17	04/27/17 13:06	170426LA1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00793	0.00100	0.000402	1.00	

B-6-CW10-N-17Q2	17-04-1778-4-L	04/24/17 15:46	Aqueous	ICP/MS 03	04/26/17	04/27/17 13:09	170426LA1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00255	0.00100	0.000402	1.00	

Method Blank	096-06-003-5550	N/A	Aqueous	ICP/MS 03	04/26/17	04/27/17 12:56	170426LA1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	ND	0.00100	0.000402	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW25-N-17Q2	17-04-1778-2-K	04/24/17 11:29	Aqueous	GC/MS DDD	04/25/17	04/26/17 04:18	170425L04

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	104	56-123	
1,4-Dioxane-d8(IDS-IS)	38	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW25-FD-17Q2	17-04-1778-3-I	04/24/17 11:29	Aqueous	GC/MS DDD	04/25/17	04/26/17 04:33	170425L04

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	88	56-123	
1,4-Dioxane-d8(IDS-IS)	42	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW10-N-17Q2	17-04-1778-4-M	04/24/17 15:46	Aqueous	GC/MS DDD	04/25/17	04/26/17 04:49	170425L04

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	81	56-123	
1,4-Dioxane-d8(IDS-IS)	41	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-216-1019	N/A	Aqueous	GC/MS DDD	04/25/17	04/26/17 00:49	170425L04

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	117	56-123	
1,4-Dioxane-d8(IDS-IS)	42	30-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20170424	17-04-1778-1-A	04/24/17 07:00	Aqueous	GC/MS L	05/04/17	05/04/17 20:44	170504L022

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	90	68-120			
Dibromofluoromethane	107	80-127			

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



## Analytical Report

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<p>Tetra Tech, Inc. 301 E. Vanderbilt Way, Suite 450 San Bernardino, CA 92408-3562</p> <p>Project: LMC BOU</p>	<p>Date Received: 04/24/17 Work Order: 17-04-1778 Preparation: EPA 5030C Method: EPA 8260B Units: ug/L</p>	<p>Page 3 of 15</p>
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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	109	80-128	
Toluene-d8	100	80-120	




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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW25-N-17Q2	17-04-1778-2-A	04/24/17 11:29	Aqueous	GC/MS L	05/04/17	05/04/17 17:38	170504L022

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.92	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	0.62	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	4.1	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	2.6	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	19	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	89	68-120			
Dibromofluoromethane	106	80-127			
1,2-Dichloroethane-d4	105	80-128			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Toluene-d8	102	80-120	

<u>Client Sample Number</u>	<u>Lab Sample Number</u>	<u>Date/Time Collected</u>	<u>Matrix</u>	<u>Instrument</u>	<u>Date Prepared</u>	<u>Date/Time Analyzed</u>	<u>QC Batch ID</u>
<b>B-1-CW25-N-17Q2</b>	<b>17-04-1778-2-B</b>	<b>04/24/17 11:29</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>05/04/17</b>	<b>05/04/17 19:43</b>	<b>170504L022</b>

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Tetrachloroethene	72	2.0	0.80	4.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	90	68-120	
Dibromofluoromethane	105	80-127	
1,2-Dichloroethane-d4	108	80-128	
Toluene-d8	100	80-120	

Return to Contents

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW25-FD-17Q2	17-04-1778-3-A	04/24/17 11:29	Aqueous	GC/MS L	05/04/17	05/04/17 18:12	170504L022

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.82	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	0.51	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	2.1	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	15	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	89	68-120			
Dibromofluoromethane	104	80-127			
1,2-Dichloroethane-d4	101	80-128			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Toluene-d8	100	80-120	

<u>Client Sample Number</u>	<u>Lab Sample Number</u>	<u>Date/Time Collected</u>	<u>Matrix</u>	<u>Instrument</u>	<u>Date Prepared</u>	<u>Date/Time Analyzed</u>	<u>QC Batch ID</u>
<b>B-1-CW25-FD-17Q2</b>	<b>17-04-1778-3-B</b>	<b>04/24/17 11:29</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>05/04/17</b>	<b>05/04/17 20:14</b>	<b>170504L022</b>

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Tetrachloroethene	72	2.0	0.80	4.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	88	68-120	
Dibromofluoromethane	107	80-127	
1,2-Dichloroethane-d4	110	80-128	
Toluene-d8	101	80-120	

Return to Contents

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW10-N-17Q2	17-04-1778-4-A	04/24/17 15:46	Aqueous	GC/MS L	05/04/17	05/04/17 17:08	170504L022

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.34	0.50	0.24	1.00	J
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	0.86	1.0	0.40	1.00	J
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	0.50	0.50	0.20	1.00	J
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	1.7	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	30	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	13	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	0.35	0.50	0.20	1.00	J
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	88	68-120			
Dibromofluoromethane	105	80-127			

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





## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/24/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-1778
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 12 of 15

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	95	80-128	
Toluene-d8	99	80-120	



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-025-4680	N/A	Aqueous	GC/MS L	05/04/17	05/04/17 16:26	170504L022

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	89	68-120			
Dibromofluoromethane	101	80-127			

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/24/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-1778
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 15 of 15

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	106	80-128	
Toluene-d8	99	80-120	





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20170424	17-04-1778-1-C	04/24/17 07:00	Aqueous	GC/MS M	05/01/17	05/01/17 12:42	170501L036

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	99	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW25-N-17Q2	17-04-1778-2-D	04/24/17 11:29	Aqueous	GC/MS M	04/26/17	04/27/17 03:26	170426L041

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.022	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	120	67-133	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW25-FD-17Q2	17-04-1778-3-D	04/24/17 11:29	Aqueous	GC/MS M	04/26/17	04/27/17 03:56	170426L041

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.022	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	120	67-133	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW10-N-17Q2	17-04-1778-4-G	04/24/17 15:46	Aqueous	GC/MS M	05/01/17	05/01/17 13:11	170501L036

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	1.5	0.12	0.062	25.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	119	80-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-118-495	N/A	Aqueous	GC/MS M	04/26/17	04/26/17 21:59	170426L041

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	108	67-133	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-118-496	N/A	Aqueous	GC/MS M	05/01/17	05/01/17 12:11	170501L036

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	91	80-120	

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



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
17-04-1764-4	Sample	Aqueous	IC 16	N/A	04/24/17 21:04	170424S01				
17-04-1764-4	Matrix Spike	Aqueous	IC 16	N/A	04/24/17 21:37	170424S01				
17-04-1764-4	Matrix Spike Duplicate	Aqueous	IC 16	N/A	04/24/17 21:49	170424S01				
<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	10.42	10.00	20.94	105	20.71	103	85-121	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1676-4	Sample	Aqueous	ICP/MS 03	04/26/17	04/27/17 13:34	170426SA1
17-04-1676-4	Matrix Spike	Aqueous	ICP/MS 03	04/26/17	04/27/17 13:24	170426SA1
17-04-1676-4	Matrix Spike Duplicate	Aqueous	ICP/MS 03	04/26/17	04/27/17 13:26	170426SA1

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium	ND	0.1000	0.09415	94	0.09830	98	73-133	4	0-11	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1707-7	Sample	Aqueous	GC/MS DDD	04/25/17	04/26/17 01:53	170425S04
17-04-1707-7	Matrix Spike	Aqueous	GC/MS DDD	04/25/17	04/26/17 01:21	170425S04
17-04-1707-7	Matrix Spike Duplicate	Aqueous	GC/MS DDD	04/25/17	04/26/17 01:37	170425S04

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,4-Dioxane	ND	20.00	20.54	103	19.77	99	50-130	4	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-6-CW10-N-17Q2	Sample	Aqueous	GC/MS L	05/04/17	05/04/17 17:08	170504S018
B-6-CW10-N-17Q2	Matrix Spike	Aqueous	GC/MS L	05/04/17	05/04/17 18:42	170504S018
B-6-CW10-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS L	05/04/17	05/04/17 19:13	170504S018

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloroethene	ND	10.00	7.749	77	8.407	84	66-126	8	0-20	
1,2-Dibromoethane	ND	10.00	8.802	88	8.557	86	75-126	3	0-20	
1,2-Dichlorobenzene	ND	10.00	9.070	91	8.814	88	75-125	3	0-20	
1,2-Dichloroethane	ND	10.00	8.651	87	8.545	85	75-127	1	0-20	
Benzene	ND	10.00	8.155	82	8.298	83	75-125	2	0-20	
Carbon Tetrachloride	ND	10.00	7.690	77	8.251	83	69-135	7	0-20	
Chlorobenzene	ND	10.00	8.471	85	8.368	84	75-125	1	0-20	
Ethylbenzene	ND	10.00	8.664	87	8.700	87	75-125	0	0-20	
Toluene	ND	10.00	8.425	84	8.424	84	75-125	0	0-20	
Trichloroethene	13.48	10.00	24.56	111	24.52	110	75-125	0	0-20	
Vinyl Chloride	ND	10.00	10.93	109	11.14	111	52-142	2	0-20	
o-Xylene	ND	10.00	8.793	88	8.773	88	75-127	0	0-20	
p/m-Xylene	ND	20.00	17.19	86	17.16	86	75-125	0	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	8.639	86	8.826	88	71-131	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1918-1	Sample	Aqueous	GC/MS M	04/26/17	04/26/17 22:28	170426S017
17-04-1918-1	Matrix Spike	Aqueous	GC/MS M	04/26/17	04/26/17 22:58	170426S017
17-04-1918-1	Matrix Spike Duplicate	Aqueous	GC/MS M	04/26/17	04/26/17 23:28	170426S017

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	ND	0.02000	0.01900	95	0.01960	98	55-135	3	0-30	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
<b>B-6-CW10-N-17Q2</b>	<b>Sample</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>05/01/17</b>	<b>05/01/17 13:11</b>	<b>170501S019</b>
<b>B-6-CW10-N-17Q2</b>	<b>Matrix Spike</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>05/01/17</b>	<b>05/01/17 14:11</b>	<b>170501S019</b>
<b>B-6-CW10-N-17Q2</b>	<b>Matrix Spike Duplicate</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>05/01/17</b>	<b>05/01/17 14:41</b>	<b>170501S019</b>

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
1,2,3-Trichloropropane	1.472	0.5000	2.358	177	1.915	88	72-132	21	0-20	3,4

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - PDS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDS Batch Number
17-04-1676-4	Sample	Aqueous	ICP/MS 03	04/26/17 00:00	04/27/17 13:34	170426SA1
17-04-1676-4	PDS	Aqueous	ICP/MS 03	04/26/17 00:00	04/27/17 13:29	170426SA1

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>PDS Conc.</u>	<u>PDS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium	ND	0.1000	0.09897	99	75-125	

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

Page 1 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-14-567-239</b>	<b>LCS</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/24/17 20:30</b>	<b>170424L01</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	10.00	10.13	101	95-107	





## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/24/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-1778
San Bernardino, CA 92408-3562	Preparation:	EPA 3020A Total
	Method:	EPA 6020
Project: LMC BOU		Page 2 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>096-06-003-5550</b>	<b>LCS</b>	<b>Aqueous</b>	<b>ICP/MS 03</b>	<b>04/26/17</b>	<b>04/27/17 12:58</b>	<b>170426LA1</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium		0.1000	0.1054	105	80-120	



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

Page 3 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-16-216-1019</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/25/17</b>	<b>04/26/17 01:05</b>	<b>170425L04</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,4-Dioxane	20.00	19.08	95	50-130	





## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

Page 4 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-10-025-4680</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>05/04/17</b>	<b>05/04/17 15:25</b>	<b>170504L022</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
1,1-Dichloroethene		10.00	10.72	107	77-120	70-127	
1,2-Dibromoethane		10.00	10.12	101	80-120	73-127	
1,2-Dichlorobenzene		10.00	10.11	101	80-120	73-127	
1,2-Dichloroethane		10.00	9.762	98	80-122	73-129	
Benzene		10.00	9.952	100	80-120	73-127	
Carbon Tetrachloride		10.00	9.516	95	80-129	72-137	
Chlorobenzene		10.00	9.862	99	80-120	73-127	
Ethylbenzene		10.00	10.56	106	80-120	73-127	
Toluene		10.00	10.06	101	80-120	73-127	
Trichloroethene		10.00	10.14	101	80-120	73-127	
Vinyl Chloride		10.00	9.284	93	63-135	51-147	
o-Xylene		10.00	10.42	104	80-120	73-127	
p/m-Xylene		20.00	21.09	105	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	10.11	101	75-123	67-131	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

Page 5 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-118-495</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>04/26/17</b>	<b>04/26/17 20:59</b>	<b>170426L041</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,2,3-Trichloropropane	0.02000	0.02030	102	72-132	





## Quality Control - LCS/LCSD

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/24/17  
Work Order: 17-04-1778  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

Page 6 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-118-496	LCS	Aqueous	GC/MS M	05/01/17	05/01/17 10:42	170501L036			
099-15-118-496	LCSD	Aqueous	GC/MS M	05/01/17	05/01/17 11:12	170501L036			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	0.02000	0.01890	94	0.02180	109	72-132	14	0-20	

## Sample Analysis Summary Report

Work Order: 17-04-1778

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 218.6	N/A	834	IC 16	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 8260B	EPA 5030C	316	GC/MS L	2
EPA 8260B SIM	EPA 5030C	486	GC/MS M	2
EPA 8270C (M) Isotope Dilution	EPA 3510C	928	GC/MS DDD	1



<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



Calscience

7446 Lincoln Way, Garden Grove, CA 92647-1427 • (714) 896-5884  
For courier services / sample drop off information, contact us@eurolins.com or call us.

LABORATORY CLIENT:

Tetra Tech Inc.  
ADDRESS: 2400 E. Vandewater Way, Suite 450, CA 92408  
CITY: San Bernardino  
STATE: CA  
TEL: 909-381-1674  
E-MAIL: Robert.Sebastiao@tetra-tech.com  
TURNAROUND TIME (rush surcharges may apply): 72 HR. STANDARD

SAME DAY  24 HR.  48 HR.  72 HR.  5-5 DAYS

EDD  GOELT EDF  OTHER

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF COPIES	Unpreserved	Preserved	Field Filtered	LTPM(1) LI GRD	LTPM(2) DPRO	TPM <input type="checkbox"/> CR-08 <input type="checkbox"/> CR-04	TPM <input type="checkbox"/> MATRE <input type="checkbox"/> 6800	VOCs (6290)	Organics (6291)	Pep (6086) <input type="checkbox"/> EN COB <input type="checkbox"/> TERA COB	SVOCS (6279)	Pesticides (6281)	PCBs (6082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SMA	TSS Metals <input type="checkbox"/> 8010/747X <input type="checkbox"/> 8020/747X	CVM <input type="checkbox"/> 7198 <input type="checkbox"/> 7199 <input type="checkbox"/> 2198	4-Phenols	Hex Cr	1,2,3-TCF		
		DATE	TIME																							
1	12B-00170124	4/24/17	0700	W	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																			
2	B-1-0025-N-1702	4/24/17	1129	W	13	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																			
3	B-1-0025-FD-1702	4/24/17	1129	W	0789	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																			
4	B-6-0010-N-1702	4/24/17	1546	W	0229	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																			

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

Received by: (Signature)

EA

EA

Date: 04/24/17

Time: 1630

Date: 04/24/17

Time: 1820

WFO NO. / LAB USE ONLY  
**17-04-1718**

CLIENT PROJECT NAME / NO:

baa

PROJECT CONTACT:

Roberta Sebastiao

GLOBAL ID:

LOG CODE:

QUALIFIER (PRINT)

Jason Cook  
Vanessa Gaido

P.O. NO.:

100-580-735076

LAB CONTRACT OR QUOTE NO.:

CHAIN-OF-CUSTODY RECORD

Date: 04/24/17  
Page: of



SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: TETRA TECH

DATE: 04/24/2017

TEMPERATURE: (Celsius: 5.0°C - 6.0°C, not frozen except sediment/tissue)

Thermometer ID: 80 (CF: 0.0°C): Temperature (w/o CF): 3.0 °C (w/ CF): 3.0 °C;  Blank  Sample

Sample(s) outside temperature criteria (PIV/APM contacted by: \_\_\_\_\_)

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

Sample(s) received at ambient temperature; placed on ice for transport by cooler

Ambient Temperature:  Air  Filter

Checked by: 804

CUSTODY SEAL:

Cooler  Present and intact  Present but Not Intact  Not Present  N/A

Checked by: 804

Sample(s)  Present and intact  Present but Not Intact  Not Present  N/A

Checked by: 689

SAMPLE CONDITION:

	Yes	No	N/A
--	-----	----	-----

Chain-of-Custody (COC) document(s) received with samples .....

COC document(s) received complete .....

Sampling date  Sampling time  Matrix  Number of containers

No analysis requested  Not relinquished  No relinquished date  No relinquished time

Sampler's name indicated on COC .....

Sample container label(s) consistent with COC .....

Sample container(s) intact and in good condition .....

Proper containers for analyses requested .....

Sufficient volume/mass for analyses requested .....

Samples received within holding time .....

Aqueous samples for certain analyses received within 15-minute holding time

pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen .....

Proper preservation chemical(s) noted on COC and/or sample container .....

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics  Total Metals  Dissolved Metals

Container(s) for certain analysis free of headspace .....

Volatile Organics  Dissolved Gases (RSK-75)  Dissolved Oxygen (SM 4500)

Carbon Dioxide (SM 4500)  Ferrous Iron (SM 350C)  Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation .....

CONTAINER TYPE:

(Trip Blank Lot Number: 170328A)

Aqueous:  VOA  VOAh  VOAna<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBh  125AGSp  125PB

125PBznn<sub>2</sub>  250AGB  250CGB  250CGBs  250PB  250PBh  500AGB  500AGJ  500AGJna

500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_)  EnCores® (\_\_\_\_)  TerraCores® (\_\_\_\_)  \_\_\_\_\_

Air:  Tedlar™  Carlsson  Sorbert Tube  PUF  \_\_\_\_\_ Other Matrix (\_\_\_\_);  \_\_\_\_\_  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservatives: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 689

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>-NaHSO<sub>4</sub>·H<sub>2</sub>O, znn<sub>2</sub> = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH

Reviewed by: 689



**SAMPLE ANOMALY REPORT**

DATE: 04/24/2017

**SAMPLES, CONTAINERS, AND LABELS:**

- Sample(s) NOT RECEIVED but listed on COC
- Sample(s) received but NOT LISTED on COC
- Holding time expired (list client or EC sample ID and analysis)
- Insufficient sample amount for requested analysis (list analysis)
- Improper container(s) used (list analysis)
- Improper preservative used (list analysis)
- No preservative noted on COC or label (list analysis and notify lab)
- Sample container(s) not labeled
- Client sample label(s) illegible (list container type and analysis)
- Client sample obs.(s) do not match COC (comment):
  - Project information
  - Client sample ID
  - Sampling date and/or time
  - Number of container(s)
  - Requested analysis
- Sample container(s) compromised (comment)
  - Broken
  - Water present in sample container
- Air sample container(s) compromised (comment)
  - Flat
  - Very low in volume
  - Leaking (not transferred; duplicate bag submitted)
  - Leaking (transferred into EC Tedlar™ bags\*)
  - Leaking (transferred into client's Tedlar™ bags\*)

**Comments**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(-2) Received 9 containers instead of 13  
 6 - VOA w/HCL  
 1 - 250ml poly  
 1 - 250ml w/HNO3  
 1 - 500ml amber glass bottle

\_\_\_\_\_

(-4) Received 13 containers instead of 9  
 10 - VOA w/HCL  
 1 - 250ml poly  
 1 - 250ml poly w/HNO3  
 1 - 500ml amber glass bottle

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**MISCELLANEOUS: (Describe)**

**Comments**

**HEADSPACE:**

(Containers with B.C. > 8 mm or 3/4 inch for volatile organics or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number	ECI Sample ID	ECI Container ID	Total Number

(Containers with B.C. for other analysis)

ECI Sample ID	ECI Container ID	Total Number	Requested Analysis

Comments: \_\_\_\_\_

Reported by: *gry*  
 Reviewed by: *gry*

\* Record the total number of containers (i.e., vials or bottles) for the affected sample.





**WORK ORDER NUMBER: 17-04-1160**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Tetra Tech, Inc.

**Client Project Name:** LMC BOU

**Attention:** Robert Sabater  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Approved for release on 05/05/2017 by:  
Vikas Patel  
Project Manager

ResultLink ▶

Email your PM ▶

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

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 Work Order Number: 17-04-1160

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 04/14/17. They were assigned to Work Order 17-04-1160.

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

**Holding Times:**

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

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

**Quality Control:**

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

**Subcontractor Information:**

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

**Additional Comments:**

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

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



## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-1160  
Project Name: LMC BOU  
Received: 04/14/17

Attn: Robert Sabater

Page 1 of 1

### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
4948-N-17Q2 (17-04-1160-2)						
Chromium, Hexavalent	0.82		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00503		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chloroform	0.33	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	3.8		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	1.3		0.50	ug/L	EPA 8260B	EPA 5030C

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

\* MDL is shown





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: N/A  
Method: EPA 218.6  
Units: ug/L

Project: LMC BOU

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
4948-N-17Q2	17-04-1160-2-L	04/14/17 09:13	Aqueous	IC 16	N/A	04/14/17 20:45	170414L01

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Chromium, Hexavalent	0.82	0.020	0.0099	1.00	

Method Blank	099-14-567-238	N/A	Aqueous	IC 16	N/A	04/14/17 17:12	170414L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

Return to Contents

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: EPA 3020A Total  
Method: EPA 6020  
Units: mg/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
4948-N-17Q2	17-04-1160-2-M	04/14/17 09:13	Aqueous	ICP/MS 03	04/18/17	04/20/17 03:15	170418LA3

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Chromium	0.00503	0.00100	0.000402	1.00	

Method Blank	096-06-003-5531	N/A	Aqueous	ICP/MS 03	04/18/17	04/20/17 00:05	170418LA3
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Chromium	ND	0.00100	0.000402	1.00	

Return to Contents

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
4948-N-17Q2	17-04-1160-2-K	04/14/17 09:13	Aqueous	GC/MS DDD	04/17/17	04/18/17 00:39	170417L10

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	98	56-123	
1,4-Dioxane-d8(IDS-IS)	35	30-120	

Method Blank	099-16-216-1013	N/A	Aqueous	GC/MS DDD	04/17/17	04/17/17 22:32	170417L10
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	115	56-123	
1,4-Dioxane-d8(IDS-IS)	40	30-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20170414	17-04-1160-1-A	04/14/17 06:00	Aqueous	GC/MS L	04/26/17	04/27/17 02:27	170426L056

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	93	68-120			
Dibromofluoromethane	101	80-127			

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



## Analytical Report

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<p>Tetra Tech, Inc. 301 E. Vanderbilt Way, Suite 450 San Bernardino, CA 92408-3562</p> <p>Project: LMC BOU</p>	<p>Date Received: 04/14/17 Work Order: 17-04-1160 Preparation: EPA 5030C Method: EPA 8260B Units: ug/L</p>	<p>Page 3 of 9</p>
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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	109	80-128	
Toluene-d8	101	80-120	




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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
4948-N-17Q2	17-04-1160-2-D	04/14/17 09:13	Aqueous	GC/MS L	04/26/17	04/27/17 02:58	170426L056

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.33	0.50	0.20	1.00	J
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	3.8	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	1.3	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	92	68-120			
Dibromofluoromethane	103	80-127			

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





## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/14/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-1160
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 6 of 9

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	111	80-128	
Toluene-d8	101	80-120	




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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-025-4657	N/A	Aqueous	GC/MS L	04/26/17	04/26/17 23:24	170426L056

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	94	68-120			
Dibromofluoromethane	100	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

Page 9 of 9

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	111	80-128	
Toluene-d8	103	80-120	



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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20170414	17-04-1160-1-C	04/14/17 06:00	Aqueous	GC/MS M	04/24/17	04/25/17 02:02	170424L035

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	120	67-133	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
4948-N-17Q2	17-04-1160-2-F	04/14/17 09:13	Aqueous	GC/MS M	04/24/17	04/25/17 02:31	170424L035

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	117	67-133	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-118-493	N/A	Aqueous	GC/MS M	04/24/17	04/24/17 23:32	170424L035

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	101	67-133	

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



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
4948-N-17Q2	Sample	Aqueous	IC 16	N/A	04/14/17 20:45	170414S01
4948-N-17Q2	Matrix Spike	Aqueous	IC 16	N/A	04/14/17 20:56	170414S01
4948-N-17Q2	Matrix Spike Duplicate	Aqueous	IC 16	N/A	04/14/17 21:07	170414S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium, Hexavalent	0.8210	10.00	10.84	100	10.60	98	85-121	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0841-2	Sample	Aqueous	ICP/MS 03	04/18/17	04/24/17 13:21	170418SA3
17-04-0841-2	Matrix Spike	Aqueous	ICP/MS 03	04/18/17	04/24/17 12:57	170418SA3
17-04-0841-2	Matrix Spike Duplicate	Aqueous	ICP/MS 03	04/18/17	04/24/17 13:00	170418SA3

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium	0.001945	0.1000	0.1007	99	0.1020	100	73-133	1	0-11	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1061-4	Sample	Aqueous	GC/MS DDD	04/17/17	04/18/17 00:08	170417S10
17-04-1061-4	Matrix Spike	Aqueous	GC/MS DDD	04/17/17	04/17/17 23:04	170417S10
17-04-1061-4	Matrix Spike Duplicate	Aqueous	GC/MS DDD	04/17/17	04/17/17 23:19	170417S10

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,4-Dioxane	ND	20.00	20.47	102	20.26	101	50-130	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1200-2	Sample	Aqueous	GC/MS L	04/26/17	04/27/17 00:25	170426S026
17-04-1200-2	Matrix Spike	Aqueous	GC/MS L	04/26/17	04/27/17 00:55	170426S026
17-04-1200-2	Matrix Spike Duplicate	Aqueous	GC/MS L	04/26/17	04/27/17 01:26	170426S026

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1,1,2-Tetrachloroethane	ND	10.00	9.359	94	9.716	97	75-127	4	0-20	
1,1,1-Trichloroethane	ND	10.00	8.908	89	9.474	95	72-132	6	0-20	
1,1,2,2-Tetrachloroethane	ND	10.00	8.965	90	9.231	92	75-132	3	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10.00	8.374	84	8.329	83	70-130	1	0-20	
1,1,2-Trichloroethane	ND	10.00	9.468	95	9.712	97	75-125	3	0-20	
1,1-Dichloroethane	1.297	10.00	9.519	82	10.06	88	68-128	6	0-20	
1,1-Dichloroethene	ND	10.00	9.051	91	9.477	95	66-126	5	0-20	
1,1-Dichloropropene	ND	10.00	8.891	89	9.473	95	74-134	6	0-20	
1,2,3-Trichlorobenzene	ND	10.00	8.835	88	9.357	94	75-125	6	0-20	
1,2,3-Trichloropropane	ND	10.00	8.374	84	8.581	86	75-125	2	0-20	
1,2,4-Trichlorobenzene	ND	10.00	8.937	89	9.348	93	75-125	4	0-20	
1,2,4-Trimethylbenzene	ND	10.00	8.160	82	8.503	85	75-125	4	0-20	
1,2-Dibromo-3-Chloropropane	ND	10.00	7.688	77	7.870	79	75-127	2	0-20	
1,2-Dibromoethane	ND	10.00	9.384	94	9.506	95	75-126	1	0-20	
1,2-Dichlorobenzene	ND	10.00	9.244	92	9.592	96	75-125	4	0-20	
1,2-Dichloroethane	ND	10.00	10.31	103	10.67	107	75-127	3	0-20	
1,2-Dichloropropane	ND	10.00	9.233	92	9.609	96	75-125	4	0-20	
1,3,5-Trimethylbenzene	ND	10.00	9.536	95	9.831	98	75-127	3	0-20	
1,3-Dichlorobenzene	ND	10.00	9.058	91	9.471	95	75-126	4	0-20	
1,3-Dichloropropane	ND	10.00	9.464	95	9.723	97	75-125	3	0-20	
1,4-Dichlorobenzene	ND	10.00	9.001	90	9.434	94	75-125	5	0-20	
2,2-Dichloropropane	ND	10.00	6.906	69	7.363	74	52-160	6	0-20	
2-Butanone	ND	10.00	7.714	77	7.275	73	20-180	6	0-40	
2-Chlorotoluene	ND	10.00	9.652	97	10.08	101	75-128	4	0-20	
2-Hexanone	ND	10.00	7.843	78	8.046	80	74-122	3	0-20	
4-Chlorotoluene	ND	10.00	9.018	90	9.490	95	75-125	5	0-20	
4-Methyl-2-Pentanone	ND	10.00	8.402	84	8.634	86	65-137	3	0-20	
Acetone	ND	10.00	9.629	96	9.581	96	20-180	1	0-52	
Benzene	ND	10.00	9.172	92	9.748	97	75-125	6	0-20	
Bromobenzene	ND	10.00	9.717	97	10.17	102	75-125	5	0-20	
Bromochloromethane	ND	10.00	9.293	93	9.641	96	75-128	4	0-20	
Bromodichloromethane	ND	10.00	9.480	95	9.961	100	75-125	5	0-20	
Bromoform	ND	10.00	6.207	62	6.494	65	71-137	5	0-20	
Bromomethane	ND	10.00	11.77	118	11.89	119	37-181	1	0-22	
Carbon Disulfide	ND	10.00	7.886	79	9.216	92	58-136	16	0-20	

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon Tetrachloride	ND	10.00	7.749	77	8.430	84	69-135	8	0-20	
Chlorobenzene	ND	10.00	9.604	96	9.915	99	75-125	3	0-20	
Chloroethane	ND	10.00	9.539	95	10.42	104	20-180	9	0-20	
Chloroform	0.9824	10.00	10.10	91	10.48	95	75-128	4	0-20	
Chloromethane	ND	10.00	6.431	64	7.072	71	41-149	9	0-20	
Dibromochloromethane	ND	10.00	8.730	87	9.084	91	75-125	4	0-20	
Dibromomethane	ND	10.00	9.499	95	9.910	99	75-129	4	0-20	
Dichlorodifluoromethane	3.404	10.00	12.95	95	12.20	88	28-172	6	0-20	
Ethylbenzene	ND	10.00	9.328	93	9.803	98	75-125	5	0-20	
Isopropylbenzene	ND	10.00	9.616	96	10.11	101	75-130	5	0-20	
Methylene Chloride	ND	10.00	9.420	94	9.923	99	74-128	5	0-20	
Naphthalene	ND	10.00	8.067	81	8.528	85	75-136	6	0-20	
Styrene	ND	10.00	7.930	79	8.340	83	28-166	5	0-30	
Tetrachloroethene	4.395	10.00	13.26	89	13.42	90	58-124	1	0-20	
Toluene	ND	10.00	9.503	95	9.936	99	75-125	4	0-20	
t-1,2-Dichloroethene	ND	10.00	9.246	92	8.976	90	73-133	3	0-20	
Trichloroethene	11.95	10.00	20.93	90	21.41	95	75-125	2	0-20	
Trichlorofluoromethane	0.5224	10.00	12.28	118	11.61	111	68-134	6	0-20	
Vinyl Acetate	ND	10.00	7.555	76	7.381	74	65-137	2	0-20	
Vinyl Chloride	ND	10.00	10.55	105	11.05	110	52-142	5	0-20	
c-1,3-Dichloropropene	ND	10.00	7.737	77	8.132	81	75-128	5	0-20	
c-1,2-Dichloroethene	0.5382	10.00	9.071	85	9.445	89	75-130	4	0-20	
n-Butylbenzene	ND	10.00	9.013	90	9.434	94	75-125	5	0-20	
n-Propylbenzene	ND	10.00	9.672	97	10.02	100	75-129	3	0-20	
o-Xylene	ND	10.00	9.436	94	9.852	99	75-127	4	0-20	
p-Isopropyltoluene	ND	10.00	9.173	92	9.538	95	75-125	4	0-20	
sec-Butylbenzene	ND	10.00	9.209	92	9.687	97	75-129	5	0-20	
t-1,3-Dichloropropene	ND	10.00	7.621	76	8.074	81	75-125	6	0-20	
tert-Butylbenzene	ND	10.00	9.555	96	10.04	100	75-129	5	0-20	
p/m-Xylene	ND	20.00	18.73	94	19.63	98	75-125	5	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	8.902	89	8.410	84	71-131	6	0-20	
Hexachloro-1,3-Butadiene	ND	10.00	9.932	99	9.947	99	75-129	0	0-20	

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1061-4	Sample	Aqueous	GC/MS M	04/24/17	04/25/17 00:02	170424S012
17-04-1061-4	Matrix Spike	Aqueous	GC/MS M	04/24/17	04/25/17 00:32	170424S012
17-04-1061-4	Matrix Spike Duplicate	Aqueous	GC/MS M	04/24/17	04/25/17 01:02	170424S012

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	0.6449	0.02000	0.7153	352	0.6036	0	72-132	17	0-20	3



RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - PDS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDS Batch Number
17-04-0841-2	Sample	Aqueous	ICP/MS 03	04/18/17 00:00	04/24/17 13:21	170418SA3
17-04-0841-2	PDS	Aqueous	ICP/MS 03	04/18/17 00:00	04/24/17 13:02	170418SA3

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>PDS Conc.</u>	<u>PDS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium	0.001945	0.1000	0.1014	99	75-125	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-567-238	LCS	Aqueous	IC 16	N/A	04/14/17 17:23	170414L01

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	10.00	10.12	101	95-107	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>096-06-003-5531</b>	<b>LCS</b>	<b>Aqueous</b>	<b>ICP/MS 03</b>	<b>04/18/17</b>	<b>04/20/17 00:46</b>	<b>170418LA3</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium	0.1000	0.1064	106	80-120	



RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-16-216-1013</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/17/17</b>	<b>04/17/17 22:48</b>	<b>170417L10</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,4-Dioxane	20.00	20.30	101	50-130	



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-10-025-4657</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>04/26/17</b>	<b>04/26/17 22:53</b>	<b>170426L056</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
1,1-Dichloroethene		10.00	9.900	99	77-120	70-127	
1,2-Dibromoethane		10.00	9.727	97	80-120	73-127	
1,2-Dichlorobenzene		10.00	9.557	96	80-120	73-127	
1,2-Dichloroethane		10.00	10.87	109	80-122	73-129	
Benzene		10.00	9.605	96	80-120	73-127	
Carbon Tetrachloride		10.00	8.570	86	80-129	72-137	
Chlorobenzene		10.00	10.00	100	80-120	73-127	
Ethylbenzene		10.00	9.881	99	80-120	73-127	
Toluene		10.00	9.789	98	80-120	73-127	
Trichloroethene		10.00	10.17	102	80-120	73-127	
Vinyl Chloride		10.00	10.83	108	63-135	51-147	
o-Xylene		10.00	10.00	100	80-120	73-127	
p/m-Xylene		20.00	19.84	99	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	10.49	105	75-123	67-131	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/14/17  
Work Order: 17-04-1160  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-118-493</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>04/24/17</b>	<b>04/24/17 22:33</b>	<b>170424L035</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,2,3-Trichloropropane	0.02000	0.02000	100	72-132	

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RPD: Relative Percent Difference. CL: Control Limits

## Sample Analysis Summary Report

Work Order: 17-04-1160

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 218.6	N/A	1065	IC 16	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 8260B	EPA 5030C	316	GC/MS L	2
EPA 8260B SIM	EPA 5030C	486	GC/MS M	2
EPA 8270C (M) Isotope Dilution	EPA 3510C	928	GC/MS DDD	1



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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.





SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Tetra Tech

DATE: 04/14/2017

**TEMPERATURE:** (Criteria: 0.0°C – 8.0°C, not frozen except sediment/tissue)

Thermometer ID: SC (CF: 0.0°C); Temperature (w/o CF): 1.8 °C (w/ CF): 1.8 °C;  Blank  Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)

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

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature:  Air  Filter

Checked by: 1091

**CUSTODY SEAL:**

Cooler  Present and intact  Present but Not Intact  Not Present  N/A

Sample(s)  Present and intact  Present but Not Intact  Not Present  N/A

Checked by: 1091  
Checked by: 681

**SAMPLE CONDITION:**

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Container(s) for certain analysis free of headspace .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:** (Trip Blank Lot Number: 170328A)

Aqueous:  VOA  VOAh  VOAna<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBh  125AGBp  125PB

125PBz<sub>na</sub>  250AGB  250CGB  250CGBs  250PB  250PBn  500AGB  500AGJ  500AGJs

500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

Solid:  4ozCGJ  8ozCGJ  18ozCGJ  Sleeve (\_\_\_\_\_)  EnCores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_

Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (\_\_\_\_\_)  \_\_\_\_\_  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 681

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, z<sub>na</sub> = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: 681

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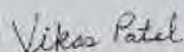

**WORK ORDER NUMBER: 17-04-1061**
*The difference is service*


AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**
**Client:** Tetra Tech, Inc.

**Client Project Name:** LMC BOU

**Attention:** Robert Sabater  
 301 E. Vanderbilt Way, Suite 450  
 San Bernardino, CA 92408-3562



 Approved for release on 04/28/2017 by:  
 Vikas Patel  
 Project Manager

ResultLink ▶

Email your PM ▶

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

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 Work Order Number: 17-04-1061

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## Work Order Narrative

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Work Order: 17-04-1061

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### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 04/13/17. They were assigned to Work Order 17-04-1061.

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

### **Holding Times:**

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

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

### **Quality Control:**

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

### **Subcontractor Information:**

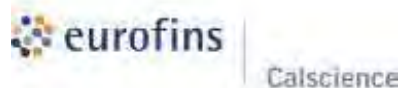
Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

### **Additional Comments:**

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

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





## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-1061  
Project Name: LMC BOU  
Received: 04/13/17

Attn: Robert Sabater

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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
3850N-N-17Q2 (17-04-1061-1)						
Chromium, Hexavalent	9.0		0.020	ug/L	EPA 218.6	N/A
Chromium	0.0101		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.27	J	0.24*	ug/L	EPA 8260B	EPA 5030C
1,1,2-Trichloroethane	0.43	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	0.87		0.50	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	0.38	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloropropane	0.21	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	1.8		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	3.2		0.50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	13		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	19		0.50	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	0.26	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.56		0.050	ug/L	EPA 8260B SIM	EPA 5030C
3850R-N-17Q2 (17-04-1061-2)						
Chromium, Hexavalent	0.021		0.020	ug/L	EPA 218.6	N/A
Chromium	0.000850	J	0.000402*	mg/L	EPA 6020	EPA 3020A Total
Tetrachloroethene	48		1.0	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	7.8		1.0	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	0.58	J	0.40*	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.0074		0.0050	ug/L	EPA 8260B SIM	EPA 5030C
LTB-20170413 (17-04-1061-3)						
Acetone	4.0	J	4.0*	ug/L	EPA 8260B	EPA 5030C
A-1-CW03R-N-17Q2 (17-04-1061-4)						
Chromium, Hexavalent	0.010	J	0.0099*	ug/L	EPA 218.6	N/A
Chromium	0.00105		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1-Dichloroethene	0.45	J	0.28*	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	0.42	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Chloroform	21		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	22		0.50	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	0.46	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	57		2.0	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.63		0.050	ug/L	EPA 8260B SIM	EPA 5030C
B-1-CW20-N-17Q2 (17-04-1061-5)						
Chromium, Hexavalent	2.1		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00346		0.00100	mg/L	EPA 6020	EPA 3020A Total
Tetrachloroethene	0.34	J	0.20*	ug/L	EPA 8260B	EPA 5030C

\* MDL is shown



## Detections Summary

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Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-1061  
Project Name: LMC BOU  
Received: 04/13/17

Attn: Robert Sabater

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**Client SampleID**

<b><u>Analyte</u></b>	<b><u>Result</u></b>	<b><u>Qualifiers</u></b>	<b><u>RL</u></b>	<b><u>Units</u></b>	<b><u>Method</u></b>	<b><u>Extraction</u></b>
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Subcontracted analyses, if any, are not included in this summary.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: N/A  
Method: EPA 218.6  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3850N-N-17Q2	17-04-1061-1-J	04/13/17 11:24	Aqueous	IC 16	N/A	04/13/17 21:50	170413L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	9.0	0.020	0.0099	1.00	

3850R-N-17Q2	17-04-1061-2-K	04/13/17 13:16	Aqueous	IC 16	N/A	04/13/17 22:01	170413L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	0.021	0.020	0.0099	1.00	

A-1-CW03R-N-17Q2	17-04-1061-4-K	04/13/17 09:19	Aqueous	IC 16	N/A	04/13/17 22:12	170413L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	0.010	0.020	0.0099	1.00	J

B-1-CW20-N-17Q2	17-04-1061-5-K	04/13/17 13:05	Aqueous	IC 16	N/A	04/13/17 22:23	170413L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	2.1	0.020	0.0099	1.00	

Method Blank	099-14-567-237	N/A	Aqueous	IC 16	N/A	04/13/17 16:50	170413L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 3020A Total  
Method: EPA 6020  
Units: mg/L

Project: LMC BOU

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3850N-N-17Q2	17-04-1061-1-K	04/13/17 11:24	Aqueous	ICP/MS 03	04/24/17	04/25/17 02:41	170424LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.0101	0.00100	0.000402	1.00	

3850R-N-17Q2	17-04-1061-2-L	04/13/17 13:16	Aqueous	ICP/MS 03	04/24/17	04/25/17 02:44	170424LA3
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.000850	0.00100	0.000402	1.00	J

A-1-CW03R-N-17Q2	17-04-1061-4-N	04/13/17 09:19	Aqueous	ICP/MS 03	04/24/17	04/25/17 02:39	170424LA3
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00105	0.00100	0.000402	1.00	

B-1-CW20-N-17Q2	17-04-1061-5-L	04/13/17 13:05	Aqueous	ICP/MS 03	04/24/17	04/25/17 02:46	170424LA3
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00346	0.00100	0.000402	1.00	

Method Blank	096-06-003-5544	N/A	Aqueous	ICP/MS 03	04/24/17	04/25/17 20:04	170424LA3
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	ND	0.00100	0.000402	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3850N-N-17Q2	17-04-1061-1-L	04/13/17 11:24	Aqueous	GC/MS DDD	04/17/17	04/17/17 23:35	170417L10

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	99	56-123	
1,4-Dioxane-d8(IDS-IS)	38	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3850R-N-17Q2	17-04-1061-2-M	04/13/17 13:16	Aqueous	GC/MS DDD	04/17/17	04/17/17 23:52	170417L10

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	91	56-123	
1,4-Dioxane-d8(IDS-IS)	37	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW03R-N-17Q2	17-04-1061-4-R	04/13/17 09:19	Aqueous	GC/MS DDD	04/17/17	04/18/17 00:08	170417L10

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	101	56-123	
1,4-Dioxane-d8(IDS-IS)	43	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW20-N-17Q2	17-04-1061-5-M	04/13/17 13:05	Aqueous	GC/MS DDD	04/17/17	04/18/17 00:23	170417L10

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	93	56-123	
1,4-Dioxane-d8(IDS-IS)	38	30-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-216-1013	N/A	Aqueous	GC/MS DDD	04/17/17	04/17/17 22:32	170417L10

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	115	56-123	
1,4-Dioxane-d8(IDS-IS)	40	30-120	

Return to Contents

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3850N-N-17Q2	17-04-1061-1-A	04/13/17 11:24	Aqueous	GC/MS T	04/25/17	04/25/17 13:44	170425L008

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.27	0.50	0.24	1.00	J
1,1,2-Trichloroethane	0.43	0.50	0.20	1.00	J
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	0.87	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	0.38	0.50	0.20	1.00	J
1,2-Dichloropropane	0.21	0.50	0.20	1.00	J
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	1.8	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	3.2	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	13	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	19	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	0.26	0.50	0.20	1.00	J
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	99	68-120	
Dibromofluoromethane	97	80-127	

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





## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/13/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-1061
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 3 of 18

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	101	80-128	
Toluene-d8	101	80-120	




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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3850R-N-17Q2	17-04-1061-2-A	04/13/17 13:16	Aqueous	GC/MS T	04/25/17	04/25/17 14:17	170425L008

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	2.00	
1,1,1-Trichloroethane	ND	1.0	0.40	2.00	
1,1,2,2-Tetrachloroethane	ND	1.0	0.40	2.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1.0	0.48	2.00	
1,1,2-Trichloroethane	ND	1.0	0.40	2.00	
1,1-Dichloroethane	ND	1.0	0.40	2.00	
1,1-Dichloroethene	ND	1.0	0.56	2.00	
1,1-Dichloropropene	ND	1.0	0.60	2.00	
1,2,3-Trichlorobenzene	ND	1.0	0.40	2.00	
1,2,3-Trichloropropane	ND	2.0	0.80	2.00	
1,2,4-Trichlorobenzene	ND	1.0	0.40	2.00	
1,2,4-Trimethylbenzene	ND	1.0	0.40	2.00	
1,2-Dibromo-3-Chloropropane	ND	10	4.0	2.00	
1,2-Dibromoethane	ND	1.0	0.40	2.00	
1,2-Dichlorobenzene	ND	1.0	0.40	2.00	
1,2-Dichloroethane	ND	1.0	0.40	2.00	
1,2-Dichloropropane	ND	1.0	0.40	2.00	
1,3,5-Trimethylbenzene	ND	1.0	0.40	2.00	
1,3-Dichlorobenzene	ND	1.0	0.55	2.00	
1,3-Dichloropropane	ND	2.0	0.80	2.00	
1,4-Dichlorobenzene	ND	1.0	0.40	2.00	
2,2-Dichloropropane	ND	2.0	0.80	2.00	
2-Butanone	ND	10	4.0	2.00	
2-Chlorotoluene	ND	1.0	0.40	2.00	
2-Hexanone	ND	20	8.0	2.00	
4-Chlorotoluene	ND	1.0	0.71	2.00	
4-Methyl-2-Pentanone	ND	10	4.0	2.00	
Acetone	ND	20	8.0	2.00	
Benzene	ND	1.0	0.40	2.00	
Bromobenzene	ND	1.0	0.64	2.00	
Bromochloromethane	ND	2.0	0.80	2.00	
Bromodichloromethane	ND	1.0	0.40	2.00	
Bromoform	ND	1.0	0.49	2.00	
Bromomethane	ND	2.0	0.80	2.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	2.0	0.80	2.00	
Carbon Tetrachloride	ND	1.0	0.40	2.00	
Chlorobenzene	ND	1.0	0.40	2.00	
Chloroethane	ND	1.0	0.63	2.00	
Chloroform	ND	1.0	0.40	2.00	
Chloromethane	ND	1.0	0.59	2.00	
Dibromochloromethane	ND	1.0	0.40	2.00	
Dibromomethane	ND	1.0	0.40	2.00	
Dichlorodifluoromethane	ND	2.0	0.80	2.00	
Ethylbenzene	ND	1.0	0.40	2.00	
Isopropylbenzene	ND	1.0	0.40	2.00	
Methylene Chloride	ND	2.0	1.6	2.00	
Naphthalene	ND	2.0	0.80	2.00	
Styrene	ND	1.0	0.40	2.00	
Tetrachloroethene	48	1.0	0.40	2.00	
Toluene	ND	1.0	0.40	2.00	
t-1,2-Dichloroethene	ND	1.0	0.40	2.00	
Trichloroethene	7.8	1.0	0.57	2.00	
Trichlorofluoromethane	ND	1.0	0.40	2.00	
Vinyl Acetate	ND	10	4.0	2.00	
Vinyl Chloride	ND	1.0	0.40	2.00	
c-1,3-Dichloropropene	ND	1.0	0.40	2.00	
c-1,2-Dichloroethene	0.58	1.0	0.40	2.00	J
n-Butylbenzene	ND	1.0	0.40	2.00	
n-Propylbenzene	ND	1.0	0.40	2.00	
o-Xylene	ND	1.0	0.63	2.00	
p-Isopropyltoluene	ND	1.0	0.40	2.00	
sec-Butylbenzene	ND	1.0	0.40	2.00	
t-1,3-Dichloropropene	ND	1.0	0.40	2.00	
tert-Butylbenzene	ND	1.0	0.40	2.00	
p/m-Xylene	ND	1.0	0.40	2.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.40	2.00	
2-Chloroethyl Vinyl Ether	ND	10	8.4	2.00	
Hexachloro-1,3-Butadiene	ND	4.0	1.6	2.00	
Iodomethane	ND	20	10	2.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	99	68-120	
Dibromofluoromethane	101	80-127	

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



## Analytical Report

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<p>Tetra Tech, Inc. 301 E. Vanderbilt Way, Suite 450 San Bernardino, CA 92408-3562</p>	<p>Date Received: 04/13/17 Work Order: 17-04-1061 Preparation: EPA 5030C Method: EPA 8260B Units: ug/L</p>
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Project: LMC BOU Page 6 of 18

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	101	80-128	
Toluene-d8	100	80-120	




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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20170413	17-04-1061-3-A	04/13/17 06:30	Aqueous	GC/MS T	04/25/17	04/25/17 13:11	170425L008

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	4.0	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	99	68-120			
Dibromofluoromethane	99	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	102	80-128	
Toluene-d8	99	80-120	



Return to Contents

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW03R-N-17Q2	17-04-1061-4-A	04/13/17 09:19	Aqueous	GC/MS T	04/25/17	04/25/17 11:00	170425L008

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	0.45	0.50	0.28	1.00	J
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	0.42	0.50	0.20	1.00	J
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	21	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	22	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	0.46	0.50	0.20	1.00	J
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	97	68-120	
Dibromofluoromethane	94	80-127	
1,2-Dichloroethane-d4	94	80-128	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Toluene-d8	99	80-120	

<u>Client Sample Number</u>	<u>Lab Sample Number</u>	<u>Date/Time Collected</u>	<u>Matrix</u>	<u>Instrument</u>	<u>Date Prepared</u>	<u>Date/Time Analyzed</u>	<u>QC Batch ID</u>
A-1-CW03R-N-17Q2	17-04-1061-4-D	04/13/17 09:19	Aqueous	GC/MS T	04/25/17	04/25/17 12:39	170425L008

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Tetrachloroethene	57	2.0	0.80	4.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	99	68-120	
Dibromofluoromethane	97	80-127	
1,2-Dichloroethane-d4	99	80-128	
Toluene-d8	99	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW20-N-17Q2	17-04-1061-5-A	04/13/17 13:05	Aqueous	GC/MS T	04/25/17	04/25/17 14:50	170425L008

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	0.34	0.50	0.20	1.00	J
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	98	68-120			
Dibromofluoromethane	98	80-127			

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





## Analytical Report

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<p>Tetra Tech, Inc. 301 E. Vanderbilt Way, Suite 450 San Bernardino, CA 92408-3562</p> <p>Project: LMC BOU</p>	<p>Date Received: 04/13/17 Work Order: 17-04-1061 Preparation: EPA 5030C Method: EPA 8260B Units: ug/L</p>	<p>Page 15 of 18</p>
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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	102	80-128	
Toluene-d8	98	80-120	




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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-025-4647	N/A	Aqueous	GC/MS T	04/25/17	04/25/17 10:25	170425L008

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	96	68-120			
Dibromofluoromethane	94	80-127			

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/13/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-1061
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 18 of 18

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	95	80-128	
Toluene-d8	99	80-120	





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3850N-N-17Q2	17-04-1061-1-F	04/13/17 11:24	Aqueous	GC/MS M	04/26/17	04/26/17 13:31	170426L028

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.56	0.050	0.025	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	106	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3850R-N-17Q2	17-04-1061-2-H	04/13/17 13:16	Aqueous	GC/MS M	04/24/17	04/25/17 03:31	170424L035

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.0074	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	110	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20170413	17-04-1061-3-C	04/13/17 06:30	Aqueous	GC/MS M	04/24/17	04/24/17 17:35	170424L033

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	119	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW03R-N-17Q2	17-04-1061-4-I	04/13/17 09:19	Aqueous	GC/MS M	04/26/17	04/26/17 14:01	170426L028

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.63	0.050	0.025	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	107	80-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW20-N-17Q2	17-04-1061-5-H	04/13/17 13:05	Aqueous	GC/MS M	04/24/17	04/25/17 04:01	170424L035

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	104	80-120	

Method Blank	099-15-118-492	N/A	Aqueous	GC/MS M	04/24/17	04/24/17 12:36	170424L033
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	113	80-120	

Method Blank	099-15-118-493	N/A	Aqueous	GC/MS M	04/24/17	04/24/17 23:32	170424L035
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	101	80-120	

Method Blank	099-15-118-494	N/A	Aqueous	GC/MS M	04/26/17	04/26/17 11:32	170426L028
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	115	80-120	

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



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
A-1-CW03R-N-17Q2	Sample	Aqueous	IC 16	N/A	04/13/17 22:12	170413S01
A-1-CW03R-N-17Q2	Matrix Spike	Aqueous	IC 16	N/A	04/13/17 22:34	170413S01
A-1-CW03R-N-17Q2	Matrix Spike Duplicate	Aqueous	IC 16	N/A	04/13/17 22:46	170413S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium, Hexavalent	ND	10.00	9.628	96	9.648	96	85-121	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
A-1-CW03R-N-17Q2	Sample	Aqueous	ICP/MS 03	04/24/17	04/25/17 02:39	170424SA3				
A-1-CW03R-N-17Q2	Matrix Spike	Aqueous	ICP/MS 03	04/24/17	04/25/17 20:12	170424SA3				
A-1-CW03R-N-17Q2	Matrix Spike Duplicate	Aqueous	ICP/MS 03	04/24/17	04/25/17 20:15	170424SA3				
<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Chromium	0.001055	0.1000	0.1032	102	0.1062	105	73-133	3	0-11	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
A-1-CW03R-N-17Q2	Sample	Aqueous	GC/MS DDD	04/17/17	04/18/17 00:08	170417S10
A-1-CW03R-N-17Q2	Matrix Spike	Aqueous	GC/MS DDD	04/17/17	04/17/17 23:04	170417S10
A-1-CW03R-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS DDD	04/17/17	04/17/17 23:19	170417S10

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,4-Dioxane	ND	20.00	20.47	102	20.26	101	50-130	1	0-20	



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
A-1-CW03R-N-17Q2	Sample	Aqueous	GC/MS T	04/25/17	04/25/17 11:00	170425S006
A-1-CW03R-N-17Q2	Matrix Spike	Aqueous	GC/MS T	04/25/17	04/25/17 11:33	170425S006
A-1-CW03R-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS T	04/25/17	04/25/17 12:06	170425S006

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloroethene	ND	10.00	10.44	104	10.45	104	66-126	0	0-20	
1,2-Dibromoethane	ND	10.00	9.643	96	9.670	97	75-126	0	0-20	
1,2-Dichlorobenzene	ND	10.00	9.377	94	9.586	96	75-125	2	0-20	
1,2-Dichloroethane	ND	10.00	9.395	94	9.590	96	75-127	2	0-20	
Benzene	ND	10.00	9.479	95	9.572	96	75-125	1	0-20	
Carbon Tetrachloride	ND	10.00	10.68	107	10.72	107	69-135	0	0-20	
Chlorobenzene	ND	10.00	9.358	94	9.419	94	75-125	1	0-20	
Ethylbenzene	ND	10.00	9.657	97	9.687	97	75-125	0	0-20	
Toluene	ND	10.00	9.657	97	9.706	97	75-125	1	0-20	
Trichloroethene	22.24	10.00	30.64	84	30.84	86	75-125	1	0-20	
Vinyl Chloride	ND	10.00	11.05	111	10.99	110	52-142	1	0-20	
o-Xylene	ND	10.00	9.640	96	9.778	98	75-127	1	0-20	
p/m-Xylene	ND	20.00	19.36	97	19.28	96	75-125	0	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	9.301	93	9.692	97	71-131	4	0-20	

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
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Project: LMC BOU

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
17-04-0940-6	Sample	Aqueous	GC/MS M	04/24/17	04/24/17 14:05	170424S011				
17-04-0940-6	Matrix Spike	Aqueous	GC/MS M	04/24/17	04/24/17 16:05	170424S011				
17-04-0940-6	Matrix Spike Duplicate	Aqueous	GC/MS M	04/24/17	04/24/17 16:35	170424S011				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	12.62	5.000	21.12	170	18.62	120	80-120	13	0-20	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
A-1-CW03R-N-17Q2	Sample	Aqueous	GC/MS M	04/24/17	04/25/17 00:02	170424S012
A-1-CW03R-N-17Q2	Matrix Spike	Aqueous	GC/MS M	04/24/17	04/25/17 00:32	170424S012
A-1-CW03R-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS M	04/24/17	04/25/17 01:02	170424S012

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	0.6449	0.02000	0.7153	352	0.6036	0	80-120	17	0-20	3

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RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Page 7 of 7

Project: LMC BOU

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
3850N-N-17Q2	Sample	Aqueous	GC/MS M	04/26/17	04/26/17 13:31	170426S009
3850N-N-17Q2	Matrix Spike	Aqueous	GC/MS M	04/26/17	04/26/17 15:01	170426S009
3850N-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS M	04/26/17	04/26/17 15:31	170426S009

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	0.5650	0.2000	0.6540	44	0.7060	70	80-120	8	0-20	3



## Quality Control - PDS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDS Batch Number
A-1-CW03R-N-17Q2	Sample	Aqueous	ICP/MS 03	04/24/17 00:00	04/25/17 02:39	170424SA3
A-1-CW03R-N-17Q2	PDS	Aqueous	ICP/MS 03	04/24/17 00:00	04/25/17 02:34	170424SA3

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>PDS Conc.</u>	<u>PDS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium	0.001055	0.1000	0.1044	103	75-125	

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-567-237	LCS	Aqueous	IC 16	N/A	04/13/17 17:01	170413L01

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chromium, Hexavalent	10.00	10.13	101	95-107	





## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>096-06-003-5544</b>	<b>LCS</b>	<b>Aqueous</b>	<b>ICP/MS 03</b>	<b>04/24/17</b>	<b>04/25/17 20:10</b>	<b>170424LA3</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium	0.1000	0.1061	106	80-120	



RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-16-216-1013</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/17/17</b>	<b>04/17/17 22:48</b>	<b>170417L10</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,4-Dioxane	20.00	20.30	101	50-130	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-10-025-4647</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS T</b>	<b>04/25/17</b>	<b>04/25/17 09:32</b>	<b>170425L008</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
1,1-Dichloroethene		10.00	10.51	105	77-120	70-127	
1,2-Dibromoethane		10.00	10.03	100	80-120	73-127	
1,2-Dichlorobenzene		10.00	10.08	101	80-120	73-127	
1,2-Dichloroethane		10.00	9.789	98	80-122	73-129	
Benzene		10.00	10.19	102	80-120	73-127	
Carbon Tetrachloride		10.00	10.88	109	80-129	72-137	
Chlorobenzene		10.00	10.09	101	80-120	73-127	
Ethylbenzene		10.00	10.32	103	80-120	73-127	
Toluene		10.00	10.19	102	80-120	73-127	
Trichloroethene		10.00	10.33	103	80-120	73-127	
Vinyl Chloride		10.00	10.46	105	63-135	51-147	
o-Xylene		10.00	10.39	104	80-120	73-127	
p/m-Xylene		20.00	20.64	103	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	9.746	97	75-123	67-131	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS/LCSD

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-118-492	LCS	Aqueous	GC/MS M	04/24/17	04/24/17 11:06	170424L033			
099-15-118-492	LCSD	Aqueous	GC/MS M	04/24/17	04/24/17 11:36	170424L033			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	0.02000	0.01640	82	0.01830	92	80-120	11	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/13/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-1061
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
Project: LMC BOU	Method:	EPA 8260B SIM
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-118-493</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>04/24/17</b>	<b>04/24/17 22:33</b>	<b>170424L035</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,2,3-Trichloropropane		0.02000	0.02000	100	80-120	





## Quality Control - LCS/LCSD

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/13/17  
Work Order: 17-04-1061  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Page 7 of 7

Project: LMC BOU

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-118-494	LCS	Aqueous	GC/MS M	04/26/17	04/26/17 10:02	170426L028			
099-15-118-494	LCSD	Aqueous	GC/MS M	04/26/17	04/26/17 10:32	170426L028			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	0.02000	0.02040	102	0.01960	98	80-120	4	0-20	

## Sample Analysis Summary Report

Work Order: 17-04-1061

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 218.6	N/A	834	IC 16	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 8260B	EPA 5030C	316	GC/MS T	2
EPA 8260B SIM	EPA 5030C	486	GC/MS M	2
EPA 8270C (M) Isotope Dilution	EPA 3510C	928	GC/MS DDD	1

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.





**SAMPLE RECEIPT CHECKLIST**

COOLER 1 OF 1

CLIENT: Tetra Tech

DATE: 04/13/2017

**TEMPERATURE:** (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)  
 Thermometer ID: SC (CF: 0.0°C); Temperature (w/o CF): 2.0 °C (w/ CF): 2.0 °C;  Blank  Sample  
 Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)  
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling  
 Sample(s) received at ambient temperature; placed on ice for transport by courier  
 Ambient Temperature:  Air  Filter

Checked by: 1091

**CUSTODY SEAL:**

Cooler	<input type="checkbox"/> Present and Intact	<input type="checkbox"/> Present but Not Intact	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/> N/A	Checked by: <u>1091</u>
Sample(s)	<input type="checkbox"/> Present and Intact	<input type="checkbox"/> Present but Not Intact	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/> N/A	Checked by: <u>679</u>

**SAMPLE CONDITION:**

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Container(s) for certain analysis free of headspace .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:** (Trip Blank Lot Number: \_\_\_\_\_)

Aqueous:  VOA  VOAh  VOAna<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBh  125AGBp  125PB  
 125PBznna  250AGB  250CGB  250CGBs  250PB  250PBn  500AGB  500AGJ  500AGJs  
 500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  EnCores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_

Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (\_\_\_\_\_)  \_\_\_\_\_  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 679  
 a = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>·H<sub>2</sub>O, znna = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: 1110

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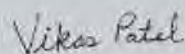

**WORK ORDER NUMBER: 17-04-0940**
*The difference is service*


AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**
**Client:** Tetra Tech, Inc.

**Client Project Name:** LMC BOU

**Attention:** Robert Sabater  
 301 E. Vanderbilt Way, Suite 450  
 San Bernardino, CA 92408-3562



 Approved for release on 04/28/2017 by:  
 Vikas Patel  
 Project Manager

ResultLink ▶

Email your PM ▶

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



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Work Order Number: 17-04-0940

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 04/12/17. They were assigned to Work Order 17-04-0940.

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

**Holding Times:**

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

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

**Quality Control:**

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

**Subcontractor Information:**

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

**Additional Comments:**

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

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





## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-0940  
Project Name: LMC BOU  
Received: 04/12/17

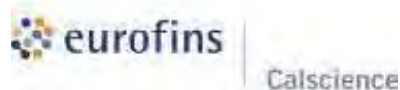
Attn: Robert Sabater

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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
C-1-CW08-N-17Q2 (17-04-0940-1)						
Chromium, Hexavalent	1.1		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00757		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1-Dichloroethene	0.48	J	0.28*	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	0.52		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.33	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Dichlorodifluoromethane	0.99	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	1.5		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	0.36	J	0.29*	ug/L	EPA 8260B	EPA 5030C
C-1-CW07-N-17Q2 (17-04-0940-2)						
Chromium	0.0829		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1-Dichloroethene	0.44	J	0.28*	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	0.37	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.29	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Dichlorodifluoromethane	0.94	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	3.2		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	0.72		0.50	ug/L	EPA 8260B	EPA 5030C
1,4-Dioxane	2.8		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C
B-1-CW28-N-17Q2 (17-04-0940-4)						
Chromium	0.000983	J	0.000402*	mg/L	EPA 6020	EPA 3020A Total
Chloroform	0.35	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	13		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	3.2		0.50	ug/L	EPA 8260B	EPA 5030C
B-1-CW28-FD-17Q2 (17-04-0940-5)						
Chromium	0.000895	J	0.000402*	mg/L	EPA 6020	EPA 3020A Total
Chloroform	0.33	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	12		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	3.0		0.50	ug/L	EPA 8260B	EPA 5030C

\* MDL is shown



## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-0940  
Project Name: LMC BOU  
Received: 04/12/17

Attn: Robert Sabater

Page 2 of 2

### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-1-CW13-N-17Q2 (17-04-0940-6)						
Chromium, Hexavalent	2.0		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00276		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	5.1		2.0	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	7.9		2.0	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	10		4.0	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	3.1		2.0	ug/L	EPA 8260B	EPA 5030C
Chloroform	15		2.0	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	100		2.0	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	240		5.0	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	13		1.2	ug/L	EPA 8260B SIM	EPA 5030C
1,4-Dioxane	2.0		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C
3852F-N-17Q2 (17-04-0940-7)						
Chromium, Hexavalent	2.7		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00315		0.00100	mg/L	EPA 6020	EPA 3020A Total
Bromodichloromethane	0.20	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	0.44	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.51		0.50	ug/L	EPA 8260B	EPA 5030C
Dichlorodifluoromethane	1.1		1.0	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	1.0		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	0.58		0.50	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.027		0.0050	ug/L	EPA 8260B SIM	EPA 5030C
1,4-Dioxane	1.5		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C
3852H-N-17Q2 (17-04-0940-8)						
Chromium, Hexavalent	1.1		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00232		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloroethane	0.29	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	2.1		0.50	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	1.6		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	6.9		0.50	ug/L	EPA 8260B	EPA 5030C
Dichlorodifluoromethane	0.91	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	1.5		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	7.2		0.50	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.29		0.025	ug/L	EPA 8260B SIM	EPA 5030C

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

\* MDL is shown



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: N/A  
Method: EPA 218.6  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW08-N-17Q2	17-04-0940-1-K	04/12/17 16:05	Aqueous	IC 16	N/A	04/12/17 21:55	170412L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	1.1	0.020	0.0099	1.00	

C-1-CW07-N-17Q2	17-04-0940-2-K	04/12/17 15:00	Aqueous	IC 16	N/A	04/12/17 22:06	170412L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

B-1-CW28-N-17Q2	17-04-0940-4-K	04/12/17 09:00	Aqueous	IC 16	N/A	04/12/17 22:17	170412L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

B-1-CW28-FD-17Q2	17-04-0940-5-K	04/12/17 09:00	Aqueous	IC 16	N/A	04/12/17 22:28	170412L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

B-1-CW13-N-17Q2	17-04-0940-6-K	04/12/17 10:18	Aqueous	IC 16	N/A	04/12/17 22:40	170412L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	2.0	0.020	0.0099	1.00	

3852F-N-17Q2	17-04-0940-7-K	04/12/17 15:29	Aqueous	IC 16	N/A	04/12/17 22:51	170412L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	2.7	0.020	0.0099	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: N/A  
Method: EPA 218.6  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852H-N-17Q2	17-04-0940-8-K	04/12/17 16:35	Aqueous	IC 16	N/A	04/12/17 23:02	170412L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	1.1	0.020	0.0099	1.00	

Method Blank	099-14-567-235	N/A	Aqueous	IC 16	N/A	04/12/17 17:45	170412L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 3020A Total  
Method: EPA 6020  
Units: mg/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW08-N-17Q2	17-04-0940-1-L	04/12/17 16:05	Aqueous	ICP/MS 03	04/19/17	04/21/17 17:02	170419LA2

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00757	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW07-N-17Q2	17-04-0940-2-L	04/12/17 15:00	Aqueous	ICP/MS 03	04/19/17	04/21/17 17:04	170419LA2

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.0829	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW28-N-17Q2	17-04-0940-4-L	04/12/17 09:00	Aqueous	ICP/MS 03	04/19/17	04/21/17 17:07	170419LA2

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.000983	0.00100	0.000402	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW28-FD-17Q2	17-04-0940-5-L	04/12/17 09:00	Aqueous	ICP/MS 03	04/19/17	04/21/17 17:09	170419LA2

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.000895	0.00100	0.000402	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW13-N-17Q2	17-04-0940-6-L	04/12/17 10:18	Aqueous	ICP/MS 03	04/19/17	04/21/17 17:12	170419LA2

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00276	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852F-N-17Q2	17-04-0940-7-L	04/12/17 15:29	Aqueous	ICP/MS 03	04/19/17	04/21/17 17:14	170419LA2

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00315	0.00100	0.000402	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 3020A Total  
Method: EPA 6020  
Units: mg/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852H-N-17Q2	17-04-0940-8-L	04/12/17 16:35	Aqueous	ICP/MS 03	04/19/17	04/21/17 17:17	170419LA2

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Chromium	0.00232	0.00100	0.000402	1.00	

Method Blank	096-06-003-5540	N/A	Aqueous	ICP/MS 05	04/19/17	04/24/17 15:41	170419LA2
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Chromium	ND	0.00100	0.000402	1.00	

Return to Contents

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW08-N-17Q2	17-04-0940-1-M	04/12/17 16:05	Aqueous	GC/MS DDD	04/13/17	04/14/17 13:18	170413L06

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	96	56-123	
1,4-Dioxane-d8(IDS-IS)	39	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW07-N-17Q2	17-04-0940-2-M	04/12/17 15:00	Aqueous	GC/MS DDD	04/13/17	04/14/17 13:33	170413L06

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	2.8	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	105	56-123	
1,4-Dioxane-d8(IDS-IS)	39	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW28-N-17Q2	17-04-0940-4-M	04/12/17 09:00	Aqueous	GC/MS DDD	04/13/17	04/14/17 13:49	170413L06

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	101	56-123	
1,4-Dioxane-d8(IDS-IS)	39	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW28-FD-17Q2	17-04-0940-5-M	04/12/17 09:00	Aqueous	GC/MS DDD	04/13/17	04/14/17 14:05	170413L06

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	99	56-123	
1,4-Dioxane-d8(IDS-IS)	38	30-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW13-N-17Q2	17-04-0940-6-M	04/12/17 10:18	Aqueous	GC/MS DDD	04/13/17	04/14/17 14:20	170413L06

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	2.0	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	107	56-123	
1,4-Dioxane-d8(IDS-IS)	40	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852F-N-17Q2	17-04-0940-7-M	04/12/17 15:29	Aqueous	GC/MS DDD	04/13/17	04/14/17 14:36	170413L06

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	1.5	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	105	56-123	
1,4-Dioxane-d8(IDS-IS)	37	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852H-N-17Q2	17-04-0940-8-M	04/12/17 16:35	Aqueous	GC/MS DDD	04/13/17	04/14/17 14:52	170413L06

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	101	56-123	
1,4-Dioxane-d8(IDS-IS)	37	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-216-1009	N/A	Aqueous	GC/MS DDD	04/13/17	04/13/17 23:05	170413L06

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	89	56-123	
1,4-Dioxane-d8(IDS-IS)	44	30-120	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW08-N-17Q2	17-04-0940-1-A	04/12/17 16:05	Aqueous	GC/MS L	04/22/17	04/23/17 06:19	170422L026

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	0.48	0.50	0.28	1.00	J
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	0.52	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.33	0.50	0.20	1.00	J
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	0.99	1.0	0.40	1.00	J
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	1.5	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	0.36	0.50	0.29	1.00	J
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	93	68-120			
Dibromofluoromethane	99	80-127			

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

## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/12/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0940
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 3 of 27

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	106	80-128	
Toluene-d8	99	80-120	



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW07-N-17Q2	17-04-0940-2-A	04/12/17 15:00	Aqueous	GC/MS L	04/22/17	04/23/17 06:50	170422L026

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	0.44	0.50	0.28	1.00	J
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	0.37	0.50	0.20	1.00	J
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.29	0.50	0.20	1.00	J
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	0.94	1.0	0.40	1.00	J
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	3.2	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	0.72	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	92	68-120			
Dibromofluoromethane	100	80-127			

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/12/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0940
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 6 of 27

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	103	80-128	
Toluene-d8	100	80-120	



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20170412	17-04-0940-3-A	04/12/17 06:00	Aqueous	GC/MS L	04/22/17	04/23/17 05:48	170422L026

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	93	68-120			
Dibromofluoromethane	95	80-127			

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





## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/12/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0940
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: LMC BOU		Page 9 of 27

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	100	80-128	
Toluene-d8	98	80-120	



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW28-N-17Q2	17-04-0940-4-A	04/12/17 09:00	Aqueous	GC/MS L	04/22/17	04/23/17 07:20	170422L026

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.35	0.50	0.20	1.00	J
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	13	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	3.2	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	92	68-120			
Dibromofluoromethane	99	80-127			

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



## Analytical Report

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<p>Tetra Tech, Inc. 301 E. Vanderbilt Way, Suite 450 San Bernardino, CA 92408-3562</p> <p>Project: LMC BOU</p>	<p>Date Received: 04/12/17 Work Order: 17-04-0940 Preparation: EPA 5030C Method: EPA 8260B Units: ug/L</p>	<p>Page 12 of 27</p>
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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	104	80-128	
Toluene-d8	98	80-120	




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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW28-FD-17Q2	17-04-0940-5-A	04/12/17 09:00	Aqueous	GC/MS L	04/22/17	04/23/17 07:51	170422L026

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.33	0.50	0.20	1.00	J
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	12	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	3.0	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	95	68-120	
Dibromofluoromethane	99	80-127	

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/12/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0940
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 15 of 27

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	105	80-128	
Toluene-d8	100	80-120	




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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW13-N-17Q2	17-04-0940-6-A	04/12/17 10:18	Aqueous	GC/MS L	04/22/17	04/23/17 08:21	170422L026

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	2.0	0.80	4.00	
1,1,1-Trichloroethane	ND	2.0	0.80	4.00	
1,1,2,2-Tetrachloroethane	ND	2.0	0.80	4.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	5.1	2.0	0.96	4.00	
1,1,2-Trichloroethane	ND	2.0	0.80	4.00	
1,1-Dichloroethane	ND	2.0	0.80	4.00	
1,1-Dichloroethene	7.9	2.0	1.1	4.00	
1,1-Dichloropropene	ND	2.0	1.2	4.00	
1,2,3-Trichlorobenzene	ND	2.0	0.80	4.00	
1,2,3-Trichloropropane	10	4.0	1.6	4.00	
1,2,4-Trichlorobenzene	ND	2.0	0.80	4.00	
1,2,4-Trimethylbenzene	ND	2.0	0.80	4.00	
1,2-Dibromo-3-Chloropropane	ND	20	8.0	4.00	
1,2-Dibromoethane	ND	2.0	0.80	4.00	
1,2-Dichlorobenzene	ND	2.0	0.80	4.00	
1,2-Dichloroethane	ND	2.0	0.80	4.00	
1,2-Dichloropropane	ND	2.0	0.80	4.00	
1,3,5-Trimethylbenzene	ND	2.0	0.80	4.00	
1,3-Dichlorobenzene	ND	2.0	1.1	4.00	
1,3-Dichloropropane	ND	4.0	1.6	4.00	
1,4-Dichlorobenzene	ND	2.0	0.80	4.00	
2,2-Dichloropropane	ND	4.0	1.6	4.00	
2-Butanone	ND	20	8.0	4.00	
2-Chlorotoluene	ND	2.0	0.80	4.00	
2-Hexanone	ND	40	16	4.00	
4-Chlorotoluene	ND	2.0	1.4	4.00	
4-Methyl-2-Pentanone	ND	20	8.0	4.00	
Acetone	ND	40	16	4.00	
Benzene	ND	2.0	0.80	4.00	
Bromobenzene	ND	2.0	1.3	4.00	
Bromochloromethane	ND	4.0	1.6	4.00	
Bromodichloromethane	ND	2.0	0.80	4.00	
Bromoform	ND	2.0	0.99	4.00	
Bromomethane	ND	4.0	1.6	4.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	4.0	1.6	4.00	
Carbon Tetrachloride	3.1	2.0	0.80	4.00	
Chlorobenzene	ND	2.0	0.80	4.00	
Chloroethane	ND	2.0	1.3	4.00	
Chloroform	15	2.0	0.80	4.00	
Chloromethane	ND	2.0	1.2	4.00	
Dibromochloromethane	ND	2.0	0.80	4.00	
Dibromomethane	ND	2.0	0.80	4.00	
Dichlorodifluoromethane	ND	4.0	1.6	4.00	
Ethylbenzene	ND	2.0	0.80	4.00	
Isopropylbenzene	ND	2.0	0.80	4.00	
Methylene Chloride	ND	4.0	3.2	4.00	
Naphthalene	ND	4.0	1.6	4.00	
Styrene	ND	2.0	0.80	4.00	
Tetrachloroethene	100	2.0	0.80	4.00	
Toluene	ND	2.0	0.80	4.00	
t-1,2-Dichloroethene	ND	2.0	0.80	4.00	
Trichlorofluoromethane	ND	2.0	0.80	4.00	
Vinyl Acetate	ND	20	8.0	4.00	
Vinyl Chloride	ND	2.0	0.80	4.00	
c-1,3-Dichloropropene	ND	2.0	0.80	4.00	
c-1,2-Dichloroethene	ND	2.0	0.80	4.00	
n-Butylbenzene	ND	2.0	0.80	4.00	
n-Propylbenzene	ND	2.0	0.80	4.00	
o-Xylene	ND	2.0	1.3	4.00	
p-Isopropyltoluene	ND	2.0	0.80	4.00	
sec-Butylbenzene	ND	2.0	0.80	4.00	
t-1,3-Dichloropropene	ND	2.0	0.80	4.00	
tert-Butylbenzene	ND	2.0	0.80	4.00	
p/m-Xylene	ND	2.0	0.80	4.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.80	4.00	
2-Chloroethyl Vinyl Ether	ND	20	17	4.00	
Hexachloro-1,3-Butadiene	ND	8.0	3.2	4.00	
Iodomethane	ND	40	20	4.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	92	68-120	
Dibromofluoromethane	99	80-127	
1,2-Dichloroethane-d4	103	80-128	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Toluene-d8	100	80-120	

<u>Client Sample Number</u>	<u>Lab Sample Number</u>	<u>Date/Time Collected</u>	<u>Matrix</u>	<u>Instrument</u>	<u>Date Prepared</u>	<u>Date/Time Analyzed</u>	<u>QC Batch ID</u>
<b>B-1-CW13-N-17Q2</b>	<b>17-04-0940-6-B</b>	<b>04/12/17 10:18</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>04/24/17</b>	<b>04/24/17 13:50</b>	<b>170424L004</b>

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Trichloroethene	240	5.0	2.9	10.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	93	68-120	
Dibromofluoromethane	97	80-127	
1,2-Dichloroethane-d4	101	80-128	
Toluene-d8	99	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852F-N-17Q2	17-04-0940-7-A	04/12/17 15:29	Aqueous	GC/MS L	04/22/17	04/23/17 08:52	170422L026

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	0.20	0.50	0.20	1.00	J
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	0.44	0.50	0.20	1.00	J
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.51	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	1.1	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	1.0	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	0.58	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	92	68-120			
Dibromofluoromethane	97	80-127			

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





## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/12/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0940
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 21 of 27

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	103	80-128	
Toluene-d8	100	80-120	



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852H-N-17Q2	17-04-0940-8-A	04/12/17 16:35	Aqueous	GC/MS L	04/22/17	04/23/17 09:22	170422L026

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	0.29	0.50	0.20	1.00	J
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	2.1	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	1.6	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	6.9	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	0.91	1.0	0.40	1.00	J
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	1.5	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	7.2	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	92	68-120			
Dibromofluoromethane	100	80-127			

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/12/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0940
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 24 of 27

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	103	80-128	
Toluene-d8	99	80-120	




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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-025-4644	N/A	Aqueous	GC/MS L	04/22/17	04/22/17 23:12	170422L026

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	94	68-120			
Dibromofluoromethane	99	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	104	80-128	
Toluene-d8	99	80-120	

<u>Client Sample Number</u>	<u>Lab Sample Number</u>	<u>Date/Time Collected</u>	<u>Matrix</u>	<u>Instrument</u>	<u>Date Prepared</u>	<u>Date/Time Analyzed</u>	<u>QC Batch ID</u>
<b>Method Blank</b>	<b>099-10-025-4643</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>04/24/17</b>	<b>04/24/17 10:13</b>	<b>170424L004</b>

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Trichloroethene	ND	0.50	0.29	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	91	68-120	
Dibromofluoromethane	94	80-127	
1,2-Dichloroethane-d4	96	80-128	
Toluene-d8	99	80-120	

Return to Contents

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW08-N-17Q2	17-04-0940-1-H	04/12/17 16:05	Aqueous	GC/MS M	04/21/17	04/22/17 06:25	170421L050

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	120	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW07-N-17Q2	17-04-0940-2-G	04/12/17 15:00	Aqueous	GC/MS M	04/24/17	04/24/17 13:06	170424L033

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	102	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20170412	17-04-0940-3-C	04/12/17 06:00	Aqueous	GC/MS M	04/21/17	04/22/17 05:55	170421L050

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	125	80-120	2,7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW28-N-17Q2	17-04-0940-4-D	04/12/17 09:00	Aqueous	GC/MS M	04/21/17	04/22/17 08:54	170421L050

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	120	80-120	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW28-FD-17Q2	17-04-0940-5-D	04/12/17 09:00	Aqueous	GC/MS M	04/21/17	04/22/17 09:24	170421L050

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	109	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW13-N-17Q2	17-04-0940-6-G	04/12/17 10:18	Aqueous	GC/MS M	04/24/17	04/24/17 14:05	170424L033

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	13	1.2	0.62	250	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	108	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852F-N-17Q2	17-04-0940-7-G	04/12/17 15:29	Aqueous	GC/MS M	04/24/17	04/24/17 13:36	170424L033

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.027	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	111	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852H-N-17Q2	17-04-0940-8-G	04/12/17 16:35	Aqueous	GC/MS M	04/24/17	04/24/17 14:35	170424L033

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.29	0.025	0.012	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	116	80-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-118-491	N/A	Aqueous	GC/MS M	04/21/17	04/22/17 05:26	170421L050

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	117	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-118-492	N/A	Aqueous	GC/MS M	04/24/17	04/24/17 12:36	170424L033

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	113	80-120	

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



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
3852H-N-17Q2	Sample	Aqueous	IC 16	N/A	04/12/17 23:02	170412S01
3852H-N-17Q2	Matrix Spike	Aqueous	IC 16	N/A	04/12/17 23:13	170412S01
3852H-N-17Q2	Matrix Spike Duplicate	Aqueous	IC 16	N/A	04/12/17 23:24	170412S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium, Hexavalent	1.122	10.00	11.77	107	11.91	108	85-121	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1235-2	Sample	Aqueous	ICP/MS 05	04/19/17	04/19/17 23:32	170419SA2
17-04-1235-2	Matrix Spike	Aqueous	ICP/MS 05	04/19/17	04/19/17 23:18	170419SA2
17-04-1235-2	Matrix Spike Duplicate	Aqueous	ICP/MS 05	04/19/17	04/19/17 23:21	170419SA2

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium	ND	0.1000	0.1077	108	0.1089	109	73-133	1	0-11	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
17-04-0840-1	Sample	Aqueous	GC/MS DDD	04/13/17	04/14/17 00:09	170413S06				
17-04-0840-1	Matrix Spike	Aqueous	GC/MS DDD	04/13/17	04/13/17 23:37	170413S06				
17-04-0840-1	Matrix Spike Duplicate	Aqueous	GC/MS DDD	04/13/17	04/13/17 23:53	170413S06				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,4-Dioxane	3.735	20.00	24.31	103	23.79	100	50-130	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1162-29	Sample	Aqueous	GC/MS L	04/22/17	04/22/17 23:42	170422S012
17-04-1162-29	Matrix Spike	Aqueous	GC/MS L	04/22/17	04/23/17 00:43	170422S012
17-04-1162-29	Matrix Spike Duplicate	Aqueous	GC/MS L	04/22/17	04/23/17 01:14	170422S012

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloroethene	ND	10.00	9.853	99	9.906	99	66-126	1	0-20	
1,2-Dibromoethane	ND	10.00	9.932	99	9.724	97	75-126	2	0-20	
1,2-Dichlorobenzene	ND	10.00	10.28	103	9.697	97	75-125	6	0-20	
1,2-Dichloroethane	ND	10.00	10.65	106	10.22	102	75-127	4	0-20	
Benzene	ND	10.00	10.45	105	9.748	97	75-125	7	0-20	
Carbon Tetrachloride	ND	10.00	9.141	91	8.642	86	69-135	6	0-20	
Chlorobenzene	ND	10.00	10.49	105	9.988	100	75-125	5	0-20	
Ethylbenzene	ND	10.00	10.64	106	10.04	100	75-125	6	0-20	
Toluene	ND	10.00	10.77	108	10.03	100	75-125	7	0-20	
Trichloroethene	0.5708	10.00	11.39	108	10.51	99	75-125	8	0-20	
Vinyl Chloride	ND	10.00	11.34	113	11.38	114	52-142	0	0-20	
o-Xylene	ND	10.00	10.54	105	9.970	100	75-127	6	0-20	
p/m-Xylene	ND	20.00	21.25	106	19.91	100	75-125	7	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	10.02	100	8.920	89	71-131	12	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1319-4	Sample	Aqueous	GC/MS L	04/24/17	04/24/17 11:17	170424S003
17-04-1319-4	Matrix Spike	Aqueous	GC/MS L	04/24/17	04/24/17 12:49	170424S003
17-04-1319-4	Matrix Spike Duplicate	Aqueous	GC/MS L	04/24/17	04/24/17 13:20	170424S003

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Trichloroethene	7.182	10.00	17.30	101	16.40	92	75-125	5	0-20	
Benzene	2.602	10.00	12.05	94	11.77	92	75-125	2	0-20	
Carbon Tetrachloride	ND	10.00	8.558	86	8.404	84	69-135	2	0-20	
Chlorobenzene	77.78	10.00	88.42	106	84.06	63	75-125	5	0-20	3
1,2-Dibromoethane	ND	10.00	9.489	95	9.309	93	75-126	2	0-20	
1,2-Dichlorobenzene	ND	10.00	10.15	101	9.651	97	75-125	5	0-20	
1,2-Dichloroethane	124.5	10.00	140.0	155	127.8	33	75-127	9	0-20	3
1,1-Dichloroethene	45.01	10.00	55.37	104	52.75	77	66-126	5	0-20	
Ethylbenzene	ND	10.00	10.00	100	9.644	96	75-125	4	0-20	
Toluene	ND	10.00	10.23	102	9.847	98	75-125	4	0-20	
Vinyl Chloride	25.26	10.00	34.95	97	34.10	88	52-142	2	0-20	
p/m-Xylene	ND	20.00	20.09	100	19.47	97	75-125	3	0-20	
o-Xylene	ND	10.00	9.982	100	9.581	96	75-127	4	0-20	
Methyl-t-Butyl Ether (MTBE)	7.136	10.00	15.37	82	16.34	92	71-131	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
C-1-CW08-N-17Q2	Sample	Aqueous	GC/MS M	04/21/17	04/22/17 06:25	170421S027				
C-1-CW08-N-17Q2	Matrix Spike	Aqueous	GC/MS M	04/21/17	04/22/17 06:55	170421S027				
C-1-CW08-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS M	04/21/17	04/22/17 07:25	170421S027				
<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
1,2,3-Trichloropropane	ND	0.02000	0.01960	98	0.02380	119	80-120	19	0-20	

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RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
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Project: LMC BOU

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-1-CW13-N-17Q2	Sample	Aqueous	GC/MS M	04/24/17	04/24/17 14:05	170424S011
B-1-CW13-N-17Q2	Matrix Spike	Aqueous	GC/MS M	04/24/17	04/24/17 16:05	170424S011
B-1-CW13-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS M	04/24/17	04/24/17 16:35	170424S011

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	12.62	5.000	21.12	170	18.62	120	80-120	13	0-20	3

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RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - PDS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDS Batch Number
17-04-1235-2	Sample	Aqueous	ICP/MS 05	04/19/17 00:00	04/19/17 23:32	170419SA2
17-04-1235-2	PDS	Aqueous	ICP/MS 05	04/19/17 00:00	04/19/17 23:25	170419SA2

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>PDS Conc.</u>	<u>PDS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium	ND	0.1000	0.1041	104	75-125	

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-14-567-235</b>	<b>LCS</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/12/17 17:57</b>	<b>170412L01</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	10.00	10.11	101	95-107	

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RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/12/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0940
San Bernardino, CA 92408-3562	Preparation:	EPA 3020A Total
	Method:	EPA 6020
Project: LMC BOU		Page 2 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>096-06-003-5540</b>	<b>LCS</b>	<b>Aqueous</b>	<b>ICP/MS 05</b>	<b>04/19/17</b>	<b>04/19/17 23:14</b>	<b>170419LA2</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium		0.1000	0.1033	103	80-120	





## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

Page 3 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-16-216-1009</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/13/17</b>	<b>04/13/17 23:21</b>	<b>170413L06</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,4-Dioxane		20.00	19.24	96	50-130	



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-10-025-4644</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>04/22/17</b>	<b>04/22/17 22:41</b>	<b>170422L026</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
1,1-Dichloroethene		10.00	9.594	96	77-120	70-127	
1,2-Dibromoethane		10.00	9.702	97	80-120	73-127	
1,2-Dichlorobenzene		10.00	9.578	96	80-120	73-127	
1,2-Dichloroethane		10.00	10.14	101	80-122	73-129	
Benzene		10.00	9.628	96	80-120	73-127	
Carbon Tetrachloride		10.00	8.285	83	80-129	72-137	
Chlorobenzene		10.00	9.958	100	80-120	73-127	
Ethylbenzene		10.00	9.856	99	80-120	73-127	
Toluene		10.00	9.771	98	80-120	73-127	
Trichloroethene		10.00	10.08	101	80-120	73-127	
Vinyl Chloride		10.00	10.34	103	63-135	51-147	
o-Xylene		10.00	9.978	100	80-120	73-127	
p/m-Xylene		20.00	19.82	99	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	8.656	87	75-123	67-131	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-10-025-4643</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>04/24/17</b>	<b>04/24/17 09:29</b>	<b>170424L004</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Trichloroethene		10.00	10.25	103	80-120	73-127	
Benzene		10.00	9.619	96	80-120	73-127	
Carbon Tetrachloride		10.00	8.789	88	80-129	72-137	
Chlorobenzene		10.00	10.09	101	80-120	73-127	
1,2-Dibromoethane		10.00	9.750	97	80-120	73-127	
1,2-Dichlorobenzene		10.00	9.657	97	80-120	73-127	
1,2-Dichloroethane		10.00	10.12	101	80-122	73-129	
1,1-Dichloroethene		10.00	9.441	94	77-120	70-127	
Ethylbenzene		10.00	9.999	100	80-120	73-127	
Toluene		10.00	9.877	99	80-120	73-127	
Vinyl Chloride		10.00	9.853	99	63-135	51-147	
p/m-Xylene		20.00	20.15	101	80-120	73-127	
o-Xylene		10.00	10.10	101	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	9.370	94	75-123	67-131	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents



## Quality Control - LCS/LCSD

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

Page 6 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-118-491	LCS	Aqueous	GC/MS M	04/21/17	04/22/17 03:56	170421L050			
099-15-118-491	LCSD	Aqueous	GC/MS M	04/21/17	04/22/17 04:26	170421L050			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	0.02000	0.01880	94	0.01770	88	80-120	6	0-20	

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RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - LCS/LCSD

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/12/17  
Work Order: 17-04-0940  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Page 7 of 7

Project: LMC BOU

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-118-492	LCS	Aqueous	GC/MS M	04/24/17	04/24/17 11:06	170424L033			
099-15-118-492	LCSD	Aqueous	GC/MS M	04/24/17	04/24/17 11:36	170424L033			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	0.02000	0.01640	82	0.01830	92	80-120	11	0-20	



## Sample Analysis Summary Report

Work Order: 17-04-0940

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 218.6	N/A	1065	IC 16	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 8260B	EPA 5030C	316	GC/MS L	2
EPA 8260B SIM	EPA 5030C	486	GC/MS M	2
EPA 8270C (M) Isotope Dilution	EPA 3510C	928	GC/MS DDD	1



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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

## Glossary of Terms and Qualifiers

Work Order: 17-04-0940

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



Calscience

7440 Lincoln Way, Garden Grove, CA 92641-1427 • (714) 525-5464  
 For courier services / sample drop off information, visit us at [www.eurofins.com](http://www.eurofins.com) or call us.

CHAIN-OF-CUSTODY RECORD

Date 4-12-2017  
 Page 7 of 1

WORK NO. / LAB USE ONLY  
**17-04-0940**

LABORATORY CLIENT: Teton Tech Inc  
 ADDRESS: 301 E Vandenberg Way Suite 450  
 CITY: San Bernardino STATE: CA ZIP: 92400  
 TEL: \_\_\_\_\_ E MAIL: \_\_\_\_\_  
 TURNAROUND TIME (rush charges may apply to any TAT not STANDARD)  
 SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD  
 EDD \_\_\_\_\_  
 CORELT EDD  OTHER \_\_\_\_\_  
 SPECIAL INSTRUCTIONS \_\_\_\_\_

CLIENT PROJECT NAME / NO.: \_\_\_\_\_  
 LMC BOY  
 PROJECT CONTACT: Robert Squires  
 GLOBAL ID: \_\_\_\_\_  
 LAB CONTACT OR QUOTE NO.: \_\_\_\_\_  
 SPECIAL INSTRUCTIONS (PRINT): Teton Cook  
James Calder

REQUESTED ANALYSES  
 Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CORE	Field Filtered	Preserved	Unpreserved	TPH <input type="checkbox"/> CB-C35 <input type="checkbox"/> CB-C4	TPH _____	BTEX / MTBE <input type="checkbox"/> E200 <input type="checkbox"/>	VOCs (226)	Organics (228)	Prep (305) <input type="checkbox"/> En Core <input type="checkbox"/> Tens Core	SVOCs (227)	Pesticides (229)	PCBs (303)	PAHs (279) C (279) SM	T22 Metals <input type="checkbox"/> 6010747X <input type="checkbox"/> 6020747X	GMM <input type="checkbox"/> 7186 <input type="checkbox"/> 7189 <input type="checkbox"/> 218 6	4H Dioxane	FOR/MS Metals	H/CR CR	12,13 TCP		
		DATE	TIME																							
	1 C-1-6208-N-1702	4-12-17	1605	W	13		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
	2 C-1-6207-N-1702	4-12-17	1500	W	13		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
	3 LTP-20101A	4-12-17	0600	W	3		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
	4 B-1-6203-N-1702	4-12-17	0900	W	13		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
	5 B-1-6203-FD-1702	4-12-17	0900	W	13		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
	6 B-1-6203-N-1702	4-12-17	0018	W	13		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
	7 3850E-N-1702	4-12-17	1529	W	13		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
	8 3852H-N-1702	4-12-17	1635	W	13		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		

Requested by (Signature): \_\_\_\_\_  
 Date: 4-12-2017 Time: 1702  
 Requested by (Signature): \_\_\_\_\_  
 Date: 4/12/17 Time: 1910  
 Requested by (Signature): \_\_\_\_\_  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_



SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Tetra Tech

DATE: 04/12/2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC (CF: 0.0°C); Temperature (w/o CF): 2.0 °C (w/ CF): 2.0 °C;  Blank  Sample

- Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)
- Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling
- Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature:  Air  Filter

Checked by: 1091

CUSTODY SEAL:

- Cooler  Present and Intact  Present but Not Intact  Not Present  N/A
- Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: 1091  
 Checked by: 1110

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Container(s) for certain analysis free of headspace	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

(Trip Blank Lot Number: 170328A)

- Aqueous:  VOA  VOA<sub>h</sub>  VOA<sub>na<sub>2</sub></sub>  100PJ  100PJ<sub>na<sub>2</sub></sub>  125AGB  125AGB<sub>h</sub>  125AGB<sub>p</sub>  125PB
- 125PB<sub>znna</sub>  250AGB  250CGB  250CGB<sub>6</sub>  250PB  250PB<sub>n</sub>  500AGB  500AGJ  500AGJ<sub>6</sub>
- 500PB  1AGB  1AGB<sub>na<sub>2</sub></sub>  1AGB<sub>6</sub>  1PB  1PB<sub>na</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_
- Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  EnCores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_
- Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (\_\_\_\_\_)  \_\_\_\_\_  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Reealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 1110

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, znna = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: 6V

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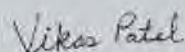

**WORK ORDER NUMBER: 17-04-0840**
*The difference is service*


AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**
**Client:** Tetra Tech, Inc.

**Client Project Name:** LMC BOU

**Attention:** Robert Sabater  
 301 E. Vanderbilt Way, Suite 450  
 San Bernardino, CA 92408-3562



 Approved for release on 04/27/2017 by:  
 Vikas Patel  
 Project Manager

ResultLink ▶

Email your PM ▶

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

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 Work Order Number: 17-04-0840

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## Work Order Narrative

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Work Order: 17-04-0840

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### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 04/11/17. They were assigned to Work Order 17-04-0840.

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

### **Holding Times:**

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

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

### **Quality Control:**

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

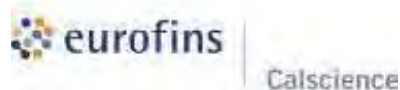
### **Subcontractor Information:**

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

### **Additional Comments:**

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

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



## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-0840  
Project Name: LMC BOU  
Received: 04/11/17

Attn: Robert Sabater

Page 1 of 2

### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
A-1-CW09-N-17Q2 (17-04-0840-1)						
Chromium, Hexavalent	1.4		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00224		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.9		0.50	ug/L	EPA 8260B	EPA 5030C
1,1,2-Trichloroethane	7.5		0.50	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	0.74		0.50	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	10		1.0	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	0.38	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloropropane	0.52		0.50	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	1.1		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	3.8		0.50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	5.9		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	5.9		0.50	ug/L	EPA 8260B	EPA 5030C
Methyl-t-Butyl Ether (MTBE)	0.44	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	15		1.2	ug/L	EPA 8260B SIM	EPA 5030C
1,4-Dioxane	3.7		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C
C-1-CW02-N-17Q2 (17-04-0840-2)						
Chromium	0.000600	J	0.000402*	mg/L	EPA 6020	EPA 3020A Total
Dichlorodifluoromethane	0.86	J	0.40*	ug/L	EPA 8260B	EPA 5030C
LTB-20170411 (17-04-0840-3)						
Acetone	4.6	J	4.0*	ug/L	EPA 8260B	EPA 5030C
A-1-CW02-N-17Q2 (17-04-0840-4)						
Chromium	0.00365		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.41	J	0.24*	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.29	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	21		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	4.2		0.50	ug/L	EPA 8260B	EPA 5030C
B-6-CW08-N-17Q2 (17-04-0840-5)						
Chromium, Hexavalent	0.028		0.020	ug/L	EPA 218.6	N/A
Chromium	0.000834	J	0.000402*	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.43	J	0.24*	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.27	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	12		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	3.2		0.50	ug/L	EPA 8260B	EPA 5030C
Methyl-t-Butyl Ether (MTBE)	0.24	J	0.20*	ug/L	EPA 8260B	EPA 5030C

\* MDL is shown



## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-0840  
Project Name: LMC BOU  
Received: 04/11/17

Attn: Robert Sabater

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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-6-CW05-N-17Q2 (17-04-0840-6)						
Chromium, Hexavalent	0.10		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00172		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chloroform	0.27	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	0.20	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Methyl-t-Butyl Ether (MTBE)	0.24	J	0.20*	ug/L	EPA 8260B	EPA 5030C

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

\* MDL is shown



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: N/A  
Method: EPA 218.6  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW09-N-17Q2	17-04-0840-1-L	04/11/17 16:13	Aqueous	IC 16	N/A	04/11/17 21:59	170411L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	1.4	0.020	0.0099	1.00	

C-1-CW02-N-17Q2	17-04-0840-2-L	04/11/17 12:43	Aqueous	IC 16	N/A	04/11/17 22:09	170411L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

A-1-CW02-N-17Q2	17-04-0840-4-L	04/11/17 10:21	Aqueous	IC 16	N/A	04/11/17 22:21	170411L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

B-6-CW08-N-17Q2	17-04-0840-5-L	04/11/17 13:57	Aqueous	IC 16	N/A	04/11/17 22:32	170411L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	0.028	0.020	0.0099	1.00	

B-6-CW05-N-17Q2	17-04-0840-6-L	04/11/17 15:20	Aqueous	IC 16	N/A	04/11/17 22:43	170411L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	0.10	0.020	0.0099	1.00	

Method Blank	099-14-567-236	N/A	Aqueous	IC 16	N/A	04/11/17 16:37	170411L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 3020A Total  
Method: EPA 6020  
Units: mg/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW09-N-17Q2	17-04-0840-1-K	04/11/17 16:13	Aqueous	ICP/MS 03	04/17/17	04/20/17 19:26	170417LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00224	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW02-N-17Q2	17-04-0840-2-K	04/11/17 12:43	Aqueous	ICP/MS 03	04/17/17	04/20/17 19:29	170417LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.000600	0.00100	0.000402	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW02-N-17Q2	17-04-0840-4-K	04/11/17 10:21	Aqueous	ICP/MS 03	04/17/17	04/20/17 20:07	170417LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00365	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW08-N-17Q2	17-04-0840-5-K	04/11/17 13:57	Aqueous	ICP/MS 03	04/17/17	04/20/17 20:10	170417LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.000834	0.00100	0.000402	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW05-N-17Q2	17-04-0840-6-K	04/11/17 15:20	Aqueous	ICP/MS 03	04/17/17	04/20/17 20:12	170417LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00172	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	096-06-003-5537	N/A	Aqueous	ICP/MS 03	04/17/17	04/19/17 01:58	170417LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	ND	0.00100	0.000402	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW09-N-17Q2	17-04-0840-1-M	04/11/17 16:13	Aqueous	GC/MS DDD	04/13/17	04/14/17 00:09	170413L06

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	3.7	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	85	56-123	
1,4-Dioxane-d8(IDS-IS)	42	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW02-N-17Q2	17-04-0840-2-M	04/11/17 12:43	Aqueous	GC/MS DDD	04/13/17	04/14/17 00:25	170413L06

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	90	56-123	
1,4-Dioxane-d8(IDS-IS)	43	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW02-N-17Q2	17-04-0840-4-M	04/11/17 10:21	Aqueous	GC/MS DDD	04/13/17	04/14/17 00:42	170413L06

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	84	56-123	
1,4-Dioxane-d8(IDS-IS)	40	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW08-N-17Q2	17-04-0840-5-M	04/11/17 13:57	Aqueous	GC/MS DDD	04/13/17	04/14/17 00:58	170413L06

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	89	56-123	
1,4-Dioxane-d8(IDS-IS)	39	30-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW05-N-17Q2	17-04-0840-6-M	04/11/17 15:20	Aqueous	GC/MS DDD	04/13/17	04/14/17 01:14	170413L06

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	83	56-123	
1,4-Dioxane-d8(IDS-IS)	44	30-120	

Method Blank	099-16-216-1009	N/A	Aqueous	GC/MS DDD	04/13/17	04/13/17 23:05	170413L06
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	89	56-123	
1,4-Dioxane-d8(IDS-IS)	44	30-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW09-N-17Q2	17-04-0840-1-A	04/11/17 16:13	Aqueous	GC/MS L	04/21/17	04/21/17 22:06	170421L006

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.9	0.50	0.24	1.00	
1,1,2-Trichloroethane	7.5	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	0.74	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	10	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	0.38	0.50	0.20	1.00	J
1,2-Dichloropropane	0.52	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	1.1	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	3.8	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	5.9	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	5.9	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	0.44	0.50	0.20	1.00	J
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	94	68-120			
Dibromofluoromethane	100	80-127			

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



## Analytical Report

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<p>Tetra Tech, Inc. 301 E. Vanderbilt Way, Suite 450 San Bernardino, CA 92408-3562</p> <p>Project: LMC BOU</p>	<p>Date Received: 04/11/17 Work Order: 17-04-0840 Preparation: EPA 5030C Method: EPA 8260B Units: ug/L</p>	<p>Page 3 of 24</p>
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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	106	80-128	
Toluene-d8	100	80-120	




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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW02-N-17Q2	17-04-0840-2-B	04/11/17 12:43	Aqueous	GC/MS L	04/22/17	04/22/17 13:32	170422L005

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	0.86	1.0	0.40	1.00	J
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	94	68-120			
Dibromofluoromethane	99	80-127			

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





## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/11/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0840
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 6 of 24

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	103	80-128	
Toluene-d8	98	80-120	



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20170411	17-04-0840-3-A	04/11/17 07:00	Aqueous	GC/MS L	04/21/17	04/21/17 21:35	170421L006

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	4.6	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	94	68-120			
Dibromofluoromethane	99	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	104	80-128	
Toluene-d8	99	80-120	



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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW02-N-17Q2	17-04-0840-4-B	04/11/17 10:21	Aqueous	GC/MS L	04/22/17	04/22/17 14:02	170422L005

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.41	0.50	0.24	1.00	J
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.29	0.50	0.20	1.00	J
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	21	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	4.2	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	93	68-120			
Dibromofluoromethane	100	80-127			

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/11/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0840
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 12 of 24

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	106	80-128	
Toluene-d8	99	80-120	



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW08-N-17Q2	17-04-0840-5-A	04/11/17 13:57	Aqueous	GC/MS L	04/22/17	04/22/17 14:33	170422L005

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.43	0.50	0.24	1.00	J
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.27	0.50	0.20	1.00	J
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	12	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	3.2	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	0.24	0.50	0.20	1.00	J
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	94	68-120			
Dibromofluoromethane	97	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	104	80-128	
Toluene-d8	100	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW05-N-17Q2	17-04-0840-6-A	04/11/17 15:20	Aqueous	GC/MS L	04/22/17	04/22/17 15:03	170422L005

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.27	0.50	0.20	1.00	J
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	0.20	0.50	0.20	1.00	J
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	0.24	0.50	0.20	1.00	J
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	93	68-120			
Dibromofluoromethane	98	80-127			

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





## Analytical Report

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<p>Tetra Tech, Inc. 301 E. Vanderbilt Way, Suite 450 San Bernardino, CA 92408-3562</p> <p>Project: LMC BOU</p>	<p>Date Received: 04/11/17 Work Order: 17-04-0840 Preparation: EPA 5030C Method: EPA 8260B Units: ug/L</p>	<p>Page 18 of 24</p>
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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	106	80-128	
Toluene-d8	98	80-120	



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-025-4633	N/A	Aqueous	GC/MS L	04/21/17	04/21/17 11:52	170421L006

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	96	68-120			
Dibromofluoromethane	94	80-127			

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/11/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0840
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 21 of 24

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	96	80-128	
Toluene-d8	98	80-120	





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-025-4639	N/A	Aqueous	GC/MS L	04/22/17	04/22/17 10:53	170422L005

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	93	68-120			
Dibromofluoromethane	100	80-127			

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



## Analytical Report

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<p>Tetra Tech, Inc. 301 E. Vanderbilt Way, Suite 450 San Bernardino, CA 92408-3562</p> <p>Project: LMC BOU</p>	<p>Date Received: 04/11/17 Work Order: 17-04-0840 Preparation: EPA 5030C Method: EPA 8260B Units: ug/L</p>	<p>Page 24 of 24</p>
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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	107	80-128	
Toluene-d8	94	80-120	



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW09-N-17Q2	17-04-0840-1-G	04/11/17 16:13	Aqueous	GC/MS M	04/17/17	04/17/17 14:34	170417L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	15	1.2	0.62	250	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	111	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW02-N-17Q2	17-04-0840-2-G	04/11/17 12:43	Aqueous	GC/MS M	04/17/17	04/17/17 16:33	170417L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	118	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20170411	17-04-0840-3-C	04/11/17 07:00	Aqueous	GC/MS M	04/13/17	04/13/17 17:00	170413L029

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	103	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW02-N-17Q2	17-04-0840-4-G	04/11/17 10:21	Aqueous	GC/MS M	04/17/17	04/17/17 17:03	170417L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	106	80-120	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW08-N-17Q2	17-04-0840-5-G	04/11/17 13:57	Aqueous	GC/MS M	04/17/17	04/17/17 17:33	170417L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	109	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW05-N-17Q2	17-04-0840-6-G	04/11/17 15:20	Aqueous	GC/MS M	04/17/17	04/17/17 18:04	170417L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	108	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-118-484	N/A	Aqueous	GC/MS M	04/13/17	04/13/17 12:32	170413L029

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	90	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-118-487	N/A	Aqueous	GC/MS M	04/17/17	04/17/17 11:34	170417L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	106	80-120	

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



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
<b>B-6-CW05-N-17Q2</b>	<b>Sample</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/11/17 22:43</b>	<b>170411S01</b>				
<b>B-6-CW05-N-17Q2</b>	<b>Matrix Spike</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/11/17 22:54</b>	<b>170411S01</b>				
<b>B-6-CW05-N-17Q2</b>	<b>Matrix Spike Duplicate</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/11/17 23:06</b>	<b>170411S01</b>				
<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	0.1050	10.00	10.51	104	10.78	107	85-121	3	0-25	



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1153-8	Sample	Aqueous	ICP/MS 03	04/17/17	04/19/17 02:08	170417SA3
17-04-1153-8	Matrix Spike	Aqueous	ICP/MS 03	04/17/17	04/19/17 02:03	170417SA3
17-04-1153-8	Matrix Spike Duplicate	Aqueous	ICP/MS 03	04/17/17	04/19/17 02:06	170417SA3

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium	ND	0.1000	0.09347	93	0.09325	93	73-133	0	0-11	



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
A-1-CW09-N-17Q2	Sample	Aqueous	GC/MS DDD	04/13/17	04/14/17 00:09	170413S06				
A-1-CW09-N-17Q2	Matrix Spike	Aqueous	GC/MS DDD	04/13/17	04/13/17 23:37	170413S06				
A-1-CW09-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS DDD	04/13/17	04/13/17 23:53	170413S06				
<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
1,4-Dioxane	3.735	20.00	24.31	103	23.79	100	50-130	2	0-20	





## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0729-1	Sample	Aqueous	GC/MS L	04/21/17	04/21/17 13:26	170421S007
17-04-0729-1	Matrix Spike	Aqueous	GC/MS L	04/21/17	04/21/17 13:57	170421S007
17-04-0729-1	Matrix Spike Duplicate	Aqueous	GC/MS L	04/21/17	04/21/17 14:27	170421S007

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloroethene	2.492	10.00	12.11	96	12.82	103	66-126	6	0-20	
1,2-Dibromoethane	ND	10.00	9.127	91	9.658	97	75-126	6	0-20	
1,2-Dichlorobenzene	ND	10.00	9.015	90	9.756	98	75-125	8	0-20	
1,2-Dichloroethane	ND	10.00	9.624	96	10.23	102	75-127	6	0-20	
Benzene	ND	10.00	9.052	91	9.375	94	75-125	4	0-20	
Carbon Tetrachloride	1.099	10.00	8.964	79	9.474	84	69-135	6	0-20	
Chlorobenzene	ND	10.00	9.259	93	9.760	98	75-125	5	0-20	
Ethylbenzene	ND	10.00	9.191	92	9.849	98	75-125	7	0-20	
Toluene	ND	10.00	9.315	93	9.762	98	75-125	5	0-20	
Trichloroethene	20.58	10.00	29.62	90	29.91	93	75-125	1	0-20	
Vinyl Chloride	ND	10.00	11.72	117	11.77	118	52-142	0	0-20	
o-Xylene	ND	10.00	9.303	93	9.796	98	75-127	5	0-20	
p/m-Xylene	ND	20.00	18.32	92	19.62	98	75-125	7	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	9.580	96	8.964	90	71-131	7	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1162-18	Sample	Aqueous	GC/MS L	04/22/17	04/22/17 11:30	170422S001
17-04-1162-18	Matrix Spike	Aqueous	GC/MS L	04/22/17	04/22/17 12:00	170422S001
17-04-1162-18	Matrix Spike Duplicate	Aqueous	GC/MS L	04/22/17	04/22/17 12:31	170422S001

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloroethene	1.521	10.00	12.82	113	12.11	106	66-126	6	0-20	
1,2-Dibromoethane	ND	10.00	9.703	97	9.547	95	75-126	2	0-20	
1,2-Dichlorobenzene	ND	10.00	10.30	103	9.847	98	75-125	5	0-20	
1,2-Dichloroethane	0.7651	10.00	11.26	105	10.79	100	75-127	4	0-20	
Benzene	ND	10.00	10.40	104	9.936	99	75-125	5	0-20	
Carbon Tetrachloride	ND	10.00	9.648	96	9.337	93	69-135	3	0-20	
Chlorobenzene	ND	10.00	10.79	108	10.27	103	75-125	5	0-20	
Ethylbenzene	ND	10.00	10.90	109	10.15	102	75-125	7	0-20	
Toluene	ND	10.00	10.63	106	10.21	102	75-125	4	0-20	
Trichloroethene	20.58	10.00	32.14	116	30.98	104	75-125	4	0-20	
Vinyl Chloride	ND	10.00	11.63	116	11.50	115	52-142	1	0-20	
o-Xylene	ND	10.00	10.65	106	10.11	101	75-127	5	0-20	
p/m-Xylene	ND	20.00	21.69	108	20.39	102	75-125	6	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	8.662	87	9.239	92	71-131	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0944-2	Sample	Aqueous	GC/MS M	04/13/17	04/13/17 13:39	170413S014
17-04-0944-2	Matrix Spike	Aqueous	GC/MS M	04/13/17	04/13/17 15:00	170413S014
17-04-0944-2	Matrix Spike Duplicate	Aqueous	GC/MS M	04/13/17	04/13/17 15:31	170413S014

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	ND	0.02000	0.01800	90	0.01560	78	80-120	14	0-20	3



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Page 7 of 7

Project: LMC BOU

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0598-8	Sample	Aqueous	GC/MS M	04/17/17	04/17/17 12:34	170417S008
17-04-0598-8	Matrix Spike	Aqueous	GC/MS M	04/17/17	04/17/17 15:03	170417S008
17-04-0598-8	Matrix Spike Duplicate	Aqueous	GC/MS M	04/17/17	04/17/17 15:34	170417S008

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	0.005600	0.02000	0.02790	112	0.02590	102	80-120	7	0-20	





## Quality Control - PDS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDS Batch Number
17-04-1153-8	Sample	Aqueous	ICP/MS 03	04/17/17 00:00	04/19/17 02:08	170417SA3
17-04-1153-8	PDS	Aqueous	ICP/MS 03	04/17/17 00:00	04/24/17 11:42	170417SA3

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>PDS Conc.</u>	<u>PDS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium	ND	0.1000	0.1000	100	75-125	



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-14-567-236</b>	<b>LCS</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/11/17 16:48</b>	<b>170411L01</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	10.00	10.10	101	95-107	

  
Return to Contents



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

Page 2 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
096-06-003-5537	LCS	Aqueous	ICP/MS 03	04/17/17	04/19/17 02:01	170417LA3

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chromium	0.1000	0.1031	103	80-120	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

Page 3 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-16-216-1009</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/13/17</b>	<b>04/13/17 23:21</b>	<b>170413L06</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,4-Dioxane	20.00	19.24	96	50-130	





## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-10-025-4633</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>04/21/17</b>	<b>04/21/17 11:06</b>	<b>170421L006</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
1,1-Dichloroethene		10.00	10.03	100	77-120	70-127	
1,2-Dibromoethane		10.00	10.32	103	80-120	73-127	
1,2-Dichlorobenzene		10.00	10.20	102	80-120	73-127	
1,2-Dichloroethane		10.00	10.40	104	80-122	73-129	
Benzene		10.00	9.936	99	80-120	73-127	
Carbon Tetrachloride		10.00	8.834	88	80-129	72-137	
Chlorobenzene		10.00	10.34	103	80-120	73-127	
Ethylbenzene		10.00	10.33	103	80-120	73-127	
Toluene		10.00	10.32	103	80-120	73-127	
Trichloroethene		10.00	10.32	103	80-120	73-127	
Vinyl Chloride		10.00	10.39	104	63-135	51-147	
o-Xylene		10.00	10.39	104	80-120	73-127	
p/m-Xylene		20.00	20.84	104	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	10.23	102	75-123	67-131	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/11/17  
Work Order: 17-04-0840  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-10-025-4639</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>04/22/17</b>	<b>04/22/17 10:14</b>	<b>170422L005</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
1,1-Dichloroethene		10.00	9.840	98	77-120	70-127	
1,2-Dibromoethane		10.00	9.850	99	80-120	73-127	
1,2-Dichlorobenzene		10.00	10.07	101	80-120	73-127	
1,2-Dichloroethane		10.00	10.36	104	80-122	73-129	
Benzene		10.00	9.888	99	80-120	73-127	
Carbon Tetrachloride		10.00	8.893	89	80-129	72-137	
Chlorobenzene		10.00	10.12	101	80-120	73-127	
Ethylbenzene		10.00	10.13	101	80-120	73-127	
Toluene		10.00	10.14	101	80-120	73-127	
Trichloroethene		10.00	10.18	102	80-120	73-127	
Vinyl Chloride		10.00	10.02	100	63-135	51-147	
o-Xylene		10.00	10.08	101	80-120	73-127	
p/m-Xylene		20.00	20.13	101	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	8.522	85	75-123	67-131	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/11/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0840
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B SIM
Project: LMC BOU		Page 6 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-118-484</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>04/13/17</b>	<b>04/13/17 11:28</b>	<b>170413L029</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,2,3-Trichloropropane		0.02000	0.01880	94	80-120	



## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/11/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0840
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
Project: LMC BOU	Method:	EPA 8260B SIM
		Page 7 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-118-487	LCS	Aqueous	GC/MS M	04/17/17	04/17/17 10:34	170417L018

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
1,2,3-Trichloropropane	0.02000	0.01960	98	80-120	

## Sample Analysis Summary Report

Work Order: 17-04-0840

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 218.6	N/A	1065	IC 16	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 8260B	EPA 5030C	316	GC/MS L	2
EPA 8260B SIM	EPA 5030C	486	GC/MS M	2
EPA 8270C (M) Isotope Dilution	EPA 3510C	928	GC/MS DDD	1



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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



## Glossary of Terms and Qualifiers

Work Order: 17-04-0840

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

**CHAIN-OF-CUSTODY RECORD**

Date 4-11-2017  
Page 1 of 1

TO NO. / LAB USE ONLY  
**17-04-0840**

LABORATORY CLIENT: Petra Tech Inc  
ADDRESS: 301 E Vandenbit Way Suite 400  
CITY: San Bernardino CA STATE: 92408  
TEL: \_\_\_\_\_ E-MAIL: \_\_\_\_\_

CLIENT PROJECT NAME / NO.: LMC BOU  
PROJECT CONTRACT: Robert Sabater  
LOG CODE: \_\_\_\_\_  
SAMPLER(S) (PRINT): Josam Cant  
Vera 2554 Calder

TURNAROUND TIME (Turnaround times may apply to any TAT not STANDARD)  
 SAME DAY  24 HR  48 HR  72 HR  3 DAYS  STANDARD  
EOP  COBELT EDF  OTHER

REQUESTED ANALYSES  
Please check box of RF in blank as indicated.

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	Field Filtered	Preserved	Unpreserved	TPH (G) □ DRG	TPH (G) □ ORG	TPH □ CR-CR □ OR-CA	TPH	VOCK (950)	Oxynise (900)	Prep (905) □ En Caps □ Tent Cont	SVOC (879)	Pesticides (908)	PCBs (906)	PAHs □ 8270 □ 8270-SIM	TC2 (846) □ 8010747X □ 8020747X	C(M) □ 7198 □ 7199 □ 7199 □ 2528	I/LI Dioxine	TOP/MS Metals	Hor CR	1,2,3,4P		
		DATE	TIME																								
	1 A-C-009-N-1702	4-11-17	0700	W	13	✓	✓	✓																			
	2 C-1-C-002-N-1702	4-11-17	1243	W	13	✓	✓	✓																			
	3 TB-2010(4)	4-11-17	0700	W	13	✓	✓	✓																			
	4 A-1-G-002-N-1700	4-11-17	1021	W	13	✓	✓	✓																			
	5 B-6-C-005-N-1702	4-11-17	1357	W	13	✓	✓	✓																			
	6 B-6-C-005-N-1702	4-11-17	1520	W	13	✓	✓	✓																			

Received by: (Signature) [Signature] Date: 4-11-17 Time: 1649  
 Received by: (Signature) [Signature] Date: 4/11/17 Time: 1845  
 Received by: (Signature) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_



SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 2

CLIENT: Tetra Tech

DATE: 04/11/2017

TEMPERATURE: (Criteria: 0.0°C - 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC (CF: 0.0°C); Temperature (w/o CF): 2.0 °C (w/ CF): 2.0 °C;  Blank  Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)

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

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature:  Air  Filter

Checked by: 1091

CUSTODY SEAL:

Cooler  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: 1091

Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: 1057

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples .....  Yes  No  N/A

COC document(s) received complete .....  Yes  No  N/A

Sampling date  Sampling time  Matrix  Number of containers

No analysis requested  Not relinquished  No relinquished date  No relinquished time

Sampler's name indicated on COC .....  Yes  No  N/A

Sample container label(s) consistent with COC .....  Yes  No  N/A

Sample container(s) intact and in good condition .....  Yes  No  N/A

Proper containers for analyses requested .....  Yes  No  N/A

Sufficient volume/mass for analyses requested .....  Yes  No  N/A

Samples received within holding time .....  Yes  No  N/A

Aqueous samples for certain analyses received within 15-minute holding time

pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen .....  Yes  No  N/A

Proper preservation chemical(s) noted on COC and/or sample container .....  Yes  No  N/A

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics  Total Metals  Dissolved Metals

Container(s) for certain analysis free of headspace .....  Yes  No  N/A

Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)

Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation .....  Yes  No  N/A

CONTAINER TYPE:

(Trip Blank Lot Number: 170328A)

Aqueous:  VOA  VOA<sup>10</sup>  VOAna<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBh  125AGBp  125PB

125PBz<sub>na</sub>  250AGB  250CGB  250CGBs  250PB  250PBh  500AGB  500AGJ  500AGJs

500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  EnCores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_

Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (\_\_\_\_\_) :  \_\_\_\_\_  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 1053

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub> + NaHSO<sub>4</sub> · H<sub>2</sub>O, z<sub>na</sub> = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH

Reviewed by: 1091

**SAMPLE RECEIPT CHECKLIST**

COOLER 2 of 2

CLIENT: Tetra Tech

DATE: 04/11/2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC (CF: 0.0°C); Temperature (w/o CF): 1.8 °C (w/ CF): 1.8 °C;  Blank  Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)

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

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature:  Air  Filter

Checked by: 1091

**CUSTODY SEAL:**

Cooler  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: 1091

Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: 1053

**SAMPLE CONDITION:**

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Container(s) for certain analysis free of headspace .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:**

(Trip Blank Lot Number: \_\_\_\_\_)

Aqueous:  VOA  VOAh  VOAna<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBh  125AGBp  125PB

125PBznnna  250AGB  250CGB  250CGBs  250PB  250PBn  500AGB  500AGJ  500AGJs

500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  EnCores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_

Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (\_\_\_\_\_)  \_\_\_\_\_  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>,

Labeled/Checked by: 1053

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, znnna = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH

Reviewed by: 619



**WORK ORDER NUMBER: 17-04-0729**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Tetra Tech, Inc.

**Client Project Name:** LMC BOU

**Attention:** Robert Sabater  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Approved for release on 04/25/2017 by:  
Vikas Patel  
Project Manager

ResultLink ▶

Email your PM ▶

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





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Work Order Number: 17-04-0729

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 04/10/17. They were assigned to Work Order 17-04-0729.

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

**Holding Times:**

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

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

**Quality Control:**

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

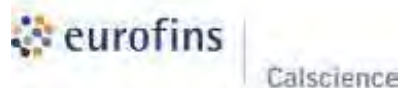
**Subcontractor Information:**

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

**Additional Comments:**

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

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



## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-0729  
Project Name: LMC BOU  
Received: 04/10/17

Attn: Robert Sabater

Page 1 of 3

### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-04-N-17Q2 (17-04-0729-1)						
Chromium, Hexavalent	2.2		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00249		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.3		0.50	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	2.5		0.50	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.58	J	0.40*	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	0.22	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Acetone	11		10	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	1.1		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	1.5		0.50	ug/L	EPA 8260B	EPA 5030C
Naphthalene	0.82	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	29		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	21		0.50	ug/L	EPA 8260B	EPA 5030C
Trichlorofluoromethane	0.34	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.96		0.050	ug/L	EPA 8260B SIM	EPA 5030C
SW-5-N-17Q2 (17-04-0729-2)						
Chromium, Hexavalent	4.7		0.020	ug/L	EPA 218.6	N/A
Chromium	0.0570		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	3.1		1.0	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	0.60	J	0.40*	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	3.8		1.0	ug/L	EPA 8260B	EPA 5030C
Acetone	11	J	8.0*	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	0.67	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.94	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	51		1.0	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	32		1.0	ug/L	EPA 8260B	EPA 5030C
B-5-CW02-N-17Q2 (17-04-0729-3)						
Chromium	0.000679	J	0.000402*	mg/L	EPA 6020	EPA 3020A Total
Dichlorodifluoromethane	0.91	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	0.70		0.50	ug/L	EPA 8260B	EPA 5030C
B-1-CW27-N-17Q2 (17-04-0729-5)						
Chromium, Hexavalent	5.2		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00611		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chloroform	0.32	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	4.0		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	2.3		0.50	ug/L	EPA 8260B	EPA 5030C

\* MDL is shown



## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-0729  
Project Name: LMC BOU  
Received: 04/10/17

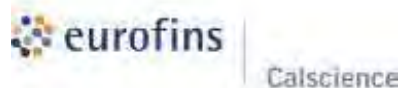
Attn: Robert Sabater

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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
A-1-CW05-N-17Q2 (17-04-0729-6)						
Chromium	0.000622	J	0.000402*	mg/L	EPA 6020	EPA 3020A Total
Dichlorodifluoromethane	0.84	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	4.0		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	0.44	J	0.29*	ug/L	EPA 8260B	EPA 5030C
1,4-Dioxane	2.3		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C
A-1-CW05-FD-17Q2 (17-04-0729-7)						
Chromium	0.000512	J	0.000402*	mg/L	EPA 6020	EPA 3020A Total
Acetone	4.4	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Dichlorodifluoromethane	0.85	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	4.3		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	0.50		0.50	ug/L	EPA 8260B	EPA 5030C
1,4-Dioxane	2.7		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C
A-1-CW04-N-17Q2 (17-04-0729-8)						
Chromium, Hexavalent	0.88		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00164		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.3		0.50	ug/L	EPA 8260B	EPA 5030C
1,1,2-Trichloroethane	7.4		0.50	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	0.76		0.50	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	17		1.0	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	0.42	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloropropane	0.50		0.50	ug/L	EPA 8260B	EPA 5030C
Acetone	4.7	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	0.91		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	3.6		0.50	ug/L	EPA 8260B	EPA 5030C
Dichlorodifluoromethane	0.88	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	5.2		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	4.8		0.50	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	25		2.5	ug/L	EPA 8260B SIM	EPA 5030C
1,4-Dioxane	2.0		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C

\* MDL is shown



## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-0729  
Project Name: LMC BOU  
Received: 04/10/17

Attn: Robert Sabater

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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
3862E-N-17Q2 (17-04-0729-9)						
Chromium, Hexavalent	1.0		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00166		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1-Dichloroethene	0.58		0.50	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	0.40	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.29	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Dichlorodifluoromethane	0.87	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	15		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	32		0.50	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	0.21	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.013		0.0050	ug/L	EPA 8260B SIM	EPA 5030C

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

Return to Contents

\* MDL is shown





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: N/A  
Method: EPA 218.6  
Units: ug/L

Project: LMC BOU

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>MW-04-N-17Q2</b>	<b>17-04-0729-1-K</b>	<b>04/10/17 08:58</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/10/17 21:21</b>	<b>170410L01</b>

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	2.2	0.020	0.0099	1.00	

<b>SW-5-N-17Q2</b>	<b>17-04-0729-2-K</b>	<b>04/10/17 13:20</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/10/17 21:32</b>	<b>170410L01</b>
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	4.7	0.020	0.0099	1.00	

<b>B-5-CW02-N-17Q2</b>	<b>17-04-0729-3-K</b>	<b>04/10/17 15:56</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/10/17 21:43</b>	<b>170410L01</b>
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

<b>B-1-CW27-N-17Q2</b>	<b>17-04-0729-5-K</b>	<b>04/10/17 09:11</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/10/17 21:54</b>	<b>170410L01</b>
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	5.2	0.020	0.0099	1.00	

<b>A-1-CW05-N-17Q2</b>	<b>17-04-0729-6-G</b>	<b>04/10/17 11:36</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/10/17 22:06</b>	<b>170410L01</b>
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

<b>A-1-CW05-FD-17Q2</b>	<b>17-04-0729-7-G</b>	<b>04/10/17 11:36</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/10/17 22:17</b>	<b>170410L01</b>
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: N/A  
Method: EPA 218.6  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW04-N-17Q2	17-04-0729-8-G	04/10/17 13:26	Aqueous	IC 16	N/A	04/10/17 22:28	170410L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	0.88	0.020	0.0099	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3862E-N-17Q2	17-04-0729-9-G	04/10/17 15:22	Aqueous	IC 16	N/A	04/10/17 22:39	170410L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	1.0	0.020	0.0099	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-567-234	N/A	Aqueous	IC 16	N/A	04/10/17 16:29	170410L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 3020A Total  
Method: EPA 6020  
Units: mg/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-N-17Q2	17-04-0729-1-L	04/10/17 08:58	Aqueous	ICP/MS 03	04/17/17	04/20/17 19:06	170417LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00249	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SW-5-N-17Q2	17-04-0729-2-L	04/10/17 13:20	Aqueous	ICP/MS 03	04/17/17	04/20/17 19:09	170417LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.0570	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-5-CW02-N-17Q2	17-04-0729-3-L	04/10/17 15:56	Aqueous	ICP/MS 03	04/17/17	04/20/17 19:11	170417LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.000679	0.00100	0.000402	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW27-N-17Q2	17-04-0729-5-L	04/10/17 09:11	Aqueous	ICP/MS 03	04/17/17	04/21/17 11:09	170417LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00611	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW05-N-17Q2	17-04-0729-6-L	04/10/17 11:36	Aqueous	ICP/MS 03	04/17/17	04/20/17 19:16	170417LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.000622	0.00100	0.000402	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW05-FD-17Q2	17-04-0729-7-L	04/10/17 11:36	Aqueous	ICP/MS 03	04/17/17	04/20/17 19:19	170417LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.000512	0.00100	0.000402	1.00	J

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 3020A Total  
Method: EPA 6020  
Units: mg/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW04-N-17Q2	17-04-0729-8-L	04/10/17 13:26	Aqueous	ICP/MS 03	04/17/17	04/20/17 19:21	170417LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00164	0.00100	0.000402	1.00	

3862E-N-17Q2	17-04-0729-9-L	04/10/17 15:22	Aqueous	ICP/MS 03	04/17/17	04/20/17 19:24	170417LA3
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00166	0.00100	0.000402	1.00	

Method Blank	096-06-003-5537	N/A	Aqueous	ICP/MS 03	04/17/17	04/19/17 01:58	170417LA3
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	ND	0.00100	0.000402	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>MW-04-N-17Q2</b>	<b>17-04-0729-1-M</b>	<b>04/10/17 08:58</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/12/17</b>	<b>04/12/17 18:25</b>	<b>170412L07</b>

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	102	56-123	
1,4-Dioxane-d8(IDS-IS)	40	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>SW-5-N-17Q2</b>	<b>17-04-0729-2-M</b>	<b>04/10/17 13:20</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/12/17</b>	<b>04/12/17 18:40</b>	<b>170412L07</b>

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	99	56-123	
1,4-Dioxane-d8(IDS-IS)	42	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>B-5-CW02-N-17Q2</b>	<b>17-04-0729-3-M</b>	<b>04/10/17 15:56</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/12/17</b>	<b>04/12/17 18:56</b>	<b>170412L07</b>

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	99	56-123	
1,4-Dioxane-d8(IDS-IS)	41	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>B-1-CW27-N-17Q2</b>	<b>17-04-0729-5-M</b>	<b>04/10/17 09:11</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/12/17</b>	<b>04/12/17 19:12</b>	<b>170412L07</b>

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	102	56-123	
1,4-Dioxane-d8(IDS-IS)	39	30-120	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW05-N-17Q2	17-04-0729-6-I	04/10/17 11:36	Aqueous	GC/MS DDD	04/12/17	04/12/17 19:28	170412L07

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	2.3	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	103	56-123	
1,4-Dioxane-d8(IDS-IS)	40	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW05-FD-17Q2	17-04-0729-7-I	04/10/17 11:36	Aqueous	GC/MS DDD	04/12/17	04/12/17 19:43	170412L07

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	2.7	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	100	56-123	
1,4-Dioxane-d8(IDS-IS)	42	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW04-N-17Q2	17-04-0729-8-M	04/10/17 13:26	Aqueous	GC/MS DDD	04/12/17	04/12/17 19:59	170412L07

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	2.0	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	97	56-123	
1,4-Dioxane-d8(IDS-IS)	40	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3862E-N-17Q2	17-04-0729-9-M	04/10/17 15:22	Aqueous	GC/MS DDD	04/12/17	04/12/17 20:15	170412L07

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	100	56-123	
1,4-Dioxane-d8(IDS-IS)	41	30-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-216-1005	N/A	Aqueous	GC/MS DDD	04/12/17	04/12/17 15:00	170412L07

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	106	56-123	
1,4-Dioxane-d8(IDS-IS)	43	30-120	

Return to Contents

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-N-17Q2	17-04-0729-1-B	04/10/17 08:58	Aqueous	GC/MS L	04/21/17	04/21/17 13:26	170421L006

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.3	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	2.5	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	0.58	1.0	0.40	1.00	J
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	0.22	0.50	0.20	1.00	J
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	11	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	1.1	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	1.5	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	0.82	1.0	0.40	1.00	J
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	29	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	21	0.50	0.29	1.00	
Trichlorofluoromethane	0.34	0.50	0.20	1.00	J
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	95	68-120			
Dibromofluoromethane	97	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	102	80-128	
Toluene-d8	100	80-120	



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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SW-5-N-17Q2	17-04-0729-2-B	04/10/17 13:20	Aqueous	GC/MS L	04/21/17	04/21/17 14:58	170421L006

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	2.00	
1,1,1-Trichloroethane	ND	1.0	0.40	2.00	
1,1,2,2-Tetrachloroethane	ND	1.0	0.40	2.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	3.1	1.0	0.48	2.00	
1,1,2-Trichloroethane	ND	1.0	0.40	2.00	
1,1-Dichloroethane	0.60	1.0	0.40	2.00	J
1,1-Dichloroethene	3.8	1.0	0.56	2.00	
1,1-Dichloropropene	ND	1.0	0.60	2.00	
1,2,3-Trichlorobenzene	ND	1.0	0.40	2.00	
1,2,3-Trichloropropane	ND	2.0	0.80	2.00	
1,2,4-Trichlorobenzene	ND	1.0	0.40	2.00	
1,2,4-Trimethylbenzene	ND	1.0	0.40	2.00	
1,2-Dibromo-3-Chloropropane	ND	10	4.0	2.00	
1,2-Dibromoethane	ND	1.0	0.40	2.00	
1,2-Dichlorobenzene	ND	1.0	0.40	2.00	
1,2-Dichloroethane	ND	1.0	0.40	2.00	
1,2-Dichloropropane	ND	1.0	0.40	2.00	
1,3,5-Trimethylbenzene	ND	1.0	0.40	2.00	
1,3-Dichlorobenzene	ND	1.0	0.55	2.00	
1,3-Dichloropropane	ND	2.0	0.80	2.00	
1,4-Dichlorobenzene	ND	1.0	0.40	2.00	
2,2-Dichloropropane	ND	2.0	0.80	2.00	
2-Butanone	ND	10	4.0	2.00	
2-Chlorotoluene	ND	1.0	0.40	2.00	
2-Hexanone	ND	20	8.0	2.00	
4-Chlorotoluene	ND	1.0	0.71	2.00	
4-Methyl-2-Pentanone	ND	10	4.0	2.00	
Acetone	11	20	8.0	2.00	J
Benzene	ND	1.0	0.40	2.00	
Bromobenzene	ND	1.0	0.64	2.00	
Bromochloromethane	ND	2.0	0.80	2.00	
Bromodichloromethane	ND	1.0	0.40	2.00	
Bromoform	ND	1.0	0.49	2.00	
Bromomethane	ND	2.0	0.80	2.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	2.0	0.80	2.00	
Carbon Tetrachloride	0.67	1.0	0.40	2.00	J
Chlorobenzene	ND	1.0	0.40	2.00	
Chloroethane	ND	1.0	0.63	2.00	
Chloroform	0.94	1.0	0.40	2.00	J
Chloromethane	ND	1.0	0.59	2.00	
Dibromochloromethane	ND	1.0	0.40	2.00	
Dibromomethane	ND	1.0	0.40	2.00	
Dichlorodifluoromethane	ND	2.0	0.80	2.00	
Ethylbenzene	ND	1.0	0.40	2.00	
Isopropylbenzene	ND	1.0	0.40	2.00	
Methylene Chloride	ND	2.0	1.6	2.00	
Naphthalene	ND	2.0	0.80	2.00	
Styrene	ND	1.0	0.40	2.00	
Tetrachloroethene	51	1.0	0.40	2.00	
Toluene	ND	1.0	0.40	2.00	
t-1,2-Dichloroethene	ND	1.0	0.40	2.00	
Trichloroethene	32	1.0	0.57	2.00	
Trichlorofluoromethane	ND	1.0	0.40	2.00	
Vinyl Acetate	ND	10	4.0	2.00	
Vinyl Chloride	ND	1.0	0.40	2.00	
c-1,3-Dichloropropene	ND	1.0	0.40	2.00	
c-1,2-Dichloroethene	ND	1.0	0.40	2.00	
n-Butylbenzene	ND	1.0	0.40	2.00	
n-Propylbenzene	ND	1.0	0.40	2.00	
o-Xylene	ND	1.0	0.63	2.00	
p-Isopropyltoluene	ND	1.0	0.40	2.00	
sec-Butylbenzene	ND	1.0	0.40	2.00	
t-1,3-Dichloropropene	ND	1.0	0.40	2.00	
tert-Butylbenzene	ND	1.0	0.40	2.00	
p/m-Xylene	ND	1.0	0.40	2.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.40	2.00	
2-Chloroethyl Vinyl Ether	ND	10	8.4	2.00	
Hexachloro-1,3-Butadiene	ND	4.0	1.6	2.00	
Iodomethane	ND	20	10	2.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	94	68-120	
Dibromofluoromethane	97	80-127	

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/10/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0729
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 6 of 30

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	103	80-128	
Toluene-d8	98	80-120	



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-5-CW02-N-17Q2	17-04-0729-3-D	04/10/17 15:56	Aqueous	GC/MS L	04/21/17	04/21/17 15:28	170421L006

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	0.91	1.0	0.40	1.00	J
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	0.70	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	92	68-120			
Dibromofluoromethane	98	80-127			

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	102	80-128	
Toluene-d8	98	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20170410	17-04-0729-4-B	04/10/17 06:30	Aqueous	GC/MS L	04/21/17	04/21/17 12:56	170421L006

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	93	68-120			
Dibromofluoromethane	95	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	101	80-128	
Toluene-d8	99	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW27-N-17Q2	17-04-0729-5-B	04/10/17 09:11	Aqueous	GC/MS L	04/21/17	04/21/17 15:59	170421L006

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.32	0.50	0.20	1.00	J
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	4.0	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	2.3	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	94	68-120			
Dibromofluoromethane	96	80-127			

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/10/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0729
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 15 of 30

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	102	80-128	
Toluene-d8	99	80-120	



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW05-N-17Q2	17-04-0729-6-B	04/10/17 11:36	Aqueous	GC/MS L	04/21/17	04/21/17 16:30	170421L006

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	0.84	1.0	0.40	1.00	J
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	4.0	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	0.44	0.50	0.29	1.00	J
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	95	68-120	
Dibromofluoromethane	96	80-127	

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/10/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0729
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 18 of 30

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	101	80-128	
Toluene-d8	98	80-120	





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW05-FD-17Q2	17-04-0729-7-B	04/10/17 11:36	Aqueous	GC/MS L	04/21/17	04/21/17 17:00	170421L006

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	4.4	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	0.85	1.0	0.40	1.00	J
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	4.3	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	0.50	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	95	68-120	
Dibromofluoromethane	98	80-127	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	103	80-128	
Toluene-d8	98	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW04-N-17Q2	17-04-0729-8-B	04/10/17 13:26	Aqueous	GC/MS L	04/21/17	04/21/17 17:31	170421L006

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.3	0.50	0.24	1.00	
1,1,2-Trichloroethane	7.4	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	0.76	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	17	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	0.42	0.50	0.20	1.00	J
1,2-Dichloropropane	0.50	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	4.7	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	0.91	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	3.6	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	0.88	1.0	0.40	1.00	J
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	5.2	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	4.8	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	93	68-120	
Dibromofluoromethane	99	80-127	

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





## Analytical Report

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<p>Tetra Tech, Inc. 301 E. Vanderbilt Way, Suite 450 San Bernardino, CA 92408-3562</p> <p>Project: LMC BOU</p>	<p>Date Received: 04/10/17 Work Order: 17-04-0729 Preparation: EPA 5030C Method: EPA 8260B Units: ug/L</p>	<p>Page 24 of 30</p>
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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	105	80-128	
Toluene-d8	99	80-120	




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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3862E-N-17Q2	17-04-0729-9-C	04/10/17 15:22	Aqueous	GC/MS L	04/21/17	04/21/17 18:01	170421L006

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	0.58	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	0.40	0.50	0.20	1.00	J
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.29	0.50	0.20	1.00	J
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	0.87	1.0	0.40	1.00	J
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	15	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	32	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	0.21	0.50	0.20	1.00	J
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	94	68-120	
Dibromofluoromethane	96	80-127	

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/10/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0729
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 27 of 30

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	103	80-128	
Toluene-d8	100	80-120	



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-025-4633	N/A	Aqueous	GC/MS L	04/21/17	04/21/17 11:52	170421L006

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	96	68-120			
Dibromofluoromethane	94	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	96	80-128	
Toluene-d8	98	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>MW-04-N-17Q2</b>	<b>17-04-0729-1-F</b>	<b>04/10/17 08:58</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>04/12/17</b>	<b>04/13/17 02:13</b>	<b>170412L047</b>

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.96	0.050	0.025	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	98	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>SW-5-N-17Q2</b>	<b>17-04-0729-2-G</b>	<b>04/10/17 13:20</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>04/13/17</b>	<b>04/13/17 18:30</b>	<b>170413L029</b>

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	108	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>B-5-CW02-N-17Q2</b>	<b>17-04-0729-3-G</b>	<b>04/10/17 15:56</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>04/13/17</b>	<b>04/13/17 19:00</b>	<b>170413L029</b>

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	100	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>B-1-CW27-N-17Q2</b>	<b>17-04-0729-5-G</b>	<b>04/10/17 09:11</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>04/13/17</b>	<b>04/13/17 19:30</b>	<b>170413L029</b>

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	110	80-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW05-N-17Q2	17-04-0729-6-E	04/10/17 11:36	Aqueous	GC/MS M	04/14/17	04/14/17 18:28	170414L032

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	114	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW05-FD-17Q2	17-04-0729-7-F	04/10/17 11:36	Aqueous	GC/MS M	04/14/17	04/14/17 18:58	170414L032

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	113	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW04-N-17Q2	17-04-0729-8-G	04/10/17 13:26	Aqueous	GC/MS M	04/14/17	04/14/17 13:59	170414L032

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	25	2.5	1.2	500	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	120	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3862E-N-17Q2	17-04-0729-9-J	04/10/17 15:22	Aqueous	GC/MS M	04/14/17	04/14/17 19:28	170414L032

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.013	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	108	80-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-118-483	N/A	Aqueous	GC/MS M	04/12/17	04/12/17 23:14	170412L047

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	110	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-118-484	N/A	Aqueous	GC/MS M	04/13/17	04/13/17 12:32	170413L029

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	90	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-118-485	N/A	Aqueous	GC/MS M	04/14/17	04/14/17 11:58	170414L032

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	98	80-120	

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





## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
3862E-N-17Q2	Sample	Aqueous	IC 16	N/A	04/10/17 22:39	170410S01				
3862E-N-17Q2	Matrix Spike	Aqueous	IC 16	N/A	04/10/17 22:51	170410S01				
3862E-N-17Q2	Matrix Spike Duplicate	Aqueous	IC 16	N/A	04/10/17 23:02	170410S01				
<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	1.015	10.00	11.62	106	11.91	109	85-121	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1153-8	Sample	Aqueous	ICP/MS 03	04/17/17	04/19/17 02:08	170417SA3
17-04-1153-8	Matrix Spike	Aqueous	ICP/MS 03	04/17/17	04/19/17 02:03	170417SA3
17-04-1153-8	Matrix Spike Duplicate	Aqueous	ICP/MS 03	04/17/17	04/19/17 02:06	170417SA3

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium	ND	0.1000	0.09347	93	0.09325	93	73-133	0	0-11	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0796-1	Sample	Aqueous	GC/MS DDD	04/12/17	04/13/17 15:36	170412S07
17-04-0796-1	Matrix Spike	Aqueous	GC/MS DDD	04/12/17	04/12/17 15:32	170412S07
17-04-0796-1	Matrix Spike Duplicate	Aqueous	GC/MS DDD	04/12/17	04/12/17 15:47	170412S07

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,4-Dioxane	241.6	20.00	264.1	112	272.2	153	50-130	3	0-20	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
MW-04-N-17Q2	Sample	Aqueous	GC/MS L	04/21/17	04/21/17 13:26	170421S007				
MW-04-N-17Q2	Matrix Spike	Aqueous	GC/MS L	04/21/17	04/21/17 13:57	170421S007				
MW-04-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS L	04/21/17	04/21/17 14:27	170421S007				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloroethene	2.492	10.00	12.11	96	12.82	103	66-126	6	0-20	
1,2-Dibromoethane	ND	10.00	9.127	91	9.658	97	75-126	6	0-20	
1,2-Dichlorobenzene	ND	10.00	9.015	90	9.756	98	75-125	8	0-20	
1,2-Dichloroethane	ND	10.00	9.624	96	10.23	102	75-127	6	0-20	
Benzene	ND	10.00	9.052	91	9.375	94	75-125	4	0-20	
Carbon Tetrachloride	1.099	10.00	8.964	79	9.474	84	69-135	6	0-20	
Chlorobenzene	ND	10.00	9.259	93	9.760	98	75-125	5	0-20	
Ethylbenzene	ND	10.00	9.191	92	9.849	98	75-125	7	0-20	
Toluene	ND	10.00	9.315	93	9.762	98	75-125	5	0-20	
Trichloroethene	20.58	10.00	29.62	90	29.91	93	75-125	1	0-20	
Vinyl Chloride	ND	10.00	11.72	117	11.77	118	52-142	0	0-20	
o-Xylene	ND	10.00	9.303	93	9.796	98	75-127	5	0-20	
p/m-Xylene	ND	20.00	18.32	92	19.62	98	75-125	7	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	9.580	96	8.964	90	71-131	7	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Page 5 of 7

Project: LMC BOU

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0793-19	Sample	Aqueous	GC/MS M	04/12/17	04/12/17 23:44	170412S028
17-04-0793-19	Matrix Spike	Aqueous	GC/MS M	04/12/17	04/13/17 00:14	170412S028
17-04-0793-19	Matrix Spike Duplicate	Aqueous	GC/MS M	04/12/17	04/13/17 00:44	170412S028

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	ND	0.02000	0.02130	106	0.02400	120	80-120	12	0-20	





## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0944-2	Sample	Aqueous	GC/MS M	04/13/17	04/13/17 13:39	170413S014
17-04-0944-2	Matrix Spike	Aqueous	GC/MS M	04/13/17	04/13/17 15:00	170413S014
17-04-0944-2	Matrix Spike Duplicate	Aqueous	GC/MS M	04/13/17	04/13/17 15:31	170413S014

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	ND	0.02000	0.01800	90	0.01560	78	80-120	14	0-20	3



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Page 7 of 7

Project: LMC BOU

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
A-1-CW04-N-17Q2	Sample	Aqueous	GC/MS M	04/14/17	04/14/17 13:59	170414S011
A-1-CW04-N-17Q2	Matrix Spike	Aqueous	GC/MS M	04/14/17	04/14/17 14:59	170414S011
A-1-CW04-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS M	04/14/17	04/14/17 15:29	170414S011

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	24.65	10.00	37.40	128	33.05	84	80-120	12	0-20	3

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RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - PDS

Tetra Tech, Inc.	Date Received:	04/10/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0729
San Bernardino, CA 92408-3562	Preparation:	EPA 3020A Total
	Method:	EPA 6020
Project: LMC BOU		Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDS Batch Number	
17-04-1153-8	Sample	Aqueous	ICP/MS 03	04/17/17 00:00	04/19/17 02:08	170417SA3	
17-04-1153-8	PDS	Aqueous	ICP/MS 03	04/17/17 00:00	04/24/17 11:42	170417SA3	
<u>Parameter</u>		<u>Sample Conc.</u>	<u>Spike Added</u>	<u>PDS Conc.</u>	<u>PDS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium		ND	0.1000	0.1000	100	75-125	



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-14-567-234</b>	<b>LCS</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/10/17 16:40</b>	<b>170410L01</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	10.00	10.04	100	95-107	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/10/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0729
San Bernardino, CA 92408-3562	Preparation:	EPA 3020A Total
	Method:	EPA 6020
Project: LMC BOU		Page 2 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>096-06-003-5537</b>	<b>LCS</b>	<b>Aqueous</b>	<b>ICP/MS 03</b>	<b>04/17/17</b>	<b>04/19/17 02:01</b>	<b>170417LA3</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium		0.1000	0.1031	103	80-120	





## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/10/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0729
San Bernardino, CA 92408-3562	Preparation:	EPA 3510C
Project: LMC BOU	Method:	EPA 8270C (M) Isotope Dilution

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-16-216-1005</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/12/17</b>	<b>04/12/17 15:16</b>	<b>170412L07</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,4-Dioxane		20.00	19.91	100	50-130	



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/10/17  
Work Order: 17-04-0729  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-10-025-4633</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>04/21/17</b>	<b>04/21/17 11:06</b>	<b>170421L006</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
1,1-Dichloroethene		10.00	10.03	100	77-120	70-127	
1,2-Dibromoethane		10.00	10.32	103	80-120	73-127	
1,2-Dichlorobenzene		10.00	10.20	102	80-120	73-127	
1,2-Dichloroethane		10.00	10.40	104	80-122	73-129	
Benzene		10.00	9.936	99	80-120	73-127	
Carbon Tetrachloride		10.00	8.834	88	80-129	72-137	
Chlorobenzene		10.00	10.34	103	80-120	73-127	
Ethylbenzene		10.00	10.33	103	80-120	73-127	
Toluene		10.00	10.32	103	80-120	73-127	
Trichloroethene		10.00	10.32	103	80-120	73-127	
Vinyl Chloride		10.00	10.39	104	63-135	51-147	
o-Xylene		10.00	10.39	104	80-120	73-127	
p/m-Xylene		20.00	20.84	104	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	10.23	102	75-123	67-131	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/10/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0729
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B SIM
Project: LMC BOU		Page 5 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-118-483</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>04/12/17</b>	<b>04/12/17 22:15</b>	<b>170412L047</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,2,3-Trichloropropane		0.02000	0.01680	84	80-120	



## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/10/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0729
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B SIM
Project: LMC BOU		Page 6 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-118-484</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>04/13/17</b>	<b>04/13/17 11:28</b>	<b>170413L029</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,2,3-Trichloropropane	0.02000	0.01880	94	80-120	



## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/10/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0729
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
Project: LMC BOU	Method:	EPA 8260B SIM
		Page 7 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-118-485</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>04/14/17</b>	<b>04/14/17 10:58</b>	<b>170414L032</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,2,3-Trichloropropane	0.02000	0.01920	96	80-120	



## Sample Analysis Summary Report

Work Order: 17-04-0729

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 218.6	N/A	1065	IC 16	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 8260B	EPA 5030C	316	GC/MS L	2
EPA 8260B SIM	EPA 5030C	486	GC/MS M	2
EPA 8270C (M) Isotope Dilution	EPA 3510C	928	GC/MS DDD	1



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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



CalScience

7440 Linden Way, Oakland Grove, CA 92381-1027 • (714) 265-5406  
For courier services / samples drop off information, contact us at: [calinfo@eurofins.com](mailto:calinfo@eurofins.com) or call us.

LABORATORY CLIENT:

Tetra Tech INC

ADDRESS: 301 E Vanderbilt Way Suite 450  
CITY: San Bernardino CA 92410  
TEL: [blank]

TURNAROUND TIME (rush orders may apply to PPT, TAT not STANDARD)

SAME DAY  24 HR  48 HR  72 HR  6 DAYS  STANDARD

BOX

COELT EDF  OTHER

SPECIAL INSTRUCTIONS:

CHAIN-OF-CUSTODY RECORD

Date: 4-10-2017  
Page: 1 of 1

LAB NO. / LAB USE ONLY  
**17-04-0729**

CLIENT PROJECT NAME / NO.: LMC BOM  
PROJECT CONTACT: Robert Sabater  
GLOBAL ID: [blank]  
LOG CODE: [blank]  
LAB CONTRACT OR QUOTE NO.: [blank]  
SAMPLER(S) (PRINT): Jason Cook Vanessa Calder

REQUESTED ANALYSES

Please check box or fill in blank as needed:

Field Filtered	Preserved	Unpreserved	L-TPH (g) <input type="checkbox"/> GPO	TPH <input type="checkbox"/> OS-C2R <input type="checkbox"/> OS-C4	TPM	BTEX / MATRE <input type="checkbox"/> B260	VOCs (8260)	Organics (8261)	PCBs (8052)	PAHs <input type="checkbox"/> 4270 <input type="checkbox"/> 4270 SM	T22 Metals <input type="checkbox"/> 6010747X <input type="checkbox"/> 6020749X	CAV <input type="checkbox"/> 7166 <input type="checkbox"/> 7166 <input type="checkbox"/> 2186	1,4 Dioxane ICP / MS Metals Her CE M 1,2,3 TCP
----------------	-----------	-------------	--	--	-----	--	-------------	-----------------	-------------	---	--	---	---

Date: 4-10-17 Time: 1644  
Date: 4/10/17 Time: 1830  
Received by: (Signature) [Signature]  
Received by: (Signature) [Signature]  
Received by: (Signature) [Signature]

LAB USE ONLY	SAMPLE ID	SAMPLING DATE		MATRIX	NO OF CONT.
		DATE	TIME		
1	MW-04-N-1702	4-10-17	0858	W	13
2	SW-5-N-170	4-10-17	1520	W	13
3	B-5-CALOR-ALITER	4-10-17	1556	W	13
4	LTB-20170410	4-10-17	0630	W	3
5	B-1-CALOR-N-1708	4-10-17	0911	W	13
6	A-1-CALOR-N-1700	4-10-17	1136	W	13
7	A-1-CALOR-N-1703	4-10-17	1136	W	13
8	A-1-CALOR-N-1704	4-10-17	1324	W	13
9	38425-N-1700	4-10-17	1522	W	13

Received by: (Signature) [Signature]  
Received by: (Signature) [Signature]  
Received by: (Signature) [Signature]

2016-04-01-REVISION

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Tetra Tech

DATE: 04/10/2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC (CF: 0.0°C); Temperature (w/o CF): 2.2 °C (w/ CF): 2.2 °C;  Blank  Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)

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

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature:  Air  Filter

Checked by: 1091

CUSTODY SEAL:

Cooler  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: 1091

Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: 1110

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples .....  Yes  No  N/A

COC document(s) received complete .....  Yes  No  N/A

Sampling date  Sampling time  Matrix  Number of containers

No analysis requested  Not relinquished  No relinquished date  No relinquished time

Sampler's name indicated on COC .....  Yes  No  N/A

Sample container label(s) consistent with COC .....  Yes  No  N/A

Sample container(s) intact and in good condition .....  Yes  No  N/A

Proper containers for analyses requested .....  Yes  No  N/A

Sufficient volume/mass for analyses requested .....  Yes  No  N/A

Samples received within holding time .....  Yes  No  N/A

Aqueous samples for certain analyses received within 15-minute holding time

pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen .....  Yes  No  N/A

Proper preservation chemical(s) noted on COC and/or sample container .....  Yes  No  N/A

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics  Total Metals  Dissolved Metals

Container(s) for certain analysis free of headspace .....  Yes  No  N/A

Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)

Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation .....  Yes  No  N/A

CONTAINER TYPE

(Trip Blank Lot Number: 170328A)

Aqueous:  VOA  VOA<sub>h</sub>  VOA<sub>na2</sub>  100PJ  100PJ<sub>na2</sub>  125AGB  125AGB<sub>h</sub>  125AGB<sub>p</sub>  125PB

125PB<sub>znna</sub>  250AGB  250CGB  250CGB<sub>e</sub>  250PB  250PB<sub>n</sub>  500AGB  500AGJ  500AGJs

500PB  1AGB  1AGB<sub>na2</sub>  1AGB<sub>s</sub>  1PB  1PB<sub>na</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  EnCores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_

Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (\_\_\_\_\_)  \_\_\_\_\_  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>8</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 1110

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, znna = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH

Reviewed by: 681

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**SAMPLE ANOMALY REPORT**

DATE: 04 / 10 / 2017

**SAMPLES, CONTAINERS, AND LABELS:**

- Sample(s) NOT RECEIVED but listed on COC
  - Sample(s) received but NOT LISTED on COC
  - Holding time expired (list client or ECI sample ID and analysis)
  - Insufficient sample amount for requested analysis (list analysis)
  - Improper container(s) used (list analysis)
  - Improper preservative used (list analysis)
  - No preservative noted on COC or label (list analysis and notify lab)
  - Sample container(s) not labeled
  - Client sample label(s) illegible (list container type and analysis)
  - Client sample label(s) do not match COC (comment)
    - Project information
    - Client sample ID
    - Sampling date and/or time
    - Number of container(s)
      - Requested analysis
  - Sample container(s) compromised (comment)
    - Broken
    - Water present in sample container
  - Air sample container(s) compromised (comment)
    - Flat
    - Very low in volume
    - Leaking (not transferred; duplicate bag submitted)
    - Leaking (transferred into ECI Tedlar™ bags\*)
    - Leaking (transferred into client's Tedlar™ bags\*)
- \* Transferred at client's request.

**Comments**

(-2) labeled as SW-5-N-17Q2  
collection date & time matched.

(-5) & (-7) Received 9 containers  
instead of 13  
(received 6 vials instead of 10).

**MISCELLANEOUS: (Describe)**

**Comments**

**HEADSPACE:**

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments: \_\_\_\_\_

Reported by: 1110  
Reviewed by: 681

\*\* Record the total number of containers (i.e., vials or bottles) for the affected sample.




**WORK ORDER NUMBER: 17-04-0598**
*The difference is service*


AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**
**Client:** Tetra Tech, Inc.

**Client Project Name:** LMC BOU

**Attention:** Robert Sabater  
 301 E. Vanderbilt Way, Suite 450  
 San Bernardino, CA 92408-3562



 Approved for release on 04/25/2017 by:  
 Vikas Patel  
 Project Manager

ResultLink ▶

Email your PM ▶

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

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 Work Order Number: 17-04-0598

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## Work Order Narrative

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Work Order: 17-04-0598

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### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 04/07/17. They were assigned to Work Order 17-04-0598.

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

### **Holding Times:**

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

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

### **Quality Control:**

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

### **Subcontractor Information:**

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

### **Additional Comments:**

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

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



## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-0598  
Project Name: LMC BOU  
Received: 04/07/17

Attn: Robert Sabater

Page 1 of 3

### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-03-N-17Q2 (17-04-0598-1)						
Chromium, Hexavalent	2.7		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00297		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	2.9		0.50	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	7.2		0.50	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.53	J	0.40*	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	0.32	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Acetone	4.1	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	0.78		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	2.6		0.50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	32		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	12		0.50	ug/L	EPA 8260B	EPA 5030C
Trichlorofluoromethane	0.34	J	0.20*	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	0.25	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.93		0.050	ug/L	EPA 8260B SIM	EPA 5030C
MW-08-N-17Q2 (17-04-0598-2)						
Chromium, Hexavalent	2.1		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00281		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	3.4		0.50	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	2.1		0.50	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.65	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Acetone	6.3	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	0.57		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	4.3		0.50	ug/L	EPA 8260B	EPA 5030C
Naphthalene	0.45	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	24		0.50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	71		2.0	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.93		0.050	ug/L	EPA 8260B SIM	EPA 5030C

\* MDL is shown



## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-0598  
Project Name: LMC BOU  
Received: 04/07/17

Attn: Robert Sabater

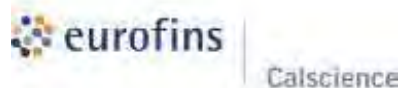
Page 2 of 3

### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-07-N-17Q2 (17-04-0598-3)						
Chromium, Hexavalent	1.9		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00262		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	3.9		0.50	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	2.9		0.50	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.40	J	0.40*	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	0.23	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Acetone	4.0	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	0.34	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Chloroform	1.9		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	17		0.50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	34		1.0	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.60		0.050	ug/L	EPA 8260B SIM	EPA 5030C
3871H-N-17Q2 (17-04-0598-5)						
Chromium, Hexavalent	9.6		0.020	ug/L	EPA 218.6	N/A
Chromium	0.0114		0.00100	mg/L	EPA 6020	EPA 3020A Total
Tetrachloroethene	120		4.0	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	140		4.0	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.084		0.0050	ug/L	EPA 8260B SIM	EPA 5030C
3871J-N-17Q2 (17-04-0598-6)						
Chromium, Hexavalent	3.8		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00447		0.00100	mg/L	EPA 6020	EPA 3020A Total
Acetone	5.5	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	0.25	J	0.20*	ug/L	EPA 8260B	EPA 5030C
3861F-N-17Q2 (17-04-0598-7)						
Chromium, Hexavalent	4.9		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00556		0.00100	mg/L	EPA 6020	EPA 3020A Total
Acetone	7.2	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.39	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	7.0		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	4.1		0.50	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.0045	J	0.0025*	ug/L	EPA 8260B SIM	EPA 5030C

\* MDL is shown





## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-0598  
Project Name: LMC BOU  
Received: 04/07/17

Attn: Robert Sabater

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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
3861D-N-17Q2 (17-04-0598-8)						
Chromium, Hexavalent	6.8		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00894		0.00100	mg/L	EPA 6020	EPA 3020A Total
Acetone	4.1	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	0.41	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Chloroform	1.2		0.50	ug/L	EPA 8260B	EPA 5030C
Dichlorodifluoromethane	7.1		1.0	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	24		0.50	ug/L	EPA 8260B	EPA 5030C
Toluene	0.41	J	0.20*	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	0.21	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	160		10	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.0056		0.0050	ug/L	EPA 8260B SIM	EPA 5030C

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

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\* MDL is shown



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: N/A  
Method: EPA 218.6  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-N-17Q2	17-04-0598-1-M	04/07/17 12:58	Aqueous	IC 16	N/A	04/07/17 21:40	170407L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	2.7	0.020	0.0099	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-N-17Q2	17-04-0598-2-M	04/07/17 11:01	Aqueous	IC 16	N/A	04/07/17 21:51	170407L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	2.1	0.020	0.0099	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-N-17Q2	17-04-0598-3-M	04/07/17 09:26	Aqueous	IC 16	N/A	04/07/17 22:02	170407L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	1.9	0.020	0.0099	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3871H-N-17Q2	17-04-0598-5-M	04/07/17 09:45	Aqueous	IC 16	N/A	04/07/17 22:14	170407L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	9.6	0.020	0.0099	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3871J-N-17Q2	17-04-0598-6-M	04/07/17 11:02	Aqueous	IC 16	N/A	04/07/17 22:25	170407L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	3.8	0.020	0.0099	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3861F-N-17Q2	17-04-0598-7-M	04/07/17 12:19	Aqueous	IC 16	N/A	04/07/17 22:36	170407L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	4.9	0.020	0.0099	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: N/A  
Method: EPA 218.6  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3861D-N-17Q2	17-04-0598-8-M	04/07/17 13:50	Aqueous	IC 16	N/A	04/07/17 22:47	170407L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	6.8	0.020	0.0099	1.00	

Method Blank	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-567-233	N/A	Aqueous	IC 16	N/A	04/07/17 19:31	170407L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 3020A Total  
Method: EPA 6020  
Units: mg/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>MW-03-N-17Q2</b>	<b>17-04-0598-1-L</b>	<b>04/07/17 12:58</b>	<b>Aqueous</b>	<b>ICP/MS 05</b>	<b>04/17/17</b>	<b>04/17/17 19:22</b>	<b>170417LA1</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Chromium		0.00297	0.00100		1.00		
<b>MW-08-N-17Q2</b>	<b>17-04-0598-2-L</b>	<b>04/07/17 11:01</b>	<b>Aqueous</b>	<b>ICP/MS 05</b>	<b>04/17/17</b>	<b>04/17/17 19:25</b>	<b>170417LA1</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Chromium		0.00281	0.00100		1.00		
<b>MW-07-N-17Q2</b>	<b>17-04-0598-3-L</b>	<b>04/07/17 09:26</b>	<b>Aqueous</b>	<b>ICP/MS 05</b>	<b>04/17/17</b>	<b>04/17/17 19:29</b>	<b>170417LA1</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Chromium		0.00262	0.00100		1.00		
<b>3871H-N-17Q2</b>	<b>17-04-0598-5-L</b>	<b>04/07/17 09:45</b>	<b>Aqueous</b>	<b>ICP/MS 05</b>	<b>04/17/17</b>	<b>04/17/17 19:33</b>	<b>170417LA1</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Chromium		0.0114	0.00100		1.00		
<b>3871J-N-17Q2</b>	<b>17-04-0598-6-L</b>	<b>04/07/17 11:02</b>	<b>Aqueous</b>	<b>ICP/MS 05</b>	<b>04/17/17</b>	<b>04/17/17 19:36</b>	<b>170417LA1</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Chromium		0.00447	0.00100		1.00		
<b>3861F-N-17Q2</b>	<b>17-04-0598-7-L</b>	<b>04/07/17 12:19</b>	<b>Aqueous</b>	<b>ICP/MS 05</b>	<b>04/17/17</b>	<b>04/17/17 19:51</b>	<b>170417LA1</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Chromium		0.00556	0.00100		1.00		
<b>3861D-N-17Q2</b>	<b>17-04-0598-8-L</b>	<b>04/07/17 13:50</b>	<b>Aqueous</b>	<b>ICP/MS 05</b>	<b>04/17/17</b>	<b>04/17/17 19:18</b>	<b>170417LA1</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Chromium		0.00894	0.00100		1.00		
<b>Method Blank</b>	<b>096-06-003-5525</b>	<b>N/A</b>	<b>Aqueous</b>	<b>ICP/MS 05</b>	<b>04/17/17</b>	<b>04/17/17 15:53</b>	<b>170417LA1</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Chromium		ND	0.00100		1.00		

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-N-17Q2	17-04-0598-1-K	04/07/17 12:58	Aqueous	GC/MS DDD	04/10/17	04/11/17 01:55	170410L09

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	113	56-123	
1,4-Dioxane-d8(IDS-IS)	45	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-N-17Q2	17-04-0598-2-K	04/07/17 11:01	Aqueous	GC/MS DDD	04/10/17	04/11/17 02:11	170410L09

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	120	56-123	
1,4-Dioxane-d8(IDS-IS)	40	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-N-17Q2	17-04-0598-3-K	04/07/17 09:26	Aqueous	GC/MS DDD	04/10/17	04/11/17 02:28	170410L09

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	109	56-123	
1,4-Dioxane-d8(IDS-IS)	42	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3871H-N-17Q2	17-04-0598-5-K	04/07/17 09:45	Aqueous	GC/MS DDD	04/10/17	04/11/17 02:44	170410L09

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	112	56-123	
1,4-Dioxane-d8(IDS-IS)	42	30-120	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3871J-N-17Q2	17-04-0598-6-K	04/07/17 11:02	Aqueous	GC/MS DDD	04/10/17	04/11/17 03:00	170410L09

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	113	56-123	
1,4-Dioxane-d8(IDS-IS)	44	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3861F-N-17Q2	17-04-0598-7-K	04/07/17 12:19	Aqueous	GC/MS DDD	04/10/17	04/14/17 15:07	170410L09

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	104	56-123	
1,4-Dioxane-d8(IDS-IS)	39	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3861D-N-17Q2	17-04-0598-8-K	04/07/17 13:50	Aqueous	GC/MS DDD	04/10/17	04/11/17 03:32	170410L09

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	88	56-123	
1,4-Dioxane-d8(IDS-IS)	59	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-216-1007	N/A	Aqueous	GC/MS DDD	04/10/17	04/10/17 21:40	170410L09

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	106	56-123	
1,4-Dioxane-d8(IDS-IS)	42	30-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-N-17Q2	17-04-0598-1-A	04/07/17 12:58	Aqueous	GC/MS T	04/19/17	04/20/17 03:32	170419L037

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	2.9	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	7.2	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	0.53	1.0	0.40	1.00	J
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	0.32	0.50	0.20	1.00	J
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	4.1	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	0.78	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	2.6	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	32	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	12	0.50	0.29	1.00	
Trichlorofluoromethane	0.34	0.50	0.20	1.00	J
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	0.25	0.50	0.20	1.00	J
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	99	68-120			
Dibromofluoromethane	103	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	103	80-128	
Toluene-d8	99	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-N-17Q2	17-04-0598-2-A	04/07/17 11:01	Aqueous	GC/MS T	04/19/17	04/20/17 04:05	170419L037

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	3.4	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	2.1	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	0.65	1.0	0.40	1.00	J
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	6.3	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	0.57	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	4.3	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	0.45	1.0	0.40	1.00	J
Styrene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	24	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	97	68-120	
Dibromofluoromethane	102	80-127	
1,2-Dichloroethane-d4	103	80-128	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Toluene-d8	99	80-120	

<u>Client Sample Number</u>	<u>Lab Sample Number</u>	<u>Date/Time Collected</u>	<u>Matrix</u>	<u>Instrument</u>	<u>Date Prepared</u>	<u>Date/Time Analyzed</u>	<u>QC Batch ID</u>
<b>MW-08-N-17Q2</b>	<b>17-04-0598-2-B</b>	<b>04/07/17 11:01</b>	<b>Aqueous</b>	<b>GC/MS T</b>	<b>04/20/17</b>	<b>04/20/17 13:00</b>	<b>170420L010</b>

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Tetrachloroethene	71	2.0	0.80	4.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	98	68-120	
Dibromofluoromethane	104	80-127	
1,2-Dichloroethane-d4	104	80-128	
Toluene-d8	99	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-N-17Q2	17-04-0598-3-A	04/07/17 09:26	Aqueous	GC/MS T	04/19/17	04/20/17 04:37	170419L037

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	3.9	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	2.9	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	0.40	1.0	0.40	1.00	J
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	0.23	0.50	0.20	1.00	J
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	4.0	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Parameter	Result	RL	MDL	DF	Qualifiers
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	0.34	0.50	0.20	1.00	J
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	1.9	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	17	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	68-120	
Dibromofluoromethane	103	80-127	
1,2-Dichloroethane-d4	105	80-128	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Toluene-d8	98	80-120	

<u>Client Sample Number</u>	<u>Lab Sample Number</u>	<u>Date/Time Collected</u>	<u>Matrix</u>	<u>Instrument</u>	<u>Date Prepared</u>	<u>Date/Time Analyzed</u>	<u>QC Batch ID</u>
<b>MW-07-N-17Q2</b>	<b>17-04-0598-3-B</b>	<b>04/07/17 09:26</b>	<b>Aqueous</b>	<b>GC/MS T</b>	<b>04/20/17</b>	<b>04/20/17 13:32</b>	<b>170420L010</b>

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Tetrachloroethene	34	1.0	0.40	2.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	98	68-120	
Dibromofluoromethane	103	80-127	
1,2-Dichloroethane-d4	103	80-128	
Toluene-d8	99	80-120	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20170407	17-04-0598-4-A	04/07/17 07:00	Aqueous	GC/MS T	04/20/17	04/20/17 10:49	170420L010

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	95	68-120			
Dibromofluoromethane	94	80-127			

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/07/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0598
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 12 of 30

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	91	80-128	
Toluene-d8	99	80-120	



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3871H-N-17Q2	17-04-0598-5-A	04/07/17 09:45	Aqueous	GC/MS T	04/19/17	04/20/17 05:10	170419L037

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	4.0	1.6	8.00	
1,1,1-Trichloroethane	ND	4.0	1.6	8.00	
1,1,2,2-Tetrachloroethane	ND	4.0	1.6	8.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	4.0	1.9	8.00	
1,1,2-Trichloroethane	ND	4.0	1.6	8.00	
1,1-Dichloroethane	ND	4.0	1.6	8.00	
1,1-Dichloroethene	ND	4.0	2.2	8.00	
1,1-Dichloropropene	ND	4.0	2.4	8.00	
1,2,3-Trichlorobenzene	ND	4.0	1.6	8.00	
1,2,3-Trichloropropane	ND	8.0	3.2	8.00	
1,2,4-Trichlorobenzene	ND	4.0	1.6	8.00	
1,2,4-Trimethylbenzene	ND	4.0	1.6	8.00	
1,2-Dibromo-3-Chloropropane	ND	40	16	8.00	
1,2-Dibromoethane	ND	4.0	1.6	8.00	
1,2-Dichlorobenzene	ND	4.0	1.6	8.00	
1,2-Dichloroethane	ND	4.0	1.6	8.00	
1,2-Dichloropropane	ND	4.0	1.6	8.00	
1,3,5-Trimethylbenzene	ND	4.0	1.6	8.00	
1,3-Dichlorobenzene	ND	4.0	2.2	8.00	
1,3-Dichloropropane	ND	8.0	3.2	8.00	
1,4-Dichlorobenzene	ND	4.0	1.6	8.00	
2,2-Dichloropropane	ND	8.0	3.2	8.00	
2-Butanone	ND	40	16	8.00	
2-Chlorotoluene	ND	4.0	1.6	8.00	
2-Hexanone	ND	80	32	8.00	
4-Chlorotoluene	ND	4.0	2.8	8.00	
4-Methyl-2-Pentanone	ND	40	16	8.00	
Acetone	ND	80	32	8.00	
Benzene	ND	4.0	1.6	8.00	
Bromobenzene	ND	4.0	2.6	8.00	
Bromochloromethane	ND	8.0	3.2	8.00	
Bromodichloromethane	ND	4.0	1.6	8.00	
Bromoform	ND	4.0	2.0	8.00	
Bromomethane	ND	8.0	3.2	8.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	8.0	3.2	8.00	
Carbon Tetrachloride	ND	4.0	1.6	8.00	
Chlorobenzene	ND	4.0	1.6	8.00	
Chloroethane	ND	4.0	2.5	8.00	
Chloroform	ND	4.0	1.6	8.00	
Chloromethane	ND	4.0	2.4	8.00	
Dibromochloromethane	ND	4.0	1.6	8.00	
Dibromomethane	ND	4.0	1.6	8.00	
Dichlorodifluoromethane	ND	8.0	3.2	8.00	
Ethylbenzene	ND	4.0	1.6	8.00	
Isopropylbenzene	ND	4.0	1.6	8.00	
Methylene Chloride	ND	8.0	6.4	8.00	
Naphthalene	ND	8.0	3.2	8.00	
Styrene	ND	4.0	1.6	8.00	
Tetrachloroethene	120	4.0	1.6	8.00	
Toluene	ND	4.0	1.6	8.00	
t-1,2-Dichloroethene	ND	4.0	1.6	8.00	
Trichloroethene	140	4.0	2.3	8.00	
Trichlorofluoromethane	ND	4.0	1.6	8.00	
Vinyl Acetate	ND	40	16	8.00	
Vinyl Chloride	ND	4.0	1.6	8.00	
c-1,3-Dichloropropene	ND	4.0	1.6	8.00	
c-1,2-Dichloroethene	ND	4.0	1.6	8.00	
n-Butylbenzene	ND	4.0	1.6	8.00	
n-Propylbenzene	ND	4.0	1.6	8.00	
o-Xylene	ND	4.0	2.5	8.00	
p-Isopropyltoluene	ND	4.0	1.6	8.00	
sec-Butylbenzene	ND	4.0	1.6	8.00	
t-1,3-Dichloropropene	ND	4.0	1.6	8.00	
tert-Butylbenzene	ND	4.0	1.6	8.00	
p/m-Xylene	ND	4.0	1.6	8.00	
Methyl-t-Butyl Ether (MTBE)	ND	4.0	1.6	8.00	
2-Chloroethyl Vinyl Ether	ND	40	33	8.00	
Hexachloro-1,3-Butadiene	ND	16	6.4	8.00	
Iodomethane	ND	80	40	8.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	97	68-120	
Dibromofluoromethane	102	80-127	

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





## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/07/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0598
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 15 of 30

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	106	80-128	
Toluene-d8	98	80-120	



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3871J-N-17Q2	17-04-0598-6-A	04/07/17 11:02	Aqueous	GC/MS T	04/19/17	04/20/17 05:43	170419L037

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	5.5	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	0.25	0.50	0.20	1.00	J
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	98	68-120			
Dibromofluoromethane	100	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	103	80-128	
Toluene-d8	99	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3861F-N-17Q2	17-04-0598-7-A	04/07/17 12:19	Aqueous	GC/MS T	04/19/17	04/20/17 06:15	170419L037

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	7.2	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.39	0.50	0.20	1.00	J
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	7.0	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	4.1	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	97	68-120			
Dibromofluoromethane	101	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	104	80-128	
Toluene-d8	99	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3861D-N-17Q2	17-04-0598-8-A	04/07/17 13:50	Aqueous	GC/MS T	04/19/17	04/20/17 01:21	170419L037

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	4.1	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	0.41	0.50	0.20	1.00	J
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	1.2	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	7.1	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	24	0.50	0.20	1.00	
Toluene	0.41	0.50	0.20	1.00	J
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	0.21	0.50	0.20	1.00	J
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	99	68-120	
Dibromofluoromethane	103	80-127	
1,2-Dichloroethane-d4	102	80-128	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Toluene-d8	100	80-120	

<u>Client Sample Number</u>	<u>Lab Sample Number</u>	<u>Date/Time Collected</u>	<u>Matrix</u>	<u>Instrument</u>	<u>Date Prepared</u>	<u>Date/Time Analyzed</u>	<u>QC Batch ID</u>
<b>3861D-N-17Q2</b>	<b>17-04-0598-8-B</b>	<b>04/07/17 13:50</b>	<b>Aqueous</b>	<b>GC/MS T</b>	<b>04/19/17</b>	<b>04/20/17 02:59</b>	<b>170419L037</b>

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Trichloroethene	160	10	5.7	20.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	97	68-120	
Dibromofluoromethane	102	80-127	
1,2-Dichloroethane-d4	101	80-128	
Toluene-d8	98	80-120	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-025-4628	N/A	Aqueous	GC/MS T	04/19/17	04/20/17 00:48	170419L037

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	100	68-120			
Dibromofluoromethane	102	80-127			

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



## Analytical Report

<p>Tetra Tech, Inc. 301 E. Vanderbilt Way, Suite 450 San Bernardino, CA 92408-3562</p> <p>Project: LMC BOU</p>	<p>Date Received: 04/07/17 Work Order: 17-04-0598 Preparation: EPA 5030C Method: EPA 8260B Units: ug/L</p>	<p>Page 27 of 30</p>
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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	102	80-128	
Toluene-d8	99	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-025-4629	N/A	Aqueous	GC/MS T	04/20/17	04/20/17 10:14	170420L010

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

Parameter	Result	RL	MDL	DF	Qualifiers
Tetrachloroethene	ND	0.50	0.20	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Naphthalene	ND	1.0	0.40	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
Styrene	ND	0.50	0.20	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
Iodomethane	ND	10	5.0	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	97	68-120			
Dibromofluoromethane	96	80-127			

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	96	80-128	
Toluene-d8	99	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-N-17Q2	17-04-0598-1-F	04/07/17 12:58	Aqueous	GC/MS M	04/17/17	04/17/17 13:04	170417L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.93	0.050	0.025	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	113	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-08-N-17Q2	17-04-0598-2-F	04/07/17 11:01	Aqueous	GC/MS M	04/17/17	04/17/17 13:34	170417L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.93	0.050	0.025	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	110	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-07-N-17Q2	17-04-0598-3-F	04/07/17 09:26	Aqueous	GC/MS M	04/17/17	04/17/17 14:04	170417L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.60	0.050	0.025	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	113	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3871H-N-17Q2	17-04-0598-5-H	04/07/17 09:45	Aqueous	GC/MS M	04/14/17	04/15/17 06:24	170414L054

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.084	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	119	80-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3871J-N-17Q2	17-04-0598-6-H	04/07/17 11:02	Aqueous	GC/MS M	04/14/17	04/15/17 06:54	170414L054

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	112	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3861F-N-17Q2	17-04-0598-7-H	04/07/17 12:19	Aqueous	GC/MS M	04/14/17	04/15/17 07:24	170414L054

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.0045	0.0050	0.0025	1.00	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	108	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3861D-N-17Q2	17-04-0598-8-H	04/07/17 13:50	Aqueous	GC/MS M	04/17/17	04/17/17 12:34	170417L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.0056	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	110	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-118-486	N/A	Aqueous	GC/MS M	04/14/17	04/14/17 23:27	170414L054

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	104	80-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-118-487	N/A	Aqueous	GC/MS M	04/17/17	04/17/17 11:34	170417L018

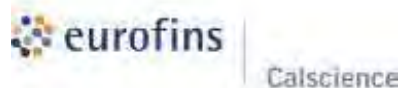
Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Dichlorobutane	106	80-120	

Return to Contents

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



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
3861D-N-17Q2	Sample	Aqueous	IC 16	N/A	04/07/17 22:47	170407S01
3861D-N-17Q2	Matrix Spike	Aqueous	IC 16	N/A	04/07/17 22:59	170407S01
3861D-N-17Q2	Matrix Spike Duplicate	Aqueous	IC 16	N/A	04/07/17 23:10	170407S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium, Hexavalent	6.800	10.00	17.29	105	17.50	107	85-121	1	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
3861D-N-17Q2	Sample	Aqueous	ICP/MS 05	04/17/17	04/17/17 19:18	170417SA1
3861D-N-17Q2	Matrix Spike	Aqueous	ICP/MS 05	04/17/17	04/17/17 16:00	170417SA1
3861D-N-17Q2	Matrix Spike Duplicate	Aqueous	ICP/MS 05	04/17/17	04/17/17 19:07	170417SA1

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium	0.008942	0.1000	0.1151	106	0.1131	104	73-133	2	0-11	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
3861D-N-17Q2	Sample	Aqueous	GC/MS DDD	04/10/17	04/11/17 03:32	170410S09A
3861D-N-17Q2	Matrix Spike	Aqueous	GC/MS DDD	04/10/17	04/11/17 01:24	170410S09A
3861D-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS DDD	04/10/17	04/11/17 01:39	170410S09A

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,4-Dioxane	ND	20.00	21.11	106	19.33	97	50-130	9	0-20	



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
3861D-N-17Q2	Sample	Aqueous	GC/MS T	04/19/17	04/20/17 01:21	170419S022
3861D-N-17Q2	Matrix Spike	Aqueous	GC/MS T	04/19/17	04/20/17 01:54	170419S022
3861D-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS T	04/19/17	04/20/17 02:26	170419S022

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloroethene	ND	10.00	10.98	110	10.48	105	66-126	5	0-20	
1,2-Dibromoethane	ND	10.00	9.917	99	9.620	96	75-126	3	0-20	
1,2-Dichlorobenzene	ND	10.00	9.823	98	9.509	95	75-125	3	0-20	
1,2-Dichloroethane	ND	10.00	9.779	98	9.512	95	75-127	3	0-20	
Benzene	ND	10.00	9.960	100	9.670	97	75-125	3	0-20	
Carbon Tetrachloride	ND	10.00	11.51	115	10.89	109	69-135	6	0-20	
Chlorobenzene	ND	10.00	9.789	98	9.566	96	75-125	2	0-20	
Ethylbenzene	ND	10.00	9.968	100	9.684	97	75-125	3	0-20	
Toluene	ND	10.00	10.47	105	10.21	102	75-125	3	0-20	
Trichloroethene	159.3	10.00	161.0	17	162.3	30	75-125	1	0-20	3
Vinyl Chloride	ND	10.00	12.42	124	11.95	119	52-142	4	0-20	
o-Xylene	ND	10.00	9.833	98	9.495	95	75-127	3	0-20	
p/m-Xylene	ND	20.00	19.80	99	19.05	95	75-125	4	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	10.25	103	9.783	98	71-131	5	0-20	
Tert-Butyl Alcohol (TBA)	ND	50.00	64.30	129	70.66	141	20-180	9	0-40	
Diisopropyl Ether (DIPE)	ND	10.00	10.34	103	9.752	98	64-136	6	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	9.964	100	9.455	95	73-133	5	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	9.479	95	9.244	92	75-125	3	0-20	
Ethanol	ND	100.0	126.3	126	123.9	124	73-139	2	0-27	

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1153-3	Sample	Aqueous	GC/MS T	04/20/17	04/20/17 11:22	170420S006
17-04-1153-3	Matrix Spike	Aqueous	GC/MS T	04/20/17	04/20/17 11:54	170420S006
17-04-1153-3	Matrix Spike Duplicate	Aqueous	GC/MS T	04/20/17	04/20/17 12:27	170420S006

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	10.00	9.316	93	8.568	86	75-125	8	0-20	
Carbon Tetrachloride	ND	10.00	10.35	103	9.437	94	69-135	9	0-20	
Chlorobenzene	ND	10.00	9.317	93	8.693	87	75-125	7	0-20	
1,2-Dibromoethane	ND	10.00	9.438	94	9.262	93	75-126	2	0-20	
1,2-Dichlorobenzene	ND	10.00	9.509	95	8.729	87	75-125	9	0-20	
1,2-Dichloroethane	ND	10.00	9.211	92	8.763	88	75-127	5	0-20	
1,1-Dichloroethene	0.5449	10.00	10.54	100	9.532	90	66-126	10	0-20	
Ethylbenzene	ND	10.00	9.546	95	8.660	87	75-125	10	0-20	
Toluene	ND	10.00	9.487	95	8.664	87	75-125	9	0-20	
Trichloroethene	ND	10.00	9.507	95	8.656	87	75-125	9	0-20	
Vinyl Chloride	2.568	10.00	14.32	118	14.31	117	52-142	0	0-20	
p/m-Xylene	ND	20.00	18.99	95	17.41	87	75-125	9	0-20	
o-Xylene	ND	10.00	9.340	93	8.558	86	75-127	9	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	9.204	92	9.132	91	71-131	1	0-20	
Tert-Butyl Alcohol (TBA)	ND	50.00	52.82	106	52.97	106	20-180	0	0-40	
Diisopropyl Ether (DIPE)	ND	10.00	9.537	95	9.124	91	64-136	4	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	10.00	9.135	91	8.926	89	73-133	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	10.00	8.838	88	8.545	85	75-125	3	0-20	
Ethanol	ND	100.0	99.08	99	107.7	108	73-139	8	0-27	

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0600-3	Sample	Aqueous	GC/MS M	04/14/17	04/14/17 23:56	170414S027
17-04-0600-3	Matrix Spike	Aqueous	GC/MS M	04/14/17	04/15/17 00:26	170414S027
17-04-0600-3	Matrix Spike Duplicate	Aqueous	GC/MS M	04/14/17	04/15/17 00:56	170414S027

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,4-Dioxane	ND	20.00	21.46	107	20.58	103	80-120	4	0-20	
1,2,3-Trichloropropane	0.005200	0.02000	0.02790	114	0.02700	109	80-120	3	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
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Project: LMC BOU

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
3861D-N-17Q2	Sample	Aqueous	GC/MS M	04/17/17	04/17/17 12:34	170417S008				
3861D-N-17Q2	Matrix Spike	Aqueous	GC/MS M	04/17/17	04/17/17 15:03	170417S008				
3861D-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS M	04/17/17	04/17/17 15:34	170417S008				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,4-Dioxane	ND	20.00	23.12	116	23.44	117	80-120	1	0-20	
1,2,3-Trichloropropane	0.005600	0.02000	0.02790	112	0.02590	102	80-120	7	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - PDS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDS Batch Number
3861D-N-17Q2	Sample	Aqueous	ICP/MS 05	04/17/17 00:00	04/17/17 19:18	170417SA1
3861D-N-17Q2	PDS	Aqueous	ICP/MS 05	04/17/17 00:00	04/17/17 19:11	170417SA1

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>PDS Conc.</u>	<u>PDS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium	0.008942	0.1000	0.1098	101	75-125	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-14-567-233</b>	<b>LCS</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/07/17 19:42</b>	<b>170407L01</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	10.00	10.10	101	95-107	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>096-06-003-5525</b>	<b>LCS</b>	<b>Aqueous</b>	<b>ICP/MS 05</b>	<b>04/17/17</b>	<b>04/17/17 15:57</b>	<b>170417LA1</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium	0.1000	0.1124	112	80-120	





## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-16-216-1007</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/10/17</b>	<b>04/10/17 21:56</b>	<b>170410L09</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,4-Dioxane		20.00	18.50	93	50-130	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-10-025-4628</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS T</b>	<b>04/19/17</b>	<b>04/19/17 23:43</b>	<b>170419L037</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
1,1-Dichloroethene		10.00	10.71	107	77-120	70-127	
1,2-Dibromoethane		10.00	10.44	104	80-120	73-127	
1,2-Dichlorobenzene		10.00	10.13	101	80-120	73-127	
1,2-Dichloroethane		10.00	10.11	101	80-122	73-129	
Benzene		10.00	10.08	101	80-120	73-127	
Carbon Tetrachloride		10.00	10.81	108	80-129	72-137	
Chlorobenzene		10.00	10.06	101	80-120	73-127	
Ethylbenzene		10.00	10.12	101	80-120	73-127	
Toluene		10.00	10.12	101	80-120	73-127	
Trichloroethene		10.00	10.13	101	80-120	73-127	
Vinyl Chloride		10.00	11.11	111	63-135	51-147	
o-Xylene		10.00	10.13	101	80-120	73-127	
p/m-Xylene		20.00	20.12	101	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	10.68	107	75-123	67-131	
Tert-Butyl Alcohol (TBA)		50.00	53.27	107	80-120	73-127	
Diisopropyl Ether (DIPE)		10.00	10.83	108	73-121	65-129	
Ethyl-t-Butyl Ether (ETBE)		10.00	10.51	105	76-124	68-132	
Tert-Amyl-Methyl Ether (TAME)		10.00	9.951	100	80-120	73-127	
Ethanol		100.0	109.7	110	73-133	63-143	

Total number of LCS compounds: 19

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-10-025-4629</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS T</b>	<b>04/20/17</b>	<b>04/20/17 09:27</b>	<b>170420L010</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Benzene		10.00	10.16	102	80-120	73-127	
Carbon Tetrachloride		10.00	10.62	106	80-129	72-137	
Chlorobenzene		10.00	10.18	102	80-120	73-127	
1,2-Dibromoethane		10.00	9.913	99	80-120	73-127	
1,2-Dichlorobenzene		10.00	10.08	101	80-120	73-127	
1,2-Dichloroethane		10.00	9.906	99	80-122	73-129	
1,1-Dichloroethene		10.00	10.59	106	77-120	70-127	
Ethylbenzene		10.00	10.26	103	80-120	73-127	
Toluene		10.00	10.20	102	80-120	73-127	
Trichloroethene		10.00	10.45	105	80-120	73-127	
Vinyl Chloride		10.00	10.71	107	63-135	51-147	
p/m-Xylene		20.00	20.63	103	80-120	73-127	
o-Xylene		10.00	10.17	102	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	9.932	99	75-123	67-131	
Tert-Butyl Alcohol (TBA)		50.00	51.36	103	80-120	73-127	
Diisopropyl Ether (DIPE)		10.00	10.37	104	73-121	65-129	
Ethyl-t-Butyl Ether (ETBE)		10.00	9.960	100	76-124	68-132	
Tert-Amyl-Methyl Ether (TAME)		10.00	9.513	95	80-120	73-127	
Ethanol		100.0	110.8	111	73-133	63-143	

Total number of LCS compounds: 19

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/07/17  
Work Order: 17-04-0598  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-118-486</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>04/14/17</b>	<b>04/14/17 22:27</b>	<b>170414L054</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,4-Dioxane		20.00	20.00	100	80-120	
1,2,3-Trichloropropane		0.02000	0.01910	96	80-120	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/07/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0598
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B SIM
Project: LMC BOU		Page 7 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-118-487</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>04/17/17</b>	<b>04/17/17 10:34</b>	<b>170417L018</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,4-Dioxane		20.00	21.09	105	80-120	
1,2,3-Trichloropropane		0.02000	0.01960	98	80-120	

## Sample Analysis Summary Report

Work Order: 17-04-0598

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 218.6	N/A	834	IC 16	1
EPA 6020	EPA 3020A Total	598	ICP/MS 05	1
EPA 8260B	EPA 5030C	316	GC/MS T	2
EPA 8260B SIM	EPA 5030C	486	GC/MS M	2
EPA 8270C (M) Isotope Dilution	EPA 3510C	928	GC/MS DDD	1



## Glossary of Terms and Qualifiers

Work Order: 17-04-0598

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

**CHAIN-OF-CUSTODY RECORD**  
 Date: 4-7-2017  
 Page: 1 of 1

VOIDING LAB USE ONLY  
**17-04-0588**

LABORATORY CLIENT: Petra Tech EMC  
 ADDRESS: 301 E Vanderbilt Way Suite 450  
 CITY: San Bernardino STATE: CA ZIP: 92408  
 TEL: \_\_\_\_\_ E-MAIL: \_\_\_\_\_  
 CLIENT PROJECT/TARGET NO.: \_\_\_\_\_  
 LMC BOY  
 PROJECT CONTACT: Robert Sabater  
 GLOBAL ID: \_\_\_\_\_ LOS CODE: \_\_\_\_\_  
 SAMPLERS: (PRINT)  
Jason Cooke  
Vanessa Calder

TURNAROUND TIME (with sub-times only, apply to any TAT not STANDARD)  
 SAME DAY  24 HR  48 HR  72 HR  6 DAYS STANDARD  
 BOD  COREL ED  OTHER

REQUESTED ANALYSES  
 Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	Field Preserved	Field Filtered	TSP <input type="checkbox"/> OR CSE <input type="checkbox"/> OR C4	TSP <input type="checkbox"/> OR DRO	TSP <input type="checkbox"/> OR C4	BTX/MIBK <input type="checkbox"/> B200 <input type="checkbox"/>	VOCs (250)	Compensation (250)	Pmp (325) <input type="checkbox"/> Em Cone <input type="checkbox"/> Tam Cone	EPOCs (227)	Pesticides (1051)	PCBs (602)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SRA	T22 Metals <input type="checkbox"/> 8010/47K <input type="checkbox"/> 6020/47X	CVM <input type="checkbox"/> 7198 <input type="checkbox"/> 7199 <input type="checkbox"/> 2116	1/4 Dioxane	ICP/MS Metals	HCP CR	12.3 TCP		
		DATE	TIME																							
	MW-03-N-1702	4-7-17	1258	W	13	✓																				
	MW-08-N-1702	4-7-17	1101	W	13	✓																				
	MW-07-N-1702	4-7-17	0926	W	13	✓																				
	EB-20170407	4-7-17	0700	W	3	✓																				
	38114-N-1702	4-7-17	0945	W	13	✓																				
	38115-N-1702	4-7-17	1102	W	13	✓																				
	38616-N-1702	4-7-17	1219	W	13	✓																				
	38618-N-1702	4-7-17	1350	W	13	✓																				

Requested by: (Signature) [Signature]  
 Received by: (Signature) [Signature]  
 Date: 4-7-2017 Time: 1620  
 Date: 4/7/17 Time: 1705

SPECIAL INSTRUCTIONS:  
\* 38618 - N - 1702 is an MS/MSD

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Tetra Tech

DATE: 04/7/2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)  
 Thermometer ID: SC (CF: 0.0°C); Temperature (w/o CF): 1.8 °C (w/ CF): 1.8 °C;  Blank  Sample  
 Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)  
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling  
 Sample(s) received at ambient temperature; placed on ice for transport by courier  
 Ambient Temperature:  Air  Filter  
 Checked by: 1091

CUSTODY SEAL:  
 Cooler  Present and Intact  Present but Not Intact  Not Present  N/A  
 Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A  
 Checked by: 1091  
 Checked by: 681

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Container(s) for certain analysis free of headspace	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-176) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE: 10 (Trip Blank Lot Number: 170328A)  
 Aqueous:  VOA  VOA<sub>h</sub>  VOA<sub>na2</sub>  100PJ  100PJ<sub>na2</sub>  125AGB  125AGB<sub>h</sub>  125AGB<sub>p</sub>  125PB  
 125PB<sub>znna</sub>  250AGB  250CGB  250CGB<sub>s</sub>  250PB  250PB<sub>n</sub>  500AGB  500AG<sub>J</sub>  500AG<sub>J</sub><sub>s</sub>  
 500PB  1AGB  1AGB<sub>na2</sub>  1AGB<sub>s</sub>  1PB  1PB<sub>na</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  
 Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  EnCores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_  
 Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (\_\_\_\_\_)  \_\_\_\_\_  \_\_\_\_\_  
 Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag  
 Preservatives: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 681  
 s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>+H<sub>2</sub>O, znna = Zn(CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH  
 Reviewed by: 1053

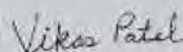

**WORK ORDER NUMBER: 17-04-0454**
*The difference is service*


AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**
**Client:** Tetra Tech, Inc.

**Client Project Name:** LMC BOU

**Attention:** Robert Sabater  
 301 E. Vanderbilt Way, Suite 450  
 San Bernardino, CA 92408-3562



 Approved for release on 04/24/2017 by:  
 Vikas Patel  
 Project Manager

ResultLink ▶

Email your PM ▶

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



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Work Order Number: 17-04-0454

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## Work Order Narrative

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Work Order: 17-04-0454

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### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 04/06/17. They were assigned to Work Order 17-04-0454.

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

### **Holding Times:**

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

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

### **Quality Control:**

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

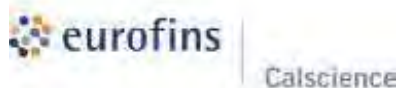
### **Subcontractor Information:**

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

### **Additional Comments:**

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

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



## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-0454  
Project Name: LMC BOU  
Received: 04/06/17

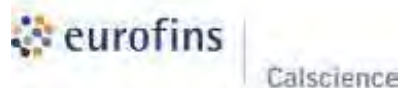
Attn: Robert Sabater

Page 1 of 2

### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-1-CW30-N-17Q2 (17-04-0454-1)						
Chromium, Hexavalent	0.59		0.020	ug/L	EPA 218.6	N/A
Chromium	0.0333		0.00100	mg/L	EPA 6020	EPA 3020A Total
Tetrachloroethene	110		5.0	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	200		5.0	ug/L	EPA 8260B	EPA 5030C
B-1-CW31-N-17Q2 (17-04-0454-2)						
Chromium, Hexavalent	16		0.020	ug/L	EPA 218.6	N/A
Chromium	0.0217		0.00100	mg/L	EPA 6020	EPA 3020A Total
Tetrachloroethene	55		1.0	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	47		1.0	ug/L	EPA 8260B	EPA 5030C
B-1-CW33-N-17Q2 (17-04-0454-3)						
Chromium, Hexavalent	0.44		0.020	ug/L	EPA 218.6	N/A
Chromium	0.0149		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	15		10	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	17		10	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	630		10	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	180		10	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.87		0.050	ug/L	EPA 8260B SIM	EPA 5030C
1,4-Dioxane	1.2		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C
A-1-CW08-N-17Q2 (17-04-0454-5)						
Chromium, Hexavalent	1.2		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00176		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1-Dichloroethene	1.4		1.0	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	67		2.0	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	1.0		1.0	ug/L	EPA 8260B	EPA 5030C
Chloroform	30		1.0	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	28		1.0	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	69		1.0	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	87		5.0	ug/L	EPA 8260B SIM	EPA 5030C
B-6-CW14-N-17Q2 (17-04-0454-6)						
Chromium, Hexavalent	1.2		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00177		0.00100	mg/L	EPA 6020	EPA 3020A Total
Acetone	4.5	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.29	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	22		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	5.1		0.50	ug/L	EPA 8260B	EPA 5030C
1,4-Dioxane	1.8		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C

\* MDL is shown



## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-0454  
Project Name: LMC BOU  
Received: 04/06/17

Attn: Robert Sabater

Page 2 of 2

### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
C-1-CW05-N-17Q2 (17-04-0454-7)						
Chromium, Hexavalent	0.18		0.020	ug/L	EPA 218.6	N/A
Chromium	0.000735	J	0.000402*	mg/L	EPA 6020	EPA 3020A Total
1,1-Dichloroethane	1.1		0.50	ug/L	EPA 8260B	EPA 5030C
Dichlorodifluoromethane	1.9		1.0	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	0.68		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	0.29	J	0.29*	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	0.30	J	0.20*	ug/L	EPA 8260B	EPA 5030C
B-6-CW02-N-17Q2 (17-04-0454-8)						
Chromium, Hexavalent	2.5		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00295		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chloroform	0.35	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	0.56		0.50	ug/L	EPA 8260B	EPA 5030C
B-6-CW02-FD-17Q2 (17-04-0454-9)						
Chromium, Hexavalent	2.5		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00311		0.00100	mg/L	EPA 6020	EPA 3020A Total
Acetone	4.2	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.37	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	0.54		0.50	ug/L	EPA 8260B	EPA 5030C

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

\* MDL is shown



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: N/A  
Method: EPA 218.6  
Units: ug/L

Project: LMC BOU

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW30-N-17Q2	17-04-0454-1-K	04/06/17 14:44	Aqueous	IC 16	N/A	04/06/17 21:13	170406L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	0.59	0.020	0.0099	1.00	

B-1-CW31-N-17Q2	17-04-0454-2-K	04/06/17 13:05	Aqueous	IC 16	N/A	04/06/17 21:24	170406L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	16	0.020	0.0099	1.00	

B-1-CW33-N-17Q2	17-04-0454-3-K	04/06/17 09:04	Aqueous	IC 16	N/A	04/06/17 21:35	170406L01
-----------------	----------------	-------------------	---------	-------	-----	-------------------	-----------

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	0.44	0.020	0.0099	1.00	

A-1-CW08-N-17Q2	17-04-0454-5-K	04/06/17 14:44	Aqueous	IC 16	N/A	04/06/17 21:46	170406L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	1.2	0.020	0.0099	1.00	

B-6-CW14-N-17Q2	17-04-0454-6-K	04/06/17 11:47	Aqueous	IC 16	N/A	04/06/17 21:58	170406L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	1.2	0.020	0.0099	1.00	

C-1-CW05-N-17Q2	17-04-0454-7-K	04/06/17 09:52	Aqueous	IC 16	N/A	04/06/17 22:09	170406L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	0.18	0.020	0.0099	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: N/A  
Method: EPA 218.6  
Units: ug/L

Project: LMC BOU

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>B-6-CW02-N-17Q2</b>	<b>17-04-0454-8-K</b>	<b>04/06/17 16:21</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/06/17 22:20</b>	<b>170406L01</b>

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Chromium, Hexavalent	2.5	0.020	0.0099	1.00	

<b>B-6-CW02-FD-17Q2</b>	<b>17-04-0454-9-K</b>	<b>04/06/17 16:21</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/06/17 22:31</b>	<b>170406L01</b>
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Chromium, Hexavalent	2.5	0.020	0.0099	1.00	

<b>Method Blank</b>	<b>099-14-567-232</b>	<b>N/A</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/06/17 19:46</b>	<b>170406L01</b>
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 3020A Total  
Method: EPA 6020  
Units: mg/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW30-N-17Q2	17-04-0454-1-L	04/06/17 14:44	Aqueous	ICP/MS 03	04/15/17	04/19/17 00:35	170415LA6

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.0333	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW31-N-17Q2	17-04-0454-2-L	04/06/17 13:05	Aqueous	ICP/MS 03	04/15/17	04/19/17 00:45	170415LA6

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.0217	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW33-N-17Q2	17-04-0454-3-L	04/06/17 09:04	Aqueous	ICP/MS 03	04/15/17	04/19/17 00:47	170415LA6

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.0149	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW08-N-17Q2	17-04-0454-5-L	04/06/17 14:44	Aqueous	ICP/MS 03	04/15/17	04/19/17 00:52	170415LA6

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00176	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW14-N-17Q2	17-04-0454-6-L	04/06/17 11:47	Aqueous	ICP/MS 03	04/15/17	04/19/17 00:55	170415LA6

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00177	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW05-N-17Q2	17-04-0454-7-L	04/06/17 09:52	Aqueous	ICP/MS 03	04/15/17	04/19/17 00:57	170415LA6

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.000735	0.00100	0.000402	1.00	J

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 3020A Total  
Method: EPA 6020  
Units: mg/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>B-6-CW02-N-17Q2</b>	<b>17-04-0454-8-G</b>	<b>04/06/17 16:21</b>	<b>Aqueous</b>	<b>ICP/MS 03</b>	<b>04/15/17</b>	<b>04/19/17 01:00</b>	<b>170415LA6</b>

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Chromium	0.00295	0.00100	0.000402	1.00	

<b>B-6-CW02-FD-17Q2</b>	<b>17-04-0454-9-G</b>	<b>04/06/17 16:21</b>	<b>Aqueous</b>	<b>ICP/MS 03</b>	<b>04/15/17</b>	<b>04/19/17 01:02</b>	<b>170415LA6</b>
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Chromium	0.00311	0.00100	0.000402	1.00	

<b>Method Blank</b>	<b>096-06-003-5532</b>	<b>N/A</b>	<b>Aqueous</b>	<b>ICP/MS 03</b>	<b>04/15/17</b>	<b>04/19/17 04:11</b>	<b>170415LA6</b>
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Chromium	ND	0.00100	0.000402	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW30-N-17Q2	17-04-0454-1-M	04/06/17 14:44	Aqueous	GC/MS DDD	04/07/17	04/08/17 08:37	170407L15

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	107	56-123	
1,4-Dioxane-d8(IDS-IS)	37	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW31-N-17Q2	17-04-0454-2-M	04/06/17 13:05	Aqueous	GC/MS DDD	04/07/17	04/08/17 08:53	170407L15

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	106	56-123	
1,4-Dioxane-d8(IDS-IS)	39	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW33-N-17Q2	17-04-0454-3-M	04/06/17 09:04	Aqueous	GC/MS DDD	04/07/17	04/08/17 09:09	170407L15

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	1.2	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	108	56-123	
1,4-Dioxane-d8(IDS-IS)	38	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW08-N-17Q2	17-04-0454-5-M	04/06/17 14:44	Aqueous	GC/MS DDD	04/07/17	04/08/17 09:24	170407L15

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	107	56-123	
1,4-Dioxane-d8(IDS-IS)	39	30-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>B-6-CW14-N-17Q2</b>	<b>17-04-0454-6-M</b>	<b>04/06/17 11:47</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/07/17</b>	<b>04/08/17 09:40</b>	<b>170407L15</b>

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	1.8	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	110	56-123	
1,4-Dioxane-d8(IDS-IS)	39	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>C-1-CW05-N-17Q2</b>	<b>17-04-0454-7-M</b>	<b>04/06/17 09:52</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/07/17</b>	<b>04/08/17 09:56</b>	<b>170407L15</b>

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	108	56-123	
1,4-Dioxane-d8(IDS-IS)	36	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>B-6-CW02-N-17Q2</b>	<b>17-04-0454-8-H</b>	<b>04/06/17 16:21</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/07/17</b>	<b>04/08/17 10:12</b>	<b>170407L15</b>

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	106	56-123	
1,4-Dioxane-d8(IDS-IS)	37	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>B-6-CW02-FD-17Q2</b>	<b>17-04-0454-9-H</b>	<b>04/06/17 16:21</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/07/17</b>	<b>04/08/17 10:28</b>	<b>170407L15</b>

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	104	56-123	
1,4-Dioxane-d8(IDS-IS)	35	30-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-216-1000	N/A	Aqueous	GC/MS DDD	04/07/17	04/08/17 04:23	170407L15

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	110	56-123	
1,4-Dioxane-d8(IDS-IS)	41	30-120	

Return to Contents

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW30-N-17Q2	17-04-0454-1-A	04/06/17 14:44	Aqueous	GC/MS FFF	04/07/17	04/08/17 04:36	170407L043

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	5.0	2.0	10.0	
1,1,1-Trichloroethane	ND	5.0	2.0	10.0	
1,1,2,2-Tetrachloroethane	ND	5.0	2.0	10.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	5.0	2.4	10.0	
1,1,2-Trichloroethane	ND	5.0	2.0	10.0	
1,1-Dichloroethane	ND	5.0	2.0	10.0	
1,1-Dichloroethene	ND	5.0	2.8	10.0	
1,1-Dichloropropene	ND	5.0	3.0	10.0	
1,2,3-Trichlorobenzene	ND	5.0	2.0	10.0	
1,2,3-Trichloropropane	ND	10	4.0	10.0	
1,2,4-Trichlorobenzene	ND	5.0	2.0	10.0	
1,2,4-Trimethylbenzene	ND	5.0	2.0	10.0	
1,2-Dibromo-3-Chloropropane	ND	50	20	10.0	
1,2-Dibromoethane	ND	5.0	2.0	10.0	
1,2-Dichlorobenzene	ND	5.0	2.0	10.0	
1,2-Dichloroethane	ND	5.0	2.0	10.0	
1,2-Dichloropropane	ND	5.0	2.0	10.0	
1,3,5-Trimethylbenzene	ND	5.0	2.0	10.0	
1,3-Dichlorobenzene	ND	5.0	2.8	10.0	
1,3-Dichloropropane	ND	10	4.0	10.0	
1,4-Dichlorobenzene	ND	5.0	2.0	10.0	
2,2-Dichloropropane	ND	10	4.0	10.0	
2-Butanone	ND	50	20	10.0	
2-Chlorotoluene	ND	5.0	2.0	10.0	
2-Hexanone	ND	100	40	10.0	
4-Chlorotoluene	ND	5.0	3.6	10.0	
4-Methyl-2-Pentanone	ND	50	20	10.0	
Acetone	ND	100	40	10.0	
Benzene	ND	5.0	2.0	10.0	
Bromobenzene	ND	5.0	3.2	10.0	
Bromochloromethane	ND	10	4.0	10.0	
Bromodichloromethane	ND	5.0	2.0	10.0	
Bromoform	ND	5.0	2.5	10.0	
Bromomethane	ND	10	4.0	10.0	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	10	4.0	10.0	
Carbon Tetrachloride	ND	5.0	2.0	10.0	
Chlorobenzene	ND	5.0	2.0	10.0	
Chloroethane	ND	5.0	3.2	10.0	
Chloroform	ND	5.0	2.0	10.0	
Chloromethane	ND	5.0	2.9	10.0	
Dibromochloromethane	ND	5.0	2.0	10.0	
Dibromomethane	ND	5.0	2.0	10.0	
Dichlorodifluoromethane	ND	10	4.0	10.0	
Ethylbenzene	ND	5.0	2.0	10.0	
Isopropylbenzene	ND	5.0	2.0	10.0	
Methylene Chloride	ND	10	8.0	10.0	
Naphthalene	ND	10	4.0	10.0	
Styrene	ND	5.0	2.0	10.0	
Tetrachloroethene	110	5.0	2.0	10.0	
Toluene	ND	5.0	2.0	10.0	
t-1,2-Dichloroethene	ND	5.0	2.0	10.0	
Trichloroethene	200	5.0	2.9	10.0	
Trichlorofluoromethane	ND	5.0	2.0	10.0	
Vinyl Acetate	ND	50	20	10.0	
Vinyl Chloride	ND	5.0	2.0	10.0	
c-1,3-Dichloropropene	ND	5.0	2.0	10.0	
c-1,2-Dichloroethene	ND	5.0	2.0	10.0	
n-Butylbenzene	ND	5.0	2.0	10.0	
n-Propylbenzene	ND	5.0	2.0	10.0	
o-Xylene	ND	5.0	3.2	10.0	
p-Isopropyltoluene	ND	5.0	2.0	10.0	
sec-Butylbenzene	ND	5.0	2.0	10.0	
t-1,3-Dichloropropene	ND	5.0	2.0	10.0	
tert-Butylbenzene	ND	5.0	2.0	10.0	
p/m-Xylene	ND	5.0	2.0	10.0	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	2.0	10.0	
2-Chloroethyl Vinyl Ether	ND	50	42	10.0	
Hexachloro-1,3-Butadiene	ND	20	8.0	10.0	
Iodomethane	ND	100	50	10.0	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	91	68-120			
Dibromofluoromethane	101	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	102	80-128	
Toluene-d8	102	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW31-N-17Q2	17-04-0454-2-C	04/06/17 13:05	Aqueous	GC/MS L	04/19/17	04/19/17 15:50	170419L010

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	2.00	
1,1,1-Trichloroethane	ND	1.0	0.40	2.00	
1,1,2,2-Tetrachloroethane	ND	1.0	0.40	2.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1.0	0.48	2.00	
1,1,2-Trichloroethane	ND	1.0	0.40	2.00	
1,1-Dichloroethane	ND	1.0	0.40	2.00	
1,1-Dichloroethene	ND	1.0	0.56	2.00	
1,1-Dichloropropene	ND	1.0	0.60	2.00	
1,2,3-Trichlorobenzene	ND	1.0	0.40	2.00	
1,2,3-Trichloropropane	ND	2.0	0.80	2.00	
1,2,4-Trichlorobenzene	ND	1.0	0.40	2.00	
1,2,4-Trimethylbenzene	ND	1.0	0.40	2.00	
1,2-Dibromo-3-Chloropropane	ND	10	4.0	2.00	
1,2-Dibromoethane	ND	1.0	0.40	2.00	
1,2-Dichlorobenzene	ND	1.0	0.40	2.00	
1,2-Dichloroethane	ND	1.0	0.40	2.00	
1,2-Dichloropropane	ND	1.0	0.40	2.00	
1,3,5-Trimethylbenzene	ND	1.0	0.40	2.00	
1,3-Dichlorobenzene	ND	1.0	0.55	2.00	
1,3-Dichloropropane	ND	2.0	0.80	2.00	
1,4-Dichlorobenzene	ND	1.0	0.40	2.00	
2,2-Dichloropropane	ND	2.0	0.80	2.00	
2-Butanone	ND	10	4.0	2.00	
2-Chlorotoluene	ND	1.0	0.40	2.00	
2-Hexanone	ND	20	8.0	2.00	
4-Chlorotoluene	ND	1.0	0.71	2.00	
4-Methyl-2-Pentanone	ND	10	4.0	2.00	
Acetone	ND	20	8.0	2.00	
Benzene	ND	1.0	0.40	2.00	
Bromobenzene	ND	1.0	0.64	2.00	
Bromochloromethane	ND	2.0	0.80	2.00	
Bromodichloromethane	ND	1.0	0.40	2.00	
Bromoform	ND	1.0	0.49	2.00	
Bromomethane	ND	2.0	0.80	2.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	2.0	0.80	2.00	
Carbon Tetrachloride	ND	1.0	0.40	2.00	
Chlorobenzene	ND	1.0	0.40	2.00	
Chloroethane	ND	1.0	0.63	2.00	
Chloroform	ND	1.0	0.40	2.00	
Chloromethane	ND	1.0	0.59	2.00	
Dibromochloromethane	ND	1.0	0.40	2.00	
Dibromomethane	ND	1.0	0.40	2.00	
Dichlorodifluoromethane	ND	2.0	0.80	2.00	
Ethylbenzene	ND	1.0	0.40	2.00	
Isopropylbenzene	ND	1.0	0.40	2.00	
Methylene Chloride	ND	2.0	1.6	2.00	
Naphthalene	ND	2.0	0.80	2.00	
Styrene	ND	1.0	0.40	2.00	
Tetrachloroethene	55	1.0	0.40	2.00	
Toluene	ND	1.0	0.40	2.00	
t-1,2-Dichloroethene	ND	1.0	0.40	2.00	
Trichloroethene	47	1.0	0.57	2.00	
Trichlorofluoromethane	ND	1.0	0.40	2.00	
Vinyl Acetate	ND	10	4.0	2.00	
Vinyl Chloride	ND	1.0	0.40	2.00	
c-1,3-Dichloropropene	ND	1.0	0.40	2.00	
c-1,2-Dichloroethene	ND	1.0	0.40	2.00	
n-Butylbenzene	ND	1.0	0.40	2.00	
n-Propylbenzene	ND	1.0	0.40	2.00	
o-Xylene	ND	1.0	0.63	2.00	
p-Isopropyltoluene	ND	1.0	0.40	2.00	
sec-Butylbenzene	ND	1.0	0.40	2.00	
t-1,3-Dichloropropene	ND	1.0	0.40	2.00	
tert-Butylbenzene	ND	1.0	0.40	2.00	
p/m-Xylene	ND	1.0	0.40	2.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.40	2.00	
2-Chloroethyl Vinyl Ether	ND	10	8.4	2.00	
Hexachloro-1,3-Butadiene	ND	4.0	1.6	2.00	
Iodomethane	ND	20	10	2.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	98	68-120	
Dibromofluoromethane	98	80-127	

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





## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/06/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0454
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 6 of 33

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	98	80-128	
Toluene-d8	100	80-120	




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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW33-N-17Q2	17-04-0454-3-C	04/06/17 09:04	Aqueous	GC/MS L	04/19/17	04/19/17 14:48	170419L010

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	10	4.0	20.0	
1,1,1-Trichloroethane	ND	10	4.0	20.0	
1,1,2,2-Tetrachloroethane	ND	10	4.0	20.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	15	10	4.8	20.0	
1,1,2-Trichloroethane	ND	10	4.0	20.0	
1,1-Dichloroethane	ND	10	4.0	20.0	
1,1-Dichloroethene	17	10	5.6	20.0	
1,1-Dichloropropene	ND	10	6.0	20.0	
1,2,3-Trichlorobenzene	ND	10	4.0	20.0	
1,2,3-Trichloropropane	ND	20	8.0	20.0	
1,2,4-Trichlorobenzene	ND	10	4.0	20.0	
1,2,4-Trimethylbenzene	ND	10	4.0	20.0	
1,2-Dibromo-3-Chloropropane	ND	100	40	20.0	
1,2-Dibromoethane	ND	10	4.0	20.0	
1,2-Dichlorobenzene	ND	10	4.0	20.0	
1,2-Dichloroethane	ND	10	4.0	20.0	
1,2-Dichloropropane	ND	10	4.0	20.0	
1,3,5-Trimethylbenzene	ND	10	4.0	20.0	
1,3-Dichlorobenzene	ND	10	5.5	20.0	
1,3-Dichloropropane	ND	20	8.0	20.0	
1,4-Dichlorobenzene	ND	10	4.0	20.0	
2,2-Dichloropropane	ND	20	8.0	20.0	
2-Butanone	ND	100	40	20.0	
2-Chlorotoluene	ND	10	4.0	20.0	
2-Hexanone	ND	200	80	20.0	
4-Chlorotoluene	ND	10	7.1	20.0	
4-Methyl-2-Pentanone	ND	100	40	20.0	
Acetone	ND	200	80	20.0	
Benzene	ND	10	4.0	20.0	
Bromobenzene	ND	10	6.4	20.0	
Bromochloromethane	ND	20	8.0	20.0	
Bromodichloromethane	ND	10	4.0	20.0	
Bromoform	ND	10	4.9	20.0	
Bromomethane	ND	20	8.0	20.0	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	20	8.0	20.0	
Carbon Tetrachloride	ND	10	4.0	20.0	
Chlorobenzene	ND	10	4.0	20.0	
Chloroethane	ND	10	6.3	20.0	
Chloroform	ND	10	4.0	20.0	
Chloromethane	ND	10	5.9	20.0	
Dibromochloromethane	ND	10	4.0	20.0	
Dibromomethane	ND	10	4.0	20.0	
Dichlorodifluoromethane	ND	20	8.0	20.0	
Ethylbenzene	ND	10	4.0	20.0	
Isopropylbenzene	ND	10	4.0	20.0	
Methylene Chloride	ND	20	16	20.0	
Naphthalene	ND	20	8.0	20.0	
Styrene	ND	10	4.0	20.0	
Tetrachloroethene	630	10	4.0	20.0	
Toluene	ND	10	4.0	20.0	
t-1,2-Dichloroethene	ND	10	4.0	20.0	
Trichloroethene	180	10	5.7	20.0	
Trichlorofluoromethane	ND	10	4.0	20.0	
Vinyl Acetate	ND	100	40	20.0	
Vinyl Chloride	ND	10	4.0	20.0	
c-1,3-Dichloropropene	ND	10	4.0	20.0	
c-1,2-Dichloroethene	ND	10	4.0	20.0	
n-Butylbenzene	ND	10	4.0	20.0	
n-Propylbenzene	ND	10	4.0	20.0	
o-Xylene	ND	10	6.3	20.0	
p-Isopropyltoluene	ND	10	4.0	20.0	
sec-Butylbenzene	ND	10	4.0	20.0	
t-1,3-Dichloropropene	ND	10	4.0	20.0	
tert-Butylbenzene	ND	10	4.0	20.0	
p/m-Xylene	ND	10	4.0	20.0	
Methyl-t-Butyl Ether (MTBE)	ND	10	4.0	20.0	
2-Chloroethyl Vinyl Ether	ND	100	84	20.0	
Hexachloro-1,3-Butadiene	ND	40	16	20.0	
Iodomethane	ND	200	100	20.0	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	97	68-120			
Dibromofluoromethane	98	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	99	80-128	
Toluene-d8	101	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20160406	17-04-0454-4-A	04/06/17 07:00	Aqueous	GC/MS FFF	04/07/17	04/07/17 23:24	170407L043

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	93	68-120			
Dibromofluoromethane	102	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	102	80-128	
Toluene-d8	105	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW08-N-17Q2	17-04-0454-5-C	04/06/17 14:44	Aqueous	GC/MS L	04/19/17	04/19/17 16:20	170419L010

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	2.00	
1,1,1-Trichloroethane	ND	1.0	0.40	2.00	
1,1,2,2-Tetrachloroethane	ND	1.0	0.40	2.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1.0	0.48	2.00	
1,1,2-Trichloroethane	ND	1.0	0.40	2.00	
1,1-Dichloroethane	ND	1.0	0.40	2.00	
1,1-Dichloroethene	1.4	1.0	0.56	2.00	
1,1-Dichloropropene	ND	1.0	0.60	2.00	
1,2,3-Trichlorobenzene	ND	1.0	0.40	2.00	
1,2,3-Trichloropropane	67	2.0	0.80	2.00	
1,2,4-Trichlorobenzene	ND	1.0	0.40	2.00	
1,2,4-Trimethylbenzene	ND	1.0	0.40	2.00	
1,2-Dibromo-3-Chloropropane	ND	10	4.0	2.00	
1,2-Dibromoethane	ND	1.0	0.40	2.00	
1,2-Dichlorobenzene	ND	1.0	0.40	2.00	
1,2-Dichloroethane	ND	1.0	0.40	2.00	
1,2-Dichloropropane	ND	1.0	0.40	2.00	
1,3,5-Trimethylbenzene	ND	1.0	0.40	2.00	
1,3-Dichlorobenzene	ND	1.0	0.55	2.00	
1,3-Dichloropropane	ND	2.0	0.80	2.00	
1,4-Dichlorobenzene	ND	1.0	0.40	2.00	
2,2-Dichloropropane	ND	2.0	0.80	2.00	
2-Butanone	ND	10	4.0	2.00	
2-Chlorotoluene	ND	1.0	0.40	2.00	
2-Hexanone	ND	20	8.0	2.00	
4-Chlorotoluene	ND	1.0	0.71	2.00	
4-Methyl-2-Pentanone	ND	10	4.0	2.00	
Acetone	ND	20	8.0	2.00	
Benzene	ND	1.0	0.40	2.00	
Bromobenzene	ND	1.0	0.64	2.00	
Bromochloromethane	ND	2.0	0.80	2.00	
Bromodichloromethane	ND	1.0	0.40	2.00	
Bromoform	ND	1.0	0.49	2.00	
Bromomethane	ND	2.0	0.80	2.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	2.0	0.80	2.00	
Carbon Tetrachloride	1.0	1.0	0.40	2.00	
Chlorobenzene	ND	1.0	0.40	2.00	
Chloroethane	ND	1.0	0.63	2.00	
Chloroform	30	1.0	0.40	2.00	
Chloromethane	ND	1.0	0.59	2.00	
Dibromochloromethane	ND	1.0	0.40	2.00	
Dibromomethane	ND	1.0	0.40	2.00	
Dichlorodifluoromethane	ND	2.0	0.80	2.00	
Ethylbenzene	ND	1.0	0.40	2.00	
Isopropylbenzene	ND	1.0	0.40	2.00	
Methylene Chloride	ND	2.0	1.6	2.00	
Naphthalene	ND	2.0	0.80	2.00	
Styrene	ND	1.0	0.40	2.00	
Tetrachloroethene	28	1.0	0.40	2.00	
Toluene	ND	1.0	0.40	2.00	
t-1,2-Dichloroethene	ND	1.0	0.40	2.00	
Trichloroethene	69	1.0	0.57	2.00	
Trichlorofluoromethane	ND	1.0	0.40	2.00	
Vinyl Acetate	ND	10	4.0	2.00	
Vinyl Chloride	ND	1.0	0.40	2.00	
c-1,3-Dichloropropene	ND	1.0	0.40	2.00	
c-1,2-Dichloroethene	ND	1.0	0.40	2.00	
n-Butylbenzene	ND	1.0	0.40	2.00	
n-Propylbenzene	ND	1.0	0.40	2.00	
o-Xylene	ND	1.0	0.63	2.00	
p-Isopropyltoluene	ND	1.0	0.40	2.00	
sec-Butylbenzene	ND	1.0	0.40	2.00	
t-1,3-Dichloropropene	ND	1.0	0.40	2.00	
tert-Butylbenzene	ND	1.0	0.40	2.00	
p/m-Xylene	ND	1.0	0.40	2.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.40	2.00	
2-Chloroethyl Vinyl Ether	ND	10	8.4	2.00	
Hexachloro-1,3-Butadiene	ND	4.0	1.6	2.00	
Iodomethane	ND	20	10	2.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	97	68-120	
Dibromofluoromethane	98	80-127	

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/06/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0454
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 15 of 33

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	99	80-128	
Toluene-d8	98	80-120	





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW14-N-17Q2	17-04-0454-6-C	04/06/17 11:47	Aqueous	GC/MS L	04/19/17	04/19/17 16:51	170419L010

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	4.5	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.29	0.50	0.20	1.00	J
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	22	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	5.1	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	98	68-120			
Dibromofluoromethane	97	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	100	80-128	
Toluene-d8	99	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW05-N-17Q2	17-04-0454-7-C	04/06/17 09:52	Aqueous	GC/MS L	04/19/17	04/19/17 17:22	170419L010

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	1.1	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	1.9	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	0.68	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	0.29	0.50	0.29	1.00	J
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	0.30	0.50	0.20	1.00	J
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	96	68-120	
Dibromofluoromethane	95	80-127	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	99	80-128	
Toluene-d8	98	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW02-N-17Q2	17-04-0454-8-C	04/06/17 16:21	Aqueous	GC/MS L	04/19/17	04/19/17 17:52	170419L010

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.35	0.50	0.20	1.00	J
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	0.56	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	97	68-120	
Dibromofluoromethane	96	80-127	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	101	80-128	
Toluene-d8	97	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW02-FD-17Q2	17-04-0454-9-C	04/06/17 16:21	Aqueous	GC/MS L	04/19/17	04/19/17 18:23	170419L010

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	4.2	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.37	0.50	0.20	1.00	J
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	0.54	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	100	68-120			
Dibromofluoromethane	102	80-127			

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



## Analytical Report

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<p>Tetra Tech, Inc. 301 E. Vanderbilt Way, Suite 450 San Bernardino, CA 92408-3562</p> <p>Project: LMC BOU</p>	<p>Date Received: 04/06/17 Work Order: 17-04-0454 Preparation: EPA 5030C Method: EPA 8260B Units: ug/L</p>	<p>Page 27 of 33</p>
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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	111	80-128	
Toluene-d8	100	80-120	




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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-025-4613	N/A	Aqueous	GC/MS FFF	04/07/17	04/07/17 22:53	170407L043

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	91	68-120			
Dibromofluoromethane	103	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	106	80-128	
Toluene-d8	102	80-120	



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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-025-4626	N/A	Aqueous	GC/MS L	04/19/17	04/19/17 10:40	170419L010

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	95	68-120			
Dibromofluoromethane	95	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	90	80-128	
Toluene-d8	98	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW30-N-17Q2	17-04-0454-1-F	04/06/17 14:44	Aqueous	GC/MS M	04/11/17	04/12/17 00:18	170411L078

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	91	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW31-N-17Q2	17-04-0454-2-F	04/06/17 13:05	Aqueous	GC/MS M	04/11/17	04/12/17 03:47	170411L078

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	89	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW33-N-17Q2	17-04-0454-3-H	04/06/17 09:04	Aqueous	GC/MS M	04/18/17	04/18/17 14:09	170418L051

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.87	0.050	0.025	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	114	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20160406	17-04-0454-4-C	04/06/17 07:00	Aqueous	GC/MS M	04/11/17	04/11/17 23:48	170411L078

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	88	80-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
A-1-CW08-N-17Q2	17-04-0454-5-H	04/06/17 14:44	Aqueous	GC/MS M	04/18/17	04/18/17 19:07	170418L051

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	87	5.0	2.5	1000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	103	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW14-N-17Q2	17-04-0454-6-H	04/06/17 11:47	Aqueous	GC/MS M	04/18/17	04/18/17 18:38	170418L051

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	108	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
C-1-CW05-N-17Q2	17-04-0454-7-H	04/06/17 09:52	Aqueous	GC/MS M	04/18/17	04/18/17 12:09	170418L051

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	119	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW02-N-17Q2	17-04-0454-8-F	04/06/17 16:21	Aqueous	GC/MS M	04/18/17	04/18/17 12:39	170418L051

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	113	80-120	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-6-CW02-FD-17Q2	17-04-0454-9-E	04/06/17 16:21	Aqueous	GC/MS M	04/18/17	04/18/17 13:09	170418L051

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	104	80-120	

Method Blank	099-15-118-481	N/A	Aqueous	GC/MS M	04/11/17	04/11/17 23:18	170411L078
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	90	80-120	

Method Blank	099-15-118-489	N/A	Aqueous	GC/MS M	04/18/17	04/18/17 11:33	170418L051
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	112	80-120	

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



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-6-CW02-FD-17Q2	Sample	Aqueous	IC 16	N/A	04/06/17 22:31	170406S01
B-6-CW02-FD-17Q2	Matrix Spike	Aqueous	IC 16	N/A	04/06/17 22:43	170406S01
B-6-CW02-FD-17Q2	Matrix Spike Duplicate	Aqueous	IC 16	N/A	04/06/17 22:54	170406S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium, Hexavalent	2.533	10.00	13.29	108	12.88	103	85-121	3	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 3005A Filt.  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0984-2	Sample	Aqueous	ICP/MS 03	04/15/17	04/20/17 17:20	170415SA6
17-04-0984-2	Matrix Spike	Aqueous	ICP/MS 03	04/15/17	04/20/17 17:09	170415SA6
17-04-0984-2	Matrix Spike Duplicate	Aqueous	ICP/MS 03	04/15/17	04/20/17 17:12	170415SA6

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium	ND	0.1000	0.09454	95	0.09343	93	73-133	1	0-11	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
17-04-0319-3	Sample	Aqueous	GC/MS DDD	04/07/17	04/08/17 05:26	170407S15				
17-04-0319-3	Matrix Spike	Aqueous	GC/MS DDD	04/07/17	04/08/17 04:55	170407S15				
17-04-0319-3	Matrix Spike Duplicate	Aqueous	GC/MS DDD	04/07/17	04/08/17 05:10	170407S15				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,4-Dioxane	ND	20.00	19.71	99	19.76	99	50-130	0	0-20	



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0581-8	Sample	Aqueous	GC/MS L	04/19/17	04/19/17 11:45	170419S008
17-04-0581-8	Matrix Spike	Aqueous	GC/MS L	04/19/17	04/19/17 12:15	170419S008
17-04-0581-8	Matrix Spike Duplicate	Aqueous	GC/MS L	04/19/17	04/19/17 12:46	170419S008

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloroethene	ND	100.0	79.92	80	95.14	95	66-126	17	0-20	
1,2-Dibromoethane	ND	100.0	84.58	85	89.81	90	75-126	6	0-20	
1,2-Dichlorobenzene	ND	100.0	79.66	80	89.05	89	75-125	11	0-20	
1,2-Dichloroethane	53.86	100.0	132.6	79	143.3	89	75-127	8	0-20	
Benzene	970.6	100.0	949.1	0	1032	62	75-125	8	0-20	3
Carbon Tetrachloride	ND	100.0	70.48	70	86.95	87	69-135	21	0-20	4
Chlorobenzene	ND	100.0	77.18	77	87.37	87	75-125	12	0-20	
Ethylbenzene	61.25	100.0	136.4	75	153.1	92	75-125	12	0-20	
Toluene	ND	100.0	78.80	79	90.47	90	75-125	14	0-20	
Trichloroethene	ND	100.0	73.55	74	86.31	86	75-125	16	0-20	3
Vinyl Chloride	ND	100.0	112.3	112	120.4	120	52-142	7	0-20	
o-Xylene	15.96	100.0	93.21	77	105.1	89	75-127	12	0-20	
p/m-Xylene	76.40	200.0	226.1	75	254.3	89	75-125	12	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	100.0	81.27	81	89.27	89	71-131	9	0-20	

RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0468-1	Sample	Aqueous	GC/MS FFF	04/07/17	04/07/17 23:56	170407S023
17-04-0468-1	Matrix Spike	Aqueous	GC/MS FFF	04/07/17	04/08/17 00:27	170407S023
17-04-0468-1	Matrix Spike Duplicate	Aqueous	GC/MS FFF	04/07/17	04/08/17 00:58	170407S023

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloroethene	ND	10.00	8.476	85	8.529	85	66-126	1	0-20	
1,2-Dibromoethane	ND	10.00	9.761	98	9.292	93	75-126	5	0-20	
1,2-Dichlorobenzene	ND	10.00	10.06	101	9.799	98	75-125	3	0-20	
1,2-Dichloroethane	ND	10.00	10.03	100	9.748	97	75-127	3	0-20	
Benzene	ND	10.00	9.367	94	9.086	91	75-125	3	0-20	
Carbon Tetrachloride	ND	10.00	10.21	102	9.770	98	69-135	4	0-20	
Chlorobenzene	ND	10.00	9.881	99	9.584	96	75-125	3	0-20	
Ethylbenzene	ND	10.00	9.885	99	9.482	95	75-125	4	0-20	
Toluene	ND	10.00	9.749	97	9.507	95	75-125	3	0-20	
Trichloroethene	ND	10.00	8.932	89	8.577	86	75-125	4	0-20	
Vinyl Chloride	ND	10.00	10.77	108	10.10	101	52-142	6	0-20	
o-Xylene	ND	10.00	10.43	104	9.801	98	75-127	6	0-20	
p/m-Xylene	ND	20.00	20.33	102	19.14	96	75-125	6	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	9.196	92	9.150	92	71-131	0	0-20	

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
B-1-CW30-N-17Q2	Sample	Aqueous	GC/MS M	04/11/17	04/12/17 00:18	170411S039				
B-1-CW30-N-17Q2	Matrix Spike	Aqueous	GC/MS M	04/11/17	04/12/17 00:47	170411S039				
B-1-CW30-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS M	04/11/17	04/12/17 01:17	170411S039				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	ND	0.02000	0.02140	107	0.02660	133	80-120	22	0-20	3,4

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RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
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Project: LMC BOU

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-1-CW33-N-17Q2	Sample	Aqueous	GC/MS M	04/18/17	04/18/17 14:09	170418S019
B-1-CW33-N-17Q2	Matrix Spike	Aqueous	GC/MS M	04/18/17	04/18/17 16:08	170418S019
B-1-CW33-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS M	04/18/17	04/18/17 16:38	170418S019

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	0.8690	0.2000	0.8720	2	0.9300	30	80-120	6	0-20	3

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RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - PDS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 3005A Filt.  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDS Batch Number
17-04-0984-2	Sample	Aqueous	ICP/MS 03	04/15/17 00:00	04/20/17 17:20	170415SA6
17-04-0984-2	PDS	Aqueous	ICP/MS 03	04/15/17 00:00	04/20/17 17:15	170415SA6

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>PDS Conc.</u>	<u>PDS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium	ND	0.1000	0.09362	94	75-125	

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RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-14-567-232</b>	<b>LCS</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/06/17 19:58</b>	<b>170406L01</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	10.00	10.18	102	95-107	

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RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/06/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0454
San Bernardino, CA 92408-3562	Preparation:	EPA 3020A Total
	Method:	EPA 6020
Project: LMC BOU		Page 2 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>096-06-003-5532</b>	<b>LCS</b>	<b>Aqueous</b>	<b>ICP/MS 03</b>	<b>04/15/17</b>	<b>04/19/17 04:16</b>	<b>170415LA6</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium		0.1000	0.1012	101	80-120	



## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/06/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0454
San Bernardino, CA 92408-3562	Preparation:	EPA 3510C
Project: LMC BOU	Method:	EPA 8270C (M) Isotope Dilution

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-16-216-1000</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/07/17</b>	<b>04/08/17 04:39</b>	<b>170407L15</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,4-Dioxane		20.00	19.48	97	50-130	



## Quality Control - LCS/LCSD

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
099-10-025-4626	LCS	Aqueous	GC/MS L	04/19/17	04/19/17 09:25	170419L010				
099-10-025-4626	LCSD	Aqueous	GC/MS L	04/19/17	04/19/17 09:55	170419L010				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
1,1-Dichloroethene	10.00	9.855	99	10.02	100	77-120	70-127	2	0-26	
1,2-Dibromoethane	10.00	9.639	96	9.885	99	80-120	73-127	3	0-32	
1,2-Dichlorobenzene	10.00	9.981	100	10.16	102	80-120	73-127	2	0-30	
1,2-Dichloroethane	10.00	9.628	96	9.787	98	80-122	73-129	2	0-23	
Benzene	10.00	9.915	99	9.937	99	80-120	73-127	0	0-22	
Carbon Tetrachloride	10.00	9.562	96	9.395	94	80-129	72-137	2	0-36	
Chlorobenzene	10.00	9.923	99	10.02	100	80-120	73-127	1	0-29	
Ethylbenzene	10.00	10.14	101	10.12	101	80-120	73-127	0	0-25	
Toluene	10.00	10.05	100	10.11	101	80-120	73-127	1	0-28	
Trichloroethene	10.00	9.845	98	9.780	98	80-120	73-127	1	0-25	
Vinyl Chloride	10.00	10.03	100	10.26	103	63-135	51-147	2	0-30	
o-Xylene	10.00	10.02	100	10.21	102	80-120	73-127	2	0-30	
p/m-Xylene	20.00	20.09	100	20.34	102	80-120	73-127	1	0-30	
Methyl-t-Butyl Ether (MTBE)	10.00	9.142	91	10.51	105	75-123	67-131	14	0-27	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/06/17  
Work Order: 17-04-0454  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

Page 5 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-10-025-4613</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS FFF</b>	<b>04/07/17</b>	<b>04/07/17 21:51</b>	<b>170407L043</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
1,1-Dichloroethene		10.00	9.373	94	77-120	70-127	
1,2-Dibromoethane		10.00	9.494	95	80-120	73-127	
1,2-Dichlorobenzene		10.00	9.776	98	80-120	73-127	
1,2-Dichloroethane		10.00	10.06	101	80-122	73-129	
Benzene		10.00	9.453	95	80-120	73-127	
Carbon Tetrachloride		10.00	10.22	102	80-129	72-137	
Chlorobenzene		10.00	9.693	97	80-120	73-127	
Ethylbenzene		10.00	9.731	97	80-120	73-127	
Toluene		10.00	9.844	98	80-120	73-127	
Trichloroethene		10.00	9.216	92	80-120	73-127	
Vinyl Chloride		10.00	9.069	91	63-135	51-147	
o-Xylene		10.00	10.10	101	80-120	73-127	
p/m-Xylene		20.00	20.01	100	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	9.058	91	75-123	67-131	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/06/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0454
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
Project: LMC BOU	Method:	EPA 8260B SIM
		Page 6 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-118-481</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>04/11/17</b>	<b>04/11/17 22:18</b>	<b>170411L078</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,2,3-Trichloropropane	0.02000	0.02050	102	80-120	





## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/06/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0454
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
Project: LMC BOU	Method:	EPA 8260B SIM
		Page 7 of 7

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-118-489</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>04/18/17</b>	<b>04/18/17 10:33</b>	<b>170418L051</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,2,3-Trichloropropane		0.02000	0.02070	104	80-120	

## Sample Analysis Summary Report

Work Order: 17-04-0454

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 218.6	N/A	1065	IC 16	1
EPA 6020	EPA 3020A Total	598	ICP/MS 03	1
EPA 8260B	EPA 5030C	316	GC/MS L	2
EPA 8260B	EPA 5030C	823	GC/MS FFF	2
EPA 8260B SIM	EPA 5030C	486	GC/MS M	2
EPA 8260B SIM	EPA 5030C	867	GC/MS M	2
EPA 8270C (M) Isotope Dilution	EPA 3510C	928	GC/MS DDD	1

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



Calscience

7440 Lincoln Way, Searden Grove, CA 92641-1427 • (714) 886-5464  
 For customer service / sample drop off / shipment info, contact Lucio\_robles@eurofins.com or call us.

LABORATORY CLIENT: Tetra Tech Inc

ADDRESS: 301 E Vanderbilt Way Suite 450  
 CITY: San Bernardino CA 92408  
 TEL: E-MAIL:

TURNAROUND TIME (rush surcharges may apply to any TAT not STANDARD):

SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

COELT EOF  OTHER

SPECIAL INSTRUCTIONS:

CHAIN-OF-CUSTODY RECORD

Date: 4-6-2017  
 Page: 1 of 1

VIO NO. / LAB USE ONLY  
**17-04-0454**

CLIENT PROJECT NAME / NO.: LMC 804  
 PROJECT CONTACT: Robert Sabater  
 LOG CODE:  
 GLOBAL ID:  
 PROJECT CONTRACT OR QUOTE NO.:  
 ANALYST(S) (PRINT): Jason Cook  
 Vanessa Calder

REQUESTED ANALYSES  
 Please check box or BE in blank as needed

LAB USE ONLY	SAMPLE ID	DATE	TIME	MATRIX	NO. OF CONT.	Prepared	Preserved	Field Filtered	TPH	TPH C-05-C00	TPH C-08-C04	TPH C-05-C00	TPH C-08-C04	BTEX / MTBE	VOCs (220)	Organics (220)	Prep (800)	SVOCs (220)	Particulates (200)	PCBs (200)	PAHs	T22 Metals	CRM	1/4 Diene	ICR/MS Metals	Hex CR	1,2,3 TRP
1	B-1-C030-N-1702	4-6-17	1444	W	13	✓	✓																				
2	B-1-C031-N-1702	4-6-17	1305	W	13	✓	✓																				
3	B-1-C033-N-1702	4-6-17	0904	W	13	✓	✓																				
4	LTB-20160406	4-6-17	0700	W	3	✓	✓																				
5	A-1-C009-N-1702	4-6-17	1444	W	13	✓	✓																				
6	B-6-C034-N-1702	4-6-17	1147	W	13	✓	✓																				
7	C-1-C005-N-1702	4-6-17	0953	W	13	✓	✓																				
8	B-6-C032-N-1702	4-6-17	1621	W	13	✓	✓																				
9	B-6-C033-FD-1702	4-6-17	1621	W	13	✓	✓																				

Received by: *[Signature]* Date: 4-6-2017 Time: 1703  
 Received by: *[Signature]* Date: 4/6/17 Time: 1855  
 Received by: *[Signature]* Date: 4/6/17 Time: 1855

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Tetra Tech

DATE: 04/6/2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC (CF: 0.0°C); Temperature (w/o CF): 2.2 °C (w/ CF): 2.2 °C;  Blank  Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)

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

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature:  Air  Filter

Checked by: 1091

CUSTODY SEAL:

Cooler  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: 1091

Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: 1097

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples .....  Yes  No  N/A

COC document(s) received complete .....  Yes  No  N/A

Sampling date  Sampling time  Matrix  Number of containers

No analysis requested  Not relinquished  No relinquished date  No relinquished time

Sampler's name indicated on COC .....  Yes  No  N/A

Sample container label(s) consistent with COC .....  Yes  No  N/A

Sample container(s) intact and in good condition .....  Yes  No  N/A

Proper containers for analyses requested .....  Yes  No  N/A

Sufficient volume/mass for analyses requested .....  Yes  No  N/A

Samples received within holding time .....  Yes  No  N/A

Aqueous samples for certain analyses received within 15-minute holding time

pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen .....  Yes  No  N/A

Proper preservation chemical(s) noted on COC and/or sample container .....  Yes  No  N/A

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics  Total Metals  Dissolved Metals

Container(s) for certain analysis free of headspace .....  Yes  No  N/A

Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)

Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation .....  Yes  No  N/A

CONTAINER TYPE:

(Trip Blank Lot Number: 170328A)

Aqueous:  VOA  VOA<sup>h</sup>  VOA<sub>na2</sub>  100PJ  100PJ<sub>na2</sub>  125AGB  125AGB<sup>h</sup>  125AGB<sup>p</sup>  125PB

125PB<sup>znna</sup>  250AGB  250CGB  250CGB<sub>s</sub>  250PB  250PB<sup>n</sup>  500AGB  500AGJ  500AGJ<sub>s</sub>

500PB  1AGB  1AGB<sub>na2</sub>  1AGB<sub>s</sub>  1PB  1PB<sub>na</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  EnCores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_

Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (\_\_\_\_\_)  \_\_\_\_\_  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>,

Labeled/Checked by: 1092/1091

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, znna = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH

Reviewed by: 1091/1097

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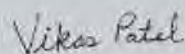

**WORK ORDER NUMBER: 17-04-0322**
*The difference is service*


AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**
**Client:** Tetra Tech, Inc.

**Client Project Name:** LMC BOU

**Attention:** Robert Sabater  
 301 E. Vanderbilt Way, Suite 450  
 San Bernardino, CA 92408-3562



 Approved for release on 04/24/2017 by:  
 Vikas Patel  
 Project Manager

ResultLink ▶

Email your PM ▶

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



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Work Order Number: 17-04-0322

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 04/05/17. They were assigned to Work Order 17-04-0322.

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

**Holding Times:**

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

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

**Quality Control:**

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

**Subcontractor Information:**

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

**Additional Comments:**

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

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



## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-0322  
Project Name: LMC BOU  
Received: 04/05/17

Attn: Robert Sabater

Page 1 of 3

### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-1-CW34-N-17Q2 (17-04-0322-1)						
Chromium, Hexavalent	16		0.40	ug/L	EPA 218.6	N/A
Chromium	0.0321		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1-Dichloroethene	0.50		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	1.4		0.50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	13		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	22		0.50	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	7.8		0.50	ug/L	EPA 8260B	EPA 5030C
Methyl-t-Butyl Ether (MTBE)	0.23	J	0.20*	ug/L	EPA 8260B	EPA 5030C
B-1-CW34-FD-17Q2 (17-04-0322-2)						
Chromium, Hexavalent	17		0.40	ug/L	EPA 218.6	N/A
Chromium	0.0296		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1-Dichloroethene	0.47	J	0.28*	ug/L	EPA 8260B	EPA 5030C
Chloroform	1.4		0.50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	13		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	21		0.50	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	7.6		0.50	ug/L	EPA 8260B	EPA 5030C
Methyl-t-Butyl Ether (MTBE)	0.24	J	0.20*	ug/L	EPA 8260B	EPA 5030C
B-1-CW32-N-17Q2 (17-04-0322-3)						
Chromium, Hexavalent	8.8		0.040	ug/L	EPA 218.6	N/A
Chromium	0.0474		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chloroform	5.6		2.0	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	14		2.0	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	110		2.0	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	4.1		2.0	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.011		0.0050	ug/L	EPA 8260B SIM	EPA 5030C
3870D-N-17Q2 (17-04-0322-4)						
Chromium, Hexavalent	17		0.040	ug/L	EPA 218.6	N/A
Chromium	0.0186		0.00100	mg/L	EPA 6020	EPA 3020A Total
3880-N-17Q2 (17-04-0322-5)						
Chromium, Hexavalent	6.7		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00794		0.00100	mg/L	EPA 6020	EPA 3020A Total

\* MDL is shown





## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-0322  
Project Name: LMC BOU  
Received: 04/05/17

Attn: Robert Sabater

Page 2 of 3

### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
3852L-N-17Q2 (17-04-0322-7)						
Chromium, Hexavalent	1.8		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00448		0.00100	mg/L	EPA 6020	EPA 3020A Total
Acetone	4.5	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	0.28	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.46	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	1.3		0.50	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.032		0.0050	ug/L	EPA 8260B SIM	EPA 5030C
3872Q-N-17Q2 (17-04-0322-8)						
Chromium, Hexavalent	0.68		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00126		0.00100	mg/L	EPA 6020	EPA 3020A Total
Tetrachloroethene	83		2.0	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	30		2.0	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.045		0.0050	ug/L	EPA 8260B SIM	EPA 5030C
3872S-N-17Q2 (17-04-0322-9)						
Chromium, Hexavalent	7.9		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00785		0.00100	mg/L	EPA 6020	EPA 3020A Total
B-1-CW11-N-17Q2 (17-04-0322-10)						
Chromium, Hexavalent	2.7		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00319		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,2-Dichloroethane	0.21	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.48	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Dichlorodifluoromethane	2.6		1.0	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	2.3		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	0.78		0.50	ug/L	EPA 8260B	EPA 5030C
Trichlorofluoromethane	0.29	J	0.20*	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	0.95		0.50	ug/L	EPA 8260B	EPA 5030C
1,4-Dioxane	1.0		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C
3862D-N-17Q2 (17-04-0322-11)						
Chromium, Hexavalent	8.5		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00901		0.00100	mg/L	EPA 6020	EPA 3020A Total
Carbon Tetrachloride	1.1		1.0	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.89	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Dichlorodifluoromethane	1.5	J	0.80*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	14		1.0	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	89		5.0	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.023		0.0050	ug/L	EPA 8260B SIM	EPA 5030C

\* MDL is shown



## Detections Summary

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Client: Tetra Tech, Inc.	Work Order: 17-04-0322
301 E. Vanderbilt Way, Suite 450	Project Name: LMC BOU
San Bernardino, CA 92408-3562	Received: 04/05/17

Attn: Robert Sabater

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**Client SampleID**

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
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Subcontracted analyses, if any, are not included in this summary.




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\* MDL is shown



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: N/A  
Method: EPA 218.6  
Units: ug/L

Project: LMC BOU

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW34-N-17Q2	17-04-0322-1-I	04/05/17 14:38	Aqueous	IC 16	N/A	04/05/17 21:54	170405L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	16	0.40	0.20	20.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW34-FD-17Q2	17-04-0322-2-I	04/05/17 14:38	Aqueous	IC 16	N/A	04/05/17 22:05	170405L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	17	0.40	0.20	20.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW32-N-17Q2	17-04-0322-3-M	04/05/17 12:52	Aqueous	IC 16	N/A	04/05/17 22:16	170405L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	8.8	0.040	0.020	2.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3870D-N-17Q2	17-04-0322-4-M	04/05/17 11:28	Aqueous	IC 16	N/A	04/05/17 22:28	170405L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	17	0.040	0.020	2.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3880-N-17Q2	17-04-0322-5-M	04/05/17 09:50	Aqueous	IC 16	N/A	04/05/17 22:39	170405L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	6.7	0.020	0.0099	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852L-N-17Q2	17-04-0322-7-M	04/05/17 15:03	Aqueous	IC 16	N/A	04/05/17 22:50	170405L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	1.8	0.020	0.0099	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: N/A  
Method: EPA 218.6  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872Q-N-17Q2	17-04-0322-8-M	04/05/17 13:26	Aqueous	IC 16	N/A	04/05/17 23:01	170405L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	0.68	0.020	0.0099	1.00	

3872S-N-17Q2	17-04-0322-9-M	04/05/17 12:10	Aqueous	IC 16	N/A	04/05/17 23:13	170405L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	7.9	0.020	0.0099	1.00	

B-1-CW11-N-17Q2	17-04-0322-10-R	04/05/17 09:25	Aqueous	IC 16	N/A	04/05/17 23:24	170405L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	2.7	0.020	0.0099	1.00	

3862D-N-17Q2	17-04-0322-11-M	04/05/17 16:25	Aqueous	IC 16	N/A	04/05/17 23:35	170405L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	8.5	0.020	0.0099	1.00	

Method Blank	099-14-567-231	N/A	Aqueous	IC 16	N/A	04/05/17 20:22	170405L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 3020A Total  
Method: EPA 6020  
Units: mg/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW34-N-17Q2	17-04-0322-1-G	04/05/17 14:38	Aqueous	ICP/MS 05	04/14/17	04/18/17 00:31	170414LA5

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.0321	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW34-FD-17Q2	17-04-0322-2-G	04/05/17 14:38	Aqueous	ICP/MS 05	04/14/17	04/18/17 00:34	170414LA5

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.0296	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW32-N-17Q2	17-04-0322-3-G	04/05/17 12:52	Aqueous	ICP/MS 05	04/14/17	04/18/17 00:38	170414LA5

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.0474	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3870D-N-17Q2	17-04-0322-4-G	04/05/17 11:28	Aqueous	ICP/MS 05	04/14/17	04/18/17 00:42	170414LA5

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.0186	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3880-N-17Q2	17-04-0322-5-G	04/05/17 09:50	Aqueous	ICP/MS 05	04/14/17	04/18/17 00:45	170414LA5

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00794	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852L-N-17Q2	17-04-0322-7-G	04/05/17 15:03	Aqueous	ICP/MS 05	04/14/17	04/18/17 00:49	170414LA5

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00448	0.00100	0.000402	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 3020A Total  
Method: EPA 6020  
Units: mg/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872Q-N-17Q2	17-04-0322-8-G	04/05/17 13:26	Aqueous	ICP/MS 05	04/14/17	04/18/17 00:53	170414LA5

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00126	0.00100	0.000402	1.00	

3872S-N-17Q2	17-04-0322-9-G	04/05/17 12:10	Aqueous	ICP/MS 05	04/14/17	04/18/17 00:56	170414LA5
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00785	0.00100	0.000402	1.00	

B-1-CW11-N-17Q2	17-04-0322-10-G	04/05/17 09:25	Aqueous	ICP/MS 05	04/14/17	04/18/17 00:27	170414LA5
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00319	0.00100	0.000402	1.00	

3862D-N-17Q2	17-04-0322-11-G	04/05/17 16:25	Aqueous	ICP/MS 05	04/14/17	04/18/17 01:52	170414LA5
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00901	0.00100	0.000402	1.00	

Method Blank	096-06-003-5529	N/A	Aqueous	ICP/MS 05	04/14/17	04/17/17 23:43	170414LA5
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	ND	0.00100	0.000402	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW34-N-17Q2	17-04-0322-1-H	04/05/17 14:38	Aqueous	GC/MS DDD	04/06/17	04/07/17 00:57	170406L13

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	90	56-123	
1,4-Dioxane-d8(IDS-IS)	39	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW34-FD-17Q2	17-04-0322-2-H	04/05/17 14:38	Aqueous	GC/MS DDD	04/06/17	04/07/17 01:13	170406L13

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	96	56-123	
1,4-Dioxane-d8(IDS-IS)	41	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW32-N-17Q2	17-04-0322-3-H	04/05/17 12:52	Aqueous	GC/MS DDD	04/06/17	04/07/17 01:29	170406L13

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	89	56-123	
1,4-Dioxane-d8(IDS-IS)	41	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3870D-N-17Q2	17-04-0322-4-H	04/05/17 11:28	Aqueous	GC/MS DDD	04/06/17	04/07/17 01:45	170406L13

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	87	56-123	
1,4-Dioxane-d8(IDS-IS)	39	30-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3880-N-17Q2	17-04-0322-5-H	04/05/17 09:50	Aqueous	GC/MS DDD	04/06/17	04/07/17 02:00	170406L13

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	90	56-123	
1,4-Dioxane-d8(IDS-IS)	38	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852L-N-17Q2	17-04-0322-7-H	04/05/17 15:03	Aqueous	GC/MS DDD	04/06/17	04/07/17 02:16	170406L13

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	85	56-123	
1,4-Dioxane-d8(IDS-IS)	38	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872Q-N-17Q2	17-04-0322-8-H	04/05/17 13:26	Aqueous	GC/MS DDD	04/06/17	04/07/17 02:32	170406L13

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	83	56-123	
1,4-Dioxane-d8(IDS-IS)	38	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872S-N-17Q2	17-04-0322-9-H	04/05/17 12:10	Aqueous	GC/MS DDD	04/06/17	04/07/17 02:48	170406L13

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	102	56-123	
1,4-Dioxane-d8(IDS-IS)	39	30-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW11-N-17Q2	17-04-0322-10-H	04/05/17 09:25	Aqueous	GC/MS DDD	04/06/17	04/07/17 03:04	170406L13

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	1.0	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	87	56-123	
1,4-Dioxane-d8(IDS-IS)	38	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3862D-N-17Q2	17-04-0322-11-H	04/05/17 16:25	Aqueous	GC/MS DDD	04/06/17	04/07/17 03:20	170406L13

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	92	56-123	
1,4-Dioxane-d8(IDS-IS)	38	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-216-998	N/A	Aqueous	GC/MS DDD	04/06/17	04/06/17 23:54	170406L13

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	105	56-123	
1,4-Dioxane-d8(IDS-IS)	44	30-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW34-N-17Q2	17-04-0322-1-B	04/05/17 14:38	Aqueous	GC/MS L	04/17/17	04/17/17 23:54	170417L025

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	0.50	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	1.4	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	13	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	22	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	7.8	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	0.23	0.50	0.20	1.00	J
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	84	68-120			
Dibromofluoromethane	113	80-127			

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/05/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0322
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 3 of 39

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	118	80-128	
Toluene-d8	101	80-120	




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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW34-FD-17Q2	17-04-0322-2-B	04/05/17 14:38	Aqueous	GC/MS L	04/17/17	04/18/17 01:26	170417L025

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	0.47	0.50	0.28	1.00	J
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	1.4	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	13	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	21	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	7.6	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	0.24	0.50	0.20	1.00	J
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	87	68-120			
Dibromofluoromethane	110	80-127			

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/05/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0322
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 6 of 39

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	110	80-128	
Toluene-d8	98	80-120	





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW32-N-17Q2	17-04-0322-3-B	04/05/17 12:52	Aqueous	GC/MS L	04/17/17	04/18/17 01:57	170417L025

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	2.0	0.80	4.00	
1,1,1-Trichloroethane	ND	2.0	0.80	4.00	
1,1,2,2-Tetrachloroethane	ND	2.0	0.80	4.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2.0	0.96	4.00	
1,1,2-Trichloroethane	ND	2.0	0.80	4.00	
1,1-Dichloroethane	ND	2.0	0.80	4.00	
1,1-Dichloroethene	ND	2.0	1.1	4.00	
1,1-Dichloropropene	ND	2.0	1.2	4.00	
1,2,3-Trichlorobenzene	ND	2.0	0.80	4.00	
1,2,3-Trichloropropane	ND	4.0	1.6	4.00	
1,2,4-Trichlorobenzene	ND	2.0	0.80	4.00	
1,2,4-Trimethylbenzene	ND	2.0	0.80	4.00	
1,2-Dibromo-3-Chloropropane	ND	20	8.0	4.00	
1,2-Dibromoethane	ND	2.0	0.80	4.00	
1,2-Dichlorobenzene	ND	2.0	0.80	4.00	
1,2-Dichloroethane	ND	2.0	0.80	4.00	
1,2-Dichloropropane	ND	2.0	0.80	4.00	
1,3,5-Trimethylbenzene	ND	2.0	0.80	4.00	
1,3-Dichlorobenzene	ND	2.0	1.1	4.00	
1,3-Dichloropropane	ND	4.0	1.6	4.00	
1,4-Dichlorobenzene	ND	2.0	0.80	4.00	
2,2-Dichloropropane	ND	4.0	1.6	4.00	
2-Butanone	ND	20	8.0	4.00	
2-Chlorotoluene	ND	2.0	0.80	4.00	
2-Hexanone	ND	40	16	4.00	
4-Chlorotoluene	ND	2.0	1.4	4.00	
4-Methyl-2-Pentanone	ND	20	8.0	4.00	
Acetone	ND	40	16	4.00	
Benzene	ND	2.0	0.80	4.00	
Bromobenzene	ND	2.0	1.3	4.00	
Bromochloromethane	ND	4.0	1.6	4.00	
Bromodichloromethane	ND	2.0	0.80	4.00	
Bromoform	ND	2.0	0.99	4.00	
Bromomethane	ND	4.0	1.6	4.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	4.0	1.6	4.00	
Carbon Tetrachloride	ND	2.0	0.80	4.00	
Chlorobenzene	ND	2.0	0.80	4.00	
Chloroethane	ND	2.0	1.3	4.00	
Chloroform	5.6	2.0	0.80	4.00	
Chloromethane	ND	2.0	1.2	4.00	
Dibromochloromethane	ND	2.0	0.80	4.00	
Dibromomethane	ND	2.0	0.80	4.00	
Dichlorodifluoromethane	ND	4.0	1.6	4.00	
Ethylbenzene	ND	2.0	0.80	4.00	
Isopropylbenzene	ND	2.0	0.80	4.00	
Methylene Chloride	ND	4.0	3.2	4.00	
Naphthalene	ND	4.0	1.6	4.00	
Styrene	ND	2.0	0.80	4.00	
Tetrachloroethene	14	2.0	0.80	4.00	
Toluene	ND	2.0	0.80	4.00	
t-1,2-Dichloroethene	ND	2.0	0.80	4.00	
Trichloroethene	110	2.0	1.1	4.00	
Trichlorofluoromethane	ND	2.0	0.80	4.00	
Vinyl Acetate	ND	20	8.0	4.00	
Vinyl Chloride	ND	2.0	0.80	4.00	
c-1,3-Dichloropropene	ND	2.0	0.80	4.00	
c-1,2-Dichloroethene	4.1	2.0	0.80	4.00	
n-Butylbenzene	ND	2.0	0.80	4.00	
n-Propylbenzene	ND	2.0	0.80	4.00	
o-Xylene	ND	2.0	1.3	4.00	
p-Isopropyltoluene	ND	2.0	0.80	4.00	
sec-Butylbenzene	ND	2.0	0.80	4.00	
t-1,3-Dichloropropene	ND	2.0	0.80	4.00	
tert-Butylbenzene	ND	2.0	0.80	4.00	
p/m-Xylene	ND	2.0	0.80	4.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.80	4.00	
2-Chloroethyl Vinyl Ether	ND	20	17	4.00	
Hexachloro-1,3-Butadiene	ND	8.0	3.2	4.00	
Iodomethane	ND	40	20	4.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	88	68-120			
Dibromofluoromethane	108	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	115	80-128	
Toluene-d8	101	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3870D-N-17Q2	17-04-0322-4-B	04/05/17 11:28	Aqueous	GC/MS L	04/17/17	04/18/17 02:28	170417L025

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	86	68-120			
Dibromofluoromethane	115	80-127			

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	121	80-128	
Toluene-d8	98	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3880-N-17Q2	17-04-0322-5-B	04/05/17 09:50	Aqueous	GC/MS L	04/17/17	04/18/17 02:58	170417L025

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	85	68-120			
Dibromofluoromethane	114	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	119	80-128	
Toluene-d8	100	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20170405	17-04-0322-6-B	04/05/17 07:00	Aqueous	GC/MS L	04/17/17	04/17/17 20:51	170417L008

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	85	68-120			
Dibromofluoromethane	115	80-127			

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/05/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0322
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 18 of 39

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	114	80-128	
Toluene-d8	99	80-120	



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852L-N-17Q2	17-04-0322-7-B	04/05/17 15:03	Aqueous	GC/MS L	04/17/17	04/18/17 03:29	170417L025

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	4.5	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	0.28	0.50	0.20	1.00	J
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.46	0.50	0.20	1.00	J
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	1.3	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	85	68-120	
Dibromofluoromethane	114	80-127	

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/05/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0322
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 21 of 39

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	118	80-128	
Toluene-d8	101	80-120	





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872Q-N-17Q2	17-04-0322-8-B	04/05/17 13:26	Aqueous	GC/MS L	04/17/17	04/18/17 04:00	170417L025

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	2.0	0.80	4.00	
1,1,1-Trichloroethane	ND	2.0	0.80	4.00	
1,1,2,2-Tetrachloroethane	ND	2.0	0.80	4.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2.0	0.96	4.00	
1,1,2-Trichloroethane	ND	2.0	0.80	4.00	
1,1-Dichloroethane	ND	2.0	0.80	4.00	
1,1-Dichloroethene	ND	2.0	1.1	4.00	
1,1-Dichloropropene	ND	2.0	1.2	4.00	
1,2,3-Trichlorobenzene	ND	2.0	0.80	4.00	
1,2,3-Trichloropropane	ND	4.0	1.6	4.00	
1,2,4-Trichlorobenzene	ND	2.0	0.80	4.00	
1,2,4-Trimethylbenzene	ND	2.0	0.80	4.00	
1,2-Dibromo-3-Chloropropane	ND	20	8.0	4.00	
1,2-Dibromoethane	ND	2.0	0.80	4.00	
1,2-Dichlorobenzene	ND	2.0	0.80	4.00	
1,2-Dichloroethane	ND	2.0	0.80	4.00	
1,2-Dichloropropane	ND	2.0	0.80	4.00	
1,3,5-Trimethylbenzene	ND	2.0	0.80	4.00	
1,3-Dichlorobenzene	ND	2.0	1.1	4.00	
1,3-Dichloropropane	ND	4.0	1.6	4.00	
1,4-Dichlorobenzene	ND	2.0	0.80	4.00	
2,2-Dichloropropane	ND	4.0	1.6	4.00	
2-Butanone	ND	20	8.0	4.00	
2-Chlorotoluene	ND	2.0	0.80	4.00	
2-Hexanone	ND	40	16	4.00	
4-Chlorotoluene	ND	2.0	1.4	4.00	
4-Methyl-2-Pentanone	ND	20	8.0	4.00	
Acetone	ND	40	16	4.00	
Benzene	ND	2.0	0.80	4.00	
Bromobenzene	ND	2.0	1.3	4.00	
Bromochloromethane	ND	4.0	1.6	4.00	
Bromodichloromethane	ND	2.0	0.80	4.00	
Bromoform	ND	2.0	0.99	4.00	
Bromomethane	ND	4.0	1.6	4.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	4.0	1.6	4.00	
Carbon Tetrachloride	ND	2.0	0.80	4.00	
Chlorobenzene	ND	2.0	0.80	4.00	
Chloroethane	ND	2.0	1.3	4.00	
Chloroform	ND	2.0	0.80	4.00	
Chloromethane	ND	2.0	1.2	4.00	
Dibromochloromethane	ND	2.0	0.80	4.00	
Dibromomethane	ND	2.0	0.80	4.00	
Dichlorodifluoromethane	ND	4.0	1.6	4.00	
Ethylbenzene	ND	2.0	0.80	4.00	
Isopropylbenzene	ND	2.0	0.80	4.00	
Methylene Chloride	ND	4.0	3.2	4.00	
Naphthalene	ND	4.0	1.6	4.00	
Styrene	ND	2.0	0.80	4.00	
Tetrachloroethene	83	2.0	0.80	4.00	
Toluene	ND	2.0	0.80	4.00	
t-1,2-Dichloroethene	ND	2.0	0.80	4.00	
Trichloroethene	30	2.0	1.1	4.00	
Trichlorofluoromethane	ND	2.0	0.80	4.00	
Vinyl Acetate	ND	20	8.0	4.00	
Vinyl Chloride	ND	2.0	0.80	4.00	
c-1,3-Dichloropropene	ND	2.0	0.80	4.00	
c-1,2-Dichloroethene	ND	2.0	0.80	4.00	
n-Butylbenzene	ND	2.0	0.80	4.00	
n-Propylbenzene	ND	2.0	0.80	4.00	
o-Xylene	ND	2.0	1.3	4.00	
p-Isopropyltoluene	ND	2.0	0.80	4.00	
sec-Butylbenzene	ND	2.0	0.80	4.00	
t-1,3-Dichloropropene	ND	2.0	0.80	4.00	
tert-Butylbenzene	ND	2.0	0.80	4.00	
p/m-Xylene	ND	2.0	0.80	4.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.80	4.00	
2-Chloroethyl Vinyl Ether	ND	20	17	4.00	
Hexachloro-1,3-Butadiene	ND	8.0	3.2	4.00	
Iodomethane	ND	40	20	4.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	84	68-120	
Dibromofluoromethane	111	80-127	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	116	80-128	
Toluene-d8	98	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872S-N-17Q2	17-04-0322-9-B	04/05/17 12:10	Aqueous	GC/MS L	04/17/17	04/18/17 04:30	170417L025

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	89	68-120			
Dibromofluoromethane	114	80-127			

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





## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/05/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0322
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 27 of 39

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	116	80-128	
Toluene-d8	99	80-120	




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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW11-N-17Q2	17-04-0322-10-B	04/05/17 09:25	Aqueous	GC/MS L	04/17/17	04/17/17 23:24	170417L025

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	0.21	0.50	0.20	1.00	J
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.48	0.50	0.20	1.00	J
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	2.6	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	2.3	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	0.78	0.50	0.29	1.00	
Trichlorofluoromethane	0.29	0.50	0.20	1.00	J
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	0.95	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	85	68-120			
Dibromofluoromethane	119	80-127			

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/05/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0322
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 30 of 39

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	114	80-128	
Toluene-d8	99	80-120	




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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3862D-N-17Q2	17-04-0322-11-A	04/05/17 16:25	Aqueous	GC/MS L	04/17/17	04/18/17 05:01	170417L025

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	2.00	
1,1,1-Trichloroethane	ND	1.0	0.40	2.00	
1,1,2,2-Tetrachloroethane	ND	1.0	0.40	2.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1.0	0.48	2.00	
1,1,2-Trichloroethane	ND	1.0	0.40	2.00	
1,1-Dichloroethane	ND	1.0	0.40	2.00	
1,1-Dichloroethene	ND	1.0	0.56	2.00	
1,1-Dichloropropene	ND	1.0	0.60	2.00	
1,2,3-Trichlorobenzene	ND	1.0	0.40	2.00	
1,2,3-Trichloropropane	ND	2.0	0.80	2.00	
1,2,4-Trichlorobenzene	ND	1.0	0.40	2.00	
1,2,4-Trimethylbenzene	ND	1.0	0.40	2.00	
1,2-Dibromo-3-Chloropropane	ND	10	4.0	2.00	
1,2-Dibromoethane	ND	1.0	0.40	2.00	
1,2-Dichlorobenzene	ND	1.0	0.40	2.00	
1,2-Dichloroethane	ND	1.0	0.40	2.00	
1,2-Dichloropropane	ND	1.0	0.40	2.00	
1,3,5-Trimethylbenzene	ND	1.0	0.40	2.00	
1,3-Dichlorobenzene	ND	1.0	0.55	2.00	
1,3-Dichloropropane	ND	2.0	0.80	2.00	
1,4-Dichlorobenzene	ND	1.0	0.40	2.00	
2,2-Dichloropropane	ND	2.0	0.80	2.00	
2-Butanone	ND	10	4.0	2.00	
2-Chlorotoluene	ND	1.0	0.40	2.00	
2-Hexanone	ND	20	8.0	2.00	
4-Chlorotoluene	ND	1.0	0.71	2.00	
4-Methyl-2-Pentanone	ND	10	4.0	2.00	
Acetone	ND	20	8.0	2.00	
Benzene	ND	1.0	0.40	2.00	
Bromobenzene	ND	1.0	0.64	2.00	
Bromochloromethane	ND	2.0	0.80	2.00	
Bromodichloromethane	ND	1.0	0.40	2.00	
Bromoform	ND	1.0	0.49	2.00	
Bromomethane	ND	2.0	0.80	2.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Parameter	Result	RL	MDL	DF	Qualifiers
Carbon Disulfide	ND	2.0	0.80	2.00	
Carbon Tetrachloride	1.1	1.0	0.40	2.00	
Chlorobenzene	ND	1.0	0.40	2.00	
Chloroethane	ND	1.0	0.63	2.00	
Chloroform	0.89	1.0	0.40	2.00	J
Chloromethane	ND	1.0	0.59	2.00	
Dibromochloromethane	ND	1.0	0.40	2.00	
Dibromomethane	ND	1.0	0.40	2.00	
Dichlorodifluoromethane	1.5	2.0	0.80	2.00	J
Ethylbenzene	ND	1.0	0.40	2.00	
Isopropylbenzene	ND	1.0	0.40	2.00	
Methylene Chloride	ND	2.0	1.6	2.00	
Naphthalene	ND	2.0	0.80	2.00	
Styrene	ND	1.0	0.40	2.00	
Tetrachloroethene	14	1.0	0.40	2.00	
Toluene	ND	1.0	0.40	2.00	
t-1,2-Dichloroethene	ND	1.0	0.40	2.00	
Trichlorofluoromethane	ND	1.0	0.40	2.00	
Vinyl Acetate	ND	10	4.0	2.00	
Vinyl Chloride	ND	1.0	0.40	2.00	
c-1,3-Dichloropropene	ND	1.0	0.40	2.00	
c-1,2-Dichloroethene	ND	1.0	0.40	2.00	
n-Butylbenzene	ND	1.0	0.40	2.00	
n-Propylbenzene	ND	1.0	0.40	2.00	
o-Xylene	ND	1.0	0.63	2.00	
p-Isopropyltoluene	ND	1.0	0.40	2.00	
sec-Butylbenzene	ND	1.0	0.40	2.00	
t-1,3-Dichloropropene	ND	1.0	0.40	2.00	
tert-Butylbenzene	ND	1.0	0.40	2.00	
p/m-Xylene	ND	1.0	0.40	2.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.40	2.00	
2-Chloroethyl Vinyl Ether	ND	10	8.4	2.00	
Hexachloro-1,3-Butadiene	ND	4.0	1.6	2.00	
Iodomethane	ND	20	10	2.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	84	68-120	
Dibromofluoromethane	113	80-127	
1,2-Dichloroethane-d4	121	80-128	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Toluene-d8	102	80-120	

<u>Client Sample Number</u>	<u>Lab Sample Number</u>	<u>Date/Time Collected</u>	<u>Matrix</u>	<u>Instrument</u>	<u>Date Prepared</u>	<u>Date/Time Analyzed</u>	<u>QC Batch ID</u>
<b>3862D-N-17Q2</b>	<b>17-04-0322-11-A</b>	<b>04/05/17 16:25</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>04/17/17</b>	<b>04/18/17 05:32</b>	<b>170417L025</b>

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Trichloroethene	89	5.0	2.9	10.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	86	68-120	
Dibromofluoromethane	111	80-127	
1,2-Dichloroethane-d4	123	80-128	
Toluene-d8	101	80-120	

Return to Contents

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-025-4622	N/A	Aqueous	GC/MS L	04/17/17	04/17/17 11:00	170417L008

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	86	68-120			
Dibromofluoromethane	104	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	101	80-128	
Toluene-d8	97	80-120	



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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-025-4623	N/A	Aqueous	GC/MS L	04/17/17	04/17/17 22:53	170417L025

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	87	68-120			
Dibromofluoromethane	108	80-127			

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/05/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0322
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 39 of 39

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	114	80-128	
Toluene-d8	97	80-120	




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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW34-N-17Q2	17-04-0322-1-F	04/05/17 14:38	Aqueous	GC/MS M	04/10/17	04/10/17 16:39	170410L035

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	116	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW34-FD-17Q2	17-04-0322-2-F	04/05/17 14:38	Aqueous	GC/MS M	04/10/17	04/10/17 17:09	170410L035

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	99	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW32-N-17Q2	17-04-0322-3-F	04/05/17 12:52	Aqueous	GC/MS M	04/10/17	04/10/17 17:39	170410L035

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.011	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	99	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3870D-N-17Q2	17-04-0322-4-F	04/05/17 11:28	Aqueous	GC/MS M	04/10/17	04/10/17 18:09	170410L035

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	91	80-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3880-N-17Q2	17-04-0322-5-F	04/05/17 09:50	Aqueous	GC/MS M	04/10/17	04/10/17 18:39	170410L035

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	93	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20170405	17-04-0322-6-C	04/05/17 07:00	Aqueous	GC/MS M	04/10/17	04/10/17 13:10	170410L035

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	98	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852L-N-17Q2	17-04-0322-7-F	04/05/17 15:03	Aqueous	GC/MS M	04/10/17	04/10/17 19:09	170410L035

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.032	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	95	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872Q-N-17Q2	17-04-0322-8-F	04/05/17 13:26	Aqueous	GC/MS M	04/10/17	04/10/17 19:39	170410L035

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.045	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	94	80-120	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872S-N-17Q2	17-04-0322-9-F	04/05/17 12:10	Aqueous	GC/MS M	04/10/17	04/10/17 20:09	170410L035

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	96	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW11-N-17Q2	17-04-0322-10-F	04/05/17 09:25	Aqueous	GC/MS M	04/10/17	04/10/17 13:40	170410L035

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	103	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3862D-N-17Q2	17-04-0322-11-F	04/05/17 16:25	Aqueous	GC/MS M	04/10/17	04/10/17 20:39	170410L035

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.023	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	97	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-118-478	N/A	Aqueous	GC/MS M	04/10/17	04/10/17 12:11	170410L035

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	95	80-120	

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



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-1-CW11-N-17Q2	Sample	Aqueous	IC 16	N/A	04/05/17 23:24	170405S01
B-1-CW11-N-17Q2	Matrix Spike	Aqueous	IC 16	N/A	04/05/17 23:46	170405S01
B-1-CW11-N-17Q2	Matrix Spike Duplicate	Aqueous	IC 16	N/A	04/05/17 23:58	170405S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium, Hexavalent	2.726	10.00	13.27	105	13.57	108	85-121	2	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
B-1-CW11-N-17Q2	Sample	Aqueous	ICP/MS 05	04/14/17	04/18/17 00:27	170414SA5				
B-1-CW11-N-17Q2	Matrix Spike	Aqueous	ICP/MS 05	04/14/17	04/18/17 00:01	170414SA5				
B-1-CW11-N-17Q2	Matrix Spike Duplicate	Aqueous	ICP/MS 05	04/14/17	04/18/17 00:05	170414SA5				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium	0.003187	0.1000	0.1053	102	0.1031	100	73-133	2	0-11	

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-1-CW11-N-17Q2	Sample	Aqueous	GC/MS DDD	04/06/17	04/07/17 03:04	170406S13
B-1-CW11-N-17Q2	Matrix Spike	Aqueous	GC/MS DDD	04/06/17	04/07/17 00:25	170406S13
B-1-CW11-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS DDD	04/06/17	04/07/17 00:42	170406S13

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,4-Dioxane	1.004	20.00	22.23	106	20.56	98	50-130	8	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0812-10	Sample	Aqueous	GC/MS L	04/17/17	04/17/17 11:38	170417S004
17-04-0812-10	Matrix Spike	Aqueous	GC/MS L	04/17/17	04/17/17 12:09	170417S004
17-04-0812-10	Matrix Spike Duplicate	Aqueous	GC/MS L	04/17/17	04/17/17 12:40	170417S004

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloroethene	ND	40.00	40.89	102	37.31	93	66-126	9	0-20	
1,2-Dibromoethane	ND	40.00	40.09	100	38.95	97	75-126	3	0-20	
1,2-Dichlorobenzene	ND	40.00	39.39	98	38.17	95	75-125	3	0-20	
1,2-Dichloroethane	ND	40.00	39.67	99	36.93	92	75-127	7	0-20	
Benzene	ND	40.00	42.71	107	39.64	99	75-125	7	0-20	
Carbon Tetrachloride	ND	40.00	48.18	120	45.49	114	69-135	6	0-20	
Chlorobenzene	ND	40.00	41.49	104	38.79	97	75-125	7	0-20	
Ethylbenzene	ND	40.00	44.13	110	41.07	103	75-125	7	0-20	
Toluene	ND	40.00	42.59	106	39.56	99	75-125	7	0-20	
Trichloroethene	ND	40.00	42.88	107	39.37	98	75-125	9	0-20	
Vinyl Chloride	129.4	40.00	173.5	110	175.2	115	52-142	1	0-20	
o-Xylene	ND	40.00	44.32	111	40.85	102	75-127	8	0-20	
p/m-Xylene	ND	80.00	88.99	111	82.77	103	75-125	7	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	40.00	35.80	90	33.94	85	71-131	5	0-20	

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RPD: Relative Percent Difference. CL: Control Limits





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## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-1-CW11-N-17Q2	Sample	Aqueous	GC/MS L	04/17/17	04/17/17 23:24	170417S011
B-1-CW11-N-17Q2	Matrix Spike	Aqueous	GC/MS L	04/17/17	04/18/17 00:25	170417S011
B-1-CW11-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS L	04/17/17	04/18/17 00:56	170417S011

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloroethene	ND	10.00	8.527	85	9.028	90	66-126	6	0-20	
1,2-Dibromoethane	ND	10.00	9.232	92	9.860	99	75-126	7	0-20	
1,2-Dichlorobenzene	ND	10.00	8.880	89	9.253	93	75-125	4	0-20	
1,2-Dichloroethane	ND	10.00	9.325	93	9.685	97	75-127	4	0-20	
Benzene	ND	10.00	9.007	90	9.657	97	75-125	7	0-20	
Carbon Tetrachloride	ND	10.00	10.06	101	11.21	112	69-135	11	0-20	
Chlorobenzene	ND	10.00	9.006	90	9.636	96	75-125	7	0-20	
Ethylbenzene	ND	10.00	9.365	94	10.14	101	75-125	8	0-20	
Toluene	ND	10.00	9.258	93	9.875	99	75-125	6	0-20	
Trichloroethene	0.7838	10.00	9.781	90	10.54	98	75-125	7	0-20	
Vinyl Chloride	ND	10.00	11.31	113	11.74	117	52-142	4	0-20	
o-Xylene	ND	10.00	9.618	96	10.34	103	75-127	7	0-20	
p/m-Xylene	ND	20.00	19.27	96	20.59	103	75-125	7	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	7.873	79	8.250	83	71-131	5	0-20	

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-1-CW11-N-17Q2	Sample	Aqueous	GC/MS M	04/10/17	04/10/17 13:40	170410S020
B-1-CW11-N-17Q2	Matrix Spike	Aqueous	GC/MS M	04/10/17	04/10/17 15:10	170410S020
B-1-CW11-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS M	04/10/17	04/10/17 15:40	170410S020

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	ND	0.02000	0.01940	97	0.02180	109	80-120	12	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - PDS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDS Batch Number	
B-1-CW11-N-17Q2	Sample	Aqueous	ICP/MS 05	04/14/17 00:00	04/18/17 00:27	170414SA5	
B-1-CW11-N-17Q2	PDS	Aqueous	ICP/MS 05	04/14/17 00:00	04/18/17 00:09	170414SA5	
<u>Parameter</u>		<u>Sample Conc.</u>	<u>Spike Added</u>	<u>PDS Conc.</u>	<u>PDS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium		0.003187	0.1000	0.1038	101	75-125	



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-14-567-231</b>	<b>LCS</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/05/17 20:33</b>	<b>170405L01</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	10.00	9.989	100	95-107	



RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>096-06-003-5529</b>	<b>LCS</b>	<b>Aqueous</b>	<b>ICP/MS 05</b>	<b>04/14/17</b>	<b>04/17/17 23:58</b>	<b>170414LA5</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium	0.1000	0.09935	99	80-120	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-16-216-998</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/06/17</b>	<b>04/07/17 00:10</b>	<b>170406L13</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,4-Dioxane	20.00	19.04	95	50-130	



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-10-025-4622</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>04/17/17</b>	<b>04/17/17 10:08</b>	<b>170417L008</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
1,1-Dichloroethene		10.00	8.719	87	77-120	70-127	
1,2-Dibromoethane		10.00	10.64	106	80-120	73-127	
1,2-Dichlorobenzene		10.00	10.17	102	80-120	73-127	
1,2-Dichloroethane		10.00	9.858	99	80-122	73-129	
Benzene		10.00	10.16	102	80-120	73-127	
Carbon Tetrachloride		10.00	10.82	108	80-129	72-137	
Chlorobenzene		10.00	10.40	104	80-120	73-127	
Ethylbenzene		10.00	10.70	107	80-120	73-127	
Toluene		10.00	10.38	104	80-120	73-127	
Trichloroethene		10.00	10.25	103	80-120	73-127	
Vinyl Chloride		10.00	10.36	104	63-135	51-147	
o-Xylene		10.00	10.96	110	80-120	73-127	
p/m-Xylene		20.00	21.84	109	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	8.641	86	75-123	67-131	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-10-025-4623</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>04/17/17</b>	<b>04/17/17 22:22</b>	<b>170417L025</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
1,1-Dichloroethene		10.00	7.665	77	77-120	70-127	
1,2-Dibromoethane		10.00	10.44	104	80-120	73-127	
1,2-Dichlorobenzene		10.00	9.786	98	80-120	73-127	
1,2-Dichloroethane		10.00	10.11	101	80-122	73-129	
Benzene		10.00	10.10	101	80-120	73-127	
Carbon Tetrachloride		10.00	8.520	85	80-129	72-137	
Chlorobenzene		10.00	10.08	101	80-120	73-127	
Ethylbenzene		10.00	10.23	102	80-120	73-127	
Toluene		10.00	10.20	102	80-120	73-127	
Trichloroethene		10.00	9.781	98	80-120	73-127	
Vinyl Chloride		10.00	9.647	96	63-135	51-147	
o-Xylene		10.00	10.61	106	80-120	73-127	
p/m-Xylene		20.00	20.81	104	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	8.738	87	75-123	67-131	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/05/17  
Work Order: 17-04-0322  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

Page 6 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-118-478	LCS	Aqueous	GC/MS M	04/10/17	04/10/17 11:04	170410L035

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
1,2,3-Trichloropropane	0.02000	0.02250	112	80-120	



## Sample Analysis Summary Report

Work Order: 17-04-0322

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 218.6	N/A	1065	IC 16	1
EPA 6020	EPA 3020A Total	598	ICP/MS 05	1
EPA 8260B	EPA 5030C	316	GC/MS L	2
EPA 8260B SIM	EPA 5030C	486	GC/MS M	2
EPA 8270C (M) Isotope Dilution	EPA 3510C	907	GC/MS DDD	1



Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



## Glossary of Terms and Qualifiers

Work Order: 17-04-0322

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.





SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 2

CLIENT: Tetra Tech

DATE: 04/5/2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3B (CF: 0.0°C); Temperature (w/o CF): 2.0 °C (w/ CF): 2.0 °C;  Blank  Sample

- Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)
- Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling
- Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature:  Air  Filter

Checked by: 1091

CUSTODY SEAL:

- Cooler  Present and Intact  Present but Not Intact  Not Present  N/A
- Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: 1091  
Checked by: 1017

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC .....	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Container(s) for certain analysis free of headspace .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

(Trip Blank Lot Number: 170328A)

- Aqueous:  VOA  VOA<sup>h</sup>  VOA<sub>na2</sub>  100PJ  100PJ<sub>na2</sub>  125AGB  125AGB<sup>h</sup>  125AGB<sup>p</sup>  125PB
- 125PB<sup>z</sup>  250AGB  250CGB  250CGB<sub>s</sub>  250PB  250PB<sub>n</sub>  500AGB  500AGJ  500AGJ<sub>s</sub>
- 500PB  1AGB  1AGB<sub>na2</sub>  1AGB<sub>s</sub>  1PB  1PB<sub>na</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_
- Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  EnCores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_
- Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (\_\_\_\_\_)  \_\_\_\_\_  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, z<sub>na</sub> = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH

Labeled/Checked by: 802/1017  
Reviewed by: 602/1057

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**SAMPLE RECEIPT CHECKLIST**

COOLER 2 OF 2

CLIENT: Tetra Tech

DATE: 04/5/2017

**TEMPERATURE:** (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)  
 Thermometer ID: SC3B (CF: 0.0°C); Temperature (w/o CF): 1.8 °C (w/ CF): 1.8 °C;  Blank  Sample  
 Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)  
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling  
 Sample(s) received at ambient temperature; placed on ice for transport by courier  
 Ambient Temperature:  Air  Filter

Checked by: 1091

**CUSTODY SEAL:**

Cooler  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 1091  
 Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 1017

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Container(s) for certain analysis free of headspace .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:** (Trip Blank Lot Number: \_\_\_\_\_)

**Aqueous:**  VOA  VOA<sub>h</sub>  VOA<sub>na</sub>  100PJ  100PJ<sub>na</sub>  125AGB  125AGB<sub>h</sub>  125AGB<sub>p</sub>  125PB  
 125PB<sub>zr/na</sub>  250AGB  250CGB  250CGB<sub>s</sub>  250PB  250PB<sub>h</sub>  500AGB  500AGJ  500AGJ<sub>s</sub>  
 500PB  1AGB  1AGB<sub>na</sub>  1AGB<sub>s</sub>  1PB  1PB<sub>na</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

**Solid:**  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  EnCores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_

**Air:**  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ **Other Matrix** (\_\_\_\_\_)  \_\_\_\_\_  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag  
 Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 1091  
 s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, zr/na = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: 1057

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## Vikas Patel

---

**From:** Calder, Vanessa <Vanessa.Calder@tetrattech.com>  
**Sent:** Thursday, April 06, 2017 10:41 AM  
**To:** Vikas Patel; Sabater, Robert  
**Cc:** Erick Ovalle  
**Subject:** Re: Sample receipt confirmation / 17-04-0322 / LMC BOU

Hey Vik,

My apologies. All bottles are for sample 3852L, not 3872L. Feel free to call me if you have any further questions.

Thank you,  
Vanessa  
909-844-7277

---

**From:** Vikas Patel <[VikasPatel@eurofinsUS.com](mailto:VikasPatel@eurofinsUS.com)>  
**Sent:** Thursday, April 6, 2017 9:40:08 AM  
**To:** Sabater, Robert; Calder, Vanessa  
**Cc:** Erick Ovalle; Vikas Patel  
**Subject:** Sample receipt confirmation / 17-04-0322 / LMC BOU

Sample receipt confirmation(s) attached. Please review and advise of any changes required.

**Please confirm the sample ID for sample 3852L-N-17Q2, some of the containers are labeled as 3872L-N-17Q2.**

Thank you for using Eurofins Calscience.

Regards,

Vik Patel  
Project Manager

Eurofins Calscience, Inc.  
7440 Lincoln Way  
Garden Grove, CA 92841-1427  
USA

Phone: +1 714 895 5494  
Fax: +1 714 894 7501

[VikasPatel@EurofinsUS.com](mailto:VikasPatel@EurofinsUS.com)  
[www.EurofinsUS.com/Env](http://www.EurofinsUS.com/Env)



The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon this information by persons or entities other than the intended recipient is



Supplemental Report 1

The original report has been revised/corrected.

**WORK ORDER NUMBER: 17-04-0177***The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For****Client:** Tetra Tech, Inc.**Client Project Name:** LMC BOU**Attention:** Robert Sabater  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Approved for release on 05/03/2017 by:  
Vikas Patel  
Project Manager

ResultLink ▶

Email your PM ▶

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

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 Work Order Number: 17-04-0177

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## Work Order Narrative

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Work Order: 17-04-0177

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### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 04/04/17. They were assigned to Work Order 17-04-0177.

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

### **Holding Times:**

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

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

### **Quality Control:**

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

### **Subcontractor Information:**

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

### **Additional Comments:**

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

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





## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-0177  
Project Name: LMC BOU  
Received: 04/04/17

Attn: Robert Sabater

Page 1 of 2

### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
<b>B-1-CW12-N-17Q2 (17-04-0177-1)</b>						
Chromium, Hexavalent	11		0.020	ug/L	EPA 218.6	N/A
Chromium	0.0115		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1-Dichloroethene	1.9		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	1.5		0.50	ug/L	EPA 8260B	EPA 5030C
Dichlorodifluoromethane	2.5		1.0	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	5.5		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	14		0.50	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	1.1		0.50	ug/L	EPA 8260B	EPA 5030C
<b>3860K-N-17Q2 (17-04-0177-2)</b>						
Chromium, Hexavalent	1.9		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00344		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloro-1,2,2-Trifluoroethane	8.5		5.0	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	17		5.0	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	29		10	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	200		5.0	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	210		5.0	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	2.3	J	2.0*	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	32		2.5	ug/L	EPA 8260B SIM	EPA 5030C
<b>B1-CW17-N-17Q2 (17-04-0177-3)</b>						
Chromium, Hexavalent	20		0.020	ug/L	EPA 218.6	N/A
Chromium	0.0246		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1-Dichloroethene	2.9		2.0	ug/L	EPA 8260B	EPA 5030C
Chloroform	4.3		2.0	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	70		2.0	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	94		2.0	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	3.2		2.0	ug/L	EPA 8260B	EPA 5030C
1,4-Dioxane	2.9		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C
<b>3831Q-N-17Q2 (17-04-0177-4)</b>						
Chromium	0.0213		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1-Dichloroethane	0.21	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	0.28	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.66		0.50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	1.2		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	9.2		0.50	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	0.40	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.011		0.0050	ug/L	EPA 8260B SIM	EPA 5030C

\* MDL is shown



## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-0177  
Project Name: LMC BOU  
Received: 04/04/17

Attn: Robert Sabater

Page 2 of 2

### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
3830Q-N-17Q2 (17-04-0177-5)						
Chromium, Hexavalent	0.19		0.020	ug/L	EPA 218.6	N/A
Chromium	0.000770	J	0.000402*	mg/L	EPA 6020	EPA 3020A Total
1,1-Dichloroethane	0.62		0.50	ug/L	EPA 8260B	EPA 5030C
Dichlorodifluoromethane	0.78	J	0.40*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	0.50		0.50	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	0.51		0.50	ug/L	EPA 8260B	EPA 5030C
3830S-N-17Q2 (17-04-0177-6)						
Chromium, Hexavalent	0.93		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00403		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chloroform	1.4	J	0.80*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	2.9		2.0	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	85		2.0	ug/L	EPA 8260B	EPA 5030C
Methyl-t-Butyl Ether (MTBE)	1.6	J	0.80*	ug/L	EPA 8260B	EPA 5030C
3851N-N-17Q2 (17-04-0177-7)						
Chromium, Hexavalent	1.2		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00172		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1-Dichloroethane	0.28	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Acetone	5.7	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Dichlorodifluoromethane	1.2		1.0	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	0.67		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	0.56		0.50	ug/L	EPA 8260B	EPA 5030C

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

\* MDL is shown



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: N/A  
Method: EPA 218.6  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW12-N-17Q2	17-04-0177-1-K	04/04/17 15:00	Aqueous	IC 16	N/A	04/04/17 22:10	170404L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	11	0.020	0.0099	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3860K-N-17Q2	17-04-0177-2-K	04/04/17 11:36	Aqueous	IC 16	N/A	04/04/17 22:21	170404L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	1.9	0.020	0.0099	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B1-CW17-N-17Q2	17-04-0177-3-K	04/04/17 08:31	Aqueous	IC 16	N/A	04/04/17 22:33	170404L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	20	0.020	0.0099	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3831Q-N-17Q2	17-04-0177-4-K	04/04/17 10:14	Aqueous	IC 16	N/A	04/04/17 22:44	170404L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3830Q-N-17Q2	17-04-0177-5-K	04/04/17 12:29	Aqueous	IC 16	N/A	04/04/17 22:55	170404L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	0.19	0.020	0.0099	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3830S-N-17Q2	17-04-0177-6-K	04/04/17 14:13	Aqueous	IC 16	N/A	04/04/17 23:06	170404L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	0.93	0.020	0.0099	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: N/A  
Method: EPA 218.6  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3851N-N-17Q2	17-04-0177-7-K	04/04/17 16:37	Aqueous	IC 16	N/A	04/04/17 23:18	170404L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	1.2	0.020	0.0099	1.00	

Method Blank	099-14-567-230	N/A	Aqueous	IC 16	N/A	04/04/17 18:36	170404L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 3020A Total  
Method: EPA 6020  
Units: mg/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW12-N-17Q2	17-04-0177-1-L	04/04/17 15:00	Aqueous	ICP/MS 05	04/13/17	04/15/17 00:32	170413LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.0115	0.00100	0.000402	1.00	

3860K-N-17Q2	17-04-0177-2-L	04/04/17 11:36	Aqueous	ICP/MS 05	04/13/17	04/15/17 00:36	170413LA3
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00344	0.00100	0.000402	1.00	

B1-CW17-N-17Q2	17-04-0177-3-L	04/04/17 08:31	Aqueous	ICP/MS 05	04/13/17	04/15/17 00:40	170413LA3
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.0246	0.00100	0.000402	1.00	

3831Q-N-17Q2	17-04-0177-4-L	04/04/17 10:14	Aqueous	ICP/MS 05	04/13/17	04/15/17 00:43	170413LA3
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.0213	0.00100	0.000402	1.00	

3830Q-N-17Q2	17-04-0177-5-L	04/04/17 12:29	Aqueous	ICP/MS 05	04/13/17	04/15/17 01:39	170413LA3
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.000770	0.00100	0.000402	1.00	J

3830S-N-17Q2	17-04-0177-6-L	04/04/17 14:13	Aqueous	ICP/MS 05	04/13/17	04/15/17 01:43	170413LA3
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00403	0.00100	0.000402	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 3020A Total  
Method: EPA 6020  
Units: mg/L

Project: LMC BOU

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3851N-N-17Q2	17-04-0177-7-L	04/04/17 16:37	Aqueous	ICP/MS 05	04/13/17	04/15/17 01:46	170413LA3

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Chromium	0.00172	0.00100	0.000402	1.00	

Method Blank	096-06-003-5524	N/A	Aqueous	ICP/MS 05	04/13/17	04/14/17 21:31	170413LA3
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Chromium	ND	0.00100	0.000402	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>B-1-CW12-N-17Q2</b>	<b>17-04-0177-1-M</b>	<b>04/04/17 15:00</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/08/17</b>	<b>04/08/17 19:40</b>	<b>170408L10</b>

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dioxane	ND	1.0	0.28	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Nitrobenzene-d5	107	56-123	
1,4-Dioxane-d8(IDS-IS)	42	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>3860K-N-17Q2</b>	<b>17-04-0177-2-M</b>	<b>04/04/17 11:36</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/08/17</b>	<b>04/08/17 19:56</b>	<b>170408L10</b>

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dioxane	ND	1.0	0.28	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Nitrobenzene-d5	104	56-123	
1,4-Dioxane-d8(IDS-IS)	43	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>B1-CW17-N-17Q2</b>	<b>17-04-0177-3-M</b>	<b>04/04/17 08:31</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/08/17</b>	<b>04/08/17 20:12</b>	<b>170408L10</b>

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dioxane	2.9	1.0	0.28	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Nitrobenzene-d5	105	56-123	
1,4-Dioxane-d8(IDS-IS)	41	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>3831Q-N-17Q2</b>	<b>17-04-0177-4-M</b>	<b>04/04/17 10:14</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/08/17</b>	<b>04/08/17 20:28</b>	<b>170408L10</b>

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dioxane	ND	1.0	0.28	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Nitrobenzene-d5	104	56-123	
1,4-Dioxane-d8(IDS-IS)	39	30-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3830Q-N-17Q2	17-04-0177-5-M	04/04/17 12:29	Aqueous	GC/MS DDD	04/08/17	04/08/17 20:44	170408L10

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	110	56-123	
1,4-Dioxane-d8(IDS-IS)	40	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3830S-N-17Q2	17-04-0177-6-M	04/04/17 14:13	Aqueous	GC/MS DDD	04/08/17	04/08/17 21:00	170408L10

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	105	56-123	
1,4-Dioxane-d8(IDS-IS)	40	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3851N-N-17Q2	17-04-0177-7-M	04/04/17 16:37	Aqueous	GC/MS DDD	04/08/17	04/08/17 21:16	170408L10

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	106	56-123	
1,4-Dioxane-d8(IDS-IS)	39	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-216-1001	N/A	Aqueous	GC/MS DDD	04/08/17	04/08/17 16:16	170408L10

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	111	56-123	
1,4-Dioxane-d8(IDS-IS)	44	30-120	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW12-N-17Q2	17-04-0177-1-A	04/04/17 15:00	Aqueous	GC/MS L	04/13/17	04/14/17 01:08	170413L043

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	1.9	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	1.5	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	2.5	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	5.5	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	14	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	1.1	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	87	68-120			
Dibromofluoromethane	111	80-127			

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





## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/04/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0177
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 3 of 33

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	110	80-128	
Toluene-d8	99	80-120	



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3860K-N-17Q2	17-04-0177-2-A	04/04/17 11:36	Aqueous	GC/MS L	04/13/17	04/14/17 01:38	170413L043

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	5.0	2.0	10.0	
1,1,1-Trichloroethane	ND	5.0	2.0	10.0	
1,1,2,2-Tetrachloroethane	ND	5.0	2.0	10.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	8.5	5.0	2.4	10.0	
1,1,2-Trichloroethane	ND	5.0	2.0	10.0	
1,1-Dichloroethane	ND	5.0	2.0	10.0	
1,1-Dichloroethene	17	5.0	2.8	10.0	
1,1-Dichloropropene	ND	5.0	3.0	10.0	
1,2,3-Trichlorobenzene	ND	5.0	2.0	10.0	
1,2,3-Trichloropropane	29	10	4.0	10.0	
1,2,4-Trichlorobenzene	ND	5.0	2.0	10.0	
1,2,4-Trimethylbenzene	ND	5.0	2.0	10.0	
1,2-Dibromo-3-Chloropropane	ND	50	20	10.0	
1,2-Dibromoethane	ND	5.0	2.0	10.0	
1,2-Dichlorobenzene	ND	5.0	2.0	10.0	
1,2-Dichloroethane	ND	5.0	2.0	10.0	
1,2-Dichloropropane	ND	5.0	2.0	10.0	
1,3,5-Trimethylbenzene	ND	5.0	2.0	10.0	
1,3-Dichlorobenzene	ND	5.0	2.8	10.0	
1,3-Dichloropropane	ND	10	4.0	10.0	
1,4-Dichlorobenzene	ND	5.0	2.0	10.0	
2,2-Dichloropropane	ND	10	4.0	10.0	
2-Butanone	ND	50	20	10.0	
2-Chlorotoluene	ND	5.0	2.0	10.0	
2-Hexanone	ND	100	40	10.0	
4-Chlorotoluene	ND	5.0	3.6	10.0	
4-Methyl-2-Pentanone	ND	50	20	10.0	
Acetone	ND	100	40	10.0	
Benzene	ND	5.0	2.0	10.0	
Bromobenzene	ND	5.0	3.2	10.0	
Bromochloromethane	ND	10	4.0	10.0	
Bromodichloromethane	ND	5.0	2.0	10.0	
Bromoform	ND	5.0	2.5	10.0	
Bromomethane	ND	10	4.0	10.0	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	10	4.0	10.0	
Carbon Tetrachloride	ND	5.0	2.0	10.0	
Chlorobenzene	ND	5.0	2.0	10.0	
Chloroethane	ND	5.0	3.2	10.0	
Chloroform	ND	5.0	2.0	10.0	
Chloromethane	ND	5.0	2.9	10.0	
Dibromochloromethane	ND	5.0	2.0	10.0	
Dibromomethane	ND	5.0	2.0	10.0	
Dichlorodifluoromethane	ND	10	4.0	10.0	
Ethylbenzene	ND	5.0	2.0	10.0	
Isopropylbenzene	ND	5.0	2.0	10.0	
Methylene Chloride	ND	10	8.0	10.0	
Naphthalene	ND	10	4.0	10.0	
Styrene	ND	5.0	2.0	10.0	
Tetrachloroethene	200	5.0	2.0	10.0	
Toluene	ND	5.0	2.0	10.0	
t-1,2-Dichloroethene	ND	5.0	2.0	10.0	
Trichloroethene	210	5.0	2.9	10.0	
Trichlorofluoromethane	ND	5.0	2.0	10.0	
Vinyl Acetate	ND	50	20	10.0	
Vinyl Chloride	ND	5.0	2.0	10.0	
c-1,3-Dichloropropene	ND	5.0	2.0	10.0	
c-1,2-Dichloroethene	2.3	5.0	2.0	10.0	J
n-Butylbenzene	ND	5.0	2.0	10.0	
n-Propylbenzene	ND	5.0	2.0	10.0	
o-Xylene	ND	5.0	3.2	10.0	
p-Isopropyltoluene	ND	5.0	2.0	10.0	
sec-Butylbenzene	ND	5.0	2.0	10.0	
t-1,3-Dichloropropene	ND	5.0	2.0	10.0	
tert-Butylbenzene	ND	5.0	2.0	10.0	
p/m-Xylene	ND	5.0	2.0	10.0	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	2.0	10.0	
2-Chloroethyl Vinyl Ether	ND	50	42	10.0	
Hexachloro-1,3-Butadiene	ND	20	8.0	10.0	
Iodomethane	ND	100	50	10.0	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	86	68-120			
Dibromofluoromethane	105	80-127			

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/04/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0177
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 6 of 33

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	117	80-128	
Toluene-d8	99	80-120	



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B1-CW17-N-17Q2	17-04-0177-3-C	04/04/17 08:31	Aqueous	GC/MS L	04/17/17	04/17/17 13:41	170417L008

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	2.0	0.80	4.00	
1,1,1-Trichloroethane	ND	2.0	0.80	4.00	
1,1,2,2-Tetrachloroethane	ND	2.0	0.80	4.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2.0	0.96	4.00	
1,1,2-Trichloroethane	ND	2.0	0.80	4.00	
1,1-Dichloroethane	ND	2.0	0.80	4.00	
1,1-Dichloroethene	2.9	2.0	1.1	4.00	
1,1-Dichloropropene	ND	2.0	1.2	4.00	
1,2,3-Trichlorobenzene	ND	2.0	0.80	4.00	
1,2,3-Trichloropropane	ND	4.0	1.6	4.00	
1,2,4-Trichlorobenzene	ND	2.0	0.80	4.00	
1,2,4-Trimethylbenzene	ND	2.0	0.80	4.00	
1,2-Dibromo-3-Chloropropane	ND	20	8.0	4.00	
1,2-Dibromoethane	ND	2.0	0.80	4.00	
1,2-Dichlorobenzene	ND	2.0	0.80	4.00	
1,2-Dichloroethane	ND	2.0	0.80	4.00	
1,2-Dichloropropane	ND	2.0	0.80	4.00	
1,3,5-Trimethylbenzene	ND	2.0	0.80	4.00	
1,3-Dichlorobenzene	ND	2.0	1.1	4.00	
1,3-Dichloropropane	ND	4.0	1.6	4.00	
1,4-Dichlorobenzene	ND	2.0	0.80	4.00	
2,2-Dichloropropane	ND	4.0	1.6	4.00	
2-Butanone	ND	20	8.0	4.00	
2-Chlorotoluene	ND	2.0	0.80	4.00	
2-Hexanone	ND	40	16	4.00	
4-Chlorotoluene	ND	2.0	1.4	4.00	
4-Methyl-2-Pentanone	ND	20	8.0	4.00	
Acetone	ND	40	16	4.00	
Benzene	ND	2.0	0.80	4.00	
Bromobenzene	ND	2.0	1.3	4.00	
Bromochloromethane	ND	4.0	1.6	4.00	
Bromodichloromethane	ND	2.0	0.80	4.00	
Bromoform	ND	2.0	0.99	4.00	
Bromomethane	ND	4.0	1.6	4.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	4.0	1.6	4.00	
Carbon Tetrachloride	ND	2.0	0.80	4.00	
Chlorobenzene	ND	2.0	0.80	4.00	
Chloroethane	ND	2.0	1.3	4.00	
Chloroform	4.3	2.0	0.80	4.00	
Chloromethane	ND	2.0	1.2	4.00	
Dibromochloromethane	ND	2.0	0.80	4.00	
Dibromomethane	ND	2.0	0.80	4.00	
Dichlorodifluoromethane	ND	4.0	1.6	4.00	
Ethylbenzene	ND	2.0	0.80	4.00	
Isopropylbenzene	ND	2.0	0.80	4.00	
Methylene Chloride	ND	4.0	3.2	4.00	
Naphthalene	ND	4.0	1.6	4.00	
Styrene	ND	2.0	0.80	4.00	
Tetrachloroethene	70	2.0	0.80	4.00	
Toluene	ND	2.0	0.80	4.00	
t-1,2-Dichloroethene	ND	2.0	0.80	4.00	
Trichloroethene	94	2.0	1.1	4.00	
Trichlorofluoromethane	ND	2.0	0.80	4.00	
Vinyl Acetate	ND	20	8.0	4.00	
Vinyl Chloride	ND	2.0	0.80	4.00	
c-1,3-Dichloropropene	ND	2.0	0.80	4.00	
c-1,2-Dichloroethene	3.2	2.0	0.80	4.00	
n-Butylbenzene	ND	2.0	0.80	4.00	
n-Propylbenzene	ND	2.0	0.80	4.00	
o-Xylene	ND	2.0	1.3	4.00	
p-Isopropyltoluene	ND	2.0	0.80	4.00	
sec-Butylbenzene	ND	2.0	0.80	4.00	
t-1,3-Dichloropropene	ND	2.0	0.80	4.00	
tert-Butylbenzene	ND	2.0	0.80	4.00	
p/m-Xylene	ND	2.0	0.80	4.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.80	4.00	
2-Chloroethyl Vinyl Ether	ND	20	17	4.00	
Hexachloro-1,3-Butadiene	ND	8.0	3.2	4.00	
Iodomethane	ND	40	20	4.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	86	68-120			
Dibromofluoromethane	108	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	110	80-128	
Toluene-d8	100	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3831Q-N-17Q2	17-04-0177-4-A	04/04/17 10:14	Aqueous	GC/MS L	04/14/17	04/14/17 18:25	170414L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	0.21	0.50	0.20	1.00	J
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	0.28	0.50	0.20	1.00	J
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.66	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	1.2	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	9.2	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	0.40	0.50	0.20	1.00	J
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	88	68-120	
Dibromofluoromethane	113	80-127	

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



## Analytical Report

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<p>Tetra Tech, Inc. 301 E. Vanderbilt Way, Suite 450 San Bernardino, CA 92408-3562</p> <p>Project: LMC BOU</p>	<p>Date Received: 04/04/17 Work Order: 17-04-0177 Preparation: EPA 5030C Method: EPA 8260B Units: ug/L</p>	<p>Page 12 of 33</p>
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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	116	80-128	
Toluene-d8	101	80-120	




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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3830Q-N-17Q2	17-04-0177-5-A	04/04/17 12:29	Aqueous	GC/MS L	04/14/17	04/14/17 18:56	170414L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	0.62	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	0.78	1.0	0.40	1.00	J
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	0.50	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	0.51	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	87	68-120	
Dibromofluoromethane	114	80-127	

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



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/04/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0177
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 15 of 33

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	118	80-128	
Toluene-d8	98	80-120	



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3830S-N-17Q2	17-04-0177-6-A	04/04/17 14:13	Aqueous	GC/MS L	04/14/17	04/14/17 19:26	170414L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	2.0	0.80	4.00	
1,1,1-Trichloroethane	ND	2.0	0.80	4.00	
1,1,2,2-Tetrachloroethane	ND	2.0	0.80	4.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2.0	0.96	4.00	
1,1,2-Trichloroethane	ND	2.0	0.80	4.00	
1,1-Dichloroethane	ND	2.0	0.80	4.00	
1,1-Dichloroethene	ND	2.0	1.1	4.00	
1,1-Dichloropropene	ND	2.0	1.2	4.00	
1,2,3-Trichlorobenzene	ND	2.0	0.80	4.00	
1,2,3-Trichloropropane	ND	4.0	1.6	4.00	
1,2,4-Trichlorobenzene	ND	2.0	0.80	4.00	
1,2,4-Trimethylbenzene	ND	2.0	0.80	4.00	
1,2-Dibromo-3-Chloropropane	ND	20	8.0	4.00	
1,2-Dibromoethane	ND	2.0	0.80	4.00	
1,2-Dichlorobenzene	ND	2.0	0.80	4.00	
1,2-Dichloroethane	ND	2.0	0.80	4.00	
1,2-Dichloropropane	ND	2.0	0.80	4.00	
1,3,5-Trimethylbenzene	ND	2.0	0.80	4.00	
1,3-Dichlorobenzene	ND	2.0	1.1	4.00	
1,3-Dichloropropane	ND	4.0	1.6	4.00	
1,4-Dichlorobenzene	ND	2.0	0.80	4.00	
2,2-Dichloropropane	ND	4.0	1.6	4.00	
2-Butanone	ND	20	8.0	4.00	
2-Chlorotoluene	ND	2.0	0.80	4.00	
2-Hexanone	ND	40	16	4.00	
4-Chlorotoluene	ND	2.0	1.4	4.00	
4-Methyl-2-Pentanone	ND	20	8.0	4.00	
Acetone	ND	40	16	4.00	
Benzene	ND	2.0	0.80	4.00	
Bromobenzene	ND	2.0	1.3	4.00	
Bromochloromethane	ND	4.0	1.6	4.00	
Bromodichloromethane	ND	2.0	0.80	4.00	
Bromoform	ND	2.0	0.99	4.00	
Bromomethane	ND	4.0	1.6	4.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	4.0	1.6	4.00	
Carbon Tetrachloride	ND	2.0	0.80	4.00	
Chlorobenzene	ND	2.0	0.80	4.00	
Chloroethane	ND	2.0	1.3	4.00	
Chloroform	1.4	2.0	0.80	4.00	J
Chloromethane	ND	2.0	1.2	4.00	
Dibromochloromethane	ND	2.0	0.80	4.00	
Dibromomethane	ND	2.0	0.80	4.00	
Dichlorodifluoromethane	ND	4.0	1.6	4.00	
Ethylbenzene	ND	2.0	0.80	4.00	
Isopropylbenzene	ND	2.0	0.80	4.00	
Methylene Chloride	ND	4.0	3.2	4.00	
Naphthalene	ND	4.0	1.6	4.00	
Styrene	ND	2.0	0.80	4.00	
Tetrachloroethene	2.9	2.0	0.80	4.00	
Toluene	ND	2.0	0.80	4.00	
t-1,2-Dichloroethene	ND	2.0	0.80	4.00	
Trichloroethene	85	2.0	1.1	4.00	
Trichlorofluoromethane	ND	2.0	0.80	4.00	
Vinyl Acetate	ND	20	8.0	4.00	
Vinyl Chloride	ND	2.0	0.80	4.00	
c-1,3-Dichloropropene	ND	2.0	0.80	4.00	
c-1,2-Dichloroethene	ND	2.0	0.80	4.00	
n-Butylbenzene	ND	2.0	0.80	4.00	
n-Propylbenzene	ND	2.0	0.80	4.00	
o-Xylene	ND	2.0	1.3	4.00	
p-Isopropyltoluene	ND	2.0	0.80	4.00	
sec-Butylbenzene	ND	2.0	0.80	4.00	
t-1,3-Dichloropropene	ND	2.0	0.80	4.00	
tert-Butylbenzene	ND	2.0	0.80	4.00	
p/m-Xylene	ND	2.0	0.80	4.00	
Methyl-t-Butyl Ether (MTBE)	1.6	2.0	0.80	4.00	J
2-Chloroethyl Vinyl Ether	ND	20	17	4.00	
Hexachloro-1,3-Butadiene	ND	8.0	3.2	4.00	
Iodomethane	ND	40	20	4.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	86	68-120			
Dibromofluoromethane	109	80-127			

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





## Analytical Report

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<p>Tetra Tech, Inc. 301 E. Vanderbilt Way, Suite 450 San Bernardino, CA 92408-3562</p> <p>Project: LMC BOU</p>	<p>Date Received: 04/04/17 Work Order: 17-04-0177 Preparation: EPA 5030C Method: EPA 8260B Units: ug/L</p>	<p>Page 18 of 33</p>
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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	114	80-128	
Toluene-d8	101	80-120	




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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3851N-N-17Q2	17-04-0177-7-A	04/04/17 16:37	Aqueous	GC/MS L	04/14/17	04/14/17 19:57	170414L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	0.28	0.50	0.20	1.00	J
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	5.7	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	1.2	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	0.67	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	0.56	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	86	68-120			
Dibromofluoromethane	110	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	116	80-128	
Toluene-d8	100	80-120	

  
Return to Contents

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20170404	17-04-0177-8-A	04/04/17 07:00	Aqueous	GC/MS L	04/14/17	04/14/17 17:24	170414L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	88	68-120			
Dibromofluoromethane	114	80-127			

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	115	80-128	
Toluene-d8	99	80-120	



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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-025-4617	N/A	Aqueous	GC/MS L	04/13/17	04/14/17 00:37	170413L043

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	88	68-120			
Dibromofluoromethane	100	80-127			

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



## Analytical Report

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<p>Tetra Tech, Inc. 301 E. Vanderbilt Way, Suite 450 San Bernardino, CA 92408-3562</p> <p>Project: LMC BOU</p>	<p>Date Received: 04/04/17 Work Order: 17-04-0177 Preparation: EPA 5030C Method: EPA 8260B Units: ug/L</p>	<p>Page 27 of 33</p>
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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	109	80-128	
Toluene-d8	97	80-120	




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





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-025-4618	N/A	Aqueous	GC/MS L	04/14/17	04/14/17 12:40	170414L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	85	68-120			
Dibromofluoromethane	98	80-127			

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



## Analytical Report

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<p>Tetra Tech, Inc. 301 E. Vanderbilt Way, Suite 450 San Bernardino, CA 92408-3562</p> <p>Project: LMC BOU</p>	<p>Date Received: 04/04/17 Work Order: 17-04-0177 Preparation: EPA 5030C Method: EPA 8260B Units: ug/L</p>	<p>Page 30 of 33</p>
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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	99	80-128	
Toluene-d8	95	80-120	




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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-025-4622	N/A	Aqueous	GC/MS L	04/17/17	04/17/17 11:00	170417L008

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

Page 32 of 33

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	86	68-120			
Dibromofluoromethane	104	80-127			

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





## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/04/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0177
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 33 of 33

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	101	80-128	
Toluene-d8	97	80-120	




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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-CW12-N-17Q2	17-04-0177-1-F	04/04/17 15:00	Aqueous	GC/MS M	04/07/17	04/08/17 01:35	170407L045

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	100	67-133	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3860K-N-17Q2	17-04-0177-2-H	04/04/17 11:36	Aqueous	GC/MS M	04/08/17	04/08/17 14:40	170408L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	32	2.5	1.2	500	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	90	67-133	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B1-CW17-N-17Q2	17-04-0177-3-G	04/04/17 08:31	Aqueous	GC/MS M	04/10/17	04/10/17 12:41	170410L035

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	89	67-133	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3831Q-N-17Q2	17-04-0177-4-H	04/04/17 10:14	Aqueous	GC/MS M	04/08/17	04/08/17 14:10	170408L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.011	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	101	67-133	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3830Q-N-17Q2	17-04-0177-5-H	04/04/17 12:29	Aqueous	GC/MS M	04/08/17	04/08/17 17:11	170408L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	107	67-133	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3830S-N-17Q2	17-04-0177-6-H	04/04/17 14:13	Aqueous	GC/MS M	04/08/17	04/08/17 17:41	170408L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	96	67-133	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3851N-N-17Q2	17-04-0177-7-H	04/04/17 16:37	Aqueous	GC/MS M	04/08/17	04/08/17 18:11	170408L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	98	67-133	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20170404	17-04-0177-8-B	04/04/17 07:00	Aqueous	GC/MS M	04/08/17	04/08/17 12:41	170408L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	98	67-133	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-118-475	N/A	Aqueous	GC/MS M	04/07/17	04/07/17 22:36	170407L045

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	102	67-133	

Method Blank	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-118-476	N/A	Aqueous	GC/MS M	04/08/17	04/08/17 11:41	170408L018

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	90	67-133	

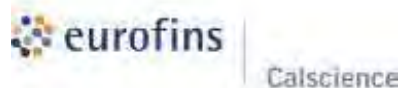
Method Blank	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-118-478	N/A	Aqueous	GC/MS M	04/10/17	04/10/17 12:11	170410L035

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

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	95	67-133	

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



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
3851N-N-17Q2	Sample	Aqueous	IC 16	N/A	04/04/17 23:18	170404S01
3851N-N-17Q2	Matrix Spike	Aqueous	IC 16	N/A	04/04/17 23:29	170404S01
3851N-N-17Q2	Matrix Spike Duplicate	Aqueous	IC 16	N/A	04/04/17 23:40	170404S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium, Hexavalent	1.220	10.00	11.60	104	11.81	106	85-121	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
17-04-0732-1	Sample	Aqueous	ICP/MS 05	04/13/17	04/14/17 22:12	170413SA3				
17-04-0732-1	Matrix Spike	Aqueous	ICP/MS 05	04/13/17	04/14/17 21:57	170413SA3				
17-04-0732-1	Matrix Spike Duplicate	Aqueous	ICP/MS 05	04/13/17	04/14/17 22:01	170413SA3				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium	0.01372	0.1000	0.1169	103	0.1110	97	73-133	5	0-11	



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0178-3	Sample	Aqueous	GC/MS DDD	04/08/17	04/08/17 17:35	170408S10
17-04-0178-3	Matrix Spike	Aqueous	GC/MS DDD	04/08/17	04/08/17 16:47	170408S10
17-04-0178-3	Matrix Spike Duplicate	Aqueous	GC/MS DDD	04/08/17	04/08/17 17:03	170408S10

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,4-Dioxane	ND	20.00	18.78	94	19.14	96	50-130	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-1-CW12-N-17Q2	Sample	Aqueous	GC/MS L	04/13/17	04/14/17 01:08	170413S027
B-1-CW12-N-17Q2	Matrix Spike	Aqueous	GC/MS L	04/13/17	04/14/17 02:09	170413S027
B-1-CW12-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS L	04/13/17	04/14/17 02:40	170413S027

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloroethene	1.879	10.00	9.512	76	11.28	94	66-126	17	0-20	
1,2-Dibromoethane	ND	10.00	9.253	93	9.618	96	75-126	4	0-20	
1,2-Dichlorobenzene	ND	10.00	9.105	91	9.313	93	75-125	2	0-20	
1,2-Dichloroethane	ND	10.00	9.996	100	9.420	94	75-127	6	0-20	
Benzene	ND	10.00	9.667	97	9.322	93	75-125	4	0-20	
Carbon Tetrachloride	ND	10.00	9.433	94	9.899	99	69-135	5	0-20	
Chlorobenzene	ND	10.00	8.833	88	9.187	92	75-125	4	0-20	
Ethylbenzene	ND	10.00	9.192	92	9.538	95	75-125	4	0-20	
Toluene	ND	10.00	9.113	91	9.343	93	75-125	2	0-20	
Trichloroethene	13.54	10.00	21.27	77	22.03	85	75-125	4	0-20	
Vinyl Chloride	ND	10.00	10.77	108	11.59	116	52-142	7	0-20	
o-Xylene	ND	10.00	9.426	94	9.768	98	75-127	4	0-20	
p/m-Xylene	ND	20.00	18.26	91	19.14	96	75-125	5	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	8.774	88	8.967	90	71-131	2	0-20	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0719-2	Sample	Aqueous	GC/MS L	04/14/17	04/14/17 14:20	170414S008
17-04-0719-2	Matrix Spike	Aqueous	GC/MS L	04/14/17	04/14/17 14:51	170414S008
17-04-0719-2	Matrix Spike Duplicate	Aqueous	GC/MS L	04/14/17	04/14/17 15:21	170414S008

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloroethene	11.26	80.00	76.22	81	75.22	80	66-126	1	0-20	
1,2-Dibromoethane	ND	80.00	71.28	89	72.41	91	75-126	2	0-20	
1,2-Dichlorobenzene	ND	80.00	68.63	86	70.62	88	75-125	3	0-20	
1,2-Dichloroethane	ND	80.00	68.47	86	69.62	87	75-127	2	0-20	
Benzene	ND	80.00	69.04	86	68.75	86	75-125	0	0-20	
Carbon Tetrachloride	ND	80.00	72.94	91	74.00	92	69-135	1	0-20	
Chlorobenzene	ND	80.00	71.82	90	71.80	90	75-125	0	0-20	
Ethylbenzene	ND	80.00	73.13	91	71.87	90	75-125	2	0-20	
Toluene	ND	80.00	68.98	86	69.76	87	75-125	1	0-20	
Trichloroethene	ND	80.00	68.40	85	67.92	85	75-125	1	0-20	
Vinyl Chloride	5.784	80.00	78.97	91	75.75	87	52-142	4	0-20	
o-Xylene	ND	80.00	73.69	92	73.36	92	75-127	0	0-20	
p/m-Xylene	ND	160.0	147.5	92	144.5	90	75-125	2	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	80.00	68.22	85	65.20	81	71-131	5	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0812-10	Sample	Aqueous	GC/MS L	04/17/17	04/17/17 11:38	170417S004
17-04-0812-10	Matrix Spike	Aqueous	GC/MS L	04/17/17	04/17/17 12:09	170417S004
17-04-0812-10	Matrix Spike Duplicate	Aqueous	GC/MS L	04/17/17	04/17/17 12:40	170417S004

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloroethene	ND	40.00	40.89	102	37.31	93	66-126	9	0-20	
1,2-Dibromoethane	ND	40.00	40.09	100	38.95	97	75-126	3	0-20	
1,2-Dichlorobenzene	ND	40.00	39.39	98	38.17	95	75-125	3	0-20	
1,2-Dichloroethane	ND	40.00	39.67	99	36.93	92	75-127	7	0-20	
Benzene	ND	40.00	42.71	107	39.64	99	75-125	7	0-20	
Carbon Tetrachloride	ND	40.00	48.18	120	45.49	114	69-135	6	0-20	
Chlorobenzene	ND	40.00	41.49	104	38.79	97	75-125	7	0-20	
Ethylbenzene	ND	40.00	44.13	110	41.07	103	75-125	7	0-20	
Toluene	ND	40.00	42.59	106	39.56	99	75-125	7	0-20	
Trichloroethene	ND	40.00	42.88	107	39.37	98	75-125	9	0-20	
Vinyl Chloride	129.4	40.00	173.5	110	175.2	115	52-142	1	0-20	
o-Xylene	ND	40.00	44.32	111	40.85	102	75-127	8	0-20	
p/m-Xylene	ND	80.00	88.99	111	82.77	103	75-125	7	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	40.00	35.80	90	33.94	85	71-131	5	0-20	

RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0173-3	Sample	Aqueous	GC/MS M	04/07/17	04/07/17 23:06	170407S025
17-04-0173-3	Matrix Spike	Aqueous	GC/MS M	04/07/17	04/08/17 00:06	170407S025
17-04-0173-3	Matrix Spike Duplicate	Aqueous	GC/MS M	04/07/17	04/08/17 00:36	170407S025

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	ND	0.02000	0.02440	122	0.02370	118	72-132	3	0-20	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0186-1	Sample	Aqueous	GC/MS M	04/08/17	04/08/17 13:40	170408S010
17-04-0186-1	Matrix Spike	Aqueous	GC/MS M	04/08/17	04/08/17 15:40	170408S010
17-04-0186-1	Matrix Spike Duplicate	Aqueous	GC/MS M	04/08/17	04/08/17 16:10	170408S010

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	ND	0.02000	0.02770	138	0.03130	156	70-130	12	0-20	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0322-10	Sample	Aqueous	GC/MS M	04/10/17	04/10/17 13:40	170410S020
17-04-0322-10	Matrix Spike	Aqueous	GC/MS M	04/10/17	04/10/17 15:10	170410S020
17-04-0322-10	Matrix Spike Duplicate	Aqueous	GC/MS M	04/10/17	04/10/17 15:40	170410S020

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	ND	0.02000	0.01940	97	0.02180	109	72-132	12	0-20	



## Quality Control - PDS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDS Batch Number
17-04-0732-1	Sample	Aqueous	ICP/MS 05	04/13/17 00:00	04/14/17 22:12	170413SA3
17-04-0732-1	PDS	Aqueous	ICP/MS 05	04/13/17 00:00	04/14/17 22:05	170413SA3

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>PDS Conc.</u>	<u>PDS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium	0.01372	0.1000	0.1189	105	75-125	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-14-567-230</b>	<b>LCS</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/04/17 18:48</b>	<b>170404L01</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	10.00	10.03	100	95-107	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/04/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0177
San Bernardino, CA 92408-3562	Preparation:	EPA 3020A Total
	Method:	EPA 6020
Project: LMC BOU		Page 2 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>096-06-003-5524</b>	<b>LCS</b>	<b>Aqueous</b>	<b>ICP/MS 05</b>	<b>04/13/17</b>	<b>04/14/17 21:35</b>	<b>170413LA3</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium		0.1000	0.1005	101	80-120	



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-16-216-1001</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/08/17</b>	<b>04/08/17 16:32</b>	<b>170408L10</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,4-Dioxane	20.00	18.80	94	50-130	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS/LCSD

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
099-10-025-4617	LCS	Aqueous	GC/MS L	04/13/17	04/13/17 22:04	170413L043				
099-10-025-4617	LCSD	Aqueous	GC/MS L	04/13/17	04/13/17 22:34	170413L043				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
1,1-Dichloroethene	10.00	10.07	101	10.22	102	77-120	70-127	2	0-26	
1,2-Dibromoethane	10.00	10.28	103	10.31	103	80-120	73-127	0	0-32	
1,2-Dichlorobenzene	10.00	9.886	99	10.02	100	80-120	73-127	1	0-30	
1,2-Dichloroethane	10.00	10.05	101	10.03	100	80-122	73-129	0	0-23	
Benzene	10.00	10.28	103	10.13	101	80-120	73-127	1	0-22	
Carbon Tetrachloride	10.00	10.46	105	10.37	104	80-129	72-137	1	0-36	
Chlorobenzene	10.00	10.24	102	10.13	101	80-120	73-127	1	0-29	
Ethylbenzene	10.00	10.57	106	10.59	106	80-120	73-127	0	0-25	
Toluene	10.00	10.37	104	10.12	101	80-120	73-127	2	0-28	
Trichloroethene	10.00	10.30	103	9.939	99	80-120	73-127	4	0-25	
Vinyl Chloride	10.00	11.06	111	10.41	104	63-135	51-147	6	0-30	
o-Xylene	10.00	10.81	108	10.83	108	80-120	73-127	0	0-30	
p/m-Xylene	20.00	21.49	107	21.26	106	80-120	73-127	1	0-30	
Methyl-t-Butyl Ether (MTBE)	10.00	9.519	95	9.337	93	75-123	67-131	2	0-27	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-10-025-4618</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>04/14/17</b>	<b>04/14/17 10:29</b>	<b>170414L018</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
1,1-Dichloroethene		10.00	8.672	87	77-120	70-127	
1,2-Dibromoethane		10.00	10.16	102	80-120	73-127	
1,2-Dichlorobenzene		10.00	9.625	96	80-120	73-127	
1,2-Dichloroethane		10.00	9.608	96	80-122	73-129	
Benzene		10.00	9.369	94	80-120	73-127	
Carbon Tetrachloride		10.00	9.910	99	80-129	72-137	
Chlorobenzene		10.00	9.337	93	80-120	73-127	
Ethylbenzene		10.00	9.554	96	80-120	73-127	
Toluene		10.00	9.437	94	80-120	73-127	
Trichloroethene		10.00	9.128	91	80-120	73-127	
Vinyl Chloride		10.00	9.740	97	63-135	51-147	
o-Xylene		10.00	9.880	99	80-120	73-127	
p/m-Xylene		20.00	19.30	96	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	9.550	95	75-123	67-131	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-10-025-4622</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>04/17/17</b>	<b>04/17/17 10:08</b>	<b>170417L008</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
1,1-Dichloroethene		10.00	8.719	87	77-120	70-127	
1,2-Dibromoethane		10.00	10.64	106	80-120	73-127	
1,2-Dichlorobenzene		10.00	10.17	102	80-120	73-127	
1,2-Dichloroethane		10.00	9.858	99	80-122	73-129	
Benzene		10.00	10.16	102	80-120	73-127	
Carbon Tetrachloride		10.00	10.82	108	80-129	72-137	
Chlorobenzene		10.00	10.40	104	80-120	73-127	
Ethylbenzene		10.00	10.70	107	80-120	73-127	
Toluene		10.00	10.38	104	80-120	73-127	
Trichloroethene		10.00	10.25	103	80-120	73-127	
Vinyl Chloride		10.00	10.36	104	63-135	51-147	
o-Xylene		10.00	10.96	110	80-120	73-127	
p/m-Xylene		20.00	21.84	109	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	8.641	86	75-123	67-131	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/04/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0177
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B SIM
Project: LMC BOU		Page 7 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-118-475</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>04/07/17</b>	<b>04/07/17 21:07</b>	<b>170407L045</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,2,3-Trichloropropane		0.02000	0.02320	116	72-132	



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-118-476	LCS	Aqueous	GC/MS M	04/08/17	04/08/17 10:42	170408L018

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
1,2,3-Trichloropropane	0.02000	0.02380	119	72-132	

  
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RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/04/17  
Work Order: 17-04-0177  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
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Project: LMC BOU

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-118-478	LCS	Aqueous	GC/MS M	04/10/17	04/10/17 11:04	170410L035

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
1,2,3-Trichloropropane	0.02000	0.02250	112	72-132	



RPD: Relative Percent Difference. CL: Control Limits



## Sample Analysis Summary Report

Work Order: 17-04-0177

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 218.6	N/A	1065	IC 16	1
EPA 6020	EPA 3020A Total	598	ICP/MS 05	1
EPA 8260B	EPA 5030C	316	GC/MS L	2
EPA 8260B	EPA 5030C	823	GC/MS L	2
EPA 8260B SIM	EPA 5030C	486	GC/MS M	2
EPA 8270C (M) Isotope Dilution	EPA 3510C	928	GC/MS DDD	1



Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

## Glossary of Terms and Qualifiers

Work Order: 17-04-0177

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.





**SAMPLE RECEIPT CHECKLIST**

COOLER 1 OF 1

CLIENT: Tetra Tech

DATE: 04/4/2017

**TEMPERATURE:** (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)  
 Thermometer ID: SC3B (CF: 0.0°C); Temperature (w/o CF): 2.0 °C (w/ CF): 2.0 °C;  Blank  Sample  
 Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)  
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling  
 Sample(s) received at ambient temperature; placed on ice for transport by courier  
 Ambient Temperature:  Air  Filter

Checked by: 1091

**CUSTODY SEAL:**

Cooler	<input type="checkbox"/> Present and Intact	<input type="checkbox"/> Present but Not Intact	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/> N/A	Checked by: <u>1091</u>
Sample(s)	<input type="checkbox"/> Present and Intact	<input type="checkbox"/> Present but Not Intact	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/> N/A	Checked by: <u>1017</u>

**SAMPLE CONDITION:**

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers <input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Container(s) for certain analysis free of headspace .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:** (Trip Blank Lot Number: 170328A)

Aqueous:  VOA  VOA<sub>n</sub>  VOAna<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBh  125AGBp  125PB  
 125PBz<sub>znna</sub>  250AGB  250CGB  250CGBs  250PB  250PBn  500AGB  500AGJ  500AGJs  
 500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  EnCores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_

Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (\_\_\_\_\_)  \_\_\_\_\_  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 1017  
 s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, znna = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: 688

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## Erick Ovalle

---

**From:** Calder, Vanessa <Vanessa.Calder@tetrattech.com>  
**Sent:** Thursday, April 06, 2017 5:22 PM  
**To:** Erick Ovalle  
**Subject:** Re: 04/04/2017 COC

Hi Erick,

In regards to lines 4,5 and 6 of the COC dated 04/04/2017. Please use the sample id's found on the bottles sample labels. The id's listed on the COC are incomplete.

For example, line 4 lists sample as 3831Q. This should be 3831Q-N-17Q2. The following lines 5 and 6 should be labeled following the same pattern.

Thank you for catching my mistake, apologies for the inconvenience.

Thank you,  
Vanessa

Notify us [here](#) to report this email as spam.



**WORK ORDER NUMBER: 17-04-0067**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Tetra Tech, Inc.

**Client Project Name:** LMC BOU

**Attention:** Robert Sabater  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Approved for release on 04/19/2017 by:  
Vikas Patel  
Project Manager

ResultLink ▶

Email your PM ▶

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



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 Work Order Number: 17-04-0067

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## Work Order Narrative

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Work Order: 17-04-0067

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### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 04/03/17. They were assigned to Work Order 17-04-0067.

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

### **Holding Times:**

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

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

### **Quality Control:**

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

### **Subcontractor Information:**

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

### **Additional Comments:**

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

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



## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-0067  
Project Name: LMC BOU  
Received: 04/03/17

Attn: Robert Sabater

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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
3872M-N-17Q2 (17-04-0067-1)						
Chromium, Hexavalent	4.4		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00487		0.00100	mg/L	EPA 6020	EPA 3020A Total
Acetone	4.7	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	3.9		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	2.0		0.50	ug/L	EPA 8260B	EPA 5030C
3872L-N-17Q2 (17-04-0067-2)						
Chromium, Hexavalent	4.4		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00590		0.00100	mg/L	EPA 6020	EPA 3020A Total
Chloroform	0.59		0.50	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	0.23	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	300		10	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	240		10	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.095		0.0050	ug/L	EPA 8260B SIM	EPA 5030C
3872N-N-17Q2 (17-04-0067-3)						
Chromium, Hexavalent	6.7		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00788		0.00100	mg/L	EPA 6020	EPA 3020A Total
Acetone	9.3	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.70		0.50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	310		10	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	120		10	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.31		0.025	ug/L	EPA 8260B SIM	EPA 5030C
3852N-N-17Q2 (17-04-0067-4)						
Chromium, Hexavalent	2.5		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00322		0.00100	mg/L	EPA 6020	EPA 3020A Total
Acetone	7.4	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	3.8		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	2.6		0.50	ug/L	EPA 8260B	EPA 5030C

\* MDL is shown



## Detections Summary

Client: Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Work Order: 17-04-0067  
Project Name: LMC BOU  
Received: 04/03/17

Attn: Robert Sabater

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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
3852M-N-17Q2 (17-04-0067-5)						
Chromium, Hexavalent	0.63		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00153		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloroethane	0.25	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	0.69		0.50	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	1.0		0.50	ug/L	EPA 8260B	EPA 5030C
Acetone	5.4	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	1.2		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	1.5		0.50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	8.8		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	12		0.50	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.21		0.025	ug/L	EPA 8260B SIM	EPA 5030C
3852M-FD-17Q2 (17-04-0067-6)						
Chromium, Hexavalent	0.60		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00333		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1,2-Trichloroethane	0.26	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	0.70		0.50	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	1.0		0.50	ug/L	EPA 8260B	EPA 5030C
Acetone	9.2	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	1.2		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	1.5		0.50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	8.6		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	12		0.50	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	0.22	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.20		0.025	ug/L	EPA 8260B SIM	EPA 5030C
3851M-N-17Q2 (17-04-0067-7)						
Chromium, Hexavalent	1.9		0.020	ug/L	EPA 218.6	N/A
Chromium	0.00303		0.00100	mg/L	EPA 6020	EPA 3020A Total
1,1-Dichloroethene	0.57		0.50	ug/L	EPA 8260B	EPA 5030C
Acetone	9.2	J	4.0*	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	0.53		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	0.62		0.50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	2.2		0.50	ug/L	EPA 8260B	EPA 5030C
Toluene	0.35	J	0.20*	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	12		0.50	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	0.24	J	0.20*	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	0.057		0.0050	ug/L	EPA 8260B SIM	EPA 5030C
LTB-20170403 (17-04-0067-8)						
Acetone	11		10	ug/L	EPA 8260B	EPA 5030C

\* MDL is shown



## Detections Summary

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Client: Tetra Tech, Inc.	Work Order: 17-04-0067
301 E. Vanderbilt Way, Suite 450	Project Name: LMC BOU
San Bernardino, CA 92408-3562	Received: 04/03/17

Attn: Robert Sabater

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**Client SampleID**

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
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Subcontracted analyses, if any, are not included in this summary.





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: N/A  
Method: EPA 218.6  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872M-N-17Q2	17-04-0067-1-K	04/03/17 15:32	Aqueous	IC 16	N/A	04/03/17 21:20	170403L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	4.4	0.020	0.0099	1.00	

3872L-N-17Q2	17-04-0067-2-K	04/03/17 13:48	Aqueous	IC 16	N/A	04/03/17 21:31	170403L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	4.4	0.020	0.0099	1.00	

3872N-N-17Q2	17-04-0067-3-K	04/03/17 11:51	Aqueous	IC 16	N/A	04/03/17 21:43	170403L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	6.7	0.020	0.0099	1.00	

3852N-N-17Q2	17-04-0067-4-K	04/03/17 11:58	Aqueous	IC 16	N/A	04/03/17 21:54	170403L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	2.5	0.020	0.0099	1.00	

3852M-N-17Q2	17-04-0067-5-K	04/03/17 13:29	Aqueous	IC 16	N/A	04/03/17 22:05	170403L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	0.63	0.020	0.0099	1.00	

3852M-FD-17Q2	17-04-0067-6-K	04/03/17 13:29	Aqueous	IC 16	N/A	04/03/17 22:16	170403L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	0.60	0.020	0.0099	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: N/A  
Method: EPA 218.6  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3851M-N-17Q2	17-04-0067-7-K	04/03/17 15:29	Aqueous	IC 16	N/A	04/03/17 22:28	170403L01

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	1.9	0.020	0.0099	1.00	

Method Blank	099-14-567-229	N/A	Aqueous	IC 16	N/A	04/03/17 15:43	170403L01
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium, Hexavalent	ND	0.020	0.0099	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 3020A Total  
Method: EPA 6020  
Units: mg/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872M-N-17Q2	17-04-0067-1-L	04/03/17 15:32	Aqueous	ICP/MS 05	04/13/17	04/14/17 23:55	170413LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00487	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872L-N-17Q2	17-04-0067-2-L	04/03/17 13:48	Aqueous	ICP/MS 05	04/13/17	04/15/17 00:10	170413LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00590	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872N-N-17Q2	17-04-0067-3-L	04/03/17 11:51	Aqueous	ICP/MS 05	04/13/17	04/15/17 00:14	170413LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00788	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852N-N-17Q2	17-04-0067-4-L	04/03/17 11:58	Aqueous	ICP/MS 05	04/13/17	04/15/17 00:18	170413LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00322	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852M-N-17Q2	17-04-0067-5-L	04/03/17 13:29	Aqueous	ICP/MS 05	04/13/17	04/15/17 00:21	170413LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00153	0.00100	0.000402	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852M-FD-17Q2	17-04-0067-6-L	04/03/17 13:29	Aqueous	ICP/MS 05	04/13/17	04/15/17 00:25	170413LA3

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

Parameter	Result	RL	MDL	DF	Qualifiers
Chromium	0.00333	0.00100	0.000402	1.00	

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



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 3020A Total  
Method: EPA 6020  
Units: mg/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3851M-N-17Q2	17-04-0067-7-L	04/03/17 15:29	Aqueous	ICP/MS 05	04/13/17	04/15/17 00:29	170413LA3

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Chromium	0.00303	0.00100	0.000402	1.00	

Method Blank	096-06-003-5524	N/A	Aqueous	ICP/MS 05	04/13/17	04/14/17 21:31	170413LA3
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Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Chromium	ND	0.00100	0.000402	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872M-N-17Q2	17-04-0067-1-M	04/03/17 15:32	Aqueous	GC/MS DDD	04/06/17	04/07/17 07:50	170406L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	86	56-123	
1,4-Dioxane-d8(IDS-IS)	42	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872L-N-17Q2	17-04-0067-2-M	04/03/17 13:48	Aqueous	GC/MS DDD	04/06/17	04/07/17 08:06	170406L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	90	56-123	
1,4-Dioxane-d8(IDS-IS)	40	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872N-N-17Q2	17-04-0067-3-M	04/03/17 11:51	Aqueous	GC/MS DDD	04/06/17	04/07/17 08:22	170406L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	90	56-123	
1,4-Dioxane-d8(IDS-IS)	44	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852N-N-17Q2	17-04-0067-4-M	04/03/17 11:58	Aqueous	GC/MS DDD	04/06/17	04/07/17 08:38	170406L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	88	56-123	
1,4-Dioxane-d8(IDS-IS)	43	30-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852M-N-17Q2	17-04-0067-5-M	04/03/17 13:29	Aqueous	GC/MS DDD	04/06/17	04/07/17 08:54	170406L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	89	56-123	
1,4-Dioxane-d8(IDS-IS)	40	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852M-FD-17Q2	17-04-0067-6-M	04/03/17 13:29	Aqueous	GC/MS DDD	04/06/17	04/07/17 09:10	170406L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	89	56-123	
1,4-Dioxane-d8(IDS-IS)	40	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3851M-N-17Q2	17-04-0067-7-M	04/03/17 15:29	Aqueous	GC/MS DDD	04/06/17	04/07/17 09:26	170406L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	88	56-123	
1,4-Dioxane-d8(IDS-IS)	37	30-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-216-996	N/A	Aqueous	GC/MS DDD	04/06/17	04/07/17 06:15	170406L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,4-Dioxane	ND	1.0	0.28	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Nitrobenzene-d5	105	56-123	
1,4-Dioxane-d8(IDS-IS)	44	30-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872M-N-17Q2	17-04-0067-1-A	04/03/17 15:32	Aqueous	GC/MS L	04/04/17	04/05/17 03:50	170404L041

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	4.7	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	3.9	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	2.0	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	85	68-120			
Dibromofluoromethane	116	80-127			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	118	80-128	
Toluene-d8	95	80-120	



RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872L-N-17Q2	17-04-0067-2-A	04/03/17 13:48	Aqueous	GC/MS L	04/04/17	04/05/17 04:21	170404L041

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.59	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	0.23	0.50	0.20	1.00	J
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	84	68-120			
Dibromofluoromethane	118	80-127			
1,2-Dichloroethane-d4	115	80-128			
Toluene-d8	108	80-120			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872L-N-17Q2	17-04-0067-2-B	04/03/17 13:48	Aqueous	GC/MS L	04/06/17	04/06/17 14:04	170406L008

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Tetrachloroethene	300	10	4.0	20.0	
Trichloroethene	240	10	5.7	20.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	83	68-120	
Dibromofluoromethane	120	80-127	
1,2-Dichloroethane-d4	114	80-128	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872N-N-17Q2	17-04-0067-3-A	04/03/17 11:51	Aqueous	GC/MS L	04/04/17	04/05/17 04:52	170404L041

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	9.3	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.70	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	83	68-120			
Dibromofluoromethane	119	80-127			
1,2-Dichloroethane-d4	116	80-128			
Toluene-d8	106	80-120			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872N-N-17Q2	17-04-0067-3-B	04/03/17 11:51	Aqueous	GC/MS L	04/06/17	04/06/17 14:35	170406L008

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Tetrachloroethene	310	10	4.0	20.0	
Trichloroethene	120	10	5.7	20.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	85	68-120	
Dibromofluoromethane	120	80-127	
1,2-Dichloroethane-d4	117	80-128	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852N-N-17Q2	17-04-0067-4-A	04/03/17 11:58	Aqueous	GC/MS L	04/04/17	04/05/17 05:22	170404L041

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	7.4	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	3.8	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	2.6	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	84	68-120			
Dibromofluoromethane	118	80-127			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/03/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0067
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 12 of 30

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	117	80-128	
Toluene-d8	100	80-120	




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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852M-N-17Q2	17-04-0067-5-B	04/03/17 13:29	Aqueous	GC/MS L	04/06/17	04/06/17 16:07	170406L008

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	0.25	0.50	0.20	1.00	J
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	0.69	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	1.0	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	5.4	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	1.2	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	1.5	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	8.8	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	12	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	84	68-120			
Dibromofluoromethane	117	80-127			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/03/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0067
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 15 of 30

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	116	80-128	
Toluene-d8	101	80-120	




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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852M-FD-17Q2	17-04-0067-6-A	04/03/17 13:29	Aqueous	GC/MS L	04/04/17	04/05/17 06:24	170404L041

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	0.26	0.50	0.20	1.00	J
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	0.70	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	1.0	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	9.2	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	1.2	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	1.5	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	8.6	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	12	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	0.22	0.50	0.20	1.00	J
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	85	68-120			
Dibromofluoromethane	120	80-127			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	122	80-128	
Toluene-d8	92	80-120	



RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3851M-N-17Q2	17-04-0067-7-A	04/03/17 15:29	Aqueous	GC/MS L	04/04/17	04/05/17 06:54	170404L041

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	0.57	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	9.2	10	4.0	1.00	J
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	0.53	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	0.62	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	2.2	0.50	0.20	1.00	
Toluene	0.35	0.50	0.20	1.00	J
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	12	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	0.24	0.50	0.20	1.00	J
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	84	68-120			
Dibromofluoromethane	116	80-127			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/03/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0067
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 21 of 30

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	115	80-128	
Toluene-d8	101	80-120	





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20170403	17-04-0067-8-A	04/03/17 08:00	Aqueous	GC/MS L	04/04/17	04/05/17 03:20	170404L041

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	11	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	84	68-120			
Dibromofluoromethane	113	80-127			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/03/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0067
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 24 of 30

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	116	80-128	
Toluene-d8	100	80-120	




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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-025-4606	N/A	Aqueous	GC/MS L	04/04/17	04/04/17 22:44	170404L041

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
Naphthalene	ND	1.0	0.40	1.00	
Styrene	ND	0.50	0.20	1.00	
Tetrachloroethene	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
Iodomethane	ND	10	5.0	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	84	68-120			
Dibromofluoromethane	107	80-127			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/03/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0067
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 27 of 30

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	113	80-128	
Toluene-d8	98	80-120	




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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-10-025-4608	N/A	Aqueous	GC/MS L	04/06/17	04/06/17 09:56	170406L008

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Tetrachloroethene	ND	0.50	0.20	1.00	
Trichloroethene	ND	0.50	0.29	1.00	
Acetone	ND	10	4.0	1.00	
Benzene	ND	0.50	0.20	1.00	
Bromobenzene	ND	0.50	0.32	1.00	
Bromochloromethane	ND	1.0	0.40	1.00	
Bromodichloromethane	ND	0.50	0.20	1.00	
Bromoform	ND	0.50	0.25	1.00	
Bromomethane	ND	1.0	0.40	1.00	
2-Butanone	ND	5.0	2.0	1.00	
n-Butylbenzene	ND	0.50	0.20	1.00	
sec-Butylbenzene	ND	0.50	0.20	1.00	
tert-Butylbenzene	ND	0.50	0.20	1.00	
Carbon Disulfide	ND	1.0	0.40	1.00	
Carbon Tetrachloride	ND	0.50	0.20	1.00	
Chlorobenzene	ND	0.50	0.20	1.00	
Chloroethane	ND	0.50	0.32	1.00	
2-Chloroethyl Vinyl Ether	ND	5.0	4.2	1.00	
Chloroform	ND	0.50	0.20	1.00	
Chloromethane	ND	0.50	0.29	1.00	
2-Chlorotoluene	ND	0.50	0.20	1.00	
4-Chlorotoluene	ND	0.50	0.36	1.00	
Dibromochloromethane	ND	0.50	0.20	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	2.0	1.00	
1,2-Dibromoethane	ND	0.50	0.20	1.00	
Dibromomethane	ND	0.50	0.20	1.00	
1,2-Dichlorobenzene	ND	0.50	0.20	1.00	
1,3-Dichlorobenzene	ND	0.50	0.28	1.00	
1,4-Dichlorobenzene	ND	0.50	0.20	1.00	
Dichlorodifluoromethane	ND	1.0	0.40	1.00	
1,1-Dichloroethane	ND	0.50	0.20	1.00	
1,2-Dichloroethane	ND	0.50	0.20	1.00	
1,1-Dichloroethene	ND	0.50	0.28	1.00	
c-1,2-Dichloroethene	ND	0.50	0.20	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: LMC BOU

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
t-1,2-Dichloroethene	ND	0.50	0.20	1.00	
1,2-Dichloropropane	ND	0.50	0.20	1.00	
1,3-Dichloropropane	ND	1.0	0.40	1.00	
2,2-Dichloropropane	ND	1.0	0.40	1.00	
1,1-Dichloropropene	ND	0.50	0.30	1.00	
c-1,3-Dichloropropene	ND	0.50	0.20	1.00	
t-1,3-Dichloropropene	ND	0.50	0.20	1.00	
Ethylbenzene	ND	0.50	0.20	1.00	
2-Hexanone	ND	10	4.0	1.00	
Isopropylbenzene	ND	0.50	0.20	1.00	
p-Isopropyltoluene	ND	0.50	0.20	1.00	
Methylene Chloride	ND	1.0	0.80	1.00	
4-Methyl-2-Pentanone	ND	5.0	2.0	1.00	
Naphthalene	ND	1.0	0.40	1.00	
n-Propylbenzene	ND	0.50	0.20	1.00	
Styrene	ND	0.50	0.20	1.00	
1,1,1,2-Tetrachloroethane	ND	0.50	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	0.50	0.20	1.00	
Toluene	ND	0.50	0.20	1.00	
1,2,3-Trichlorobenzene	ND	0.50	0.20	1.00	
1,2,4-Trichlorobenzene	ND	0.50	0.20	1.00	
1,1,1-Trichloroethane	ND	0.50	0.20	1.00	
Hexachloro-1,3-Butadiene	ND	2.0	0.80	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	0.24	1.00	
1,1,2-Trichloroethane	ND	0.50	0.20	1.00	
Iodomethane	ND	10	5.0	1.00	
Trichlorofluoromethane	ND	0.50	0.20	1.00	
1,2,3-Trichloropropane	ND	1.0	0.40	1.00	
1,2,4-Trimethylbenzene	ND	0.50	0.20	1.00	
1,3,5-Trimethylbenzene	ND	0.50	0.20	1.00	
Vinyl Acetate	ND	5.0	2.0	1.00	
Vinyl Chloride	ND	0.50	0.20	1.00	
p/m-Xylene	ND	0.50	0.20	1.00	
o-Xylene	ND	0.50	0.32	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	86	68-120			
Dibromofluoromethane	106	80-127			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

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Tetra Tech, Inc.	Date Received:	04/03/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0067
San Bernardino, CA 92408-3562	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: LMC BOU Page 30 of 30

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<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	103	80-128	
Toluene-d8	97	80-120	



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872M-N-17Q2	17-04-0067-1-F	04/03/17 15:32	Aqueous	GC/MS M	04/04/17	04/04/17 16:51	170404L035

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	101	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872L-N-17Q2	17-04-0067-2-F	04/03/17 13:48	Aqueous	GC/MS M	04/04/17	04/04/17 19:51	170404L035

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.095	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	98	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3872N-N-17Q2	17-04-0067-3-H	04/03/17 11:51	Aqueous	GC/MS M	04/06/17	04/06/17 15:52	170406L019

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.31	0.025	0.012	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	107	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852N-N-17Q2	17-04-0067-4-G	04/03/17 11:58	Aqueous	GC/MS M	04/08/17	04/08/17 12:11	170408L018

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	109	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852M-N-17Q2	17-04-0067-5-F	04/03/17 13:29	Aqueous	GC/MS M	04/06/17	04/06/17 16:52	170406L019

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.21	0.025	0.012	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	92	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3852M-FD-17Q2	17-04-0067-6-F	04/03/17 13:29	Aqueous	GC/MS M	04/06/17	04/06/17 17:22	170406L019

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.20	0.025	0.012	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	108	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
3851M-N-17Q2	17-04-0067-7-F	04/03/17 15:29	Aqueous	GC/MS M	04/06/17	04/06/17 17:52	170406L019

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	0.057	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	97	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LTB-20170403	17-04-0067-8-B	04/03/17 08:00	Aqueous	GC/MS M	04/06/17	04/06/17 14:52	170406L019

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	109	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
Units: ug/L

Project: LMC BOU

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-118-473	N/A	Aqueous	GC/MS M	04/04/17	04/04/17 16:21	170404L035

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	104	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-118-474	N/A	Aqueous	GC/MS M	04/06/17	04/06/17 11:53	170406L019

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	104	80-120	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-118-476	N/A	Aqueous	GC/MS M	04/08/17	04/08/17 11:41	170408L018

Comment(s): - Results were evaluated to the MDL (DL), concentrations  $\geq$  to the MDL (DL) but  $<$  RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
1,2,3-Trichloropropane	ND	0.0050	0.0025	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Dichlorobutane	90	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
3872M-N-17Q2	Sample	Aqueous	IC 16	N/A	04/03/17 21:20	170403S01
3872M-N-17Q2	Matrix Spike	Aqueous	IC 16	N/A	04/03/17 22:39	170403S01
3872M-N-17Q2	Matrix Spike Duplicate	Aqueous	IC 16	N/A	04/03/17 22:50	170403S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium, Hexavalent	4.357	10.00	15.00	106	15.18	108	85-121	1	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
17-04-0732-1	Sample	Aqueous	ICP/MS 05	04/13/17	04/14/17 22:12	170413SA3				
17-04-0732-1	Matrix Spike	Aqueous	ICP/MS 05	04/13/17	04/14/17 21:57	170413SA3				
17-04-0732-1	Matrix Spike Duplicate	Aqueous	ICP/MS 05	04/13/17	04/14/17 22:01	170413SA3				
<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Chromium	0.01372	0.1000	0.1169	103	0.1110	97	73-133	5	0-11	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
17-04-0251-4	Sample	Aqueous	GC/MS DDD	04/06/17	04/07/17 07:34	170406S12				
17-04-0251-4	Matrix Spike	Aqueous	GC/MS DDD	04/05/17	04/07/17 19:40	170406S12				
17-04-0251-4	Matrix Spike Duplicate	Aqueous	GC/MS DDD	04/05/17	04/07/17 19:56	170406S12				
<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
1,4-Dioxane	ND	20.00	20.51	103	20.90	105	50-130	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-03-2297-3	Sample	Aqueous	GC/MS L	04/04/17	04/04/17 23:45	170404S020
17-03-2297-3	Matrix Spike	Aqueous	GC/MS L	04/04/17	04/05/17 01:48	170404S020
17-03-2297-3	Matrix Spike Duplicate	Aqueous	GC/MS L	04/04/17	04/05/17 02:18	170404S020

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloroethene	4.909	10.00	16.15	112	13.86	90	66-126	15	0-20	
1,2-Dibromoethane	ND	10.00	9.642	96	9.099	91	75-126	6	0-20	
1,2-Dichlorobenzene	ND	10.00	8.946	89	8.386	84	75-125	6	0-20	
1,2-Dichloroethane	ND	10.00	9.170	92	8.735	87	75-127	5	0-20	
Benzene	ND	10.00	9.271	93	8.687	87	75-125	7	0-20	
Carbon Tetrachloride	ND	10.00	9.667	97	8.928	89	69-135	8	0-20	
Chlorobenzene	ND	10.00	9.194	92	8.416	84	75-125	9	0-20	
Ethylbenzene	ND	10.00	8.998	90	8.037	80	75-125	11	0-20	
Toluene	ND	10.00	9.409	94	7.952	80	75-125	17	0-20	
Trichloroethene	28.08	10.00	31.75	37	29.72	16	75-125	7	0-20	3
Vinyl Chloride	ND	10.00	12.20	122	11.63	116	52-142	5	0-20	
o-Xylene	ND	10.00	9.019	90	8.121	81	75-127	10	0-20	
p/m-Xylene	ND	20.00	18.21	91	16.26	81	75-125	11	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	11.56	116	10.16	102	71-131	13	0-20	

RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0251-4	Sample	Aqueous	GC/MS L	04/06/17	04/06/17 11:00	170406S007
17-04-0251-4	Matrix Spike	Aqueous	GC/MS L	04/06/17	04/06/17 12:32	170406S007
17-04-0251-4	Matrix Spike Duplicate	Aqueous	GC/MS L	04/06/17	04/06/17 13:03	170406S007

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Trichloroethene	ND	10.00	8.965	90	7.920	79	75-125	12	0-20	
Benzene	ND	10.00	9.313	93	8.052	81	75-125	15	0-20	
Carbon Tetrachloride	ND	10.00	10.86	109	9.504	95	69-135	13	0-20	
Chlorobenzene	ND	10.00	9.535	95	8.685	87	75-125	9	0-20	
1,2-Dibromoethane	ND	10.00	9.689	97	9.005	90	75-126	7	0-20	
1,2-Dichlorobenzene	ND	10.00	9.310	93	8.592	86	75-125	8	0-20	
1,2-Dichloroethane	ND	10.00	9.091	91	8.216	82	75-127	10	0-20	
1,1-Dichloroethene	ND	10.00	10.03	100	9.973	100	66-126	1	0-20	
Ethylbenzene	ND	10.00	9.461	95	8.348	83	75-125	12	0-20	
Toluene	ND	10.00	9.275	93	8.418	84	75-125	10	0-20	
Vinyl Chloride	ND	10.00	9.435	94	10.28	103	52-142	9	0-20	
p/m-Xylene	ND	20.00	19.25	96	17.08	85	75-125	12	0-20	
o-Xylene	ND	10.00	9.707	97	8.675	87	75-127	11	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	10.00	10.57	106	11.08	111	71-131	5	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
3872M-N-17Q2	Sample	Aqueous	GC/MS M	04/04/17	04/04/17 16:51	170404S018				
3872M-N-17Q2	Matrix Spike	Aqueous	GC/MS M	04/04/17	04/04/17 17:21	170404S018				
3872M-N-17Q2	Matrix Spike Duplicate	Aqueous	GC/MS M	04/04/17	04/04/17 17:51	170404S018				
<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
1,2,3-Trichloropropane	ND	0.02000	0.02300	115	0.02110	106	80-120	9	0-20	

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RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

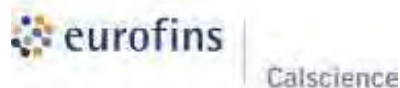
Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B SIM  
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Project: LMC BOU

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0068-2	Sample	Aqueous	GC/MS M	04/06/17	04/06/17 12:23	170406S008
17-04-0068-2	Matrix Spike	Aqueous	GC/MS M	04/06/17	04/06/17 13:23	170406S008
17-04-0068-2	Matrix Spike Duplicate	Aqueous	GC/MS M	04/06/17	04/06/17 13:53	170406S008

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	ND	0.02000	0.02360	118	0.02040	102	80-120	15	0-20	



## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-0186-1	Sample	Aqueous	GC/MS M	04/08/17	04/08/17 13:40	170408S010
17-04-0186-1	Matrix Spike	Aqueous	GC/MS M	04/08/17	04/08/17 15:40	170408S010
17-04-0186-1	Matrix Spike Duplicate	Aqueous	GC/MS M	04/08/17	04/08/17 16:10	170408S010

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	ND	0.02000	0.02770	138	0.03130	156	70-130	12	0-20	3

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RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - PDS

Tetra Tech, Inc.	Date Received:	04/03/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0067
San Bernardino, CA 92408-3562	Preparation:	EPA 3020A Total
	Method:	EPA 6020
Project: LMC BOU		Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDS Batch Number
17-04-0732-1	Sample	Aqueous	ICP/MS 05	04/13/17 00:00	04/14/17 22:12	170413SA3
17-04-0732-1	PDS	Aqueous	ICP/MS 05	04/13/17 00:00	04/14/17 22:05	170413SA3

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>PDS Conc.</u>	<u>PDS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium	0.01372	0.1000	0.1189	105	75-125	



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: N/A  
Method: EPA 218.6

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-14-567-229</b>	<b>LCS</b>	<b>Aqueous</b>	<b>IC 16</b>	<b>N/A</b>	<b>04/03/17 15:54</b>	<b>170403L01</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	10.00	10.13	101	95-107	

  
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RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/03/17
301 E. Vanderbilt Way, Suite 450	Work Order:	17-04-0067
San Bernardino, CA 92408-3562	Preparation:	EPA 3020A Total
	Method:	EPA 6020
Project: LMC BOU		Page 2 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>096-06-003-5524</b>	<b>LCS</b>	<b>Aqueous</b>	<b>ICP/MS 05</b>	<b>04/13/17</b>	<b>04/14/17 21:35</b>	<b>170413LA3</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium		0.1000	0.1005	101	80-120	



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 3510C  
Method: EPA 8270C (M) Isotope Dilution

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-16-216-996</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS DDD</b>	<b>04/06/17</b>	<b>04/07/17 06:31</b>	<b>170406L12</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,4-Dioxane	20.00	18.58	93	50-130	



RPD: Relative Percent Difference. CL: Control Limits





## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-10-025-4606</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>04/04/17</b>	<b>04/04/17 22:13</b>	<b>170404L041</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
1,1-Dichloroethene		10.00	10.66	107	77-120	70-127	
1,2-Dibromoethane		10.00	10.30	103	80-120	73-127	
1,2-Dichlorobenzene		10.00	9.843	98	80-120	73-127	
1,2-Dichloroethane		10.00	9.825	98	80-122	73-129	
Benzene		10.00	9.825	98	80-120	73-127	
Carbon Tetrachloride		10.00	9.782	98	80-129	72-137	
Chlorobenzene		10.00	9.859	99	80-120	73-127	
Ethylbenzene		10.00	9.749	97	80-120	73-127	
Toluene		10.00	9.882	99	80-120	73-127	
Trichloroethene		10.00	9.307	93	80-120	73-127	
Vinyl Chloride		10.00	9.366	94	63-135	51-147	
o-Xylene		10.00	10.05	100	80-120	73-127	
p/m-Xylene		20.00	19.69	98	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	10.98	110	75-123	67-131	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-10-025-4608</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS L</b>	<b>04/06/17</b>	<b>04/06/17 09:15</b>	<b>170406L008</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Trichloroethene		10.00	9.166	92	80-120	73-127	
Benzene		10.00	9.410	94	80-120	73-127	
Carbon Tetrachloride		10.00	9.768	98	80-129	72-137	
Chlorobenzene		10.00	9.737	97	80-120	73-127	
1,2-Dibromoethane		10.00	9.889	99	80-120	73-127	
1,2-Dichlorobenzene		10.00	9.457	95	80-120	73-127	
1,2-Dichloroethane		10.00	9.311	93	80-122	73-129	
1,1-Dichloroethene		10.00	10.56	106	77-120	70-127	
Ethylbenzene		10.00	9.373	94	80-120	73-127	
Toluene		10.00	9.597	96	80-120	73-127	
Vinyl Chloride		10.00	9.549	95	63-135	51-147	
p/m-Xylene		20.00	18.96	95	80-120	73-127	
o-Xylene		10.00	9.693	97	80-120	73-127	
Methyl-t-Butyl Ether (MTBE)		10.00	12.67	127	75-123	67-131	ME

Total number of LCS compounds: 14

Total number of ME compounds: 1

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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## Quality Control - LCS/LCSD

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-118-473	LCS	Aqueous	GC/MS M	04/04/17	04/04/17 14:52	170404L035			
099-15-118-473	LCSD	Aqueous	GC/MS M	04/04/17	04/04/17 15:22	170404L035			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	0.02000	0.02350	118	0.02270	114	80-120	3	0-20	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS/LCSD

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-118-474	LCS	Aqueous	GC/MS M	04/06/17	04/06/17 10:23	170406L019			
099-15-118-474	LCSD	Aqueous	GC/MS M	04/06/17	04/06/17 10:53	170406L019			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,2,3-Trichloropropane	0.02000	0.02030	102	0.02330	116	80-120	14	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Quality Control - LCS

Tetra Tech, Inc.  
301 E. Vanderbilt Way, Suite 450  
San Bernardino, CA 92408-3562

Date Received: 04/03/17  
Work Order: 17-04-0067  
Preparation: EPA 5030C  
Method: EPA 8260B SIM

Project: LMC BOU

Page 8 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-118-476</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS M</b>	<b>04/08/17</b>	<b>04/08/17 10:42</b>	<b>170408L018</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,2,3-Trichloropropane	0.02000	0.02380	119	80-120	



## Sample Analysis Summary Report

Work Order: 17-04-0067

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 218.6	N/A	1065	IC 16	1
EPA 6020	EPA 3020A Total	598	ICP/MS 05	1
EPA 8260B	EPA 5030C	316	GC/MS L	2
EPA 8260B SIM	EPA 5030C	486	GC/MS M	2
EPA 8270C (M) Isotope Dilution	EPA 3510C	907	GC/MS DDD	1



Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841



## Glossary of Terms and Qualifiers

Work Order: 17-04-0067

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Tetra Tech

DATE: 04/3/2017

**TEMPERATURE:** (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)  
 Thermometer ID: SC3B (CF: 0.0°C); Temperature (w/o CF): 1.8 °C (w/ CF): 1.8 °C;  Blank  Sample  
 Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)  
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling  
 Sample(s) received at ambient temperature; placed on ice for transport by courier  
 Ambient Temperature:  Air  Filter  
 Checked by: 1091

**CUSTODY SEAL:**  
 Cooler  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 1091  
 Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 681

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Container(s) for certain analysis free of headspace .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:** (Trip Blank Lot Number: 17082BA)  
 Aqueous:  VOA  VOAh  VOAna<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBh  125AGBp  125PB  
 125PBz<sub>na</sub>  250AGB  250CGB  250CGBs  250PB  250PBn  500AGB  500AGJ  500AGJs  
 500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  
 Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_)  EnCores® (\_\_\_\_)  TerraCores® (\_\_\_\_)  \_\_\_\_\_  
 Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (\_\_\_\_):  \_\_\_\_\_  \_\_\_\_\_  
 Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag  
 Preservative: b = buffered, f = filtered, h = HCl, na = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 681  
 s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, z<sub>na</sub> = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: 681

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**Vikas Patel**

---

**From:** Sabater, Robert <Robert.Sabater@tetrattech.com>  
**Sent:** Tuesday, April 04, 2017 11:37 AM  
**To:** Vikas Patel  
**Cc:** Erick Ovalle; Calder, Vanessa  
**Subject:** Re: Sample receipt confirmation / 17-04-0067 / LMC BOU

Vik,

Yes. 1,2,3-TCP.

Robert

Sent from my iPhone

On Apr 4, 2017, at 11:21 AM, Vikas Patel <[VikasPatel@eurofinsUS.com](mailto:VikasPatel@eurofinsUS.com)> wrote:

Hey Robert – I am assuming you meant 1,2,3-TCP. We will analyze sample for VOCs first. If we have enough sample remaining we will analyze sample for 1,2,3-TCP by 8260 SIM.

For future submittals, can you submit 3 vials for the trip blank sample?

Vik Patel  
Eurofins Calscience, Inc.  
Phone: +1 714 895 5494

---

**From:** Sabater, Robert [<mailto:Robert.Sabater@tetrattech.com>]  
**Sent:** Tuesday, April 04, 2017 10:45 AM  
**To:** Erick Ovalle  
**Cc:** Vikas Patel  
**Subject:** Re: Sample receipt confirmation / 17-04-0067 / LMC BOU

Erick,

It looks good to me. I do have one question, is there enough sample in the VOC trip blank to run for 2,3,2-TCP also?

Robert

Sent from my iPhone

On Apr 4, 2017, at 9:49 AM, Erick Ovalle <[ErickOvalle@eurofinsUS.com](mailto:ErickOvalle@eurofinsUS.com)> wrote:

Sample receipt confirmation attached. **Please review and advise of any changes required.**

Please call with any questions or concerns.

Best Regards,  
Erick Ovalle  
Project Manager Assistant



*First American*

# Commitment

ALTA Commitment for Title Insurance

ISSUED BY

**First American Title Insurance Company**

File No: NCS-1009167-ONT1

## COMMITMENT FOR TITLE INSURANCE

Issued By

***FIRST AMERICAN TITLE INSURANCE COMPANY***

### NOTICE

**IMPORTANT-READ CAREFULLY:** THIS COMMITMENT IS AN OFFER TO ISSUE ONE OR MORE TITLE INSURANCE POLICIES. ALL CLAIMS OR REMEDIES SOUGHT AGAINST THE COMPANY INVOLVING THE CONTENT OF THIS COMMITMENT OR THE POLICY MUST BE BASED SOLELY IN CONTRACT.

THIS COMMITMENT IS NOT AN ABSTRACT OF TITLE, REPORT OF THE CONDITION OF TITLE, LEGAL OPINION, OPINION OF TITLE, OR OTHER REPRESENTATION OF THE STATUS OF TITLE. THE PROCEDURES USED BY THE COMPANY TO DETERMINE INSURABILITY OF THE TITLE, INCLUDING ANY SEARCH AND EXAMINATION, ARE PROPRIETARY TO THE COMPANY, WERE PERFORMED SOLELY FOR THE BENEFIT OF THE COMPANY, AND CREATE NO EXTRACTIONAL LIABILITY TO ANY PERSON, INCLUDING A PROPOSED INSURED.

THE COMPANY'S OBLIGATION UNDER THIS COMMITMENT IS TO ISSUE A POLICY TO A PROPOSED INSURED IDENTIFIED IN SCHEDULE A IN ACCORDANCE WITH THE TERMS AND PROVISIONS OF THIS COMMITMENT. THE COMPANY HAS NO LIABILITY OR OBLIGATION INVOLVING THE CONTENT OF THIS COMMITMENT TO ANY OTHER PERSON.

### COMMITMENT TO ISSUE POLICY

Subject to the Notice; Schedule B, Part I-Requirements; Schedule B, Part II-Exceptions; and the Commitment Conditions, ***First American Title Insurance Company***, a Nebraska Corporation (the "Company"), commits to issue the Policy according to the terms and provisions of this Commitment. This Commitment is effective as of the Commitment Date shown in Schedule A for each Policy described in Schedule A, only when the Company has entered in Schedule A both the specified dollar amount as the Proposed Policy Amount and the name of the Proposed Insured.

If all of the Schedule B, Part I-Requirements have not been met within six months after the Commitment Date, this Commitment terminates and the Company's liability and obligation end.

***First American Title Insurance Company***

Dennis J. Gilmore  
President

Jeffrey S. Robinson  
Secretary

**If this jacket was created electronically, it constitutes an original document.**

*This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by First American Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I-Requirements; Schedule B, Part II-Exceptions.*

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## COMMITMENT CONDITIONS

### 1. DEFINITIONS

- (a) "Knowledge" or "Known": Actual or imputed knowledge, but not constructive notice imparted by the Public Records.
- (b) "Land": The land described in Schedule A and affixed improvements that by law constitute real property. The term "Land" does not include any property beyond the lines of the area described in Schedule A, nor any right, title, interest, estate, or easement in abutting streets, roads, avenues, alleys, lanes, ways, or waterways, but this does not modify or limit the extent that a right of access to and from the Land is to be insured by the Policy.
- (c) "Mortgage": A mortgage, deed of trust, or other security instrument, including one evidenced by electronic means authorized by law.
- (d) "Policy": Each contract of title insurance, in a form adopted by the American Land Title Association, issued or to be issued by the Company pursuant to this Commitment.
- (e) "Proposed Insured": Each person identified in Schedule A as the Proposed Insured of each Policy to be issued pursuant to this Commitment.
- (f) "Proposed Policy Amount": Each dollar amount specified in Schedule A as the Proposed Policy Amount of each Policy to be issued pursuant to this Commitment.
- (g) "Public Records": Records established under state statutes at the Commitment Date for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without Knowledge.
- (h) "Title": The estate or interest described in Schedule A.

2. If all of the Schedule B, Part I—Requirements have not been met within the time period specified in the Commitment to Issue Policy, this Commitment terminates and the Company's liability and obligation end.

3. The Company's liability and obligation is limited by and this Commitment is not valid without:

- (a) the Notice;
- (b) the Commitment to Issue Policy;
- (c) the Commitment Conditions;
- (d) Schedule A;
- (e) Schedule B, Part I—Requirements; and
- (f) Schedule B, Part II—Exceptions.

### 4. COMPANY'S RIGHT TO AMEND

The Company may amend this Commitment at any time. If the Company amends this Commitment to add a defect, lien, encumbrance, adverse claim, or other matter recorded in the Public Records prior to the Commitment Date, any liability of the Company is limited by Commitment Condition 5. The Company shall not be liable for any other amendment to this Commitment.

### 5. LIMITATIONS OF LIABILITY

- (a) The Company's liability under Commitment Condition 4 is limited to the Proposed Insured's actual expense incurred in the interval between the Company's delivery to the Proposed Insured of the Commitment and the delivery of the amended Commitment, resulting from the Proposed Insured's good faith reliance to:
  - (i) comply with the Schedule B, Part I—Requirements;
  - (ii) eliminate, with the Company's written consent, any Schedule B, Part II—Exceptions; or
  - (iii) acquire the Title or create the Mortgage covered by this Commitment.
- (b) The Company shall not be liable under Commitment Condition 5(a) if the Proposed Insured requested the amendment or had Knowledge of the matter and did not notify the Company about it in writing.
- (c) The Company will only have liability under Commitment Condition 4 if the Proposed Insured would not have incurred the expense had the Commitment included the added matter when the Commitment was first delivered to the Proposed Insured.
- (d) The Company's liability shall not exceed the lesser of the Proposed Insured's actual expense incurred in good faith and described in Commitment Conditions 5(a)(i) through 5(a)(iii) or the Proposed Policy Amount.
- (e) The Company shall not be liable for the content of the Transaction Identification Data, if any.
- (f) In no event shall the Company be obligated to issue the Policy referred to in this Commitment unless all of the Schedule B, Part I—Requirements have been met to the satisfaction of the Company.
- (g) In any event, the Company's liability is limited by the terms and provisions of the Policy.

*This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by First American Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I-Requirements; Schedule B, Part II-Exceptions.*

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**6. LIABILITY OF THE COMPANY MUST BE BASED ON THIS COMMITMENT**

- (a) Only a Proposed Insured identified in Schedule A, and no other person, may make a claim under this Commitment.
- (b) Any claim must be based in contract and must be restricted solely to the terms and provisions of this Commitment.
- (c) Until the Policy is issued, this Commitment, as last revised, is the exclusive and entire agreement between the parties with respect to the subject matter of this Commitment and supersedes all prior commitment negotiations, representations, and proposals of any kind, whether written or oral, express or implied, relating to the subject matter of this Commitment.
- (d) The deletion or modification of any Schedule B, Part II—Exception does not constitute an agreement or obligation to provide coverage beyond the terms and provisions of this Commitment or the Policy.
- (e) Any amendment or endorsement to this Commitment must be in writing and authenticated by a person authorized by the Company.
- (f) When the Policy is issued, all liability and obligation under this Commitment will end and the Company's only liability will be under the Policy.

**7. IF THIS COMMITMENT HAS BEEN ISSUED BY AN ISSUING AGENT**

The issuing agent is the Company's agent only for the limited purpose of issuing title insurance commitments and policies. The issuing agent is not the Company's agent for the purpose of providing closing or settlement services.

**8. PRO-FORMA POLICY**

The Company may provide, at the request of a Proposed Insured, a pro-forma policy illustrating the coverage that the Company may provide. A pro-forma policy neither reflects the status of Title at the time that the pro-forma policy is delivered to a Proposed Insured, nor is it a commitment to insure.

**9. ARBITRATION**

Arbitration provision intentionally removed.

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First American

# Schedule A

## ALTA Commitment for Title Insurance

ISSUED BY

**First American Title Insurance Company**

File No: NCS-1009167-ONT1

**Transaction Identification Data for reference only:**

Issuing Agent: First American Title Insurance Company National Commercial Services

Commitment No.: NCS-1009167-ONT1

Property Address: 2311 North Hollywood Way, Burbank, CA 91505

Revision No.:

Issuing Office: 3281 E Guasti Road, Suite 440, Ontario, CA 91761

Issuing Office File No.: NCS-1009167-ONT1

Escrow Officer/Assistant: /

Phone: /

Email: /

Title Officer/Assistant: Wendy Hagen Bowen/Diane Nesbit

Phone: (909)510-6225/(909)510-6230

Email: whagen@firstam.com/dnesbit@firstam.com

### SCHEDULE A

1. Commitment Date: March 16, 2020 at 8:00 AM
2. Policy to be issued:
  - (a)  2006 ALTA® Standard Owner Policy  
Proposed Insured: To Be Determined  
Proposed Policy Amount: \$ To Be Determined
  - (b)  2006 ALTA® Extended Loan Policy  
Proposed Insured: To Be Determined  
Proposed Policy Amount: \$ To Be Determined
  - (c)  2006 ALTA® Policy  
Proposed Insured:  
Proposed Policy Amount: \$
3. The estate or interest in the Land described or referred to in this Commitment is  
  
Fee
4. [The Title is, at the Commitment Date, vested in:](#)  
  
GORT, A CALIFORNIA LIMITED PARTNERSHIP
5. The Land is described as follows:

**See Exhibit "A" attached hereto and made a part hereof**

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*First American*

# Schedule BI & BII

## ALTA Commitment for Title Insurance

ISSUED BY

**First American Title Insurance Company**

File No: NCS-1009167-ONT1

Commitment No.: NCS-1009167-ONT1

### SCHEDULE B, PART I

#### Requirements

All of the following Requirements must be met:

- A. The Proposed Insured must notify the Company in writing of the name of any party not referred to in this Commitment who will obtain an interest in the Land or who will make a loan on the Land. The Company may then make additional Requirements or Exceptions.
- B. Pay the agreed amount for the estate or interest to be insured.
- C. Pay the premiums, fees, and charges for the Policy to the Company.
- D. Documents satisfactory to the Company that convey the Title or create the Mortgage to be insured, or both, must be properly authorized, executed, delivered, and recorded in the Public Records.
- E. Releases(s) or Reconveyance(s) of Item(s): None
- F. Other: None
- G. You must give us the following information:
  - a. Any off record leases, surveys, etc.
  - b. Statement(s) of Identity, all parties.
  - c. Other:

Prior to closing, the Company must confirm whether the county recording office in which the Land is located has changed its access policies due to the COVID-19 outbreak. If recording has been restricted, specific underwriting approval is required; and, additional requirements or exceptions may be made.

The following additional requirements, as indicated by "X", must be met:

- H. Provide information regarding any off-record matters, which may include, but are not limited to: leases, recent works of improvement, or commitment statements in effect under the Environmental Responsibility Acceptance Act, Civil Code Section 850, et seq.

The Company's Owner's Affidavit form (as provided by the company) must be completed and submitted prior to close in order to satisfy this requirement. This Commitment will then be subject to such further exceptions and/or requirements as may be deemed necessary.

- I. An ALTA/NSPS survey of recent date, which complies with the current minimum standard

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detail requirements for ALTA/NSPS land title surveys, must be submitted to the Company for review. This Commitment will then be subject to such further exceptions and/or requirements as may be deemed necessary.

- J. The following LLC documentation is required from:
  - (i) a copy of the Articles of Organization
  - (ii) a copy of the Operating Agreement, if applicable
  - (iii) a Certificate of Good Standing and/or other evidence of current Authority to Conduct Business within the State
  - (iv) express Company Consent to the current transaction
  
- K. The following partnership documentation is required :
  - (i) a copy of the partnership agreement, including all applicable amendments thereto
  - (ii) a Certificate of Good Standing and/or other evidence of current Authority to Conduct Business within the State
  - (iii) express Partnership Consent to the current transaction
  
- L. The following corporation documentation is required:
  - (i) a copy of the Articles of Incorporation
  - (ii) a copy of the Bylaws, including all applicable Amendments thereto
  - (iii) a Certificate of Good Standing and/or other evidence of current Authority to Conduct Business within the State
  - (iv) express Corporate Resolution consenting to the current transaction
  
- M. Based upon the Company's review of that certain partnership/operating agreement dated **Not disclosed** for the proposed insured herein, the following requirements must be met: Any further amendments to said agreement must be submitted to the Company, together with an affidavit from one of the general partners or members stating that it is a true copy, that said partnership or limited liability company is in full force and effect, and that there have been no further amendments to the agreement. This Commitment will then be subject to such further requirements as may be deemed necessary.
  
- N. A copy of the complete lease, as referenced in Schedule A, #3 herein, together with any amendments and/or assignments thereto, must be submitted to the Company for review, along with an affidavit executed by the present lessee stating that it is a true copy, that the lease is in full force and effect, and that there have been no further amendments to the lease. This Commitment will then be subject to such further requirements as may be deemed necessary.
  
- O. Approval from the Company's Underwriting Department must be obtained for issuance of the policy contemplated herein and any endorsements requested thereunder. This Commitment will then be subject to such further requirements as may be required to obtain such approval.
  
- P. Potential additional requirements, if ALTA Extended coverage is contemplated hereunder, and work on the land has commenced prior to close, some or all of the following requirements, and any other requirements which may be deemed necessary, may need to be met:

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- Q. The Company's "Indemnity Agreement I" must be executed by the appropriate parties.
- R. Financial statements from the appropriate parties must be submitted to the Company for review.
- S. A copy of the construction contract must be submitted to the Company for review.
- T. An inspection of the Land must be performed by the Company for verification of the phase of construction.
- U. The Company's "Mechanic's Lien Risk Addendum" form must be completed by a Company employee, based upon information furnished by the appropriate parties involved.

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*First American*

## Schedule BI & BII (Cont.)

ALTA Commitment for Title Insurance

ISSUED BY

**First American Title Insurance Company**

File No: NCS-1009167-ONT1

Commitment No.: NCS-1009167-ONT1

### SCHEDULE B, PART II

#### Exceptions

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

The Policy will not insure against loss or damage resulting from the terms and provisions of any lease or easement identified in Schedule A, and will include the following Exceptions unless cleared to the satisfaction of the Company:

1. Any defect, lien, encumbrance, adverse claim, or other matter that appears for the first time in the Public Records or is created, attaches, or is disclosed between the Commitment Date and the date on which all of the Schedule B, Part I-Requirements are met.
2. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
3. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
4. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
5. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
6. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
7. General and special taxes and assessments for the fiscal year 2020-2021, a lien not yet due or payable.

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8. General and special taxes and assessments for the fiscal year 2019-2020.

First Installment: \$78,119.95, PAID  
Penalty: \$0.00  
Second Installment: \$78,119.94, OPEN  
Penalty: \$0.00  
Tax Rate Area: 02530  
A. P. No.: 2463-001-019

9. The lien of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.

10. An easement for aerial, underground telephone, telegraph, communication structures and incidental purposes in the document recorded March 28, 1944 as Instrument No. 1608 in [Book 20800, Page 152](#) of Official Records.

The location of the easement cannot be determined from record information.

11. An easement for pole lines and incidental purposes in the document recorded July 12, 1961 as Instrument No. 1417 in [Book D1282, Page 987](#) of Official Records.

12. An easement for public utility, sewer and incidental purposes in the document recorded July 12, 1961 as Instrument No. 1418 in [Book D1282, Page 989](#) of Official Records.

13. An easement for storm drain and incidental purposes in the document recorded July 12, 1961 as Instrument No. 1420 in [Book D1282, Page 992](#) of Official Records.

The location of the easement cannot be determined from record information.

14. An easement for public utility, sewer and incidental purposes in the document recorded May 11, 1962 as Instrument No. 3914 in [Book D1611, Page 921](#) of Official Records.

15. The terms and provisions contained in the document entitled "Mutual Reciprocal Restriction on Use of Land" recorded November 02, 1994 as Instrument No. [94-1983331](#) of Official Records.

Affects: The land and other property.

16. An easement for drainage channel and incidental purposes, recorded November 02, 1994 as Instrument No. [94-1983333](#) of Official Records.

In Favor of: SMC Properties-Burbank, a California General Partnership

Affects: The Most Westerly 10 feet, as described therein

17. An easement shown or dedicated on the map of Parcel Map No. 24143 recorded December 13, 1995 and on file in [Book 269, Page 99 and 100](#), of Parcel Maps.

For: Drainage and incidental purposes.

18. The terms and provisions contained in the document entitled "Use Restriction Agreement" recorded November 23, 2016 as Instrument No. [16-1473315](#) of Official Records.

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