

# THE SALVATION ARMY

USA Western Territory Adult Rehabilitation Centers Command 180 East Ocean Boulevard, 3rd Floor Long Beach, CA 90802-4709

WILLIAM BOOTH

ANDRE COX General

JAMES KNAGGS Territorial Commander

DOUGLAS TOLLERUD ARC Commander

# **RECEIVED**

By Alameda County Environmental Health 10:23 am, Aug 04, 201

March 24, 2017

Re: Quarterly Groundwater and Vapor Monitoring and Site Status Report

First Quarter 2017

The Salvation Army Oakland ARC Building

601 Webster Street, Oakland, California,

Fuel Leak Case No. R00003084,

Geotracker Global ID T10000003428

"I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to ACDEH's FTP server and the SWRCB's GeoTracker website."

Submitted by:

Mark Nelson, Major

ARC Command General Secretary

1117 Lone Palm Avenue, Suite 201B Modesto, CA 95351 Telephone 209-579-2221 Fax 209-579-2225 www.atcgroupservices.com

March 24, 2017

Mr. Keith Nowell, PG, CHG Hazardous Materials Specialist Alameda County Health Care Services Agency Environmental Health Services, Environmental Protection 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

**Quarterly Groundwater and Vapor Monitoring and Site Status Report** Subject:

First Quarter 2017

The Salvation Army Oakland ARC

601 Webster Street, Oakland, California,

Fuel Leak Case No. RO3084,

Geotracker Global ID T10000003428

Dear Mr. Nowell,

ATC Group Services LLC (ATC) has prepared this Quarterly Water and Vapor Monitoring and Site Status Report for the first quarter of 2017 on behalf of The Salvation Army for their Oakland Adult Rehabilitation Center (ARC) facility located at 601 Webster Street in Oakland, California.

If you have questions or comments regarding this report, please contact us at your convenience.

Sincerely,

ATC Group Services LLC

Michael D. Sonke Project Manager

Phone (209) 579-2221

email: mike.sonke@atcassociates.com



Gabe Stivala, ₱.G. Senior Geologist Phone (916) 579-2221

email: gabe.stivala@atcassociates.com



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Geotracker website <a href="https://geotracker.waterboards.ca.gov">https://geotracker.waterboards.ca.gov</a>

# **Email distribution list**

NameTitleemailMajor Mark NelsonGeneral Secretarymark.nelson@usw.salvationarmy.orgMs. Molly FaganProperty Project Managermolly.fagan@usw.salvationarmy.org

Ms. Molly Fagan Property Project Manager Ms. Jeanie Brown Property Project Facilitator Property Project Facilitator Facilitator Administrator – Oakland ARC Property Project Manager Ms. Jeanie Brown Property Project Facilitator Facilit

# Quarterly Groundwater and Vapor Monitoring Report

# First Quarter 2017

The Salvation Army Oakland ARC Building 601 Webster Street, Oakland, California, ACEH Fuel Leak Case No. R00003084 Geotracker Global ID T10000003428

# Submitted to:

Mr. Keith Nowell, PG, CHG
Hazardous Materials Specialist
Alameda County
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

On behalf of:



Salvation Army ARC Command 180 E. Ocean Blvd, 3rd Floor Long Beach CA 90802

Submitted by:



ATC Group Services, LLC 1117 Lone Palm Avenue Suite 201B Modesto, California 95351 ATC Project No. Z054000006-0008

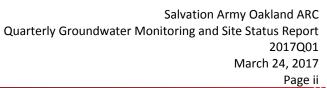
March 24, 2017

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# 1.0 INTRODUCTION

ATC Group Services LLC (ATC) has prepared this Quarterly Water and Vapor Monitoring and Site Status Report for the first quarter of 2017 on behalf of The Salvation Army for their Oakland Adult Rehabilitation Center (ARC) facility located at 601 Webster Street in Oakland, California.

### 1.1. SITE DESCRIPTION

The site is The Salvation Army's (TSA) Adult Rehabilitation Center (ARC) (site) located at 601 Webster Street in Oakland, California, as shown on **Figure 1**. The site occupies the entire city block between Webster and Franklin Streets; and between Sixth and Seventh Streets. The northeast portion of the site includes the truck enclosure area. This area is where the former underground storage tank (UST) system was located. Fencing or walls enclose the truck enclosure area, which is used for loading/unloading trucks and for overnight truck parking/security. **Figure 2**, Site Plan illustrates the pertinent site features and the surrounding area.

# 1.2. SITE HISTORY / CHRONOLOGY

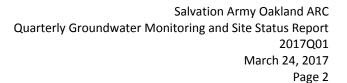
According to TSA, the site was purchased by TSA in April of 1920.

In early 2010, TSA made the decision to discontinue onsite fueling of their fleet of commercial trucks and remove the USTs and dispenser equipment from the site. Between November 22, and 23, 2010, a 10,000-gallon UST containing diesel, an 8,000-gallon UST containing gasoline, and the associated fuel dispensers and piping were removed. The USTs appeared to be in good condition, with no visible holes or signs of leakage. Laboratory analysis of soil samples collected from the base of the UST pit indicated that petroleum hydrocarbons (PHCs) related to gasoline were present. PHCs in the diesel range were not detected in any of the soil samples. This work was described in the report produced by the contractor, Terry Hamilton (Hamilton, 10/4/2010).1

In early 2011, TSA retained ATC Associates to investigate and assist in fulfilling obligations that may have resulted from the PHC release. After a discussion with the Oakland City Fire Department (OFD), ATC developed limited-scope workplan to assess the release to assist OFD in determining if the case could be closed or should be forwarded to the Local Oversight Program (LOP) Agency of Alameda County, which is Agency in Alameda County is Alameda County Environmental Health (ACEH). The workplan included advancing five direct-push borings to first encountered groundwater, estimated to be at approximately 16 to 25 feet below ground surface (bgs). proposed investigation consisted of drilling five borings to collect and analyses soil and groundwater samples (ATC, 8/8/2011). However, prior to implementing the workplan, the environmental case oversight authority was transferred from OFD to the ACEH which is part of the Alameda County, Health Care Services Agency.

In correspondence dated May 2012 and November 2012, ACEH requested changes to the March 18, 2011 workplan originally submitted to the OFD. Cardno ATC responded by producing a

 $<sup>^{\</sup>rm 1}$  Bibliography (including Historical Work ATC work products) is included as Appendix~A.





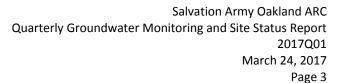
workplan that proposed two additional borings and the development a site conceptual model (Cardno ATC, 2/28/2013). The workplan was approved by ACEH in a letter dated May 31, 2013.

On July 29 and July 30, 2013, Cardno ATC executed the workplan advancing seven direct-push soil borings at the site. Borings SB1 through SB7 were proposed to be advanced to groundwater. Sixteen soil samples and six groundwater samples were collected and analyzed at an environmental laboratory. The results of laboratory analyses revealed PHCs contamination within the truck enclosure area surrounding the former UST Pit. (Cardno, 1/13//2014) (Cardno, 1/13//2014)

On July 2, 2014, a meeting was held between ACEH, TSA, and ATC. Based on the meeting, a follow up email on July 2, 2014 from the ACEH directed the development of a workplan to address laboratory analysis continuity, lateral and vertical delineation of soil and groundwater contamination, gas intrusion to indoor air, and a sensitive receptor survey. Additionally, ACEH requested a Feasibility Study/ Corrective Action Plan (FS/CAP) submitted by the end of the year, if warranted by the field investigation. In response, Cardno ATC produced and submitted a workplan that proposed 1.) Advancing twelve to sixteen membrane interface probe (MIP) borings to screen the soil and water for the presence of contamination, followed by 2.) The advancement of eight to ten Hollow Stem Auger (HSA) borings to retrieve quantitative samples, and finally 3.) The installation of four monitoring wells to further assess PHCs dissolved in groundwater. (Cardno ATC, 8/14/2014)

ACEH responded in correspondence dated December 24, 2014. ACEH evaluated the existing data and the results projected to be derived from implantation of the workplan and determined that the site did not meet several of the criteria for the State of California Water Resources Control Board's (Water Board) Low Threat Closure Policy (LTCP) including the Conceptual Site Model (CSM) portion of the General Criteria section. ACEH indicated that LTCP data gaps could not be filled with MIP data. ACEH directed the advancement of additional HSA borings to fill the LTCP data gaps particularly targeting the 0- to 5-foot and 5- to 10-foot zones. ACEH's opinion was that it was premature to collect sub-slab soil vapor samples as described in the workplan unless depth to water data indicates the piezometric surface is less than 2 feet below the base of the foundations. ACEH requested the preliminary data collected from the soil and groundwater portion of the investigation be submitted for consideration prior to conducting the soil vapor portion of the investigation. ACEH stated that if a diesel release had occurred, it was not likely to be significant and therefore total petroleum hydrocarbons as diesel (TPHd) could be eliminated from the analytical scope. ACEH directed the placement of three onsite monitoring wells, but believed it was premature to identify locations of offsite well. In February 2015, Cardno ATC responded by reissuing a new workplan (Cardno ATC, 2/27/2015).

ACEH responded to ATC's February 2015 work plan in a letter dated June 1, 2015. ACEH directed the inclusion of additional assessment activities including two additional HSA borings within the footprint of the former UST pit, sampling at additional depths within HSA borings J2, J5, M2, and M5, as well as collection of and additional soil sample collected from the interval between ten feet bgs and first encountered groundwater in all borings showing evidence of contamination. ACEH agreed with the installation of three monitoring wells within the truck enclosure area but wanted Cardno ATC to provide the MIP and HSA data, and to confer with ACEH prior to installing additional wells. ACEH also believed it was premature to collect soil





vapor samples until the depth to groundwater (DTW) had been established through the installation and gauging of monitoring wells.

Between September 28, and October 2, 2015, ATC advanced 14 MIP borings, first with a conventional direct-push rig, but later with a CPT rig when refusal was encountered prior to the target depth. To confirm and supplement MIP data, 15 hollow stem auger (HSA) borings advanced for the collection of discrete soil samples which were field screened and analyzed by a laboratory. Results if the investigation indicated PHC was encountered both in the truck enclosure and across Franklin Street in the Salvation Army Used Car lot. Using the data obtained from the MIP and HSA borings, locations for the monitoring wells were selected. ATC communicated this information to ACEH in an email. ATC installed three groundwater monitoring wells in the truck enclosure area and one additional well in the used car lot across Franklin Street. Groundwater samples collected from all the monitoring wells contained dissolved phase hydrocarbons, with the highest concentrations seen in monitoring wells MW1 and MW3. (ATC, (4/26/2016)

During quarterly groundwater sampling activities on August 16, 2016, ATC detected 2.04 inches/0.17 feet of non-aqueous phase liquid (NAPL) in MW3. On September 8, 2016, ATC installed a passive skimmer in MW-3.

Since the end of 2015, ATC has collected, analyzed, and reported on groundwater samples from the monitoring well network at the site. Dissolved phase PHC is present onsite and offsite to the west. Highest concentrations have been reported in MW-3 and MW-1 with benzene concentrations currently exceeding the Environmental Screening Levels (ESL). Groundwater elevation averaged around 11.68 feet above mean sea level (amsl) with the groundwater flow direction varying between the west-southwest to the southwest at an average slope of 0.012 feet/foot (ft/ft). See Appendix A for a complete listing of the completed quarterly reports.

In the fall of 2015, ATC searched for Sensitive Receptors starting with requests extended to California Department Water Resources (DWR) and Alameda County Public Works Agency, Water Resources (ACPWAWR) for a list of prospective candidate wells shown to be located within the search area encompassing a 2,000-foot radius around the site. These requests resulted in a subset of 742 candidate wells that ATC further screened by location and well type. This screening eventually identified four qualified production and two cathodic protection wells within the 2,000-foot radius search area. During field reconnaissance, ATC determined that all six wells were located upgradient or cross gradient of the TSA site and thereby unlikely sensitive receptors. In addition during field reconnaissance, ATC identified the nearby 8 Orchids Condos multi-story Building as possibly having sumps to dewater their subsurface structures, but these sumps were not included in the list of permitted wells obtained from traditional sources. In addition, ATC observed the proximity of BART's subsurface infrastructure might include dewatering components that could potentially be a receptor and could be influencing the hydrology local to the TSA Site. (ATC, 1/25/2017)

In December of 2016, performed a ATC oversaw the installation of three Cox-Colvin vapor pins through the concrete subslab in the basement of the TSA ARC Building to sample soil vapor adjacent to the release but beneath the ARC Building. Subslab soil vapor samples were collected, analyzed and the laboratory results compared to the results were compared to Environmental Screening Levels (ESLs) established by the San Francisco Bay Regional Water Quality Control, specifically, the Table 1 ESLs for Subslab/Soil Gas. None of the analytical results from the



collected subslab vapor samples were in excess of the RWQCB Tier I ESLs, therefore there is no indication of a vapor intrusion risk related to the petroleum hydrocarbon release at this site. ACEH directed continued quarterly sampling for the purpose of confirmation and assessment of potential seasonal variation in subslab vapor concentrations. (ATC, 1/10/2017)

# 2.0 GEOLOGY AND HYDROGEOLOGY

The City of Oakland is located within the San Francisco Bay Area Physiographic Province and is bounded by the San Francisco Bay to the northwest, west, and southwest and by the Oakland Hills to the east. The landmass on which Oakland is located was formed as a result of an uplift of the Oakland Hills along the Hayward Fault out of the San Francisco Bay basin, which lies to the north and west. The area where Oakland is located is covered with alluvium from the Sierra Nevada mountain range deposited by the San Joaquin and Sacramento River systems, and by local creeks and streams flowing from the Oakland Hills. Sedimentary deposits consisting of non-marine sandstone, conglomerate, and mudstone underlie the alluvium.

Specific to the geology of the site, soil from borings SB1, SB2, and SB7 advanced at the site in July 2013 consisted of fill material placed in the former tank pit to a depth of approximately 13 to 15 feet bgs. Silty sand and fine sand were encountered from 15 feet to 25 feet in SB1, and from 13 feet to 20 feet in SB2 and SB7, the maximum depths to which these borings were characterized. Soil from the borings SB3, SB4, and SB5 consisted of sandy clay or clayey sand to a depth of approximately 5 to 7 feet bgs. Silty sand and fine sand were encountered from depths between 5 to 7 feet and 20 feet, the maximum depths to which the borings were characterized, with the exception of SB3 that had sandy clay from 16 to 18 feet bgs. Soil from the boring SB6 consisted of silty sand to a depth of approximately 5 feet bgs. Fine sand was encountered from 5 feet to 15 feet bgs, and silty sand was encountered between 15 feet and 20 feet, the maximum depth to which the boring was characterized. (Cardno ATC, 1/13/2014)

The site lies within the East Bay Plain Sub-basin 2-9.04. In general, groundwater in this basin has been designated beneficial for municipal and domestic water supply, industrial process and service water supply, and agricultural water supply. Despite this designation, the East Bay Municipal Utility District (EBMUD) indicates that all potable drinking water for the City of Oakland is imported from the Mokelumne River watershed. Lake Merritt lies approximately 3,250 feet to the east-northeast upgradient of the site. The nearest surface water body to the site is Oakland Inner Harbor/Oakland Estuary, located approximately 2,000 feet downgradient to the south. (ATC, 12/23/2016)

The surface topography in the vicinity surrounding the site slopes gently to moderately from the northeast to the southwest, which is consistent with the path of Franklin Street. However, available data obtained from other nearby leaking underground storage tank (LUST) sites reveals the direction of regional groundwater flow to be variable, with variability sometimes attributed to dewatering activities related to subterranean BART infrastructure. (ATC, 12/23/2016)

The groundwater flow direction on site generally follows the surface grade from the northwest to the southeast. ATC observes that during the previous groundwater monitoring events the observed gradient was variable ranging from southeast to southwest. A significant groundwater elevation decrease is noted in the one offsite monitoring well (MW-4), implying a groundwater flow to the southwest in the area surrounding this monitoring well. (ATC, 1/25/2017)



# 3.0 CHARACTERIZATION STATUS

ATC has conducted three investigative mobilizations advancing fourteen (14) MIP borings, fifteen (15) conventional hollow stem auger soil borings, and installed four (4) monitoring wells.

The HSA Boring P2 in the northwest corner of the truck enclosure area laterally defines both the adsorbed and dissolved phase PHCs in both vadose and saturated zones. ATC advanced HSA borings and collected soil samples in the areas of highest detected concentrations, including MW1 to 35 feet bgs and MW3 to 30 feet bgs and no adsorbed phase PHC has been detected in collected soil samples below 20 feet bgs across the site. Additionally, ATC has installed, developed, and sampled four groundwater monitoring wells at the site with dissolved phase PHC detected in all the monitoring wells with Non-Aqueous Phase Liquid (NAPL) being detected sporadically in MW3. Therefore, the extent of dissolved phase remains largely undefined. (ATC, 4/26/2016)

Vapor Phase PHC was detected in subslab vapor samples collected during the fourth quarter 2016, but none of the collected samples were found to be in excess of the RWQCB Tier I ESLs. (ATC, 1/10/2017)

# 4.0 ACTIVITIES COMPLETED DURING 2017Q01

# 4.1. GROUNDWATER MONITORING, SAMPLING AND ANALYSIS

The first Quarter 2017 monitoring and sampling was performed on February 13, 2014. Field personnel utilized *ATC's Standard Field Procedures for Groundwater Monitoring, Sampling, and Laboratory Analysis,* a copy of which is included in **Appendix B**. The well construction details for the monitoring wells in the site's monitoring well network are contained in **Table 1**. On February 13, 2017, ATC mobilized to the site and collected depth to groundwater measurements from MW-1 through MW-4 that make up the site's monitoring well network.

# 4.1.1. Groundwater Elevations and Hydrogeologic Conditions

Depth to water measurements in the monitoring well network ranged from 16.35 to 18.05 feet below top of casing and the calculated groundwater elevations ranged from 12.85 to 14.03 feet amsl. On February 13, 2014, the average of the calculated groundwater elevations in the four wells was 13.63 feet amsl. This elevation was 2.08 feet higher than the average last quarter and 1.77 feet higher than the first quarter of 2016. A summary of groundwater elevation data is presented in **Table 2**.

Based on first quarter 2017 groundwater elevations observed on February 13, 2014, the groundwater gradient and flow direction was towards the southwest at a gradient of offsite 0.124 (**Figure 3**). This is identical to the third quarter of 2016. **Table 3** presents a summary of the calculated groundwater gradient calculations.

No NAPL was detected in any of the monitoring wells on February 13, 2017, including MW-3, which contains a passive skimmer.



# 4.1.2. Groundwater Analytical Results

First Quarter 2017 groundwater monitoring samples were analyzed utilizing USEPA Method 8260B for TPHg, BTEX, fuel oxygenates, 1, 2 DCA, and EDB and USEPA Method 8015B for total petroleum hydrocarbons in the diesel range (TPHd). Additionally, due to the detection of chlorinated VOCs in soil vapor samples, ATC requested chlorinated VOC be reported for groundwater samples this quarter. Analysis of the organic lead compounds tetramethyl lead (TML) and tetraethyl lead (TEL) were only performed for MW-1 and MW-3, as TPHg in MW-2 and MW-4 have never demonstrated sufficiently high concentrations to warrant analysis for the lead compounds.

The following are constituents of concern reported for the first quarter 2017:

- TPHg was reported in samples collected from all four monitoring wells, with a maximum reported concentration of 29,000 µg/L from MW-1.
- TPHd was analyzed both with and without Silica Gel Cleanup (SGC). TPHd analyzed without SGC was reported in samples collected from all four monitoring wells, with a maximum reported concentration of 1,900 µg/L from MW-1 and MW-3. TPHd analyzed with SGC was reported in samples collected from all four monitoring wells, with a maximum reported concentration of 690 µg/L from MW-3. Although, TPHd was reported as being present in the groundwater samples, an examination of chromatograms by the laboratory concluded the chromatograms were not consistent with established chromatograms of diesel in their reference library.
- Benzene was reported in samples collected from all four monitoring wells, with a maximum reported concentration of 6,700 µg/L from MW-1.
- Toluene was reported in samples collected from all four monitoring wells, with a maximum reported concentration of 6,100 µg/L from MW-1.
- Ethyl benzene was reported in samples collected from all four monitoring wells, with a maximum reported concentration of 760 µg/L from MW-1.
- Total xylenes were reported in samples collected from all four monitoring wells, with a maximum reported concentration of 4,100 µg/L from MW-1.
- MTBE was reported in samples collected from all the monitoring wells except MW-4, with a maximum reported concentration of 700 μg/L from MW-1.
- Naphthalene was reported in samples collected from all the monitoring wells except MW-4, with a maximum reported concentration of 190 μg/L from MW-1.
- ETBE, DIPE, TBA, TAME, and EDB were not detected in any of the groundwater samples collected from the monitoring well network this quarter.



- Organic lead was not detected above laboratory detection limits in the in the two wells for which this analyte was analyzed (MW-1 and MW-3).
- 1,2-DCA was detected in MW-1 at 28 μg/L which is below the ESL. No other chlorinated volatile organic compounds (CVOCs) were detected in any of the groundwater samples.

Laboratory analytical results are Data is summarized in **Table 4. Figures 4** through **6**, respectively present the isoconcentrations for TPHg, non-SGC TPHd, and benzene, for the first quarter of 2017. All laboratory analytical results reports are included in **Appendix B**.

# 4.2. SOIL VAPOR SAMPLING AND ANALYSIS

On February 13, 2017, ATC field personnel sampled the three (3) soil vapor sampling points BSS-1, BSS-2, and BSS-3 that are located in the basement of the ARC Building. The soil vapor sampling points are depicted on **Figure 9**. Sampling was completed consistent with ATC's *Standard Field Procedures for Soil Vapor Sampling and Laboratory Analysis*, a copy of which is included in **Appendix E**. The vapor sampling log is included in **Appendix F**.

Collected vapor samples were transported under chain-of-custody documentation to a state-certified laboratory for analyses. Copies of the chain of custody document and analytical laboratory results are included in **Appendix G**. **Table 5** includes a full summary of historic analytical results of soil vapor sampling for Leaking Underground Fuel Tank (LUFT) related compounds and their respective Tier I ESL values. Some non-LUFT related Chlorinated Volatile Organic Compounds (CVOC) were also detected and addressed separately below.

Upon receiving the laboratory analysis ATC performed a Tier I evaluation of the results by comparing the result to *Environmental Screening Levels (ESLs)* established by the San Francisco Bay Regional Water Quality Control Board (RWQCB), dated February 2016, Revision 3. Specifically, the results were compared to the ESLs for Subslab/Soil vapor.

During subslab soil vapor sampling conducted on February 13, 2017, laboratory analysis for petroleum-related VOCs indicated the following:

- Benzene, ethylbenzene, m,p-xylenes, o-xylenes, and DIPE were reported in the sample collected from the subslab vapor point BSS-2, at concentrations of 37 μg/m³, 34 μg/m³, 75 μg/m³, 21 μg/m³, and 5.5 μg/m³; respectively. All of these concentrations are below the Tier I ESLs for these analytes.
- Toluene was reported in the samples collected from subslab vapor point BSS-1, BSS-2, and BSS-3, at concentrations of 22 μg/m³, 260 μg/m³, and 38 μg/m³; respectively. These concentrations were also below the Tier I ESL.
- None of the other petroleum-related COCs were detected above their respective reporting limits.

Laboratory analysis for biogenic indicator gases indicated the following:



- Carbon dioxide was detected in subslab vapor sampling points BSS-1, BSS-2, and BSS-3, at concentrations of 3.3%, 1.6%, and 4.2%; respectively. These concentrations are higher than typically measured in the atmosphere. Carbon dioxide is produced when carbon-containing compounds are degraded aerobically.
- Oxygen concentrations were detected at 16% in all the samples collected from all subslab vapor sampling points. These oxygen concentrations were higher than during the previous quarter sampling. Lowered oxygen concentrations generally indicate the presence of aerobic degradation. The higher concentrations of oxygen present suggest less aerobic degradation has been occurring this quarter.
- Methane, a possible indicator of anaerobic degradation, was only detected in the sample collected from subslab vapor sampling point BSS-2 at 14 ppmv.

Laboratory analysis also indicated the presence of chlorinated volatile organic compounds gases (CVOC). **Table 6** contains a summary of the CVOC compounds detected at this site historically, along with their respective Tier I ESL values.

- Chloromethane was reported in the samples collected from subslab vapor point BSS-1 5.4 µg/m³. This concentration is below the Tier I ESL.
- Tetrachloroethene and trichloroethene was reported in the sample collected from subslab vapor point BSS-2 at concentrations of 40  $\mu g/m^3$  and 5.6  $\mu g/m^3$ ; respectively. These concentrations are below the Tier I ESL.
- Methylene Chloride was detected in subslab vapor sampling point BSS-2 last quarter but was not detected in any of the samples collected from subslab vapor points this quarter.

# 5.0 CONCLUSIONS

ATC concludes the following from results of the first quarter 2017 groundwater and soil vapor sampling event:

# **Groundwater Sampling and Analysis**

- Groundwater elevations measured during the first quarter of 2017 sampling event were historically the highest measured at the site.
- In the current quarter, groundwater was measured to flow to the southwest with a gradient of 0.0112 t. The direction and gradient in 2017Q01 is consistent with previous quarters.
- Many of the dissolved phase PHC concentrations recorded this quarter were higher this quarter than any of the previous quarters.

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- Although, TPHd was reported as being present in the groundwater samples, the chromatograms of these samples are not consistent with established chromatograms of diesel.
- No chlorinated volatile organic compounds (CVOCs) were detected in any of the groundwater samples.
- No PHC NAPL (free product) was detected/collected again this quarter. It was last detected during the third quarter of 2016.
- No organic lead was detected to be present in excess of the laboratory detection limits in any of the groundwater samples. Organic lead was not was detected in the groundwater samples collected from MW-1 and MW-3 this quarter.

# Soil Vapor Sampling

- Soil vapor samples collected from beneath the basement floor of the ARC Building contains both LUFT-related and CVOCs; however, all detected concentrations are below their respective ESLs.
- Several indicators suggest less aerobic degradation and more anaerobic degradation may be occurring this quarter.
- The source of these chlorinated PHCs is not known.

# 6.0 RECOMMENDATIONS

ATC recommends the following:

- Continue to sample and analyze groundwater samples from the monitoring well network on the existing quarterly groundwater sampling schedule,
- Continue to attempt to collect separate-phase PHC recovery in MW-3 using the installed passive skimmer,
- Discontinue the analysis of collected groundwater samples for organic lead unless.
- Continue to develop the Conceptual Site Model for the site by expanding the downgradient groundwater investigation of the extent of benzene existing in concentrations in excess of their respective ESLs, and



# 7.0 PLANNED FUTURE ACTIVITIES

# 7.1. ROUTINE GROUNDWATER & VAPOR MONITORING, SAMPLING, AND REPORTING

The next quarterly collection of groundwater and subslab soil vapor samples has been tentatively scheduled for May 16, 2017. After laboratory analytical results have been completed and received, ATC will prepare and submit a quarterly monitoring report (QMR).

# 7.2. DEVELOPMENT OF A WORKPLAN FOR EXPANDED SITE INVESTIGATION

Upon authorization by ACEH, ATC will develop a workplan includes the continuation of the site investigation and includes:

- The continued definition and quantification of the PHC adsorbed phase mass in the source area
- Delineation of the dissolved phase PHC downgradient of the site.
- Continued evaluation of the risks represented by the PHC mass in the source area and the dissolved phase PHC downgradient of the site.

# 8.0 LIMITATIONS

All work at the site and documents submitted are completed under the advisement and review of a California-licensed Professional Geologist (PG) or Professional Engineer (PE).

This document and the work performed have been undertaken in accordance with the scope of work outlined in ATC's contract and with generally accepted professional engineering and environmental consulting practices existing at the time of completion.

This document and the work performed have been undertaken in good faith, with due diligence and with the expertise, experience, capability, and specialized knowledge necessary to perform the work in a good and workperson like manner and within all accepted standards pertaining to providers of environmental services in California at the time of investigation.

This report was prepared and applicable to the location of the site.

The evaluation of the geologic conditions at the site for this investigation is made from a limited number of data points. Subsurface conditions may vary away from these data points. No soil engineering or geotechnical references are implied or should be inferred.

If documents are cited that were not generated by ATC, the data taken from those documents is used "as is" and is assumed to be accurate. ATC does not guarantee the accuracy of this data and makes no warranties for the referenced work performed nor the inferences or conclusions stated in these documents.

ATC makes no other warranties, expressed or implied.

# **TABLES**



# TABLE 1 Groundwater Monitoring Well Construction Details The Salvation Army Adult Rehabilitation Center 601 Webster Street Oakland, California 1 of 1

	Installation	Casing Diameter	Total Well Depth	Screen Interval Upper Lower		Screen Length	TOC Elevation
Well ID	Date	(inches)	(feet bgs)	(feet bgs)	(feet bgs)	(feet)	(amsl)
MW-1	10/12/2015 -1015/2015	2	30	15	30	15	32.08
MW-2	10/14/2015	2	30	15	30	15	30.12
MW-3	10/15/2015	2	30	15	30	15	30.45
MW-4	10/15/2015	2	30	15	30	15	30.65

TOC = Top of Casing amsl = above mean sea level bgs = below ground surface

# Table 2 Summary of Groundwater Elevation Data

The Salvation Army
Adult Rehabilitation Center (ARC)
601 Webster Street
Oakland, California
(Page 1 of 1)

Well	Screen	Date			Groundwater
ID	Interval	Gauged	тос	DTW	Elevation
MW-1	(15-30)	10/23/15	32.08	20.50	11.58
		02/24/16	32.08	19.74	12.34
		05/11/16	32.08	19.45	12.63
		08/16/16	32.08	19.96	12.12
		11/16/16	32.08	20.09	11.99
		02/13/17	32.08	18.05	14.03
MW-2	(15-30)	10/23/15	30.12	18.91	11.21
		02/24/16	30.12	18.11	12.01
		05/11/16	30.12	17.87	12.25
		08/16/16	30.12	18.34	11.78
		11/16/16	30.12	18.50	11.62
		02/13/17	30.12	16.35	13.77
MW-3	(15-30)	10/23/15	30.45	19.08	11.37
		02/24/16	30.45	18.48	11.97
		05/11/16	30.45	18.02	12.43
		08/16/16	30.45	18.65	11.80
		11/16/16	30.45	18.64	11.81
		02/13/17	30.45	16.60	13.85
MW-4	(15-30)	10/23/15	30.65	20.23	10.42
		02/24/16	30.65	19.53	11.12
		05/11/16	30.65	19.22	11.43
		08/16/16	30.65	19.77	10.88
		11/16/16	30.65	19.87	10.78
		02/13/17	30.65	17.80	12.85

DTW = Depth to Water measured in feet from TOC

TOC = Top of Casing

# Table 3 Summary of Calculated Groundwater Gradient Information

The Salvation Army
Adult Rehabilitation Center (ARC)
601 Webster Street
Oakland, California

Yr	Qtr	Date	Direction	Gradient (ft./ft.)
2015	4	10/23/15	W-SW	0.0104
2016	1	02/24/16	SW	0.0124
2016	2	05/11/16	W-SW	0.0125
2016	3	08/16/16	SW	0.0124
2016	4	11/16/16	SW	0.0124
2017	1	02/13/17	SW	0.0112

Average hydraulic gradient is measured in feet/foot

NA = Not Available

NC = Not calculated due to insufficient data

-- = flat

### Table 4

Summary of Groundwater Sample Analytical Results
The Salvation Army
Adult Rehabilitation Center (ARC) 601 Webster Street, Oakland, California (Page 1 of 2)

				TP	Hd			Ethyl	Total									Organ	ic Lead
			$TPH_g$	wo/SG	w/SG	Benzene	Toluene	Benzene	Xylenes	MTBE	ETBE	DIPE	TBA	TAME	1,2-DCA	EDB	Naphthalene	TML	TEL
		ESLs	100	100	100	1.0	40	13	20	5	NE	NE	NE	NE	790	73	17	NE	NE
Date	Sample <sub>e</sub>	Depth to Sample <sup>1</sup>								n	nicrograms per li	ter (μg/L)							
Water Sam	ples Derive	ed from Moi	nitoring V	Vells															
10/23/15	MW-1	20.50	18,000	NA	NA	2,000	2,100	230	1,300	150	<5.0	<5.0	<50	<5.0	7.7	<5.0	NA	NA	NA
02/24/16	MW-1 <sup>3</sup>	19.74	6,500	1,500	NA	1,600	1,200	110	700	90	<10	<10	<100	<10	<10	<10	NA	NA	NA
05/11/16	MW-1	19.45	28,000	1,200	NA	7,600	5,400	750	2,800	770	<5.0	<5.0	<200	<5.0	NA	NA	NA	0.023	< 0.053
08/16/16	MW-1	19.96	6,300	410	NA	2,100	1,200	99	540	130	<50	<50	<2000	<50	NA	NA	NA	<1.2	<1.2
11/16/16	MW-1	20.09	3,600	210	67	1,300	750	70	330	72	<25	<25	<1000	<25	<25	<25	<50	0.022	0.074
02/13/17	MW-1	18.05	29,000	1,900	500	6,700	6,100	760	4,100	700	<25	<25	<1000	<25	28	<25	190	< 0.62	<0.62
10/23/15	MW-2	18.91	5,200	NA	NA	520	870	120	560	<5.0	<5.0	<5.0	<50	<5.0	<5.0	<5.0	NA	NA	NA
02/24/16	MW-2 <sup>3</sup>	18.11	2,300	80	NA	320	310	31	230	<5.0	<5.0	<5.0	<50	<5.0	<5.0	<5.0	NA	NA	NA
05/11/16	MW-2	17.87	1,000	<51	NA	170	200	25	150	<0.5	<0.5	<0.5	<20	<0.5	NA	NA	NA	NA	NA
08/16/16	MW-2	18.34	2,400	NA	NA	340	580	71	380	<.50	<0.5	<0.5	<20	<0.5	NA	NA	NA	<1.2	<1.2
11/16/16	MW-2	18.50	5,300	<55	NA	800	1,400	110	780	<5.0	<5.0	<5.0	<200	<5.0	<5.0	<5.0	<10	<0.021	< 0.053
02/13/17	MW-2	16.35	2,700	540	220	440	490	46	410	<5.0	<5.0	<5.0	<200	<5.0	<5.0	<5.0	20	NA	NA
10/23/15	MW-3	19.08	7,300	NA	NA	540	610	68	460	<5.0	<5.0	<5.0	<50	<5.0	<5.0	<5.0	NA	NA	NA
02/24/16	MW-3 <sup>3</sup>	18.48	190,000	270,000	NA	1,000	25,000	4,400	23,000	<100	<100	<100	<1,000	<100	<100	<100	NA	NA	NA
05/11/16	MW-3	18.02	67,000	NA	14,000	11,000	14,000	5,600	11,000	77	<50	<50	<2,000	<50	NA	NA	NA	<0.021	0.23
08/16/16	MW-3	18.65	110,000	NA	9,200	9,100	20,000	14,000	23,000	<.50	<250	<250	<10,000	<250	NA	NA	NA	<6.2	<6.2
11/16/16	MW-3	18.64	16,000	14,000	9,800	2,500	2,900	360	3,000	<25	<25	<25	<1,000	<25	<25	<25	140	<0.021	0.24
02/13/17	MW-3	16.60	16,000	1,900	690	3,400	2,600	320	2,700	38	<25	<25	<1,000	<25	<25	<25	160	< 0.62	< 0.62
10/23/15	MW-4	20.23	3,700	NA	NA	440	210	72	160	<0.5	<0.5	<0.5	<5.0	<0.5	15	<0.5	NA	NA	NA
02/24/16	MW-4 <sup>3</sup>	19.53	<50	820	NA	300	53	31	160	<5.0	<5.0	<5.0	<50	<5.0	7.4	<5.0	NA	NA	NA
05/11/16	MW-4	19.22	45,000	NA	650	17,000	7,900	870	4,000	<250	<250	<250	<10,000	<250	NA	NA	NA	NA	NA
08/16/16	MW-4	19.77	5,900	NA	160	1,200	500	87	350	<10	<10	<10	<400	<10	NA	NA	NA	NA	NA
11/16/16	MW-4	19.87	4,400	480	NA	820	160	25	88	<10	<10	<10	<400	<10	<10	<10	<20	< 0.021	< 0.053
02/13/17	MW-4	17.80	4,700	670	240	1,000	280	37	150	<10	<10	<10	<400	<10	<10	<10	<20	NA	NA

### Table 4

### **Summary of Groundwater Sample Analytical Results**

The Salvation Army
Adult Rehabilitation Center (ARC)
601 Webster Street, Oakland, California
(Page 2 of 2)

				TPI	Hd			Ethyl	Total									Organi	ic Lead
			TPHg	wo/SG	w/SG	Benzene	Toluene	Benzene	Xylenes	MTBE	ETBE	DIPE	TBA	TAME	1,2-DCA	EDB	Naphthalene	TML	TEL
		ESLs	100	100	100	1.0	40	13	20	5	NE	NE	NE	NE	790	73	17	NE	NE
Water Sam	ples Deriv	ed from Inv	estigative	Borings															
07/29/13	SB1-W <sup>2</sup>	NC	210,000	NA	NA	35,000	47,000	3,000	16,000	240	<50	<50	<500	<50	<50	<50	NA	NA	NA
07/29/13	SB2-W <sup>2</sup>	NC	350	NA	NA	70	26	7.9	15	12	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA
07/30/13	SB4-W <sup>2</sup>	NC	280,000	NA	NA	35,000	30,000	3,900	20,000	5,300	<50	<50	<500	<50	<50	<50	NA	NA	NA
07/30/13	SB5-W <sup>2</sup>	NC	3,200	<50	NA	370	470	42	200	<2.0	<2.0	<2.0	<20	<2.0	<2.0	<2.0	NA	NA	NA
07/30/13	SB6-W <sup>2</sup>	NC	64,000	45,000	NA	6,000	10,000	1,700	8,600	<20	<20	<20	<200	<20	<20	<20	NA	NA	NA
07/30/13	SB7-W <sup>2</sup>	NC	1,100	<50	NA	100	170	22	120	37	<1.0	<1.0	<10	<1.0	<1.0	<1.0	NA	NA	NA
10/12/15	L2-W <sup>2</sup>	NC	9,400	NA	NA	1,300	2,100	240	1,200	<10	<10	<10	<100	<10	<10	<10	NA	NA	NA
10/12/15	L3-W <sup>2</sup>	NC	19,000	NA	NA	2,200	2,200	470	2,300	<10	<10	<10	<100	<10	<10	<10	NA	NA	NA
10/14/15	L4-W <sup>2</sup>	NC	37,000	NA	NA	4,000	6,200	800	4,300	<10	<10	<10	<100	<10	<10	<10	NA	NA	NA
10/14/15	P2-W 2	NC	120	NA	NA	1.9	5.1	0.9	4.7	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA

### Notes:

- 1 = Depth to Sample = Depth to Water
- 2 = Sample collected from temporary boring
- 3 = Sample analyzed for TPHd = Total Petroleum Hydrocarbons as Diesel by EPA Method 8015 (interference)

ESLs = Environmental Screening Levels for Groundwater Vapor Intrusion - Human Health Risk Levels (Com/Ind: Fine to Coarse Scenario)

Bold = > Detected at or Above Stated Method Detection Limit

Bold = > ESL

NA = Not Analyzed/Not App NC = Not Collected

NE = None Established

< = Not Detected at or Above Stated Method Detection Limit

TPHd = Total Petroleum Hydrocarbons as Diesel by EPA Method 8015/3630 (Silica Gel Cleanup)

TPHg = Total Petroleum Hydrocarbons as Gasoline by EPA Method 8015

Benzene = Benzene by EPA Method 8260B

Toluene = Toluene by EPA Method 8260B

Ethyl Benzene = Ethylbenzene by EPA Method 8260B Xylenes = Total Xylenes by EPA Method 8260B TAME = Tertiary Amyl Methyl Ether by EPA Method 8260B

ETBE = Ethyl tert=Butyl Ether by EPA Method 8260B MTBE = Methyl Tertiary Butyl Ether by EPA Method 8260B

1,2-DCA = 1,2=Dichloroethane (aka EDC) by EPA Method 8260B

DIPE = Diisopropyl Ether by EPA Method 8260B TBA = tert=Butyl Alcohol by EPA Method 8260B EDB =1,2=Dibromoethane by EPA Method 8260B NPHTH = Naphthalene by EPA Method 8260B
TEL = Tetra ethyl lead by EPA Method 8270 Modified
TML = Tetra methyl lead by EPA Method 8270 Modified

# **TABLE 5**

# Subslab Soil Gas Sample Analytical Results LUFT Related Compounds Salvation Army ARC Building 601 Webster Street Oakland, California

1 of 1

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		Analtyical Method	TO15	TO15	TO15	TO15	TO15	TO15	TO15	TO15	TO15	TO15	TO15	TO17		ASTM D1945	ASTM D1945	ASTM D1945	TO15	<u>[</u> ]
	Tier I ESL 48 160,000 560 52,000 54 2.3 41 41																			
Samplin	ng Date	Sample ID units					-	μg/m³								%	%	ррти	μg/m³	<u>]</u>
		BSS-1	< 3.2	4.7	72	350	150	< 4.2	< 4.2	< 4.2	< 4.1	< 7.8	< 5.3	NS		2.6	11	< 10	< 5.5	
2016Q04	11/16/2016	BSS-2	< 3.2	4.7	< 4.4	< 8.8	< 4.4	< 4.2	< 4.2	< 4.2	< 4.1	< 7.8	< 5.3	NS	]	1.6	14	< 10	< 5.5	
		BSS-3	< 3.2	5.3	< 4.4	< 8.8	< 4.4	< 4.2	< 4.2	< 4.2	< 4.1	< 7.8	< 5.3	NS	1	2.7	12	< 10	< 5.5	
		BSS-1	< 3.2	22	< 4.4	< 8.8	< 4.4	< 4.2	< 4.2	< 4.2	< 4.1	< 7.8	< 5.3	<10		3.3	16	< 10	< 5.5	
2017Q01	02/13/17	BSS-2	37	260	34	75	21	5.5	< 4.2	< 4.2	< 4.1	< 7.8	< 5.3	<10	1	3.2	16	14	< 5.5	
		BSS-3	< 3.2	38	< 4.4	< 8.8	< 4.4	< 4.2	< 4.2	< 4.2	< 4.1	< 7.8	< 5.3	<10		4.2	16	< 10	< 5.5	

### Notes:

 $\mu g/m3$  = Micrograms per cubic meter. All results and ESLs are expressed in  $\mu g/m3$ 

ESL = California Environmental Protection Agency, San Francisco Bay Regional Water Quality Control Board's ESL Worksheet, Revision 3, dated February 2016. ATC used the Tier I ESLs for Subslab/Soil.

ppmv = parts per million by volume or moles per million, by volume

na = not applicable

-- = No ESL provided

<x.x = Not detected above laboratory reporting limits

x.x = Bold = Concentrentions above laboratory

detection limits x.x = Bold = Concentrentions aboveTier I ESL MTBE = Methyl-Tert-Butyl-Ether

ETBE = Ethyl Tertiary Butyl Ether TBA = Tertiary Butyl Alcohol EDC = 1,2-Dichloroethane

DIPE = Di-Isopropyl Ether EDB = Ethyl Dibromide

TAME = Tertiary Amyl Methyl Ether

Methlyene Chloride, originally detected in the 2016Q4 has been removed from this table and included with the other analytes that have been detected but not assoicated with the UST release from the site.

These results are now included in in Table 6

# **TABLE 6**

# Subslab Soil Gas Sample Analytical Results Chlorinated Compounds Salvation Army ARC Building 601 Webster Street Oakland, California 1 of 1

Characteristics Weithylese Charitée Testechtraesterie Tricharactestrere												
		Analtyica	l Method			15						
		Т	ier I ESL	47,000	510	240	240					
Samplii	ng Date	Sample ID	units		μg	/m3						
			BSS-1	< 2.1	< 3.5	< 6.9	< 5.5					
2016Q04	11/16/2016		BSS-2	< 2.1	< 3.5	< 6.9	< 5.5					
			BSS-3	< 2.1	14	< 6.9	< 5.5					
			BSS-1	5.4	< 3.5	< 6.9	< 5.5					
2017Q01	02/13/17		BSS-2	< 2.1	< 3.5	40	5.6					
Notoci			BSS-3	< 2.1	< 3.5	< 6.9	< 5.5					

# Notes:

 $\mu g/m3$  = Micrograms per cubic meter. All results and ESLs are expressed in  $\mu g/m3$ 

ESL = California Environmental Protection Agency, San Francisco Bay Regional Water Quality Control Board's ESL Worksheet, Revision 3, dated February 2016. ATC used the Tier I ESLs for Subslab/Soil.

na = not applicable

ppmv = parts per million by volume or moles per million, by volume

-- = No ESL provided

<x.x = Not detected above laboratory reporting limits</p>

**x.x** = Bold = Concentrentions above laboratory detection limits.

x.x = Bold = Concentrentions aboveTier I ESL

# **FIGURES**



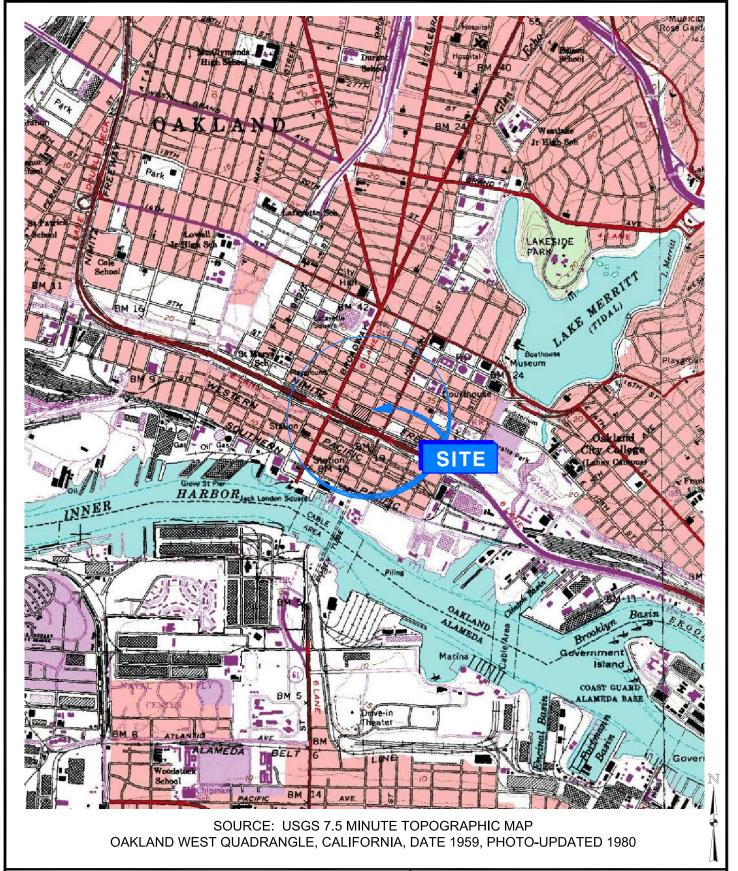


FIGURE 1
SITE LOCATION MAP

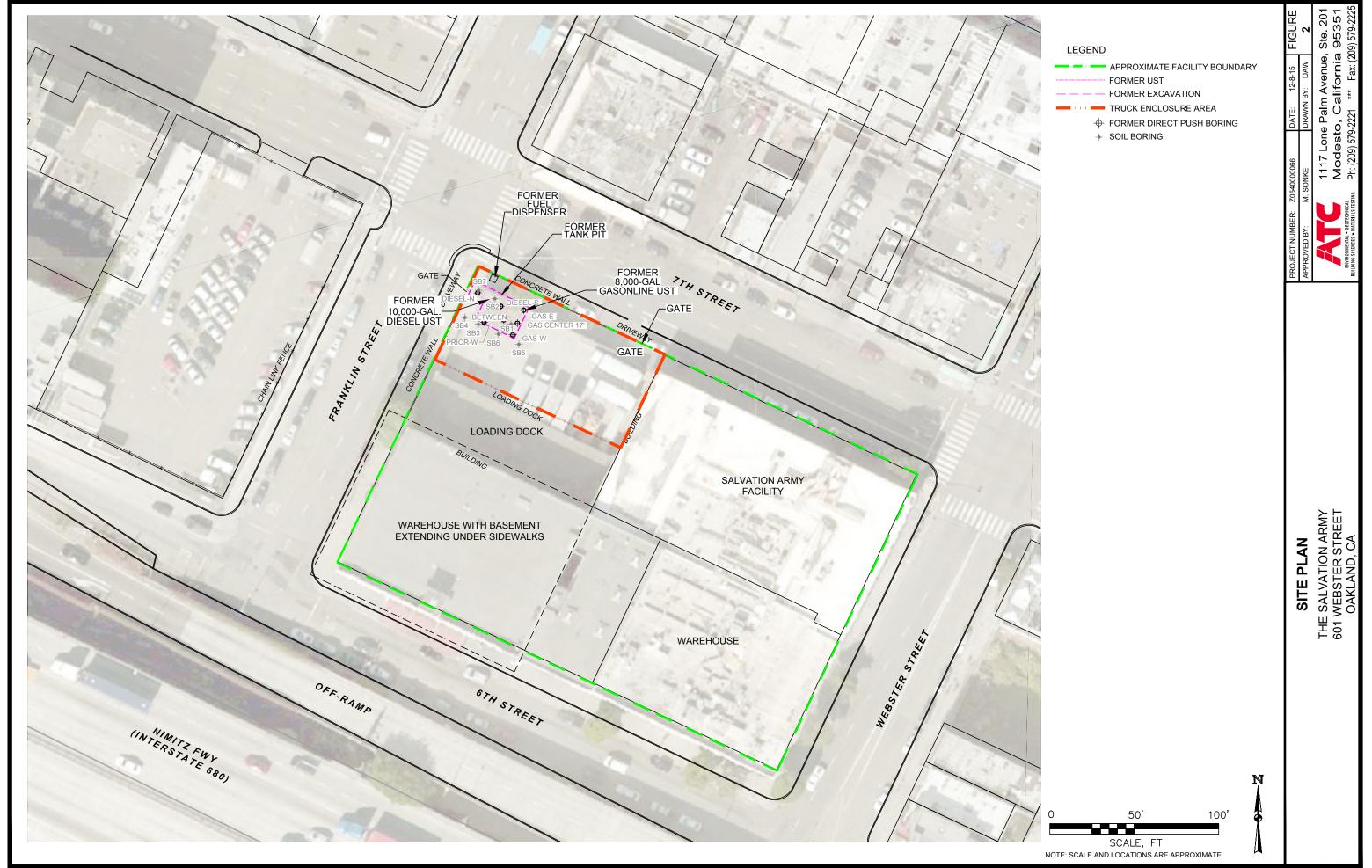
THE SALVATION ARMY 601 WEBSTER STREET OAKLAND, CALIFORNIA ENVIRONMENTAL • GEOTECHNICAL BUILDING SCIENCES • MATERIALS TESTING

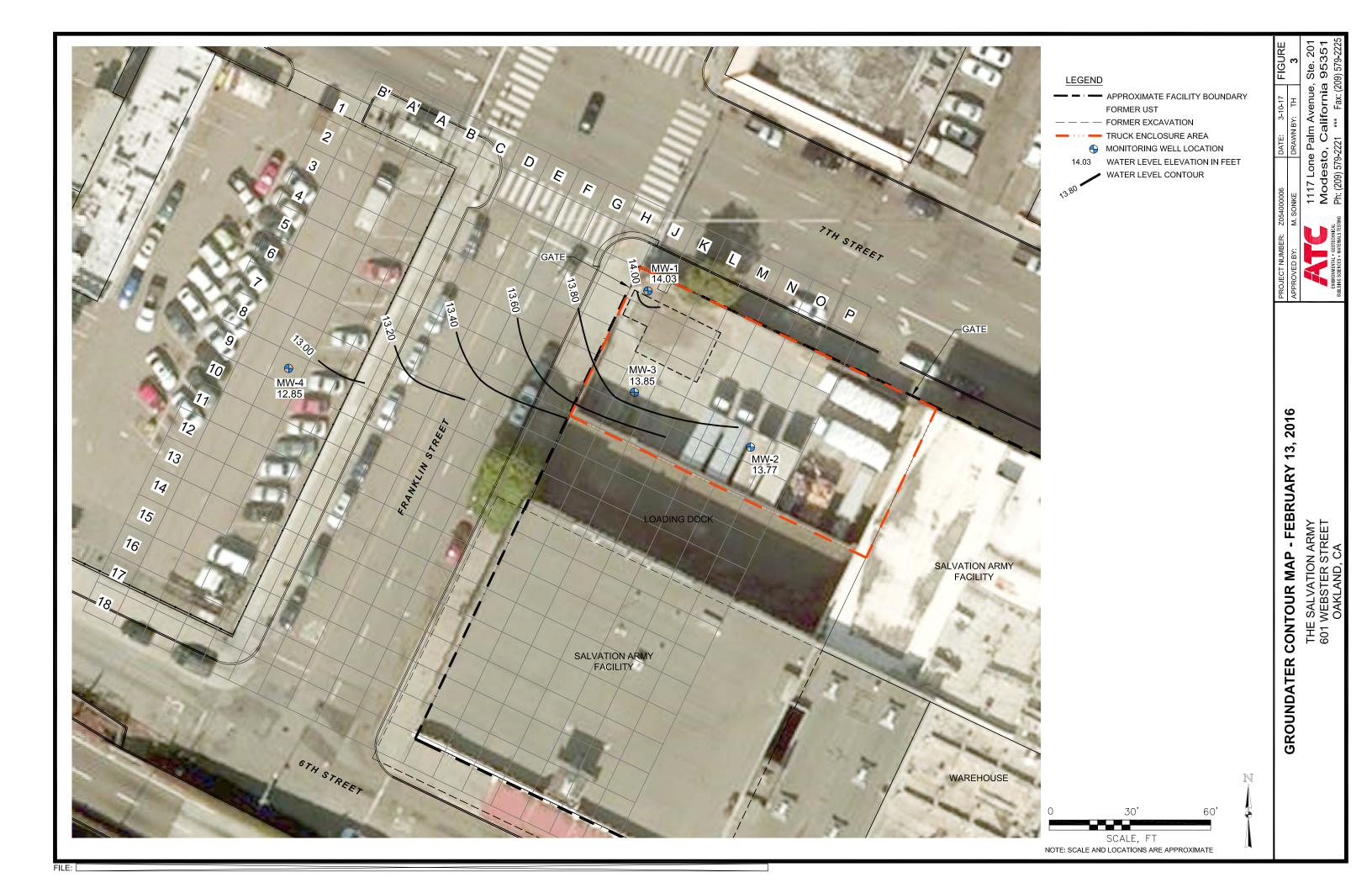
1117 LONE PALM AVE., SUITE 201 MODESTO, CA 95351 Ph: (209) 579-2221

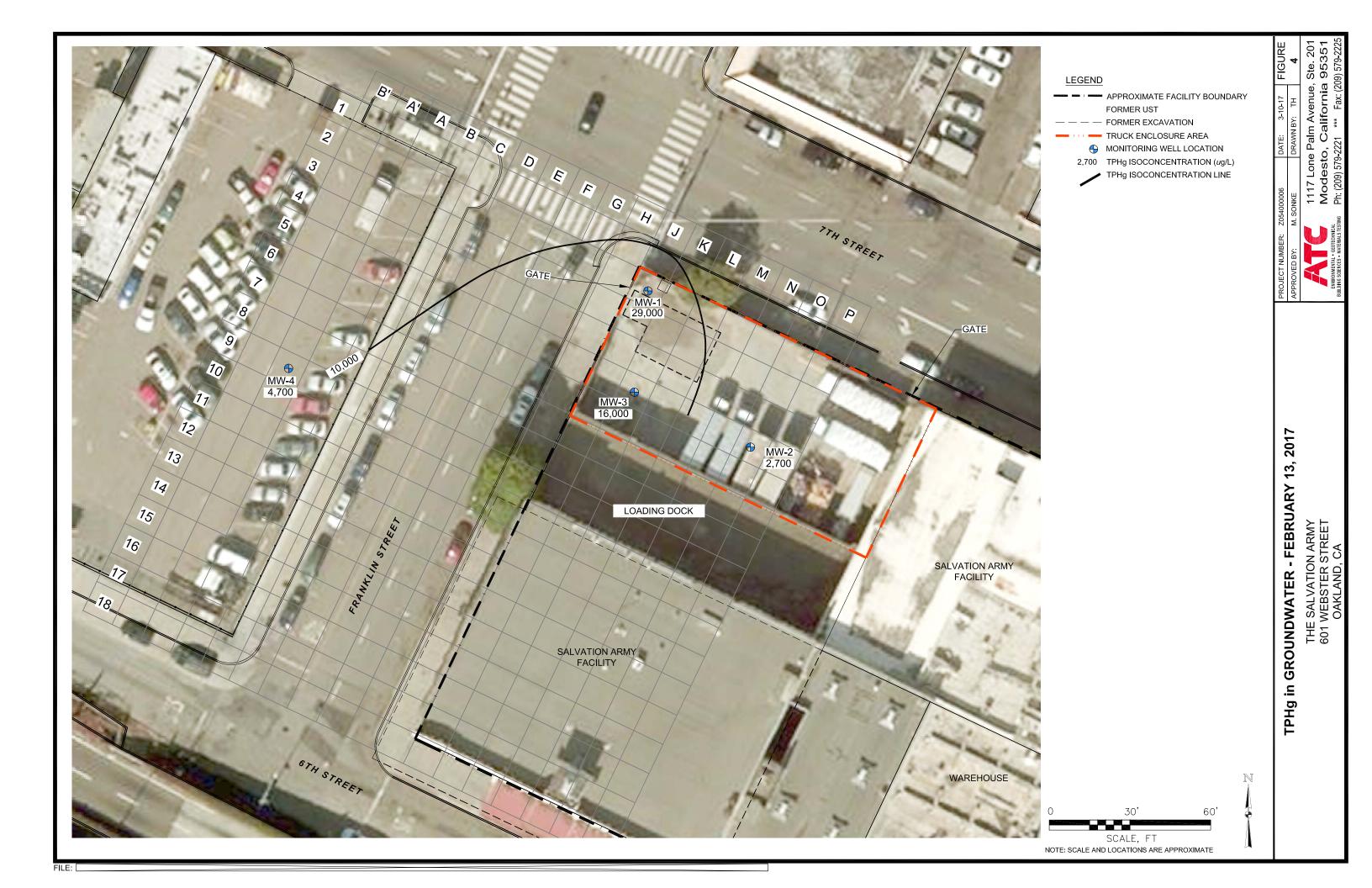
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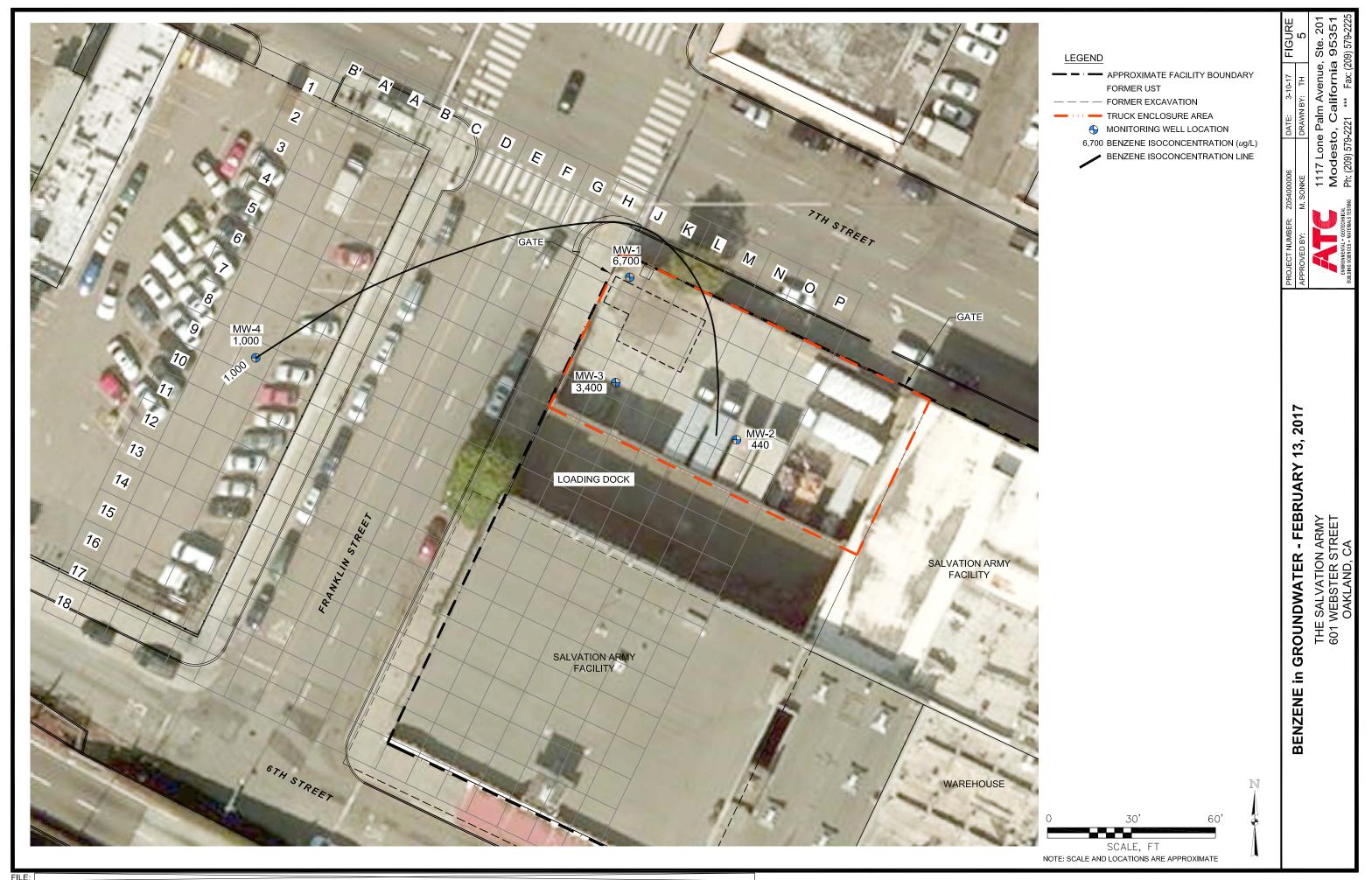
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 JH
 DATE:
 1-22-15

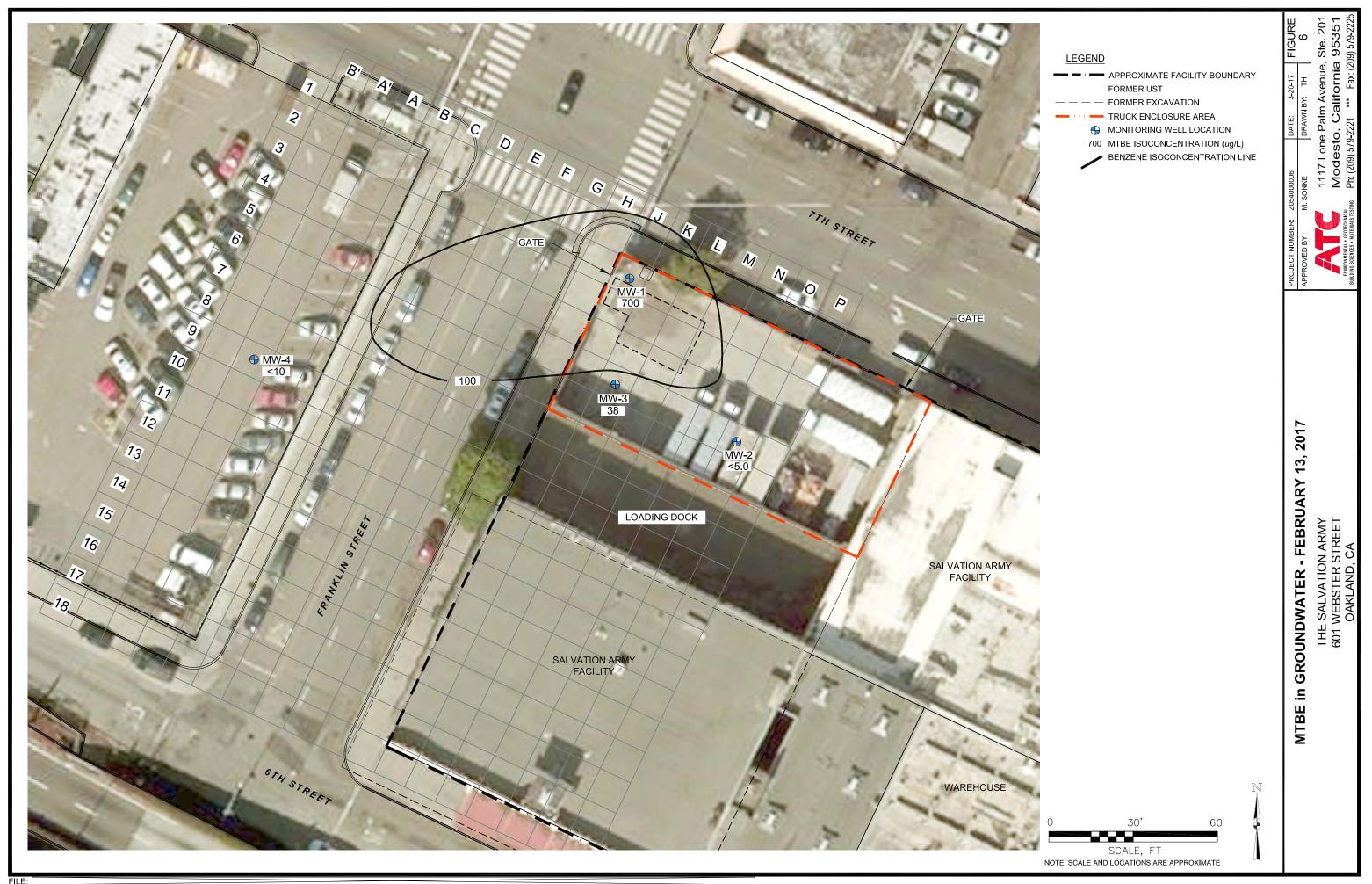
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 MDS
 DRAWN BY:
 DAW
 SCALE:
 1:24,000

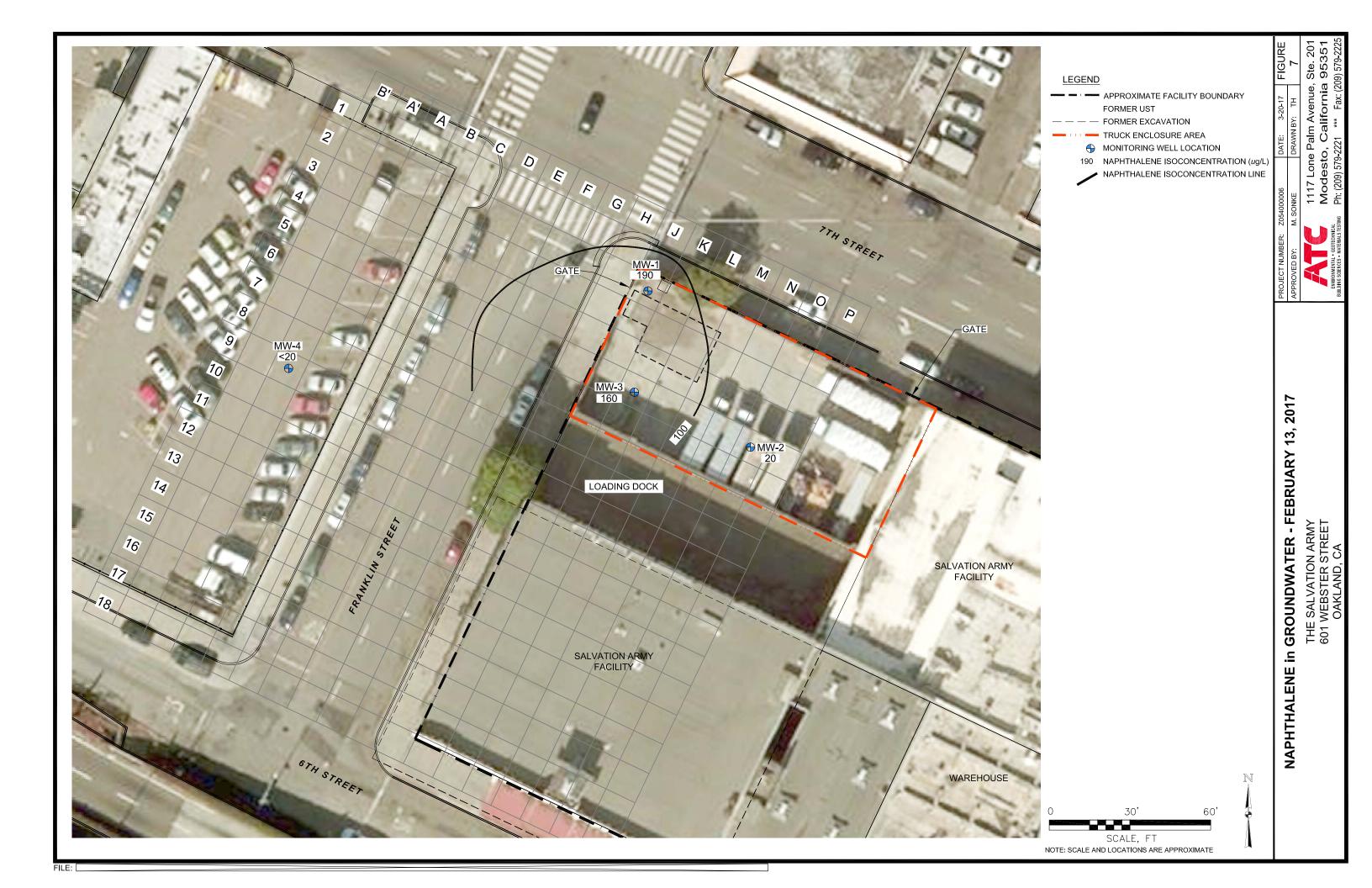


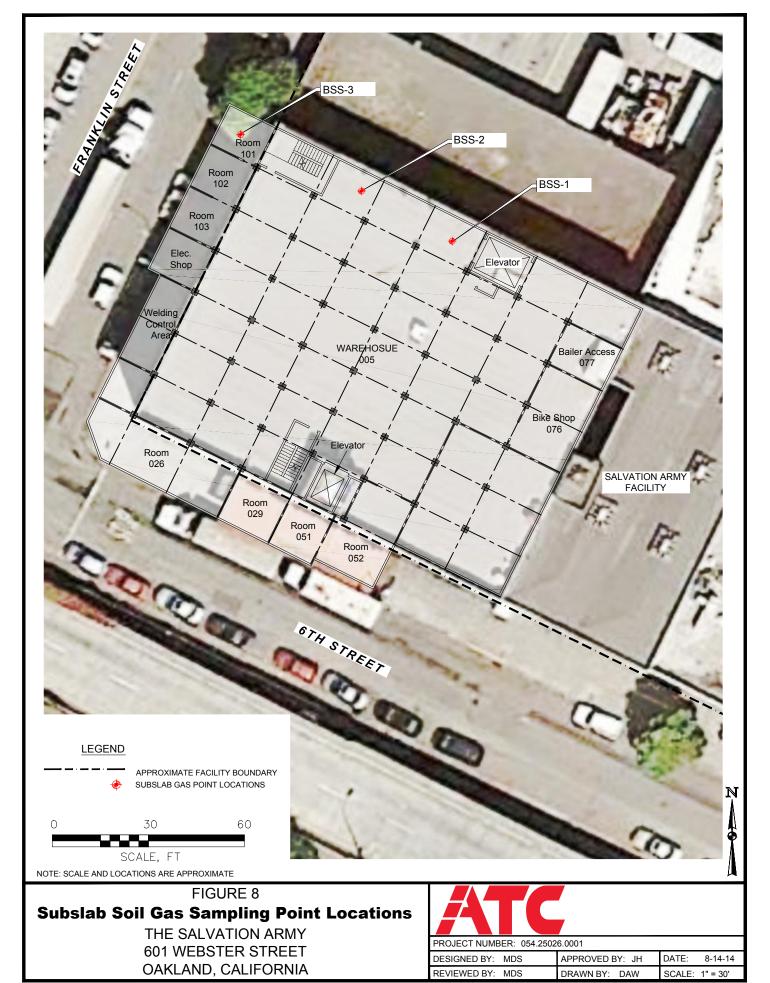












# **APPENDICES**



# Appendix A

Bibliography including
Historical Work ATC Work
products



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# Appendix **B**

ATC's Standard Field
Procedures for
Groundwater Monitoring,
Sampling, and Laboratory
Analysis





#### **ATC Group Services**

## STANDARD FIELD PROCEDURES FOR GROUNDWATER MONITORING AND SAMPLING

ATC will notify ACEH a minimum of 72 hours in advance of commencing fieldwork.

The historical monitoring and analytical data of each monitoring well shall be reviewed prior to performing monitoring activities to determine the order in which the wells will be monitored (i.e. lowest concentrations to highest concentrations). Groundwater monitoring should not be performed when the potential exists for surface water to enter the well (i.e. flooding during a rainstorm).

Prior to groundwater sample collection, the locking well caps will be removed to let the pressure inside the well equilibrate with atmospheric pressure for approximately 20 to 30 minutes. If any of the wells are likely to contain phase separated hydrocarbons aka non-aqueous phase liquid (NAPL), an electronic interface probe will be used to detect the presence, and measure the thickness if the layer, if present. If NAPL is present, a bailer cut will be retrieved, the bailer cut photographed for confirmation, and the well will not be sampled. To prevent cross-contamination, monitoring equipment that comes in contact with groundwater will be scrubbed with a solution of Alconox® detergent and rinsed with rinsate water prior to use in each well.

Both the static groundwater level and total depth of the well will be measured from a reference point on the top of the well casing and recorded. Fluid measurements will be recorded to the nearest 0.01-foot. The static groundwater level and total depth of the well will then be used to calculate the total volume of water in the well.

Prior to the collection of groundwater samples, a minimum of three well volumes (casing and sand pack) will be purged from each well using a 2-inch Grundfos® submersible pump or a disposable polyethylene bailer. During purging, periodic measurements of temperature, pH, and specific electrical conductivity will be measured at casing volume multiples. When three successive stabilized readings are obtained, the well will be sampled. If the well is low yielding and is pumped or bailed dry, the well will be allowed to recover at least 80% of the static groundwater level. If the well does not recover 80% within a 24-hour period, a sample will be collected and recovery noted on the Groundwater Sampling Log.

Groundwater samples will be collected from the well using a disposable polyethylene bailer. Each sample will be collected in laboratory certified clean 40-milliliter volatile organic analysis (VOA) vials and 1-liter glass bottles. Preservatives will be pre-added by the laboratory as appropriate for the analyses selected. Each VOA vial will be filled completely with sample to eliminate headspace and create a positive meniscus. Each VOA vial will be capped with a convex Teflon® septa. Each vial will be observed to ensure that no air bubbles are present within the vial.

Samples will be marked for identification, placed in a cooler chilled with ice, and transported to a State-certified laboratory for analyses. Chain-of-custody records will be maintained and accompany samples to the analytical laboratory. Groundwater purged from the well will be stored on-site in 55-gallon drums pending proper disposal.

#### LABORATORY ANALYSES OF COLLECTED GROUND WATER SAMPLES

All soil and groundwater samples will be analyzed as follows:

EPA Method 8015M	EPA Method 200.8.					
Total Petroleum Hydrocarbons as Gasoline	Total organic lead					
Total Petroleum Hydrocarbons as Diesel (TPHd)						
EPA Method 8260B						
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)	Tertiary Amyl Methyl Ether (TAME)					
Methyl Tertiary-Butyl Ether (MTBE)	1,2-Dichloroethane (1,2-DCA)					
Tertiary Butyl Alcohol (TBA)	Ethyl Dibromide (EDB)					
Di-Isopropyl Ether (DIPE)	Naphthalene <sup>1</sup>					
Ethyl Tertiary Butyl Ether (ETBE)						

<sup>&</sup>lt;sup>1</sup> Soil samples collected from the upper 10 feet of the vadose zone are to be analyzed for naphthalene to supply data used in the Direct Contact to Outdoor Air Exposure evaluation of the LTCP.

#### MANAGEMENT OF INVESTIGATION DERIVED WASTE

All investigative derived wastes (IDW) including soil cuttings, wash water, decontamination rinsate water, and purge water will be contained in Department of Transportation (DOT) approved 55-gallon drums. The drums will be labeled as non-hazardous waste and will be temporarily staged onsite pending laboratory results. Disposition of the IDW will be conducted by an appropriate waste disposal subcontractor and will be managed in accordance with State and local guidelines.

# Appendix C

**Groundwater Sampling Logs** 



AT	
ATC Branch: Modesto,	CA

FLD-102

			INIOL	itoring	well G	auging	Log	Revision 0.0
				•		-	_	Jan-17
ATC Branch:	Modesto, CA	4	<u> </u>		Date: 02	ン/3/ブ Salvation Army	2	Page / of /
ATC Represe	entative(s): Ale	ex Flores			Project: The S	Salvation Army	ARC	
					Location: 601	Webster Stree	∍t, Oakland, C <i>F</i>	4
Contact Infor	mation: Mike So	onke			Project No: Z	054000006		Task No: 01
					Weather:	Toudy	/	Temperature: 52
Water Level I	Veter Model/ID	): Solinist 101/ 2	<del>12129</del> 223	1605	Interface Prob	be Model/ID: N/	/A	
Well ID	Casing Diameter (inches) / Type	Removai"	Time of Gauging*	Depth To LNAPL (feet)	Depth To Water (feet)	LNAPL Thickness (feet)	Total Well Depth (feet)	Comment
MW-1	2	0800-0815	0853		18.05		29.72	Slighty odor
MW-2	2	6828	0902		16.35		29.82	gas odor
MW-3	2	0800.0815	, ,		16.60		29.75	16.58. gasodor
MW-4	2	4	0848		17.80		29.73	Slightly odor gas odor on water meter 16.58. gas odor Slightly odol
								. , ,
i								
Comments: N	lonitoring Orde	er: MW-2, 4, 1 &	. 3.					-
<del></del>			<u></u>					

#### Notes:

If top of screen is submerged, allow at least 15 minutes for well equilibration following well cap removal.

All measurements to be reported to nearest 0.01 ft.

ID

= Identification.

LNAPL

= Light Non-Aqueous Phase Liquid.

Sheen

= Discontinuous, non-measurable thickness of LNAPL (less than 0.01 ft).

Trace

= Continuous, non-measurable thickness of LNAPL.

			Mor	nitoring	Well P	urging	and	FLD-103
Sampling Log							Revision 1.0	
					9	9		Feb-16
ATC Branch:	Modesto, Ca		· · · · · · · · · · · · · · · · · · ·		Date: () 2	13/7		Page / of /
ATC Represe	entative(s): Ale	x Flores		· · · · · · · · · · · · · · · · · · ·	Project: The S	Salvation Army	ARC	<u> </u>
					Location: 601	Webster Stree	et, Oakland CA	
Contact Infor	mation: Mike S	onke			Project No:Z0	54000006		Task No: 01
Well ID	: MW-	ſ			Contractor:			
		1			Weather:	Toudy		Temperature: 540F
	<u></u>	P	Purging & S	ampling Ins	strumentati			
Water Level N	Meter (Model/ID):	Solinist 101/2	<sup>12129</sup> 223	605	Interface Prol	oe (Model/ID): N	I/A	
-	Meter (Model/ID		15k0		Decontamina	tion Method:	Alconox and ris	ate water
Purging Meth	od: • P'	VC Bailer 📝	Disp. Baile	er Su	bmersible Pum	p (	Centrifugal Pum	np Other:
3 Well Volum		Low Flow			Intake [			
Sampling Met		Teflon Bailer	Dispos			ated Tubing	Other:	
		Volume Info					ing Calcula	itions
Casing Diam	eter (Circle):	2"	4" 6"	Other	Casing Volum	nes (CV):	187	5.60
Casing Multip	olier (CM)(gallons	s/foot): 0.16 (	).65 1.47		wc1167x	см <u>O//6=</u> _	(CV) <sub>(gal)</sub>	5. 6. O x 3.0 CV (gal) = PV
			М	onitoring N	leasuremer	its		
Depth to LNA	PL (feet):				Total Well Depth (feet): 29, 72			
Depth to Wate	er (DTW)(feet):	18,00			Water Column	(WC)(feet):	11.67	
LNAPL Thick	ness (ft):				Purging Start Time:			
				Purgin	ng Data			
Time	DTW	Cum. Vol.	рН	Specific	Temp	Dissolved	ORP	
(0411)	/F 4\	Purged		Cond.	(00)	Oxygen	(mV)	Comment
(24 Hours)	(Feet)	(Gallons)	(± 0.1)	(mS/cm) (± 5%)	(°C) (± 1°)	(mg/L) (± 10%)	(± 10 mV)	Begin hand
10/3	18.05	0.5	6.82	1.137	19.83	(		Clear tho
1016		2.4	6.86	1.165	2014			905 080 V
1020		4.3	6.87	1,041	20,41			Traces roblyrayishy
1023	19.78	6.2	6.89	1.012	2063			Stone
,,,,,	1 63		0 0 1		20. E			3, 07,
117.5	18.07							
				Sampl	e Data			
Sample ID: M	W- <i>j</i>		Time of Samp	le: 1125	5	Filtered	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:					(yes/no)	rieservatives	Analytical Falameters	
			40mL, 2			No	HCI	TPHg EPA 8260B
		<del>-</del>	40mL, 2			No	HCI	BTEX, Oxy's 5
S	ee chain of	custody fo	or complete					
				Well Reco	overy Data	Flam Data (Cr	(8.4). A	
Maximum Dra	wdown (DTWn		<u>. 23                                    </u>		Approximate I		1VI): 0.6	12
Recovery Typ		Fast	Slow		% Recovery =	94.8	(O) Sa	upb time
Purge Water I	Disposition (Att	ach Drum Inve	ntory Log - FLI	) 108):				

Comments:

	/		Mor	nitorino	Well P	uraina	and	FLD-103
			11.0.	_			ulia	Revision 1.0
				Jai	npling	Log		Feb-16
ATC Branch: M	lodesto, Ca			<u> </u>	Date:	21317		Page , of ,
ATC Represen	tative(s): Ale	x Flores				Salvation Army	ARC	
					Location: 601	Webster Stree	et, Oakland CA	
Contact Inform	ation: Mike S	onke			Project No:Z0	54000006		Task No: 01
Well ID:	MW	7			Contractor:			
WCII ID.	IVIV				Weather:	1000	<i>j</i>	Temperature: 53°F
		P	Purging & S	ampling In	strumentati	on & Metho	od	
Water Level Me	eter (Model/ID):	Solinist 101/ 2	<del>12129</del> ZZ3	3605	Interface Pro	be (Model/ID): N	I/A	
Water Quality N	Vieter (Model/ID)	): YSI 556 /	15/05		Decontamina	tion Method:	Alconox and ris	sate water
Purging Method	d:P\			er Su	bmersible Pum	np(	Centrifugal Pun	np Other:
3 Well Volumes		Low Flow			Intake			
Sampling Meth		Teflon Bailer	Dispo			ated Tubing	Other:	
		Volume Info				Purg	ing Calcula	ations
Casing Diamet	ter (Circle):	2"	4" 6"	Other	Casing Volun	nes (CV):	2.155	1.47
Casing Multipli	ier (CM)(gallons	s/foot): 0.16 (	).65 1.47		wc <u>เรา</u> +าx	CM 0 116=	(CV)(gal)	x 3.0 CV (gal) = PV
			M	onitoring N	leasuremer			
Depth to LNAP	L (feet):				Total Well Depth (feet): 29.82			
Depth to Water	(DTW)(feet):	16.35				n (WC)(feet):/		
LNAPL Thickne					Purging Start	Time: $69$	10	
				Purgir	ng Data			
Time	DTW	Cum. Vol. Purged	рН	Specific Cond.	Temp	Dissolved Oxygen	ORP (mV)	Comment ,
(24 Hours)	(Feet)	(Gallons)	(± 0.1)	(mS/cm) (± 5%)	(°C) (± 1°)	(mg/L) (± 10%)	(± 10 mV)	Begin hand
09117	16.35	0.5	6.77	1.268	17.27	(I 1070)	( <u> </u>	chan 470.
1014	1000	2.7	6.82	1.321	18.59			Slight gas oder
n917		4.9	6.86	1.303	19.10			light brownish HS
0920	10.11	7.0	6.88	1.289	19.24			Story.
0,-0	<del>/**/*</del>	7.0	<u> </u>	11231	11.01			1
1110	16.37							
.,,				Samp	le Data		(	
Sample ID: MW	1-2		Time of Samp			Filtered	Dreservatives	Analytical Darameters
Container Type	s, Volumes, 8					(yes/no)	Preservatives	Analytical Parameters
			40mL, 2			No	HCI	TPHg EPA 8260B
		<del></del>	40mL, 2			No	HCI	BTEX, Oxy's 5
Se-	e chain of	custody fo	or complete					
				Well Reco	overy Data	=		A.
Maximum Draw		1)(feet):	76			Flow Rate (GP		1 <u>0</u>
Recovery Type:		Fast	Slow		% Recovery =			4 1/
Purge Water Di DepH Comments:	,	- <del>-</del>	ntory Log - FLE		- 16.3	99.8. 7	<u> </u>	Sauple time.

			Mor	nitoring	Well P	urging	and	FLD-103
				npling		Revision 1.0		
				Oui				Feb-16
ATC Branch:	Modesto, Ca				Date: 02	1317		Page of
ATC Represe	ntative(s): Ale	x Flores				Salvation Army		
					Location: 601	Webster Stree	et, Oakland CA	
Contact Inforr	nation: <b>Mike S</b>	onke	<u> </u>		Project No:Z0	54000006		Task No: 01
Well ID	: MW- 🤇	2			Contractor:		<u></u>	
					Weather:	Toude	/	Temperature: 54° =
					strumentati	on & Metho	od	
Water Level N	/leter (Model/ID):	Solinist 101/ 2	12129 ZZ	3605	Interface Pro	De (Model/ID): N	/A	
	Meter (Model/ID)		15KC	· matter	Decontamina	tion Method:	Alconox and ris	sate water
Purging Metho	od: P'	VC Bailer _	Disp. Baile	er Su	bmersible Pum	р(	Centrifugal Pun	np Other:
3 Well Volume	es	Low Flow	Mic	ro Purge _	Intake I	Depth (feet be	ow TOC)	
Sampling Met	hod:1	eflon Bailer	Dispo	sable Bailer	Dedic	ated Tubing	Other:	
	Casing \	Volume Info	ormation			Purg	ing Calcula	ations
Casing Diamo	eter (Circle):	2"	4" 6"	Other	Casing Volun	jes (CV):	2104	x 3.0 CV (gal) = PV
Casing Multip	olier (CM)(gallons	s/foot): 0.16 0	.65 1.47		wc 13.13	CM 0,16	(CV)(gal)	x 3.0 CV (gal) = PV
			M	onitoring N	leasuremer	its		
Depth to LNA	PL (feet):				Total Well Depth (feet): 79,75  Water Column (WC)(feet): 13,15			
Depth to Wate	er (DTW)(feet):	16.6	0		Water Columr	(WC)(feet):	13.15	
LNAPL Thickr	ness (ft):				Purging Start Time: 1045			
				Purgir	ig Data			
Time	DTW	Cum. Vol. Purged	pН	Specific Cond.	Temp	Dissolved Oxygen	ORP (mV)	
(24 Hours)	(Feet)	(Gallons)	(1. O.4)	(mS/cm)	(°C)	(mg/L)	(, 40, 30	Begin hand
1045	16.60	. 0.5	(± 0.1)	(± 5%) /· 003	(± 1°) i.g. 37	(± 10%)	(± 10 mV)	Meanlasint
1043	79.00		1.81	1.029	10 70			CLOW 1770, STIGKT
1052		2.6	0.01	1 001	10 45			Sheen-
1050	2012	7.4	690	1.001	7011			Lightgrayish 120
1037	20.13	(0.0	6.10	0 e 7 8 f	7.0.00			2564
1215	16.61							
1213	10:01			Samp	le Data			
Sample ID: M\	W-3		Time of Samp			Filtered		
Container Typ	es, Volumes, 8	k Quantities:			2	(yes/no)	Preservatives	Analytical Parameters
		Glass, 4	10mL, 2			No	HCI	TPHg EPA 8260B
		Glass, 4	10mL, 2			No	HCI	BTEX, Oxy's 5
Se	ee chain of	custody fo	r complete	lab analys	sis			
				Well Reco	very Data			
Maximum Dra	wdown (DTW <i>n</i>	n)(feet): <b>4</b>	.13		Approximate I	Flow Rate (GP	M): 0.6	8
Recovery Type	e:	Fast	Slow		% Recovery =	99,9	@ Sau	ple time.
Purge Water D	Disposition (Att	ach Drum Inve	ntory Log - FLI	O 108):				
Comments:	6.8 9	allous	peru	u)				
	J	•	' /					

			Mor	nitoring	Well F	urging	and	FLD-103
Sampling Log						Revision 1.0		
					9			Feb-16
ATC Branch:	Modesto, Ca				Date: 02	2/3/	7	Page / of /
ATC Representative(s): Alex Flores						Salvation Army		
					Location: 601	Webster Stree	et, Oakland CA	
Contact Infor	mation: <b>Mike S</b>	onke			Project No:Z0	54000006		Task No: 01
Well ID	: MW- 4	Ì		-	Contractor:			
		(			Weather:	lander		Temperature: 53 0/=
		F	urging & S	ampling Ins	strumentati	on & Metho	od	
Water Level I	/leter (Model/ID):	Solinist 101/ 2	<sup>12129</sup> 22	3605	Interface Pro	be (Model/ID): N	I/A	
Water Quality	Meter (Model/ID	): YSI 556	15KC		Decontamina	tion Method:	Alconox and ris	sate water
Purging Meth	od:P	VC Bailer _	D∕sp. Bail	er Su	bmersible Pum	np (	Centrifugal Pun	np Other:
3 Well Volum	es	Low Flow	Mic	çro Purge _	Intake	Depth (feet be	low TOC)	
Sampling Me	thod:	reflon Bailer		sable Bailer	Dedic	ated Tubing	Other:	
	Casing '	Volume Info	ormation			Purg	ing Calcula	itions
Casing Diam	eter (Circle):	2"	4" 6"	Other	Casing Volum	nes (CV):	191	5.73
Casing Multi	olier (CM)(gallons	s/foot): 0.16 (	0.65 1.47				(CV)(gal)	x 3.0 CV (gal) = PV
			M	onitoring N	7			
Depth to LNA		· - C/	7		Total Well Depth (feet): 29,73			
	er (DTW)(feet):	17.8	<u>U</u>		Water Column (WC)(feet): //- 93			
LNAPL Thick	ness (ft):				Purging Start Time: 0941			
		- v.	<u> </u>		ng Data		l opp	
Time	DTW	Cum. Vol. Purged	pН	Specific Cond.	Temp	Dissolved Oxygen	ORP (mV)	
(24 Hours)	(Feet)	(Gallons)		(mS/cm)	(°C)	(mg/L)		Begin hand bailing
00111	0.0		(± 0.1)	(± 5%)	(± 1°)	(± 10%)	(± 10 mV)	
0941	17.80		6.83	0.867	19.21			Clear Hzo.
0945	· Carrier of	2.5	6.86	0.902	20.17			light green olive
0948	10 1 i	4.5	6.90	0.893	2044			shafit gas odor
1260	19.66	6.5	6.92	0.905	20.61			Stop
21 - 2 0	1 m C1							,
1150	17.81			Compl	o Doto			
Sample ID: M	W- <b>4</b>		Time of Samp		e Data	<b>5</b> ''' 1		<u> </u>
	es, Volumes, 8	& Quantities:	1 o . o a	<u> </u>		Filtered (yes/no)	Preservatives	Analytical Parameters
			40mL, 2			No	HCI	TPHg EPA 8260B
Glass, 40mL, 2						No	HCI	BTEX, Oxy's 5
See chain of custody for complete lab analysis					sis			
				Well Reco	very Data			
Maximum Dra	wdown (DTW <i>n</i>	1)(feet): / 1 <u> </u>	4		Approximate	Flow Rate (GP	M): 0, 6	5
Recovery Typ	e:	Fast	Slow		% Recovery =	99.9	<u> </u>	suple time.
Purge Water I	Disposition (Att	ach Drum Inve	ntory Log - FLI	O 108):		<u> </u>		
Comments:		.,		- t -				
Commicines.	6.5	gallous	pure	yes				
	(		, ,					

#### TestAmerica Pleasanton

1220 Quarry Lane

## **Chain of Custody Record**

Pleasanton, CA 94566 phone 925.484.1919 fax 925.600.3002 TestAmerica Laboratories, Inc. Regulatory Program: DW NPDES RCRA Other: Client Contact Project Manager: Mike Sonke Site Contact: Alex Flores Date: 02/3/7 COC No: Carrier: TAL Courier COCs ATC Group Services LLC Tel/Fax: (209) 579-2221 Lab Contact: Dimple Sharma For Lab Use Only: Address: 1117 Lone Palm Avenue, Suite 201B **Analysis Turnaround Time** Walk-in Client: wo/ silica gel clean up City/State/Zip: Modesto, CA, 95351 Calendar (C) or Work Days (W) , BTEX, 5 Oxy's, Lead ngers, Naphthalene Lab Sampling: w/ silica gel clean Phone: (209) 579-2221 FAX: (209) 579-2225 TAT if different from Below Organic Lead Speciation 2 weeks E-amil:mike.sonke@atcassociates.com Project Name: The Salvation Army Oakland ARC 1 week Job / SDG No.: TPH-g, BTEX, Scavengers, I Site: Facility Number: Project #: Z0540000006 2 days Geotracker EDF Global ID #: T10000003428. PH-H TPH-d 1 day Sample (Y GC/ECD EPA 8015 / 3630C Composite = C / **EPA 8260B** Sample Specific Sample Sample Sample Date Time Notes: Type Matrix Cont. Sample Identification G Х Х Х Х MW-1 02/3/7 Water Х 1110 6 Χ Χ MW-2 Water Х Х Х Х MW-3 Water 1150 Х Χ Х MW-4 Water Preservation Used: 1= Ice, 2= HCI; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other Possible Hazard Identification: Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. Poison B Unknown ✓ Non-Hazard Flammable Skin Irritant Return to Client Disposal by Lab Archive for Months Special Instructions/QC Requirements & Comments: Fuel Oxygenates: ETBE, DIPE, MTBE, TBA and TAME, 1,2 DCA and EDB. Alex Floren 0825

|--|--|--|

## Monitoring Well Inspection Log

FLD-104 Revision 0.0

		-	_	Oct-15
ATC Branch:		Date: 02/3/7		Page / of )
ATC Representative(s):		Project: The Salvation Army A	ARC	
		Location: 601 Webster Street	t, Okland, CA	
Contact Information:		Project No: Z054000006		Task No:
Well ID: MW-(	Туре;	Well ID: MW-2	Type:	
	[flush well-box, vault, or monument]			lush well box, vault, or monument]
Construction Detail	Condition [secure, good, poor, bad, yes, no, etc.]	Construction Detail	[secure, g	—Gondition ood, poor, bad, yes, no, etc.]
Security Vault	Secure	Security Vault	Sec	lie
Surface Seal		Surface Seal	-	
	\ \ \	Locking Cap	Good	
ATC Lock		ATC Lock		
Comments:		Comments:	7	
Atul 2	_			
Well ID: MW-3	Type: [flush well box, vault, or monument]	Well ID: MW-4	Type;	lush well box, vault, or monument]
Construction Detail	Condition	Construction Detail		Gondition
	[secure, good, poor, bad, yes, no, etc.]		Secure, go	ood, poor, bad, yes, no, etc.]
	C 0	Security Vault		
Surface Seal	Žood	Surface Seal	Good	λ
Locking Cap		Locking Cap	(4000)	)
ATC Lock	Yes	ATC Lock	Yes.	
Comments:		Comments:		
<del></del>		-		
			-	
Well ID:	Туре:	Well ID:	Туре:	
	[flush well box, vault, or monument]  Condition		• • • •	ush well box, vault, or monument
Construction Detail	Condition [secure, good, poor, bad, yes, no, etc.]	Construction Detail	[secure, go	Condition  ood, poor, bad, yes, no, etc.]
Security Vault		Security Vault		
Surface Seal		Surface Seal		
Locking Cap		Locking Cap		
ATC Lock		ATC Lock		
Comments:		Comments:		

								FLI	D-100
	Fi			eld Rep	ort		Revis	sion 0.0	
								Fe	b-16
ATC Branch:						2/3/	7	Page / o	f <b> </b>
L	ntative(s): Alex F	lores				Salvation Army			
Role: Technic							et, Oakland, CA		
	mation: Mike Son	ke 	<u> </u>		Project No: Z	2054000006		Task No: 01	
Scope of Wor					Weather:	0004		Temperature	52°F
X Monitoring Assessment Remediation Closure Contractor:									
Time: Comments: On Site - Check in with Clemence. Request									
	Metal bin removal - MW-2 below bin.								
	Opene	1 up	all			1W-2	71	ret gr	<u>J</u>
	equil	ibrat					er from	MW.3	MAPL
	Set v	p eq	- dec	on-A	-1cono	x 91	rinsate	Wat	ev
	DH M	neter	/ Cali	bratio	in.				-
0828	spene	8 00	MW.	-2	Let o	W eq	uilibra	te.	
0848	Beain	an Joh	ing: N	(111-4,	1,28	3.			
0920	Begin	12019	. /	LW-2	41	13 4	land bailed	all wills	48,11 Sico
- 120	Degin	' - 1	· )		disposa	, ,	615=48	11.	bailar
	Dater.	^	.V	1					0104
	Dampie	. 1	1Ping, 1 P		, , , ,	<i>"</i>	.Naphalu	K & Organi	c 16 Spec.
	South		<u> 100</u>	A Amer	1	63.	1	2 1 1 .	
	Contain		•	9.		<i>(1.</i>	drum.	Cabelia	down.
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							T		
Calibrat	ion of:	Dissolved Oxygen	рН	pН	Cond.	ORP	Unit Insp	ection: Pa	iss / Fail
meter type:	YSI 556	(%)	(7:00)	(4.00)	(1.413) (mS/cm)	(220) (mV)	Battery levels Screen / Cas		60 0K
Pre /	Post		6.98/2,00	3.99	1405	(1114)	Commets:		
	Solution Expira	tion Date:	20/-	<u>74.00</u> 217	Cable Unit S	erial No.:	15K00		
<b></b>	•		07/6		Handheld Unit Serial No.: 11/11/01/22/				
Copies To:	, 1	$\overline{C}$	ſ		Project Manager: Mike Sonke.				
Mike Sonke					Reviewed By:				

# Appendix **D**

Laboratory Analytical Data Report and Chain of Custody Documents **Monitorining Well Samples** 





THE LEADER IN ENVIRONMENTAL TESTING

## **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton 1220 Quarry Lane Pleasanton, CA 94566 Tel: (925)484-1919

TestAmerica Job ID: 720-77663-1

Client Project/Site: Salvation Army

Revision: 1

For:

ATC Group Services LLC. 701 University Avenue, Suite 200 Sacramento, California 95825

Attn: Mr. Gabe Stivala



Authorized for release by: 3/9/2017 11:26:30 AM

Dimple Sharma, Senior Project Manager (925)484-1919

dimple.sharma@testamericainc.com

·····LINKS ·······

Review your project results through

Total Access

**Have a Question?** 



Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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## **Definitions/Glossary**

Client: ATC Group Services LLC. Project/Site: Salvation Army

TestAmerica Job ID: 720-77663-1

#### **Qualifiers**

#### **GC/MS VOA**

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
Н	Sample was prepped or analyzed beyond the specified holding time

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

#### **Case Narrative**

Client: ATC Group Services LLC. Project/Site: Salvation Army

TestAmerica Job ID: 720-77663-1

Job ID: 720-77663-1

**Laboratory: TestAmerica Pleasanton** 

Narrative

Job Narrative 720-77663-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 2/14/2017 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.5° C.

#### GC/MS VOA

Method 8260B: Reanalysis of the following sample was performed outside of the analytical holding time due to the original analysis was over diluted: MW-4 (720-77663-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### **Organic Prep**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Client: ATC Group Services LLC. Project/Site: Salvation Army

Client Sample ID: MW-1

TestAmerica Job ID: 720-77663-1

Lab Sample ID: 720-77663-1

Analyte	Result	Qualifier RL	MDL Unit	Dil Fac	D Method	Prep Type
Methyl tert-butyl ether	700	25	ug/L	50	8260B/CA_LUFT	Total/NA
Benzene	6700	25	ug/L	50	8260B/CA_LUFT MS	Total/NA
Ethylbenzene	760	25	ug/L	50	8260B/CA_LUFT MS	Total/NA
Toluene	6100	25	ug/L	50	8260B/CA_LUFT MS	Total/NA
Xylenes, Total	4100	50	ug/L	50	8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	29000	2500	ug/L	50	8260B/CA_LUFT MS	Total/NA
1,2-DCA	28	25	ug/L	50	8260B/CA_LUFT MS	Total/NA
Naphthalene	190	50	ug/L	50	8260B/CA_LUFT MS	Total/NA
1,2,4-Trimethylbenzene	870	25	ug/L	50	8260B/CA_LUFT MS	Total/NA
Isopropylbenzene	46	25	ug/L	50	8260B/CA_LUFT MS	Total/NA
N-Propylbenzene	130	50	ug/L	50	8260B/CA_LUFT MS	Total/NA
1,3,5-Trimethylbenzene	240	25	ug/L	50	8260B/CA_LUFT MS	Total/NA
1,2,3-Trimethylbenzene	230	25	ug/L	50	8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	1900	50	ug/L	1	8015B	Total/NA
Diesel Range Organics [C10-C28]	500	50	ug/L	1	8015B	Silica Gel Cleanup

#### Client Sample ID: MW-2

Client Sample ID: MW-2						Lab	Sample ID: 7	20-7766
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac D	Method	Prep Type
Benzene	440		5.0		ug/L	10	8260B/CA_LUFT MS	Total/NA
Ethylbenzene	46		5.0		ug/L	10	8260B/CA_LUFT MS	Total/NA
Γoluene	490		5.0		ug/L	10	8260B/CA_LUFT MS	Total/NA
Xylenes, Total	410		10		ug/L	10	8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) C5-C12	2700		500		ug/L	10	8260B/CA_LUFT MS	Total/NA
Naphthalene	20		10		ug/L	10	8260B/CA_LUFT MS	Total/NA
,2,4-Trimethylbenzene	130		5.0		ug/L	10	8260B/CA_LUFT MS	Total/NA
,3,5-Trimethylbenzene	36		5.0		ug/L	10	8260B/CA_LUFT MS	Total/NA
I,2,3-Trimethylbenzene	24		5.0		ug/L	10	8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	540		51		ug/L	1	8015B	Total/NA
Diesel Range Organics [C10-C28]	220		51		ug/L	1	8015B	Silica Gel Cleanup

Client Sample ID: MW-3

This Detection Summary does not include radiochemical test results.

Lab Sample ID: 720-77663-3

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TestAmerica Pleasanton

Client: ATC Group Services LLC. Project/Site: Salvation Army

TestAmerica Job ID: 720-77663-1

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Client Sample ID: MW-3 (Continued)

Lab Sample ID: 720-77663-3

Analyte	Result	Qualifier RL	MDL	Unit	Dil Fac D	Method	Prep Type
Methyl tert-butyl ether	38	25		ug/L	50	8260B/CA_LUFT MS	Total/NA
Benzene	3400	25		ug/L	50	8260B/CA_LUFT MS	Total/NA
Ethylbenzene	320	25		ug/L	50	8260B/CA_LUFT	Total/NA
Toluene	2600	25		ug/L	50	8260B/CA_LUFT MS	Total/NA
Xylenes, Total	2700	50		ug/L	50	8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	16000	2500		ug/L	50	8260B/CA_LUFT MS	Total/NA
Naphthalene	160	50		ug/L	50	8260B/CA_LUFT MS	Total/NA
1,2,4-Trimethylbenzene	790	25		ug/L	50	8260B/CA_LUFT	Total/NA
Isopropylbenzene	46	25		ug/L	50	8260B/CA_LUFT	Total/NA
N-Propylbenzene	100	50		ug/L	50	8260B/CA_LUFT MS	Total/NA
1,3,5-Trimethylbenzene	200	25		ug/L	50	8260B/CA_LUFT MS	Total/NA
1,2,3-Trimethylbenzene	190	25		ug/L	50	8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	1900	50		ug/L	1	8015B	Total/NA
Diesel Range Organics [C10-C28]	690	50		ug/L	1	8015B	Silica Gel Cleanup

Client Sample ID: MW-4

Lab Sample ID: 720-77663-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1000	Н	10		ug/L	20	_	8260B/CA_LUFT MS	Total/NA
Ethylbenzene	37	Н	10		ug/L	20		8260B/CA_LUFT MS	Total/NA
Toluene	280	Н	10		ug/L	20		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	150	Н	20		ug/L	20		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	4700	Н	1000		ug/L	20		8260B/CA_LUFT MS	Total/NA
1,2,4-Trimethylbenzene	14	Н	10		ug/L	20		8260B/CA_LUFT MS	Total/NA
Isopropylbenzene	13	Н	10		ug/L	20		8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	670		52		ug/L	1		8015B	Total/NA
Diesel Range Organics [C10-C28]	240		52		ug/L	1		8015B	Silica Gel Cleanup

This Detection Summary does not include radiochemical test results.

3/9/2017

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Client: ATC Group Services LLC. Project/Site: Salvation Army

TestAmerica Job ID: 720-77663-1

Lab Sample ID: 720-77663-1

Matrix: Water

Client Sample ID: MW-1

Date Collected: 02/13/17 11:12 Date Received: 02/14/17 09:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Methyl tert-butyl ether	700		25		ug/L			02/25/17 05:17	5
Benzene	6700		25		ug/L			02/25/17 05:17	5
Ethylbenzene	760		25		ug/L			02/25/17 05:17	5
Toluene	6100		25		ug/L			02/25/17 05:17	5
Xylenes, Total	4100		50		ug/L			02/25/17 05:17	5
Gasoline Range Organics (GRO)	29000		2500		ug/L			02/25/17 05:17	5
-C5-C12									
TBA	ND		1000		ug/L			02/25/17 05:17	5
DIPE	ND		25		ug/L			02/25/17 05:17	5
TAME	ND		25		ug/L			02/25/17 05:17	5
Ethyl t-butyl ether	ND		25		ug/L			02/25/17 05:17	5
1,2-DCA	28		25		ug/L			02/25/17 05:17	5
Naphthalene	190		50		ug/L			02/25/17 05:17	5
EDB	ND		25		ug/L			02/25/17 05:17	5
2-Nitropropane	ND		500		ug/L			02/25/17 05:17	5
1,1,1-Trichloroethane	ND		25		ug/L			02/25/17 05:17	5
cis-1,3-Dichloropropene	ND		25		ug/L			02/25/17 05:17	5
Carbon disulfide	ND		250		ug/L			02/25/17 05:17	5
Chlorobromomethane	ND		50		ug/L			02/25/17 05:17	5
Bromoform	ND		50		ug/L			02/25/17 05:17	5
Tetrachloroethene	ND		25		ug/L			02/25/17 05:17	5
1,1-Dichloroethane	ND		25		ug/L			02/25/17 05:17	5
1,2-Dichloropropane	ND		25		ug/L			02/25/17 05:17	
1,1,2-Trichloroethane	ND		25		ug/L			02/25/17 05:17	5
Acetone	ND		2500		ug/L			02/25/17 05:17	5
Dichlorodifluoromethane	ND	*	25		ug/L			02/25/17 05:17	
4-Methyl-2-pentanone (MIBK)	ND		2500		ug/L			02/25/17 05:17	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25		ug/L			02/25/17 05:17	5
Methylene Chloride	ND		250		ug/L			02/25/17 05:17	
Hexachlorobutadiene	ND		50		ug/L			02/25/17 05:17	5
Chloromethane	ND		50		ug/L			02/25/17 05:17	5
1,2,4-Trimethylbenzene	870		25		ug/L			02/25/17 05:17	
Bromomethane	ND		50		ug/L			02/25/17 05:17	5
2-Chlorotoluene	ND		25		ug/L			02/25/17 05:17	5
Chlorodibromomethane	ND		25		ug/L			02/25/17 05:17	
Dibromomethane	ND		25		_			02/25/17 05:17	5
1,1-Dichloropropene	ND ND		25 25		ug/L ug/L			02/25/17 05:17	5
1,2,4-Trichlorobenzene	ND		50					02/25/17 05:17	5 5
Chlorobenzene	ND ND		25		ug/L			02/25/17 05:17	5
	ND ND		50		ug/L				5
1,2-Dibromo-3-Chloropropane					ug/L			02/25/17 05:17	
1,3-Dichlorobenzene	ND		25		ug/L			02/25/17 05:17	5
Styrene	ND		25		ug/L			02/25/17 05:17	5
4-Chlorotoluene	ND		25		ug/L			02/25/17 05:17	<u>.</u>
trans-1,2-Dichloroethene	ND		25		ug/L			02/25/17 05:17	5
Bromobenzene	ND		50		ug/L			02/25/17 05:17	5
1,2,3-Trichlorobenzene	ND		50		ug/L			02/25/17 05:17	5
1,1,2,2-Tetrachloroethane	ND		25		ug/L			02/25/17 05:17	5
Chloroethane	ND		50		ug/L			02/25/17 05:17	5
1,1-Dichloroethene	ND		25		ug/L			02/25/17 05:17	

TestAmerica Pleasanton

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12

Client: ATC Group Services LLC. Project/Site: Salvation Army

TestAmerica Job ID: 720-77663-1

Lab Sample ID: 720-77663-1

Matrix: Water

Client Sample ID: MW-1

Date Collected: 02/13/17 11:12 Date Received: 02/14/17 09:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		25		ug/L			02/25/17 05:17	50
Trichloroethene	ND		25		ug/L			02/25/17 05:17	50
1,1,1,2-Tetrachloroethane	ND		25		ug/L			02/25/17 05:17	50
sec-Butylbenzene	ND		50		ug/L			02/25/17 05:17	50
2-Hexanone	ND		2500		ug/L			02/25/17 05:17	50
2-Butanone (MEK)	ND		2500		ug/L			02/25/17 05:17	50
sopropylbenzene	46		25		ug/L			02/25/17 05:17	50
2,2-Dichloropropane	ND		25		ug/L			02/25/17 05:17	50
N-Propylbenzene	130		50		ug/L			02/25/17 05:17	50
Frichlorofluoromethane	ND		50		ug/L			02/25/17 05:17	50
1,3,5-Trichlorobenzene	ND		50		ug/L			02/25/17 05:17	50
sopropyl alcohol	ND		5000		ug/L			02/25/17 05:17	50
1-Isopropyltoluene	ND		50		ug/L			02/25/17 05:17	50
1,2,3-Trichloropropane	ND		25		ug/L			02/25/17 05:17	50
1,3,5-Trimethylbenzene	240		25		ug/L			02/25/17 05:17	50
1,2,3-Trimethylbenzene	230		25		ug/L			02/25/17 05:17	50
rans-1,3-Dichloropropene	ND		25		ug/L			02/25/17 05:17	50
cis-1,2-Dichloroethene	ND		25		ug/L			02/25/17 05:17	50
Chloroform	ND		50		ug/L			02/25/17 05:17	50
/inyl acetate	ND		500		ug/L			02/25/17 05:17	50
Dichlorofluoromethane	ND		250		ug/L			02/25/17 05:17	50
/inyl chloride	ND		25		ug/L			02/25/17 05:17	50
ert-Butylbenzene	ND		50		ug/L			02/25/17 05:17	50
Carbon tetrachloride	ND		25		ug/L			02/25/17 05:17	50
1,4-Dichlorobenzene	ND		25		ug/L			02/25/17 05:17	50
1,3-Dichloropropane	ND		50		ug/L			02/25/17 05:17	50
Dichlorobromomethane	ND		25		ug/L			02/25/17 05:17	50
Sichloropromomentalie	ND		20		ug/L			02/25/17 00:17	00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 130					02/25/17 05:17	50
1,2-Dichloroethane-d4 (Surr)	102		72 - 130					02/25/17 05:17	50
Toluene-d8 (Surr)	104		70 - 130					02/25/17 05:17	50
Method: 8015B - Diesel Range O	rganics (DRO)	(GC)							
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1900		50		ug/L		02/17/17 16:59	02/20/17 15:54	1
							Prepared	Analyzed	
Surrogate	%Recovery	Qualifier	Limits					Anaivzea	Dil Fac

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Client: ATC Group Services LLC. Project/Site: Salvation Army

TestAmerica Job ID: 720-77663-1

Lab Sample ID: 720-77663-2

Matrix: Water

Client Sample ID: MW-2 Date Collected: 02/13/17 11:10 Date Received: 02/14/17 09:45

Analyte	Result Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil Fa
Methyl tert-butyl ether	ND	5.0	ug/L		02/25/17 05:45	
Benzene	440	5.0	ug/L		02/25/17 05:45	1
Ethylbenzene	46	5.0	ug/L		02/25/17 05:45	1
Toluene	490	5.0	ug/L		02/25/17 05:45	1
Xylenes, Total	410	10	ug/L		02/25/17 05:45	•
Gasoline Range Organics (GRO)	2700	500	ug/L		02/25/17 05:45	4
-C5-C12						
TBA	ND	200	ug/L		02/25/17 05:45	•
DIPE	ND	5.0	ug/L		02/25/17 05:45	•
TAME	ND	5.0	ug/L		02/25/17 05:45	•
Ethyl t-butyl ether	ND	5.0	ug/L		02/25/17 05:45	
1,2-DCA	ND	5.0	ug/L		02/25/17 05:45	1
Naphthalene	20	10	ug/L		02/25/17 05:45	1
EDB	ND	5.0	ug/L		02/25/17 05:45	
2-Nitropropane	ND	100	ug/L		02/25/17 05:45	1
1,1,1-Trichloroethane	ND	5.0	ug/L		02/25/17 05:45	1
cis-1,3-Dichloropropene	ND	5.0	ug/L		02/25/17 05:45	
Carbon disulfide	ND	50	ug/L		02/25/17 05:45	1
Chlorobromomethane	ND	10	ug/L		02/25/17 05:45	1
Bromoform	ND	10	ug/L		02/25/17 05:45	
Tetrachloroethene	ND	5.0	ug/L		02/25/17 05:45	
1,1-Dichloroethane	ND	5.0	ug/L		02/25/17 05:45	
1,2-Dichloropropane	ND	5.0	ug/L		02/25/17 05:45	
1,1,2-Trichloroethane	ND	5.0	ug/L		02/25/17 05:45	
Acetone	ND	500	ug/L		02/25/17 05:45	
Dichlorodifluoromethane	ND *	5.0	ug/L		02/25/17 05:45	
4-Methyl-2-pentanone (MIBK)	ND	500	ug/L		02/25/17 05:45	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	5.0	ug/L		02/25/17 05:45	
Methylene Chloride	ND	50	ug/L		02/25/17 05:45	
Hexachlorobutadiene	ND	10	ug/L		02/25/17 05:45	
Chloromethane	ND	10	ug/L		02/25/17 05:45	,
1,2,4-Trimethylbenzene	130	5.0	ug/L		02/25/17 05:45	
Bromomethane	ND	10	ug/L		02/25/17 05:45	,
2-Chlorotoluene	ND	5.0	ug/L		02/25/17 05:45	,
Chlorodibromomethane	ND	5.0	ug/L		02/25/17 05:45	
Dibromomethane	ND	5.0	ug/L		02/25/17 05:45	,
1,1-Dichloropropene	ND	5.0	ug/L		02/25/17 05:45	,
1,2,4-Trichlorobenzene	ND	10	ug/L		02/25/17 05:45	
Chlorobenzene	ND	5.0	ug/L		02/25/17 05:45	,
1,2-Dibromo-3-Chloropropane	ND	10	ug/L		02/25/17 05:45	
1,3-Dichlorobenzene	ND	5.0	ug/L		02/25/17 05:45	
Styrene	ND	5.0	ug/L		02/25/17 05:45	
4-Chlorotoluene	ND	5.0	ug/L		02/25/17 05:45	,
trans-1,2-Dichloroethene	ND	5.0	ug/L ug/L		02/25/17 05:45	
Bromobenzene	ND ND	10			02/25/17 05:45	,
1,2,3-Trichlorobenzene	ND ND	10	ug/L		02/25/17 05:45	
			ug/L			
1,1,2,2-Tetrachloroethane	ND ND	5.0	ug/L		02/25/17 05:45	1
Chloroethane 1,1-Dichloroethene	ND ND	10 5.0	ug/L ug/L		02/25/17 05:45 02/25/17 05:45	

TestAmerica Pleasanton

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Client: ATC Group Services LLC. Project/Site: Salvation Army

TestAmerica Job ID: 720-77663-1

Lab Sample ID: 720-77663-2

Matrix: Water

Client Sample ID: MW-2

p-Terphenyl

Date Collected: 02/13/17 11:10 Date Received: 02/14/17 09:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		5.0		ug/L			02/25/17 05:45	10
Trichloroethene	ND		5.0		ug/L			02/25/17 05:45	10
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			02/25/17 05:45	10
sec-Butylbenzene	ND		10		ug/L			02/25/17 05:45	10
2-Hexanone	ND		500		ug/L			02/25/17 05:45	10
2-Butanone (MEK)	ND		500		ug/L			02/25/17 05:45	10
Isopropylbenzene	ND		5.0		ug/L			02/25/17 05:45	10
2,2-Dichloropropane	ND		5.0		ug/L			02/25/17 05:45	10
N-Propylbenzene	ND		10		ug/L			02/25/17 05:45	10
Trichlorofluoromethane	ND		10		ug/L			02/25/17 05:45	10
1,3,5-Trichlorobenzene	ND		10		ug/L			02/25/17 05:45	10
Isopropyl alcohol	ND		1000		ug/L			02/25/17 05:45	10
4-Isopropyltoluene	ND		10		ug/L			02/25/17 05:45	10
1,2,3-Trichloropropane	ND		5.0		ug/L			02/25/17 05:45	10
1,3,5-Trimethylbenzene	36		5.0		ug/L			02/25/17 05:45	10
1,2,3-Trimethylbenzene	24		5.0		ug/L			02/25/17 05:45	10
trans-1,3-Dichloropropene	ND		5.0		ug/L			02/25/17 05:45	10
cis-1,2-Dichloroethene	ND		5.0		ug/L			02/25/17 05:45	10
Chloroform	ND		10		ug/L			02/25/17 05:45	10
Vinyl acetate	ND		100		ug/L			02/25/17 05:45	10
Dichlorofluoromethane	ND		50		ug/L			02/25/17 05:45	10
Vinyl chloride	ND		5.0		ug/L			02/25/17 05:45	10
tert-Butylbenzene	ND		10		ug/L			02/25/17 05:45	10
Carbon tetrachloride	ND		5.0		ug/L			02/25/17 05:45	10
1,4-Dichlorobenzene	ND		5.0		ug/L			02/25/17 05:45	10
1,3-Dichloropropane	ND		10		ug/L			02/25/17 05:45	10
Dichlorobromomethane	ND		5.0		ug/L			02/25/17 05:45	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 130					02/25/17 05:45	10
1,2-Dichloroethane-d4 (Surr)	104		72 - 130					02/25/17 05:45	10
Toluene-d8 (Surr)	103		70 - 130					02/25/17 05:45	10
- Method: 8015B - Diesel Range O	rganics (DRO)	(GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	540		51		ug/L		02/17/17 16:59	02/20/17 16:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Method: 8015B - Diesel Range O	rganics (DRO)	(GC) - Silic	a Gel Cleanup						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	220		51		ug/L		02/17/17 15:25	02/20/17 14:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.01		0 - 5				02/17/17 15:25	02/20/17 14:41	1
p-Terphenyl	33		31 - 150				02/17/17 15:25	02/20/17 14:41	1

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TestAmerica Pleasanton

02/17/17 16:59 02/20/17 16:18

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Client: ATC Group Services LLC. Project/Site: Salvation Army

TestAmerica Job ID: 720-77663-1

Lab Sample ID: 720-77663-3

Matrix: Water

Client Sample ID: MW-3

Date Collected: 02/13/17 12:15 Date Received: 02/14/17 09:45

Analyte	Result C	Qualifier RL	MDL Unit	D	Prepared	Analyzed	Dil Fa
Methyl tert-butyl ether	38	25	ug/L			02/26/17 00:59	
Benzene	3400	25	ug/L			02/26/17 00:59	į
Ethylbenzene	320	25	ug/L			02/26/17 00:59	į
<b>Foluene</b>	2600	25	ug/L			02/26/17 00:59	
Cylenes, Total	2700	50	ug/L			02/26/17 00:59	į
Gasoline Range Organics (GRO)	16000	2500	ug/L			02/26/17 00:59	į
C5-C12							
ГВА	ND	1000	ug/L			02/26/17 00:59	į
DIPE	ND	25	ug/L			02/26/17 00:59	
AME	ND	25	ug/L			02/26/17 00:59	
thyl t-butyl ether	ND	25	ug/L			02/26/17 00:59	
,2-DCA	ND	25	ug/L			02/26/17 00:59	
laphthalene	160	50	ug/L			02/26/17 00:59	;
EDB	ND	25	ug/L			02/26/17 00:59	
2-Nitropropane	ND	500	ug/L			02/26/17 00:59	
,1,1-Trichloroethane	ND	25	ug/L			02/26/17 00:59	
is-1,3-Dichloropropene	ND	25	ug/L			02/26/17 00:59	
Carbon disulfide	ND	250	ug/L			02/26/17 00:59	
Chlorobromomethane	ND	50	ug/L			02/26/17 00:59	
Bromoform	ND	50	ug/L			02/26/17 00:59	
etrachloroethene	ND	25	ug/L			02/26/17 00:59	
,1-Dichloroethane	ND	25	ug/L			02/26/17 00:59	
,2-Dichloropropane	ND	25	ug/L			02/26/17 00:59	
,1,2-Trichloroethane	ND	25	ug/L			02/26/17 00:59	
cetone	ND	2500	ug/L			02/26/17 00:59	
Dichlorodifluoromethane	ND	25	ug/L			02/26/17 00:59	
-Methyl-2-pentanone (MIBK)	ND	2500	ug/L			02/26/17 00:59	
,1,2-Trichloro-1,2,2-trifluoroethane	ND	25				02/26/17 00:59	
	ND	250	ug/L			02/26/17 00:59	
lethylene Chloride lexachlorobutadiene	ND ND	50	ug/L			02/26/17 00:59	
			ug/L				
Chloromethane	ND	50	ug/L			02/26/17 00:59	
,2,4-Trimethylbenzene	790	25	ug/L 			02/26/17 00:59	
romomethane	ND	50	ug/L			02/26/17 00:59	
-Chlorotoluene	ND	25	ug/L			02/26/17 00:59	
Chlorodibromomethane	ND	25	ug/L			02/26/17 00:59	
ibromomethane	ND	25	ug/L			02/26/17 00:59	
,1-Dichloropropene	ND	25	ug/L			02/26/17 00:59	
,2,4-Trichlorobenzene	ND	50	ug/L			02/26/17 00:59	
hlorobenzene	ND	25	ug/L			02/26/17 00:59	
2-Dibromo-3-Chloropropane	ND	50	ug/L			02/26/17 00:59	
3-Dichlorobenzene	ND	25	ug/L			02/26/17 00:59	
tyrene	ND	25	ug/L			02/26/17 00:59	
-Chlorotoluene	ND	25	ug/L			02/26/17 00:59	
rans-1,2-Dichloroethene	ND	25	ug/L			02/26/17 00:59	
romobenzene	ND	50	ug/L			02/26/17 00:59	
,2,3-Trichlorobenzene	ND	50	ug/L			02/26/17 00:59	
,1,2,2-Tetrachloroethane	ND	25	ug/L			02/26/17 00:59	
Chloroethane	ND	50	ug/L			02/26/17 00:59	
1,1-Dichloroethene	ND	25	ug/L			02/26/17 00:59	

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Client: ATC Group Services LLC. Project/Site: Salvation Army

TestAmerica Job ID: 720-77663-1

Lab Sample ID: 720-77663-3

Matrix: Water

Client Sample ID: MW-3

Date Collected: 02/13/17 12:15 Date Received: 02/14/17 09:45

p-Terphenyl

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		25		ug/L			02/26/17 00:59	50
Trichloroethene	ND		25		ug/L			02/26/17 00:59	50
1,1,1,2-Tetrachloroethane	ND		25		ug/L			02/26/17 00:59	50
sec-Butylbenzene	ND		50		ug/L			02/26/17 00:59	50
2-Hexanone	ND		2500		ug/L			02/26/17 00:59	50
2-Butanone (MEK)	ND		2500		ug/L			02/26/17 00:59	50
Isopropylbenzene	46		25		ug/L			02/26/17 00:59	50
2,2-Dichloropropane	ND		25		ug/L			02/26/17 00:59	50
N-Propylbenzene	100		50		ug/L			02/26/17 00:59	50
Trichlorofluoromethane	ND		50		ug/L			02/26/17 00:59	50
1,3,5-Trichlorobenzene	ND		50		ug/L			02/26/17 00:59	50
Isopropyl alcohol	ND		5000		ug/L			02/26/17 00:59	50
4-Isopropyltoluene	ND		50		ug/L			02/26/17 00:59	50
1,2,3-Trichloropropane	ND		25		ug/L			02/26/17 00:59	50
1,3,5-Trimethylbenzene	200		25		ug/L			02/26/17 00:59	50
1,2,3-Trimethylbenzene	190		25		ug/L			02/26/17 00:59	50
trans-1,3-Dichloropropene	ND		25		ug/L			02/26/17 00:59	50
cis-1,2-Dichloroethene	ND		25		ug/L			02/26/17 00:59	50
Chloroform	ND		50		ug/L			02/26/17 00:59	50
Vinyl acetate	ND		500		ug/L			02/26/17 00:59	50
Dichlorofluoromethane	ND		250		ug/L			02/26/17 00:59	50
Vinyl chloride	ND		25		ug/L			02/26/17 00:59	50
tert-Butylbenzene	ND		50		ug/L			02/26/17 00:59	50
Carbon tetrachloride	ND		25		ug/L			02/26/17 00:59	50
1,4-Dichlorobenzene	ND		25		ug/L			02/26/17 00:59	50
1,3-Dichloropropane	ND		50		ug/L			02/26/17 00:59	50
Dichlorobromomethane	ND		25		ug/L			02/26/17 00:59	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 130					02/26/17 00:59	50
1,2-Dichloroethane-d4 (Surr)	98		72 - 130					02/26/17 00:59	50
Toluene-d8 (Surr)	102		70 - 130					02/26/17 00:59	50
- Method: 8015B - Diesel Range O	rganics (DRO)	(GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1900		50		ug/L		02/17/17 16:59	02/20/17 16:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	78		23 - 156				02/17/17 16:59	02/20/17 16:43	1
Method: 8015B - Diesel Range O	• , ,		•			_			<b>5</b>
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	690		50		ug/L		02/17/17 15:25	02/20/17 15:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.2		0 - 5				02/17/17 15:25	02/20/17 15:05	1

02/17/17 15:25 02/20/17 15:05

31 - 150

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Client: ATC Group Services LLC. Project/Site: Salvation Army

TestAmerica Job ID: 720-77663-1

Lab Sample ID: 720-77663-4

Matrix: Water

Client Sample ID: MW-4

Date Collected: 02/13/17 11:50 Date Received: 02/14/17 09:45

Method: 8260B/CA_LUFTMS - 8260	B / CA LUFT	MS					
Analyte		Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND	Н	10	ug/L		03/01/17 16:35	20
Benzene	1000	Н	10	ug/L		03/01/17 16:35	20
Ethylbenzene	37	Н	10	ug/L		03/01/17 16:35	20
Toluene	280	Н	10	ug/L		03/01/17 16:35	20
Xylenes, Total	150	Н	20	ug/L		03/01/17 16:35	20
Gasoline Range Organics (GRO) -C5-C12	4700	Н	1000	ug/L		03/01/17 16:35	20
TBA	ND	Н	400	ug/L		03/01/17 16:35	20
DIPE	ND	Н	10	ug/L		03/01/17 16:35	20
TAME	ND	Н	10	ug/L		03/01/17 16:35	20
Ethyl t-butyl ether	ND	Н	10	ug/L		03/01/17 16:35	20
1,2-DCA	ND	Н	10	ug/L		03/01/17 16:35	20
Naphthalene	ND	Н	20	ug/L		03/01/17 16:35	20
EDB	ND	Н	10	ug/L		03/01/17 16:35	20
2-Nitropropane	ND	Н	200	ug/L		03/01/17 16:35	20
1,1,1-Trichloroethane	ND	Н	10	ug/L		03/01/17 16:35	20
cis-1,3-Dichloropropene	ND	H	10	ug/L		03/01/17 16:35	20
Carbon disulfide	ND		100	ug/L		03/01/17 16:35	20
Chlorobromomethane	ND	Н	20	ug/L		03/01/17 16:35	20
Bromoform	ND	H	20	ug/L		03/01/17 16:35	20
Tetrachloroethene	ND	Н	10	ug/L		03/01/17 16:35	20
1,1-Dichloroethane	ND	Н	10	ug/L		03/01/17 16:35	20
1,2-Dichloropropane	ND	H	10	ug/L		03/01/17 16:35	20
1,1,2-Trichloroethane	ND		10	ug/L		03/01/17 16:35	20
Acetone	ND	Н	1000	ug/L		03/01/17 16:35	20
Dichlorodifluoromethane	ND	H *	10	ug/L		03/01/17 16:35	20
4-Methyl-2-pentanone (MIBK)	ND	Н	1000	ug/L		03/01/17 16:35	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	Н	10	ug/L		03/01/17 16:35	20
Methylene Chloride	ND	H	100	ug/L		03/01/17 16:35	20
- Hexachlorobutadiene	ND	Н	20	ug/L		03/01/17 16:35	20
Chloromethane	ND	Н	20	ug/L		03/01/17 16:35	20
1,2,4-Trimethylbenzene	14	H	10	ug/L		03/01/17 16:35	20
Bromomethane	ND		20	ug/L		03/01/17 16:35	20
2-Chlorotoluene	ND	Н	10	ug/L		03/01/17 16:35	20
Chlorodibromomethane	ND	H	10	ug/L		03/01/17 16:35	20
Dibromomethane	ND		10	ug/L		03/01/17 16:35	20
1,1-Dichloropropene	ND		10	ug/L		03/01/17 16:35	20
1,2,4-Trichlorobenzene	ND		20	ug/L		03/01/17 16:35	20
Chlorobenzene	ND		10	ug/L		03/01/17 16:35	20
1,2-Dibromo-3-Chloropropane	ND		20	ug/L		03/01/17 16:35	20
1,3-Dichlorobenzene	ND		10	ug/L		03/01/17 16:35	20
Styrene	ND		10	ug/L		03/01/17 16:35	20
4-Chlorotoluene	ND		10	ug/L		03/01/17 16:35	20
trans-1,2-Dichloroethene	ND		10	ug/L		03/01/17 16:35	20
Bromobenzene	ND		20	ug/L		03/01/17 16:35	20
1,2,3-Trichlorobenzene	ND		20	ug/L		03/01/17 16:35	20
1,1,2,2-Tetrachloroethane	ND		10	ug/L ug/L		03/01/17 16:35	20
Chloroethane	ND		20	ug/L		03/01/17 16:35	20
Omorodinane		Н	10	ug/L		03/01/17 16:35	20

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Client: ATC Group Services LLC. Project/Site: Salvation Army

TestAmerica Job ID: 720-77663-1

Lab Sample ID: 720-77663-4

Matrix: Water

Client Sample ID: MW-4

Date Collected: 02/13/17 11:50 Date Received: 02/14/17 09:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,2-Dichlorobenzene	ND	Н	10		ug/L			03/01/17 16:35	20
Trichloroethene	ND	Н	10		ug/L			03/01/17 16:35	20
1,1,1,2-Tetrachloroethane	ND	Н	10		ug/L			03/01/17 16:35	20
sec-Butylbenzene	ND	Н	20		ug/L			03/01/17 16:35	20
2-Hexanone	ND	Н	1000		ug/L			03/01/17 16:35	20
2-Butanone (MEK)	ND	Н	1000		ug/L			03/01/17 16:35	20
Isopropylbenzene	13		10		ug/L			03/01/17 16:35	20
2,2-Dichloropropane	ND		10		ug/L			03/01/17 16:35	20
N-Propylbenzene	ND	Н	20		ug/L			03/01/17 16:35	20
Trichlorofluoromethane	ND		20		ug/L			03/01/17 16:35	20
1,3,5-Trichlorobenzene	ND	Н	20		ug/L			03/01/17 16:35	20
Isopropyl alcohol	ND	Н	2000		ug/L			03/01/17 16:35	20
4-Isopropyltoluene	ND		20		ug/L			03/01/17 16:35	20
1,2,3-Trichloropropane	ND	Н	10		ug/L			03/01/17 16:35	20
1,3,5-Trimethylbenzene	ND	Н	10		ug/L			03/01/17 16:35	20
1,2,3-Trimethylbenzene	ND		10		ug/L			03/01/17 16:35	20
trans-1,3-Dichloropropene		Н	10		ug/L			03/01/17 16:35	20
cis-1.2-Dichloroethene	ND	Н	10		ug/L			03/01/17 16:35	20
Chloroform	ND		20		ug/L			03/01/17 16:35	20
Vinyl acetate		Н	200		ug/L			03/01/17 16:35	20
Dichlorofluoromethane	ND	Н	100		ug/L			03/01/17 16:35	20
Vinyl chloride	ND		10		ug/L			03/01/17 16:35	20
tert-Butylbenzene	ND	Н	20		ug/L			03/01/17 16:35	20
Carbon tetrachloride	ND	Н	10		ug/L			03/01/17 16:35	20
1,4-Dichlorobenzene	ND		10		ug/L			03/01/17 16:35	20
1,3-Dichloropropane	ND	Н	20		ug/L			03/01/17 16:35	20
Dichlorobromomethane	ND	Н	10		ug/L			03/01/17 16:35	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene	100		67 - 130					03/01/17 16:35	2
1,2-Dichloroethane-d4 (Surr)	100		72 - 130					03/01/17 16:35	20
Toluene-d8 (Surr)	103		70 - 130					03/01/17 16:35	20
Method: 8015B - Diesel Range O	rganics (DRO)	(GC)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Diesel Range Organics [C10-C28]	670		52		ug/L		02/17/17 16:59	02/18/17 17:52	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
p-Terphenyl	88		23 - 156				02/17/17 16:59	02/18/17 17:52	
Method: 8015B - Diesel Range O	rganics (DRO)	(GC) - Silic	a Gol Cleanun						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Diesel Range Organics [C10-C28]	240		52		ug/L		02/17/17 15:25	02/20/17 15:30	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Capric Acid (Surr)	0.002		0 - 5				02/17/17 15:25	02/20/17 15:30	-
p-Terphenyl	31		31 - 150				02/17/17 15:25	02/20/17 15:30	

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TestAmerica Job ID: 720-77663-1

Client: ATC Group Services LLC. Project/Site: Salvation Army

Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Matrix: Water Prep Type: Total/NA

				_	covery (Acceptance Limits)
		BFB	12DCE	TOL	
Lab Sample ID	Client Sample ID	(67-130)	(72-130)	(70-130)	
720-77663-1	MW-1	97	102	104	
720-77663-2	MW-2	98	104	103	
720-77663-3	MW-3	100	98	102	
720-77663-4	MW-4	100	100	103	
LCS 720-218396/7	Lab Control Sample	98	96	102	
LCS 720-218396/9	Lab Control Sample	102	101	102	
LCS 720-218424/5	Lab Control Sample	101	99	103	
_CS 720-218424/7	Lab Control Sample	103	101	102	
_CS 720-218566/5	Lab Control Sample	96	95	102	
_CS 720-218566/7	Lab Control Sample	98	99	102	
LCSD 720-218396/10	Lab Control Sample Dup	101	103	103	
_CSD 720-218396/8	Lab Control Sample Dup	101	98	103	
LCSD 720-218424/6	Lab Control Sample Dup	100	100	102	
LCSD 720-218424/8	Lab Control Sample Dup	102	101	102	
_CSD 720-218566/6	Lab Control Sample Dup	96	94	102	
_CSD 720-218566/8	Lab Control Sample Dup	97	97	102	
MB 720-218396/5	Method Blank	100	102	103	
MB 720-218424/9	Method Blank	102	101	103	
MB 720-218566/4	Method Blank	96	96	102	

BFB = 4-Bromofluorobenzene

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Water Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)
		PTP1	
Lab Sample ID	Client Sample ID	(23-156)	
720-77663-1	MW-1	78	
720-77663-2	MW-2	82	
720-77663-3	MW-3	78	
720-77663-4	MW-4	88	
LCS 720-218049/2-A	Lab Control Sample	100	
LCSD 720-218049/3-A	Lab Control Sample Dup	99	
MB 720-218049/1-A	Method Blank	91	
Surrogate Legend			
PTP = p-Terphenyl			

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Water Prep Type: Silica Gel Cleanup

				Percent Surrogate Recovery (Acceptance Limits)
		NDA1	PTP1	
Lab Sample ID	Client Sample ID	(0-5)	(31-150)	
720-77663-1	MW-1	0.09	34	
720-77663-2	MW-2	0.01	33	

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## **Surrogate Summary**

Client: ATC Group Services LLC. Project/Site: Salvation Army

PTP = p-Terphenyl

TestAmerica Job ID: 720-77663-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Matrix: Water Prep Type: Silica Gel Cleanup

				Percent Surrogate Recovery (Acceptance Limits)
		NDA1	PTP1	
Lab Sample ID	Client Sample ID	(0-5)	(31-150)	
720-77663-3	MW-3	0.2	36	
720-77663-4	MW-4	0.002	31	
LCS 720-218047/2-A	Lab Control Sample		88	
LCSD 720-218047/3-A	Lab Control Sample Dup		90	
MB 720-218047/1-A	Method Blank	0	80	
Surrogate Legend				

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TestAmerica Job ID: 720-77663-1

Client: ATC Group Services LLC. Project/Site: Salvation Army

Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Lab Sample ID: MB 720-218396/5

**Matrix: Water** 

Analysis Batch: 218396

Client Sample ID: Method Blank

**Prep Type: Total/NA** 

Analyte		MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND	Qualifier	0.50	WIDL	ug/L		Frepareu	02/24/17 19:26	1
Benzene	ND ND		0.50		ug/L ug/L			02/24/17 19:26	1
Ethylbenzene	ND ND		0.50		_			02/24/17 19:26	1
	ND		0.50		ug/L			02/24/17 19:26	' 1
Toluene Yulanaa Tatal	ND ND				ug/L				
Xylenes, Total			1.0		ug/L			02/24/17 19:26	1 1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			02/24/17 19:26	ı
TBA	ND		20		ug/L			02/24/17 19:26	1
DIPE	ND		0.50		ug/L			02/24/17 19:26	1
TAME	ND		0.50		ug/L			02/24/17 19:26	1
Ethyl t-butyl ether	ND		0.50		ug/L			02/24/17 19:26	1
1,2-DCA	ND		0.50		ug/L			02/24/17 19:26	1
Naphthalene	ND		1.0		ug/L			02/24/17 19:26	1
EDB	ND		0.50		ug/L			02/24/17 19:26	1
2-Nitropropane	ND		10		ug/L			02/24/17 19:26	1
1,1,1-Trichloroethane	ND		0.50		ug/L			02/24/17 19:26	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			02/24/17 19:26	1
Carbon disulfide	ND		5.0		ug/L			02/24/17 19:26	1
Chlorobromomethane	ND		1.0		ug/L			02/24/17 19:26	1
Bromoform	ND		1.0		ug/L			02/24/17 19:26	1
Tetrachloroethene	ND		0.50		ug/L			02/24/17 19:26	1
1,1-Dichloroethane	ND		0.50		ug/L			02/24/17 19:26	1
1,2-Dichloropropane	ND		0.50		ug/L			02/24/17 19:26	1
1,1,2-Trichloroethane	ND		0.50		ug/L			02/24/17 19:26	1
Acetone	ND		50		ug/L			02/24/17 19:26	1
Dichlorodifluoromethane	ND		0.50		ug/L			02/24/17 19:26	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/24/17 19:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			02/24/17 19:26	1
Methylene Chloride	ND		5.0		ug/L			02/24/17 19:26	1
Hexachlorobutadiene	ND		1.0		ug/L			02/24/17 19:26	1
Chloromethane	ND		1.0		ug/L			02/24/17 19:26	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			02/24/17 19:26	1
Bromomethane	ND		1.0		ug/L			02/24/17 19:26	1
2-Chlorotoluene	ND		0.50		ug/L			02/24/17 19:26	1
Chlorodibromomethane	ND		0.50		ug/L			02/24/17 19:26	1
Dibromomethane	ND		0.50		ug/L			02/24/17 19:26	1
1,1-Dichloropropene	ND		0.50		ug/L			02/24/17 19:26	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/24/17 19:26	1
Chlorobenzene	ND		0.50		ug/L			02/24/17 19:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			02/24/17 19:26	1
1,3-Dichlorobenzene	ND		0.50		ug/L			02/24/17 19:26	1
Styrene	ND		0.50		ug/L			02/24/17 19:26	1
4-Chlorotoluene	ND		0.50		ug/L			02/24/17 19:26	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			02/24/17 19:26	 1
Bromobenzene	ND		1.0		ug/L			02/24/17 19:26	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/24/17 19:26	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/24/17 19:26	 1
Chloroethane	ND		1.0		ug/L			02/24/17 19:26	1

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TestAmerica Job ID: 720-77663-1

Client: ATC Group Services LLC. Project/Site: Salvation Army

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

MB MB

Lab Sample ID: MB 720-218396/5

**Matrix: Water** 

Analysis Batch: 218396

Client Sample ID: Method Blank

**Prep Type: Total/NA** 

	IVID	INID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.50		ug/L			02/24/17 19:26	1
1,2-Dichlorobenzene	ND		0.50		ug/L			02/24/17 19:26	1
Trichloroethene	ND		0.50		ug/L			02/24/17 19:26	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/24/17 19:26	1
sec-Butylbenzene	ND		1.0		ug/L			02/24/17 19:26	1
2-Hexanone	ND		50		ug/L			02/24/17 19:26	1
2-Butanone (MEK)	ND		50		ug/L			02/24/17 19:26	1
Isopropylbenzene	ND		0.50		ug/L			02/24/17 19:26	1
2,2-Dichloropropane	ND		0.50		ug/L			02/24/17 19:26	1
N-Propylbenzene	ND		1.0		ug/L			02/24/17 19:26	1
Trichlorofluoromethane	ND		1.0		ug/L			02/24/17 19:26	1
1,3,5-Trichlorobenzene	ND		1.0		ug/L			02/24/17 19:26	1
Isopropyl alcohol	ND		100		ug/L			02/24/17 19:26	1
4-Isopropyltoluene	ND		1.0		ug/L			02/24/17 19:26	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/24/17 19:26	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/24/17 19:26	1
1,2,3-Trimethylbenzene	ND		0.50		ug/L			02/24/17 19:26	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/24/17 19:26	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/24/17 19:26	1
Chloroform	ND		1.0		ug/L			02/24/17 19:26	1
Vinyl acetate	ND		10		ug/L			02/24/17 19:26	1
Dichlorofluoromethane	ND		5.0		ug/L			02/24/17 19:26	1
Vinyl chloride	ND		0.50		ug/L			02/24/17 19:26	1
tert-Butylbenzene	ND		1.0		ug/L			02/24/17 19:26	1
Carbon tetrachloride	ND		0.50		ug/L			02/24/17 19:26	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/24/17 19:26	1
1,3-Dichloropropane	ND		1.0		ug/L			02/24/17 19:26	1
Dichlorobromomethane	ND		0.50		ug/L			02/24/17 19:26	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 130		02/24/17 19:26	1
1,2-Dichloroethane-d4 (Surr)	102		72 - 130		02/24/17 19:26	1
Toluene-d8 (Surr)	103		70 - 130		02/24/17 19:26	1

Lab Sample ID: LCS 720-218396/7

**Matrix: Water** 

Analysis Batch: 218396

Client Sample ID: Lab Control Sample Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Methyl tert-butyl ether	25.0	25.3		ug/L		101	62 - 130	
Benzene	25.0	25.5		ug/L		102	79 - 130	
Ethylbenzene	25.0	25.3		ug/L		101	80 - 120	
Toluene	25.0	25.9		ug/L		104	78 - 120	
m-Xylene & p-Xylene	25.0	25.7		ug/L		103	70 - 142	
o-Xylene	25.0	25.8		ug/L		103	70 - 130	
TBA	250	263		ug/L		105	70 - 130	
DIPE	25.0	26.9		ug/L		108	69 - 134	
TAME	25.0	27.4		ug/L		110	79 - 130	

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## **QC Sample Results**

Client: ATC Group Services LLC. Project/Site: Salvation Army

TestAmerica Job ID: 720-77663-1

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-218396/7

**Matrix: Water** 

Client Sample ID:	<b>Lab Control Sample</b>
	Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Ethyl t-butyl ether	25.0	26.6	-	ug/L		106	70 - 130
1,2-DCA	25.0	25.2		ug/L		101	61 _ 132
Naphthalene	25.0	27.6		ug/L		111	50 _ 130
 ≣DB	25.0	27.2		ug/L		109	70 _ 130
2-Nitropropane	50.0	54.3		ug/L		109	27 _ 196
1,1,1-Trichloroethane	25.0	27.0		ug/L		108	70 - 130
cis-1,3-Dichloropropene	25.0	25.6		ug/L		103	70 - 130
Carbon disulfide	25.0	23.9		ug/L		95	68 - 146
Chlorobromomethane	25.0	27.1		ug/L		109	70 - 130
Bromoform	25.0	27.7		ug/L		111	68 - 136
Tetrachloroethene	25.0	27.9		ug/L		112	70 - 130
1,1-Dichloroethane	25.0	25.2		ug/L		101	70 - 130
1,2-Dichloropropane	25.0	25.6		ug/L		103	70 - 130
1,1,2-Trichloroethane	25.0	26.4		ug/L		106	70 - 130
Acetone	125	159		ug/L		128	26 - 180
Dichlorodifluoromethane	25.0	43.1	*	ug/L		172	32 - 158
4-Methyl-2-pentanone (MIBK)	125	141		ug/L		113	50 <sub>-</sub> 155
	25.0	27.5				110	42 - 162
1,1,2-Trichloro-1,2,2-trifluoroetha	25.0	21.5		ug/L		110	42 - 102
ne Methylene Chloride	25.0	24.9		ug/L		100	70 - 147
Hexachlorobutadiene	25.0	26.9		ug/L		108	70 - 130
Chloromethane	25.0	32.6		ug/L		130	52 - 175
1,2,4-Trimethylbenzene	25.0	26.4		ug/L		106	70 - 132
Bromomethane	25.0	29.0		ug/L		116	43 - 151
2-Chlorotoluene	25.0	25.6		ug/L		102	70 - 130
Chlorodibromomethane	25.0	27.9		ug/L		112	70 - 145
Dibromomethane	25.0	25.7		ug/L		103	70 - 130
1,1-Dichloropropene	25.0	27.2		ug/L		109	70 - 130
1,2,4-Trichlorobenzene	25.0	25.3		ug/L		101	70 - 130
Chlorobenzene	25.0	26.2		ug/L		105	70 - 130 70 - 130
1,2-Dibromo-3-Chloropropane	25.0	29.0		ug/L		116	70 - 136
1,3-Dichlorobenzene	25.0	26.1		ug/L		105	70 - 130
	25.0	26.3		-		105	70 - 130
Styrene 4-Chlorotoluene	25.0	25.5		ug/L		103	70 - 130 70 - 130
rans-1,2-Dichloroethene	25.0	25.4		ug/L		102	68 - 130
				ug/L			
Bromobenzene 1,2,3-Trichlorobenzene	25.0	26.5		ug/L		106	70 <sub>-</sub> 130
<u> </u>	25.0	26.6		ug/L		106	70 - 130
1,1,2,2-Tetrachloroethane	25.0	25.2		ug/L		101	70 - 130
Chloroethane	25.0	28.9		ug/L		116	62 - 138
1,1-Dichloroethene	25.0	24.3		ug/L		97	64 - 128
1,2-Dichlorobenzene	25.0	26.8		ug/L		107	70 <sub>-</sub> 130
Trichloroethene	25.0	28.1		ug/L		112	70 - 130
1,1,1,2-Tetrachloroethane	25.0	27.2		ug/L		109	70 - 130
sec-Butylbenzene	25.0	27.4		ug/L		110	70 - 134
2-Hexanone	125	141		ug/L		112	60 - 164
2-Butanone (MEK)	125	141		ug/L		113	54 - 153
sopropylbenzene	25.0	27.1		ug/L		108	70 - 130
2,2-Dichloropropane	25.0	24.7		ug/L		99	70 - 140

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TestAmerica Job ID: 720-77663-1

Client: ATC Group Services LLC. Project/Site: Salvation Army

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-218396/7 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 218396

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
N-Propylbenzene	25.0	26.4		ug/L		106	70 - 130
Trichlorofluoromethane	25.0	31.6		ug/L		126	66 - 132
1,3,5-Trichlorobenzene	25.0	26.6		ug/L		106	70 - 130
Isopropyl alcohol	250	280		ug/L		112	66 - 165
4-Isopropyltoluene	25.0	27.1		ug/L		108	70 - 130
1,2,3-Trichloropropane	25.0	27.6		ug/L		110	70 - 130
1,3,5-Trimethylbenzene	25.0	26.8		ug/L		107	70 - 130
1,2,3-Trimethylbenzene	25.0	27.5		ug/L		110	70 - 130
trans-1,3-Dichloropropene	25.0	25.8		ug/L		103	70 - 140
cis-1,2-Dichloroethene	25.0	24.9		ug/L		99	70 - 130
Chloroform	25.0	25.5		ug/L		102	70 - 130
Vinyl acetate	25.0	23.8		ug/L		95	43 - 163
Dichlorofluoromethane	25.0	27.8		ug/L		111	70 - 130
Vinyl chloride	25.0	32.0		ug/L		128	54 - 135
tert-Butylbenzene	25.0	28.1		ug/L		112	70 _ 135
Carbon tetrachloride	25.0	27.6		ug/L		110	70 - 146
1,4-Dichlorobenzene	25.0	26.3		ug/L		105	70 - 130
1,3-Dichloropropane	25.0	25.2		ug/L		101	70 - 130
Dichlorobromomethane	25.0	26.5		ug/L		106	70 - 130

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	98		67 - 130
1,2-Dichloroethane-d4 (Surr)	96		72 - 130
Toluene-d8 (Surr)	102		70 - 130

Lab Sample ID: LCS 720-218396/9 Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA

Analysis Batch: 218396

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)	 500	460		ug/L		92	71 - 125	
-C5-C12								

LCS LCS %Recovery Qualifier Limits Surrogate 67 - 130 4-Bromofluorobenzene 102 1,2-Dichloroethane-d4 (Surr) 101 72 - 130 Toluene-d8 (Surr) 102 70 - 130

Lab Sample ID: LCSD 720-218396/10 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 218396

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)	500	487		ug/L		97	71 _ 125	6	20

-C5-C12

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	101		67 - 130

TestAmerica Pleasanton

## **QC Sample Results**

Client: ATC Group Services LLC. Project/Site: Salvation Army

TestAmerica Job ID: 720-77663-1

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-218396/10

Lab Sample ID: LCSD 720-218396/8

**Matrix: Water** 

Analysis Batch: 218396

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		72 - 130
Toluene-d8 (Surr)	103		70 - 130

**Client Sample ID: Lab Control Sample Dup** 

**Prep Type: Total/NA** 

**Matrix: Water** 

Analysis Batch: 218396

Allalysis Balcii. 210390	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Methyl tert-butyl ether	25.0	25.4		ug/L		102	62 - 130		20
Benzene	25.0	24.8		ug/L		99	79 <sub>-</sub> 130	3	20
Ethylbenzene	25.0	24.4		ug/L		97	80 - 120	4	20
Toluene	25.0	24.7		ug/L		99	78 - 120	5	20
m-Xylene & p-Xylene	25.0	24.9		ug/L		100	70 - 142	3	20
o-Xylene	25.0	24.9		ug/L		100	70 - 130	3	20
TBA	250	252		ug/L		101	70 - 130	4	20
DIPE	25.0	26.2		ug/L		105	69 - 134	3	20
TAME	25.0	27.5		ug/L		110	79 - 130	0	20
Ethyl t-butyl ether	25.0	26.5		ug/L		106	70 - 130	0	20
1,2-DCA	25.0	24.9		ug/L		100	61 - 132	1	20
Naphthalene	25.0	26.4		ug/L		105	50 - 130	5	20
EDB	25.0	27.2		ug/L		109	70 - 130	0	20
2-Nitropropane	50.0	55.5		ug/L		111	27 - 196	2	20
1,1,1-Trichloroethane	25.0	25.2		ug/L		101	70 - 130	7	20
cis-1,3-Dichloropropene	25.0	26.0		ug/L		104	70 - 130	2	20
Carbon disulfide	25.0	22.7		ug/L		91	68 - 146	5	20
Chlorobromomethane	25.0	26.8		ug/L		107	70 - 130	1	20
Bromoform	25.0	27.4		ug/L		110	68 - 136	1	20
Tetrachloroethene	25.0	27.2		ug/L		109	70 - 130	2	20
1,1-Dichloroethane	25.0	24.2		ug/L		97	70 - 130	4	20
1,2-Dichloropropane	25.0	25.0		ug/L		100	70 - 130	3	20
1,1,2-Trichloroethane	25.0	26.2		ug/L		105	70 - 130	1	20
Acetone	125	165		ug/L		132	26 - 180	4	30
Dichlorodifluoromethane	25.0	38.8		ug/L		155	32 - 158	10	20
4-Methyl-2-pentanone (MIBK)	125	145		ug/L		116	50 - 155	3	20
1,1,2-Trichloro-1,2,2-trifluoroetha	25.0	25.0		ug/L		100	42 - 162	10	20
ne									
Methylene Chloride	25.0	24.2		ug/L		97	70 - 147	3	20
Hexachlorobutadiene	25.0	25.1		ug/L		101	70 - 130	7	20
Chloromethane	25.0	30.5		ug/L		122	52 _ 175	6	20
1,2,4-Trimethylbenzene	25.0	24.9		ug/L		100	70 - 132	6	20
Bromomethane	25.0	27.5		ug/L		110	43 - 151	5	20
2-Chlorotoluene	25.0	24.0		ug/L		96	70 - 130	7	20
Chlorodibromomethane	25.0	27.7		ug/L		111	70 - 145	1	20
Dibromomethane	25.0	25.4		ug/L		102	70 - 130	1	20
1,1-Dichloropropene	25.0	25.7		ug/L		103	70 - 130	6	20
1,2,4-Trichlorobenzene	25.0	26.3		ug/L		105	70 - 130	4	20
Chlorobenzene	25.0	25.4		ug/L		102	70 - 130	3	20
1,2-Dibromo-3-Chloropropane	25.0	27.6		ug/L		111	70 - 136	5	20

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TestAmerica Job ID: 720-77663-1

Client: ATC Group Services LLC. Project/Site: Salvation Army

Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-218396/8

**Matrix: Water** 

Analysis Batch: 218396

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analysis Batch: 216396	Spike	LCSD	LCSD			%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,3-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130	4	20
Styrene	25.0	25.7		ug/L		103	70 - 130	2	20
4-Chlorotoluene	25.0	24.5		ug/L		98	70 - 130	4	20
trans-1,2-Dichloroethene	25.0	24.4		ug/L		98	68 - 130	4	20
Bromobenzene	25.0	24.6		ug/L		99	70 - 130	7	20
1,2,3-Trichlorobenzene	25.0	26.3		ug/L		105	70 - 130	1	20
1,1,2,2-Tetrachloroethane	25.0	24.5		ug/L		98	70 - 130	3	20
Chloroethane	25.0	27.0		ug/L		108	62 - 138	7	20
1,1-Dichloroethene	25.0	22.8		ug/L		91	64 - 128	6	20
1,2-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130	6	20
Trichloroethene	25.0	26.7		ug/L		107	70 - 130	5	20
1,1,1,2-Tetrachloroethane	25.0	26.2		ug/L		105	70 - 130	4	20
sec-Butylbenzene	25.0	24.4		ug/L		97	70 - 134	12	20
2-Hexanone	125	144		ug/L		116	60 - 164	3	20
2-Butanone (MEK)	125	145		ug/L		116	54 - 153	3	20
Isopropylbenzene	25.0	25.5		ug/L		102	70 - 130	6	20
2,2-Dichloropropane	25.0	25.5		ug/L		102	70 - 140	3	20
N-Propylbenzene	25.0	24.4		ug/L		97	70 - 130	8	20
Trichlorofluoromethane	25.0	28.2		ug/L		113	66 - 132	11	20
1,3,5-Trichlorobenzene	25.0	27.8		ug/L		111	70 - 130	4	20
Isopropyl alcohol	250	264		ug/L		105	66 - 165	6	20
4-Isopropyltoluene	25.0	25.0		ug/L		100	70 - 130	8	20
1,2,3-Trichloropropane	25.0	25.6		ug/L		102	70 - 130	7	20
1,3,5-Trimethylbenzene	25.0	24.9		ug/L		99	70 - 130	8	20
1,2,3-Trimethylbenzene	25.0	25.6		ug/L		102	70 - 130	7	20
trans-1,3-Dichloropropene	25.0	26.4		ug/L		106	70 - 140	2	20
cis-1,2-Dichloroethene	25.0	24.2		ug/L		97	70 - 130	3	20
Chloroform	25.0	24.7		ug/L		99	70 - 130	3	20
Vinyl acetate	25.0	27.0		ug/L		108	43 - 163	13	20
Dichlorofluoromethane	25.0	26.2		ug/L		105	70 - 130	6	20
Vinyl chloride	25.0	29.6		ug/L		118	54 - 135	8	20
tert-Butylbenzene	25.0	24.8		ug/L		99	70 - 135	12	20
Carbon tetrachloride	25.0	25.5		ug/L		102	70 - 146	8	20
1,4-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130	3	20
1,3-Dichloropropane	25.0	25.0		ug/L		100	70 - 130	1	20
Dichlorobromomethane	25.0	25.6		ug/L		102	70 - 130	3	20

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	98		72 - 130
Toluene-d8 (Surr)	103		70 - 130

Lab Sample ID: MB 720-218424/9

**Matrix: Water** 

Analysis Batch: 218424

MB MB

Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac Methyl tert-butyl ether ND 0.50 ug/L 02/25/17 17:58

TestAmerica Pleasanton

Prep Type: Total/NA

Client Sample ID: Method Blank

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Client: ATC Group Services LLC. Project/Site: Salvation Army

#### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: MB 720-218424/9

**Matrix: Water** 

Analysis Batch: 218424

Client Sample ID: Method Blank Prep Type: Total/NA

6

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40

11

13

15

ND ND	Qualifier		MDL		D	Prepared	Analyzed	Dil Fac
ND								4
ND		0.50		ug/L ug/L			02/25/17 17:58 02/25/17 17:58	1
ND		0.50		ug/L			02/25/17 17:58	1
				_				
				-				1
ND		50		ug/L			02/25/17 17:58	1
ND		20		ua/l			02/25/17 17:58	1
				-				1
				_				1
								1
				-				1
								1
				-				1
								1
				-				1
								1
								1
				_				1
								1
				ug/L				1
		0.50		ug/L			02/25/17 17:58	•
		50		ug/L			02/25/17 17:58	1
ND		0.50		ug/L			02/25/17 17:58	1
ND		50		ug/L			02/25/17 17:58	1
ND		0.50		ug/L			02/25/17 17:58	1
ND		5.0		ug/L			02/25/17 17:58	1
ND		1.0		ug/L			02/25/17 17:58	1
ND		1.0		ug/L			02/25/17 17:58	1
ND		0.50		ug/L			02/25/17 17:58	1
ND		1.0		ug/L			02/25/17 17:58	1
ND		0.50		ug/L			02/25/17 17:58	1
ND		0.50		ug/L			02/25/17 17:58	1
ND		0.50		ug/L			02/25/17 17:58	1
ND		0.50		ug/L			02/25/17 17:58	1
ND		1.0		ug/L			02/25/17 17:58	1
ND		0.50					02/25/17 17:58	1
		1.0					02/25/17 17:58	1
ND							02/25/17 17:58	1
								1
								1
								1
				-				1
				-				1
	ND	ND N	ND       20         ND       0.50         ND       0.50         ND       0.50         ND       0.50         ND       1.0         ND       0.50         ND       10         ND       0.50         ND       0.50         ND       1.0         ND       0.50         ND       1.0         ND       0.50         ND       0.50	ND       50         ND       20         ND       0.50         ND       0.50         ND       0.50         ND       0.50         ND       1.0         ND       0.50         ND       1.0         ND       0.50         ND       1.0         ND       1.0         ND       0.50         ND       1.0         ND       0.50         ND       1.0         ND       0.50         ND       0.50	ND         50         ug/L           ND         20         ug/L           ND         0.50         ug/L           ND         0.50         ug/L           ND         0.50         ug/L           ND         0.50         ug/L           ND         1.0         ug/L           ND         10         ug/L           ND         0.50         ug/L           ND         0.50	ND         50         ug/L           ND         20         ug/L           ND         0.50         ug/L           ND         0.50	ND         50         ug/L           ND         0.50         ug/L           ND         0.50	ND 50 Ug/L 02/25/17 17:58  ND 0.50 Ug/L 02/25/17 17:58

TestAmerica Pleasanton

Client: ATC Group Services LLC. Project/Site: Salvation Army

Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

MR MR

Lab Sample ID: MB 720-218424/9

**Matrix: Water** 

Analysis Batch: 218424

Client Sample ID: Method Blank

**Prep Type: Total/NA** 

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		0.50		ug/L			02/25/17 17:58	1
Trichloroethene	ND		0.50		ug/L			02/25/17 17:58	1
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			02/25/17 17:58	1
sec-Butylbenzene	ND		1.0		ug/L			02/25/17 17:58	1
2-Hexanone	ND		50		ug/L			02/25/17 17:58	1
2-Butanone (MEK)	ND		50		ug/L			02/25/17 17:58	1
Isopropylbenzene	ND		0.50		ug/L			02/25/17 17:58	1
2,2-Dichloropropane	ND		0.50		ug/L			02/25/17 17:58	1
N-Propylbenzene	ND		1.0		ug/L			02/25/17 17:58	1
Trichlorofluoromethane	ND		1.0		ug/L			02/25/17 17:58	1
1,3,5-Trichlorobenzene	ND		1.0		ug/L			02/25/17 17:58	1
Isopropyl alcohol	ND		100		ug/L			02/25/17 17:58	1
4-Isopropyltoluene	ND		1.0		ug/L			02/25/17 17:58	1
1,2,3-Trichloropropane	ND		0.50		ug/L			02/25/17 17:58	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			02/25/17 17:58	1
1,2,3-Trimethylbenzene	ND		0.50		ug/L			02/25/17 17:58	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			02/25/17 17:58	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			02/25/17 17:58	1
Chloroform	ND		1.0		ug/L			02/25/17 17:58	1
Vinyl acetate	ND		10		ug/L			02/25/17 17:58	1
Dichlorofluoromethane	ND		5.0		ug/L			02/25/17 17:58	1
Vinyl chloride	ND		0.50		ug/L			02/25/17 17:58	1
tert-Butylbenzene	ND		1.0		ug/L			02/25/17 17:58	1
Carbon tetrachloride	ND		0.50		ug/L			02/25/17 17:58	1
1,4-Dichlorobenzene	ND		0.50		ug/L			02/25/17 17:58	1
1,3-Dichloropropane	ND		1.0		ug/L			02/25/17 17:58	1
Dichlorobromomethane	ND		0.50		ug/L			02/25/17 17:58	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 130		02/25/17 17:58	1
1,2-Dichloroethane-d4 (Surr)	101		72 - 130		02/25/17 17:58	1
Toluene-d8 (Surr)	103		70 - 130		02/25/17 17:58	1

Lab Sample ID: LCS 720-218424/5

**Matrix: Water** 

Analysis Batch: 218424

Client Sample ID	: Lab Control Sample
	Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Methyl tert-butyl ether	25.0	25.6		ug/L		102	62 - 130	
Benzene	25.0	24.5		ug/L		98	79 _ 130	
Ethylbenzene	25.0	24.0		ug/L		96	80 - 120	
Toluene	25.0	24.5		ug/L		98	78 <sub>-</sub> 120	
m-Xylene & p-Xylene	25.0	24.6		ug/L		98	70 - 142	
o-Xylene	25.0	24.7		ug/L		99	70 - 130	
TBA	250	249		ug/L		99	70 - 130	
DIPE	25.0	25.9		ug/L		104	69 _ 134	
TAME	25.0	27.5		ug/L		110	79 - 130	
Ethyl t-butyl ether	25.0	26.5		ug/L		106	70 - 130	

TestAmerica Pleasanton

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Client: ATC Group Services LLC. Project/Site: Salvation Army

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-218424/5

**Matrix: Water** 

Client Sample ID: Lab Control Sample Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,2-DCA	25.0	24.6		ug/L		99	61 - 132	
Naphthalene	25.0	26.1		ug/L		105	50 _ 130	
EDB	25.0	27.2		ug/L		109	70 - 130	
2-Nitropropane	50.0	54.6		ug/L		109	27 - 196	
1,1,1-Trichloroethane	25.0	24.7		ug/L		99	70 - 130	
cis-1,3-Dichloropropene	25.0	25.8		ug/L		103	70 - 130	
Carbon disulfide	25.0	22.2		ug/L		89	68 - 146	
Chlorobromomethane	25.0	26.7		ug/L		107	70 - 130	
Bromoform	25.0	27.1		ug/L		108	68 - 136	
Tetrachloroethene	25.0	26.8		ug/L		107	70 - 130	
1,1-Dichloroethane	25.0	24.1		ug/L		96	70 - 130	
1,2-Dichloropropane	25.0	24.8		ug/L		99	70 - 130	
1,1,2-Trichloroethane	25.0	26.3		ug/L		105	70 - 130	
Acetone	125	161		ug/L		129	26 - 180	
Dichlorodifluoromethane	25.0	33.4		ug/L		134	32 _ 158	
4-Methyl-2-pentanone (MIBK)	125	143		ug/L		114	50 - 155	
1,1,2-Trichloro-1,2,2-trifluoroetha	25.0	24.5		ug/L		98	42 _ 162	
ne								
Methylene Chloride	25.0	25.3		ug/L		101	70 - 147	
Hexachlorobutadiene	25.0	24.7		ug/L		99	70 - 130	
Chloromethane	25.0	28.5		ug/L		114	52 - 175	
1,2,4-Trimethylbenzene	25.0	24.4		ug/L		98	70 - 132	
Bromomethane	25.0	26.8		ug/L		107	43 <sub>-</sub> 151	
2-Chlorotoluene	25.0	23.4		ug/L		94	70 - 130	
Chlorodibromomethane	25.0	27.5		ug/L		110	70 <sub>-</sub> 145	
Dibromomethane	25.0	25.4		ug/L		102	70 - 130	
1,1-Dichloropropene	25.0	25.1		ug/L		100	70 - 130	
1,2,4-Trichlorobenzene	25.0	26.0		ug/L		104	70 - 130	
Chlorobenzene	25.0	25.4		ug/L		101	70 _ 130	
1,2-Dibromo-3-Chloropropane	25.0	27.5		ug/L		110	70 - 136	
1,3-Dichlorobenzene	25.0	25.0		ug/L		100	70 - 130	
Styrene	25.0	25.6		ug/L		103	70 _ 130	
4-Chlorotoluene	25.0	23.9		ug/L		96	70 - 130	
trans-1,2-Dichloroethene	25.0	24.4		ug/L		98	68 _ 130	
Bromobenzene	25.0	24.4		ug/L		97	70 - 130	
1,2,3-Trichlorobenzene	25.0	26.2		ug/L		105	70 - 130	
1,1,2,2-Tetrachloroethane	25.0	23.9		ug/L		96	70 - 130	
Chloroethane	25.0	26.4		ug/L		106	62 - 138	
1,1-Dichloroethene	25.0	22.2		ug/L		89	64 - 128	
1,2-Dichlorobenzene	25.0	25.1		ug/L		100	70 _ 130	
Trichloroethene	25.0	26.4		ug/L		106	70 - 130	
1,1,1,2-Tetrachloroethane	25.0	26.0		ug/L		104	70 - 130	
sec-Butylbenzene	25.0	23.7		ug/L		95	70 - 134	
2-Hexanone	125	143		ug/L		115	60 _ 164	
2-Butanone (MEK)	125	145		ug/L		116	54 _ 153	
Isopropylbenzene	25.0	25.2		ug/L		101	70 - 130	
2,2-Dichloropropane	25.0	24.6		ug/L		98	70 - 140	
N-Propylbenzene	25.0	23.7		ug/L		95	70 - 130	

TestAmerica Pleasanton

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13

Client: ATC Group Services LLC. Project/Site: Salvation Army

### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-218424/5

**Matrix: Water** 

Analysis Batch: 218424

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Client Sample ID: Lab Control Sample** 

71 - 125

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

Prep Type: Total/NA

Analysis Batom 210424	Spike	LCS	LCS				%Rec.
Analyte	Added		Qualifier	Unit	D	%Rec	Limits
Trichlorofluoromethane	25.0	27.7		ug/L		111	66 - 132
1,3,5-Trichlorobenzene	25.0	27.5		ug/L		110	70 - 130
Isopropyl alcohol	250	262		ug/L		105	66 <sub>-</sub> 165
4-Isopropyltoluene	25.0	24.4		ug/L		98	70 <sub>-</sub> 130
1,2,3-Trichloropropane	25.0	25.2		ug/L		101	70 <sub>-</sub> 130
1,3,5-Trimethylbenzene	25.0	24.2		ug/L		97	70 - 130
1,2,3-Trimethylbenzene	25.0	25.2		ug/L		101	70 <sub>-</sub> 130
trans-1,3-Dichloropropene	25.0	26.3		ug/L		105	70 - 140
cis-1,2-Dichloroethene	25.0	24.0		ug/L		96	70 - 130
Chloroform	25.0	24.4		ug/L		98	70 - 130
Vinyl acetate	25.0	26.6		ug/L		107	43 - 163
Dichlorofluoromethane	25.0	26.2		ug/L		105	70 _ 130
Vinyl chloride	25.0	28.0		ug/L		112	54 <sub>-</sub> 135
tert-Butylbenzene	25.0	24.2		ug/L		97	70 _ 135
Carbon tetrachloride	25.0	25.0		ug/L		100	70 - 146
1,4-Dichlorobenzene	25.0	25.3		ug/L		101	70 - 130
1,3-Dichloropropane	25.0	25.1		ug/L		100	70 _ 130
Dichlorobromomethane	25.0	26.0		ug/L		104	70 <sub>-</sub> 130

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	99		72 - 130
Toluene-d8 (Surr)	103		70 <sub>-</sub> 130

Lab Sample ID: LCS 720-218424/7

**Matrix: Water** 

Gasoline Range Organics (GRO)

Analysis Batch: 218424 Spike LCS LCS %Rec. Added Result Qualifier Unit %Rec Limits

456

ug/L

500

-C5-C12

LCS LCS

Surrogate	%Recovery Qua	lifier Limits
4-Bromofluorobenzene	103	67 - 130
1,2-Dichloroethane-d4 (Surr)	101	72 - 130
Toluene-d8 (Surr)	102	70 - 130

Lab Sample ID: LCSD 720-218424/6

**Matrix: Water** 

Analysis Batch: 218424

	Spike	LCSD	LCSD			%Rec.		RPD
Analyte	Added	Result	Qualifier I	Unit D	%Rec	Limits	RPD	Limit
Methyl tert-butyl ether	25.0	26.4		ug/L	105	62 - 130	3	20
Benzene	25.0	24.5	ι	ug/L	98	79 - 130	0	20
Ethylbenzene	25.0	24.0	ι	ug/L	96	80 - 120	0	20
Toluene	25.0	24.5	ι	ug/L	98	78 - 120	0	20
m-Xylene & p-Xylene	25.0	24.6	ι	ug/L	98	70 - 142	0	20
o-Xylene	25.0	24.7	ι	ug/L	99	70 - 130	0	20

TestAmerica Pleasanton

Client: ATC Group Services LLC. Project/Site: Salvation Army

#### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-218424/6

**Matrix: Water** 

Analysis Batch: 218424

**Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA** 

Analysis Batch: 218424	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limi
TBA	250	245		ug/L		98	70 - 130	1	20
DIPE	25.0	26.2		ug/L		105	69 - 134	1	20
TAME	25.0	28.2		ug/L		113	79 - 130	2	20
Ethyl t-butyl ether	25.0	26.9		ug/L		108	70 - 130	1	20
1,2-DCA	25.0	24.9		ug/L		100	61 - 132	1	20
Naphthalene	25.0	28.1		ug/L		112	50 - 130	7	20
EDB	25.0	27.9		ug/L		112	70 - 130	2	20
2-Nitropropane	50.0	58.1		ug/L ug/L		116	27 <sub>-</sub> 196	6	20
1,1,1-Trichloroethane	25.0	24.6		ug/L ug/L		98	70 - 130	1	20
cis-1,3-Dichloropropene	25.0	26.0		ug/L		104	70 - 130	1	20
		22.2				89	68 - 146	0	
Carbon disulfide	25.0			ug/L			70 <sub>-</sub> 130	2	20
Chlorobromomethane Bromoform	25.0	27.2		ug/L		109		3	20
	25.0	27.8		ug/L		111	68 <sub>-</sub> 136		20
Tetrachloroethene	25.0	26.8		ug/L		107	70 <sub>-</sub> 130	0	20
1,1-Dichloroethane	25.0	24.0		ug/L		96	70 - 130	0	20
1,2-Dichloropropane	25.0	25.0		ug/L		100	70 - 130	1	20
1,1,2-Trichloroethane	25.0	26.9		ug/L		107	70 - 130	2	20
Acetone	125	174		ug/L		139	26 - 180	8	30
Dichlorodifluoromethane	25.0	31.8		ug/L		127	32 _ 158	5	20
4-Methyl-2-pentanone (MIBK)	125	151		ug/L		121	50 <sub>-</sub> 155	6	20
1,1,2-Trichloro-1,2,2-trifluoroetha	25.0	24.4		ug/L		97	42 - 162	1	20
ne Mathidaea Chlaida	05.0	05.0					70 447		
Methylene Chloride	25.0	25.2		ug/L		101	70 - 147	0	20
Hexachlorobutadiene	25.0	25.2		ug/L		101	70 <sub>-</sub> 130	2	20
Chloromethane	25.0	27.9		ug/L		112	52 - 175	2	20
1,2,4-Trimethylbenzene	25.0	24.6		ug/L		99	70 - 132	1	20
Bromomethane	25.0	26.7		ug/L 		107	43 - 151	0	20
2-Chlorotoluene	25.0	23.7		ug/L		95	70 - 130	1	20
Chlorodibromomethane	25.0	28.1		ug/L		112	70 - 145	2	20
Dibromomethane	25.0	25.8		ug/L		103	70 - 130	2	20
1,1-Dichloropropene	25.0	25.2		ug/L		101	70 - 130	1	20
1,2,4-Trichlorobenzene	25.0	26.6		ug/L		107	70 - 130	2	20
Chlorobenzene	25.0	25.3		ug/L		101	70 - 130	0	20
1,2-Dibromo-3-Chloropropane	25.0	29.6		ug/L		119	70 - 136	7	20
1,3-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130	1	20
Styrene	25.0	25.6		ug/L		102	70 - 130	0	20
4-Chlorotoluene	25.0	24.0		ug/L		96	70 - 130	1	20
trans-1,2-Dichloroethene	25.0	24.2		ug/L		97	68 - 130	1	20
Bromobenzene	25.0	24.6		ug/L		98	70 - 130	1	20
1,2,3-Trichlorobenzene	25.0	27.7		ug/L		111	70 - 130	6	20
1,1,2,2-Tetrachloroethane	25.0	25.1		ug/L		100	70 - 130	5	20
Chloroethane	25.0	25.8		ug/L		103	62 - 138	2	20
1,1-Dichloroethene	25.0	22.3		ug/L		89	64 - 128	1	20
1,2-Dichlorobenzene	25.0	25.6		ug/L		102	70 - 130	2	20
Trichloroethene	25.0	26.4		ug/L		106	70 - 130	0	20
1,1,1,2-Tetrachloroethane	25.0	26.2		ug/L		105	70 - 130	1	20
sec-Butylbenzene	25.0	24.2		ug/L		97	70 - 134	2	20
2-Hexanone	125	154		ug/L		123	60 - 164	7	20

TestAmerica Pleasanton

Client: ATC Group Services LLC. Project/Site: Salvation Army

#### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-218424/6

**Matrix: Water** 

Analysis Batch: 218424

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
2-Butanone (MEK)	125	153	-	ug/L		123	54 - 153	6	20
Isopropylbenzene	25.0	25.2		ug/L		101	70 - 130	0	20
2,2-Dichloropropane	25.0	24.2		ug/L		97	70 - 140	2	20
N-Propylbenzene	25.0	23.8		ug/L		95	70 - 130	1	20
Trichlorofluoromethane	25.0	26.7		ug/L		107	66 - 132	4	20
1,3,5-Trichlorobenzene	25.0	27.8		ug/L		111	70 - 130	1	20
Isopropyl alcohol	250	260		ug/L		104	66 - 165	1	20
4-Isopropyltoluene	25.0	24.7		ug/L		99	70 - 130	1	20
1,2,3-Trichloropropane	25.0	26.8		ug/L		107	70 - 130	6	20
1,3,5-Trimethylbenzene	25.0	24.5		ug/L		98	70 - 130	1	20
1,2,3-Trimethylbenzene	25.0	25.7		ug/L		103	70 - 130	2	20
trans-1,3-Dichloropropene	25.0	26.7		ug/L		107	70 - 140	2	20
cis-1,2-Dichloroethene	25.0	24.0		ug/L		96	70 - 130	0	20
Chloroform	25.0	24.5		ug/L		98	70 - 130	0	20
Vinyl acetate	25.0	26.7		ug/L		107	43 - 163	0	20
Dichlorofluoromethane	25.0	26.0		ug/L		104	70 - 130	1	20
Vinyl chloride	25.0	27.2		ug/L		109	54 - 135	3	20
tert-Butylbenzene	25.0	24.6		ug/L		98	70 - 135	1	20
Carbon tetrachloride	25.0	24.9		ug/L		99	70 - 146	0	20
1,4-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130	1	20
1,3-Dichloropropane	25.0	25.6		ug/L		102	70 - 130	2	20
Dichlorobromomethane	25.0	26.1		ug/L		105	70 - 130	0	20

LCSD LCSD

Surrogate	%Recovery Qualifie	r Limits
4-Bromofluorobenzene	100	67 - 130
1,2-Dichloroethane-d4 (Surr)	100	72 - 130
Toluene-d8 (Surr)	102	70 130

Lab Sample ID: LCSD 720-218424/8

**Matrix: Water** 

Analysis Batch: 218424

LCSD LCSD %Rec. RPD Spike Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit Gasoline Range Organics (GRO) 500 457 ug/L 91 71 - 125

-C5-C12

	LCSD LCSD	
Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene	102	67 - 130
1,2-Dichloroethane-d4 (Surr)	101	72 - 130
Toluene-d8 (Surr)	102	70 - 130

Lab Sample ID: MB 720-218566/4

**Matrix: Water** 

Analysis Batch: 218566

Client Sample ID: Method Blank Prep Type: Total/NA

мв мв Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Methyl tert-butyl ether ND 0.50 ug/L 03/01/17 09:33 Benzene ND 0.50 ug/L 03/01/17 09:33

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**Client Sample ID: Lab Control Sample Dup** Prep Type: Total/NA

Client: ATC Group Services LLC. Project/Site: Salvation Army

Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: MB 720-218566/4

**Matrix: Water** 

Analysis Batch: 218566

Client Sample ID: Method Blank Prep Type: Total/NA

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.50		ug/L			03/01/17 09:33	1
Toluene	ND		0.50		ug/L			03/01/17 09:33	1
Xylenes, Total	ND		1.0		ug/L			03/01/17 09:33	1
Gasoline Range Organics (GRO)	ND		50		ug/L			03/01/17 09:33	1
-C5-C12									
TBA	ND		20		ug/L			03/01/17 09:33	1
DIPE	ND		0.50		ug/L			03/01/17 09:33	1
TAME	ND		0.50		ug/L			03/01/17 09:33	1
Ethyl t-butyl ether	ND		0.50		ug/L			03/01/17 09:33	1
1,2-DCA	ND		0.50		ug/L			03/01/17 09:33	1
Naphthalene	ND		1.0		ug/L			03/01/17 09:33	1
EDB	ND		0.50		ug/L			03/01/17 09:33	1
2-Nitropropane	ND		10		ug/L			03/01/17 09:33	1
1,1,1-Trichloroethane	ND		0.50		ug/L			03/01/17 09:33	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			03/01/17 09:33	1
Carbon disulfide	ND		5.0		ug/L			03/01/17 09:33	1
Chlorobromomethane	ND		1.0		ug/L			03/01/17 09:33	1
Bromoform	ND		1.0		ug/L			03/01/17 09:33	1
Tetrachloroethene	ND		0.50		ug/L			03/01/17 09:33	1
1,1-Dichloroethane	ND		0.50		ug/L			03/01/17 09:33	1
1,2-Dichloropropane	ND		0.50		ug/L			03/01/17 09:33	1
1,1,2-Trichloroethane	ND		0.50		ug/L			03/01/17 09:33	1
Acetone	ND		50		ug/L			03/01/17 09:33	1
Dichlorodifluoromethane	ND		0.50		ug/L			03/01/17 09:33	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			03/01/17 09:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50		ug/L			03/01/17 09:33	1
Methylene Chloride	ND		5.0		ug/L			03/01/17 09:33	· · · · · · · · · · · · · · · · · · ·
Hexachlorobutadiene	ND		1.0		ug/L			03/01/17 09:33	1
Chloromethane	ND		1.0		ug/L			03/01/17 09:33	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			03/01/17 09:33	
Bromomethane	ND		1.0					03/01/17 09:33	1
2-Chlorotoluene	ND ND		0.50		ug/L			03/01/17 09:33	1
					ug/L				
Chlorodibromomethane	ND		0.50		ug/L			03/01/17 09:33	1
Dibromomethane	ND		0.50		ug/L			03/01/17 09:33	1
1,1-Dichloropropene	ND		0.50		ug/L			03/01/17 09:33	
1,2,4-Trichlorobenzene	ND		1.0		ug/L			03/01/17 09:33	1
Chlorobenzene	ND		0.50		ug/L			03/01/17 09:33	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			03/01/17 09:33	1
1,3-Dichlorobenzene	ND		0.50		ug/L			03/01/17 09:33	1
Styrene	ND		0.50		ug/L			03/01/17 09:33	1
4-Chlorotoluene	ND		0.50		ug/L			03/01/17 09:33	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			03/01/17 09:33	1
Bromobenzene	ND		1.0		ug/L			03/01/17 09:33	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			03/01/17 09:33	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			03/01/17 09:33	1
Chloroethane	ND		1.0		ug/L			03/01/17 09:33	1
1,1-Dichloroethene	ND		0.50		ug/L			03/01/17 09:33	1
1,2-Dichlorobenzene	ND		0.50		ug/L			03/01/17 09:33	1

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Client: ATC Group Services LLC. Project/Site: Salvation Army

Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: MB 720-218566/4

**Matrix: Water** 

**Analysis Batch: 218566** 

Client Sample ID: Method Blank Prep Type: Total/NA

мв мв Analyte Result Qualifier RL MDL Unit D Dil Fac Prepared Analyzed Trichloroethene 0.50 ND 03/01/17 09:33 ug/L ug/L 1,1,1,2-Tetrachloroethane ND 0.50 03/01/17 09:33 ND sec-Butylbenzene 1.0 ug/L 03/01/17 09:33 2-Hexanone ND 50 ug/L 03/01/17 09:33 2-Butanone (MEK) ND 50 ug/L 03/01/17 09:33 Isopropylbenzene ND 0.50 ug/L 03/01/17 09:33 2,2-Dichloropropane ND 0.50 ug/L 03/01/17 09:33 N-Propylbenzene ND 1.0 ug/L 03/01/17 09:33 Trichlorofluoromethane ND 1.0 ug/L 03/01/17 09:33 1,3,5-Trichlorobenzene ND 1.0 ug/L 03/01/17 09:33 100 Isopropyl alcohol ND ug/L 03/01/17 09:33 ND 1.0 4-Isopropyltoluene ug/L 03/01/17 09:33 0.50 1,2,3-Trichloropropane ND ug/L 03/01/17 09:33 1,3,5-Trimethylbenzene ND 0.50 ug/L 03/01/17 09:33 1,2,3-Trimethylbenzene ND 0.50 ug/L 03/01/17 09:33 trans-1,3-Dichloropropene ND 0.50 ug/L 03/01/17 09:33 cis-1,2-Dichloroethene ND 0.50 ug/L 03/01/17 09:33 ND Chloroform 1.0 ug/L 03/01/17 09:33 Vinyl acetate ND 10 ug/L 03/01/17 09:33 ND Dichlorofluoromethane 5.0 ug/L 03/01/17 09:33 Vinyl chloride ND 0.50 ug/L 03/01/17 09:33 ug/L ND 03/01/17 09:33 tert-Butylbenzene 1.0 Carbon tetrachloride ND 0.50 ug/L 03/01/17 09:33 1,4-Dichlorobenzene ND 0.50 ug/L 03/01/17 09:33 1,3-Dichloropropane ND 1.0 ug/L 03/01/17 09:33

MB MB

ND

	IVID	INID				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 130		03/01/17 09:33	1
1,2-Dichloroethane-d4 (Surr)	96		72 - 130		03/01/17 09:33	1
Toluene-d8 (Surr)	102		70 - 130		03/01/17 09:33	1

0.50

ug/L

Lab Sample ID: LCS 720-218566/5

Matrix: Water

Dichlorobromomethane

Analysis Batch: 218566

Client Sample ID: Lab Control Sample Prep Type: Total/NA

03/01/17 09:33

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Methyl tert-butyl ether	25.0	24.4		ug/L		97	62 - 130
Benzene	25.0	23.6		ug/L		95	79 _ 130
Ethylbenzene	25.0	23.3		ug/L		93	80 - 120
Toluene	25.0	23.7		ug/L		95	78 <sub>-</sub> 120
m-Xylene & p-Xylene	25.0	23.9		ug/L		96	70 - 142
o-Xylene	25.0	23.8		ug/L		95	70 - 130
TBA	250	253		ug/L		101	70 - 130
DIPE	25.0	23.1		ug/L		93	69 _ 134
TAME	25.0	24.2		ug/L		97	79 - 130
Ethyl t-butyl ether	25.0	24.2		ug/L		97	70 - 130
1,2-DCA	25.0	24.2		ug/L		97	61 - 132

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### **QC Sample Results**

Client: ATC Group Services LLC. Project/Site: Salvation Army

TestAmerica Job ID: 720-77663-1

#### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-218566/5

**Matrix: Water** 

**Client Sample ID: Lab Control Sample Prep Type: Total/NA** 

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Naphthalene	25.0	25.9		ug/L	— <u> </u>	103	50 - 130
EDB	25.0	27.0		ug/L		108	70 - 130
2-Nitropropane	50.0	47.0		ug/L		94	27 - 196
1,1,1-Trichloroethane	25.0	25.0		ug/L		100	70 - 130
cis-1,3-Dichloropropene	25.0	24.6		ug/L ug/L		98	70 - 130
Carbon disulfide	25.0	23.6		_		95	68 - 146
Chlorobromomethane	25.0	27.6		ug/L		110	70 - 130
Bromoform	25.0	26.5		ug/L		106	68 <sub>-</sub> 136
				ug/L			
Tetrachloroethene	25.0	27.6		ug/L		110	70 - 130
1,1-Dichloroethane	25.0	23.6		ug/L		94	70 - 130
1,2-Dichloropropane	25.0	23.5		ug/L		94	70 - 130
1,1,2-Trichloroethane	25.0	24.6		ug/L		98	70 - 130
Acetone	125	131		ug/L		105	26 _ 180
Dichlorodifluoromethane	25.0	39.8	*	ug/L		159	32 <sub>-</sub> 158
4-Methyl-2-pentanone (MIBK)	125	125		ug/L		100	50 - 155
1,1,2-Trichloro-1,2,2-trifluoroetha	25.0	26.8		ug/L		107	42 - 162
ne							; ;
Methylene Chloride	25.0	24.1		ug/L		96	70 - 147
Hexachlorobutadiene	25.0	24.1		ug/L		97	70 - 130
Chloromethane	25.0	28.2		ug/L		113	52 _ 175
1,2,4-Trimethylbenzene	25.0	24.6		ug/L		98	70 - 132
Bromomethane	25.0	27.9		ug/L		112	43 - 151
2-Chlorotoluene	25.0	22.9		ug/L		92	70 - 130
Chlorodibromomethane	25.0	28.2		ug/L		113	70 - 145
Dibromomethane	25.0	25.1		ug/L		100	70 - 130
1,1-Dichloropropene	25.0	23.8		ug/L		95	70 - 130
1,2,4-Trichlorobenzene	25.0	25.8		ug/L		103	70 - 130
Chlorobenzene	25.0	25.1		ug/L		100	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	25.9		ug/L		104	70 - 136
1,3-Dichlorobenzene	25.0	25.6		ug/L		102	70 - 130
Styrene	25.0	24.8		ug/L		99	70 - 130
4-Chlorotoluene	25.0	23.1		ug/L		93	70 - 130
trans-1,2-Dichloroethene	25.0	24.4		ug/L		98	68 - 130
Bromobenzene	25.0	25.1		ug/L		100	70 - 130
1,2,3-Trichlorobenzene	25.0	25.1		ug/L		100	70 - 130
1,1,2,2-Tetrachloroethane	25.0	22.5		ug/L		90	70 - 130
Chloroethane	25.0	25.5		ug/L		102	62 _ 138
1,1-Dichloroethene	25.0	24.0		ug/L		96	64 - 128
1,2-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130
Trichloroethene	25.0	27.6		ug/L		111	70 - 130
1,1,1,2-Tetrachloroethane	25.0	25.8		ug/L		103	70 - 130
sec-Butylbenzene	25.0	23.9		ug/L ug/L		95	70 - 134
2-Hexanone	125	125		ug/L ug/L		100	60 - 164
2-nexanone 2-Butanone (MEK)	125	123		_		98	54 <sub>-</sub> 153
				ug/L			
Isopropylbenzene	25.0	24.9		ug/L		99	70 <sub>-</sub> 130
2,2-Dichloropropane	25.0	25.2		ug/L		101	70 <sub>-</sub> 140
N-Propylbenzene	25.0	23.1		ug/L		92	70 - 130

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Client: ATC Group Services LLC. Project/Site: Salvation Army

Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-218566/5 **Matrix: Water** 

Analysis Batch: 218566

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,3,5-Trichlorobenzene	25.0	26.2		ug/L		105	70 - 130
Isopropyl alcohol	250	246		ug/L		98	66 - 165
4-Isopropyltoluene	25.0	25.1		ug/L		100	70 - 130
1,2,3-Trichloropropane	25.0	24.4		ug/L		97	70 - 130
1,3,5-Trimethylbenzene	25.0	24.2		ug/L		97	70 - 130
1,2,3-Trimethylbenzene	25.0	23.9		ug/L		96	70 - 130
trans-1,3-Dichloropropene	25.0	25.6		ug/L		102	70 - 140
cis-1,2-Dichloroethene	25.0	23.5		ug/L		94	70 - 130
Chloroform	25.0	24.3		ug/L		97	70 - 130
Vinyl acetate	25.0	24.6		ug/L		98	43 - 163
Dichlorofluoromethane	25.0	24.4		ug/L		98	70 - 130
Vinyl chloride	25.0	28.0		ug/L		112	54 <sub>-</sub> 135
tert-Butylbenzene	25.0	24.6		ug/L		98	70 _ 135
Carbon tetrachloride	25.0	25.4		ug/L		102	70 - 146
1,4-Dichlorobenzene	25.0	25.4		ug/L		102	70 <sub>-</sub> 130
1,3-Dichloropropane	25.0	24.2		ug/L		97	70 - 130
Dichlorobromomethane	25.0	25.1		ug/L		100	70 <sub>-</sub> 130

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	96		67 - 130
1,2-Dichloroethane-d4 (Surr)	95		72 - 130
Toluene-d8 (Surr)	102		70 - 130

Lab Sample ID: LCS 720-218566/7

**Matrix: Water** 

Analysis Batch: 218566

Client Sample ID: Lab Control Sample	9
Prep Type: Total/NA	4

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	)	%Rec	Limits	
Gasoline Range Organics (GRO)	500	439		ug/L	_	88	71 _ 125	
-C5-C12								

LCS LCS %Recovery Qualifier Limits Surrogate 67 - 130 4-Bromofluorobenzene 98 1,2-Dichloroethane-d4 (Surr) 99 72 - 130 102 70 - 130 Toluene-d8 (Surr)

Lab Sample ID: LCSD 720-218566/6

**Matrix: Water** 

Analysis Batch: 218566

Client Sample ID: Lab	<b>Control Sample Dup</b>
	Prep Type: Total/NA

Analysis Baton: 210000									
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Methyl tert-butyl ether	25.0	24.1		ug/L		96	62 - 130	1	20
Benzene	25.0	23.9		ug/L		96	79 - 130	1	20
Ethylbenzene	25.0	23.6		ug/L		94	80 - 120	1	20
Toluene	25.0	24.1		ug/L		96	78 - 120	2	20
m-Xylene & p-Xylene	25.0	24.1		ug/L		96	70 - 142	1	20
o-Xylene	25.0	24.0		ug/L		96	70 - 130	1	20
TBA	250	253		ug/L		101	70 - 130	0	20

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Client: ATC Group Services LLC. Project/Site: Salvation Army

#### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-218566/6

**Matrix: Water** 

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

**Analysis Batch: 218566** LCSD LCSD Spike %Rec. **RPD** Result Qualifier RPD Analyte Added Unit %Rec Limits Limit D DIPE 25.0 23 2 ug/L 93 69 - 1340 20 TAME 25.0 23.8 ug/L 95 79 - 130 2 20 Ethyl t-butyl ether 25.0 23.9 ug/L 96 70 - 13020 1,2-DCA 25.0 24.0 ug/L 96 61 - 132 20 25.0 25.5 102 50 - 130 20 Naphthalene ug/L EDB 25.0 26.4 106 70 - 130 20 ug/L 50.0 27 \_ 196 20 2-Nitropropane 45.6 ug/L 91 3 1,1,1-Trichloroethane 25.0 25.2 ug/L 101 70 - 130 20 cis-1,3-Dichloropropene 25.0 24 6 ug/L 98 70 - 130 Ó 20 Carbon disulfide 25.0 23.9 ug/L 96 68 - 146 20 Chlorobromomethane 25.0 27.4 ug/L 110 70 - 130 20 Bromoform 25.0 26.0 ug/L 104 68 - 136 2 20 Tetrachloroethene 25.0 27.6 ug/L 110 70 - 130 20 1,1-Dichloroethane 25.0 23.8 ug/L 95 70 - 130 20 95 20 1,2-Dichloropropane 25.0 23.7 ug/L 70 - 130 25.0 97 70 - 13020 1,1,2-Trichloroethane 24.3 ug/L 125 Acetone 124 ug/L 100 26 - 180 30 Dichlorodifluoromethane 25.0 40 1 ug/L 160 32 - 158 20 4-Methyl-2-pentanone (MIBK) 125 118 95 50 - 155 20 ug/L 25.0 27.1 108 42 - 162 20 ug/L 1,1,2-Trichloro-1,2,2-trifluoroetha ug/L Methylene Chloride 25.0 24.3 97 70 - 147 20 Hexachlorobutadiene 25.0 24.1 ug/L 96 70 - 130 20 Chloromethane 25.0 28.5 ug/L 114 52 - 175 20 1,2,4-Trimethylbenzene 25.0 24.7 70 - 13220 ug/L 99 Bromomethane 25.0 28.2 ug/L 113 43 - 151 20 2-Chlorotoluene 25.0 23.1 ug/L 70 - 13020 92 25.0 Chlorodibromomethane 27.6 ug/L 111 70 - 145 20 25.0 99 70 - 130 20 Dibromomethane 24 8 ug/L 1,1-Dichloropropene 25.0 24.0 ug/L 96 70 - 130 20 1,2,4-Trichlorobenzene 25.0 102 70 - 130 20 25.4 ug/L Chlorobenzene 25.0 25.2 ug/L 101 70 - 130 0 20 1,2-Dibromo-3-Chloropropane 25.0 25.4 101 70 - 136 20 ug/L 1,3-Dichlorobenzene 25.0 25.6 ug/L 102 70 - 130 20 Styrene 25.0 24.7 ug/L 99 70 - 130 20 94 4-Chlorotoluene 25.0 23.5 ug/L 70 - 130 20 trans-1,2-Dichloroethene 25.0 24.4 ug/L 98 68 - 130 20 Bromobenzene 25.0 25.4 ug/L 102 70 - 130 20 20 1,2,3-Trichlorobenzene 25.0 24.9 ug/L 100 70 - 130 1,1,2,2-Tetrachloroethane 25.0 22.5 ug/L 90 70 - 13020 Chloroethane 25.0 25.7 ug/L 103 62 - 138 20 25.0 1 1-Dichloroethene 24 2 97 64 - 128 20 ug/L 1,2-Dichlorobenzene 25.0 25.4 101 70 - 130 20 ug/L ug/L Trichloroethene 25.0 27.7 111 70 - 13020 1,1,1,2-Tetrachloroethane 25.0 25.7 ug/L 103 70 - 130 20 sec-Butylbenzene 25.0 24.2 ug/L 97 70 - 134 20 2-Hexanone 125 118 ug/L 94 60 - 164 20 2-Butanone (MEK) 125 115 ug/L 92 54 - 153 20

TestAmerica Pleasanton

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Client: ATC Group Services LLC. Project/Site: Salvation Army

#### Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-218566/6

**Matrix: Water** 

Analysis Batch: 218566

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

7 manyolo Batom 2 rooto									
	Spike		LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Isopropylbenzene	25.0	25.0		ug/L		100	70 - 130	0	20
2,2-Dichloropropane	25.0	25.6		ug/L		103	70 - 140	2	20
N-Propylbenzene	25.0	23.5		ug/L		94	70 - 130	2	20
Trichlorofluoromethane	25.0	27.7		ug/L		111	66 - 132	1	20
1,3,5-Trichlorobenzene	25.0	25.6		ug/L		102	70 - 130	2	20
Isopropyl alcohol	250	245		ug/L		98	66 - 165	0	20
4-Isopropyltoluene	25.0	25.2		ug/L		101	70 - 130	0	20
1,2,3-Trichloropropane	25.0	24.0		ug/L		96	70 - 130	2	20
1,3,5-Trimethylbenzene	25.0	24.6		ug/L		98	70 - 130	1	20
1,2,3-Trimethylbenzene	25.0	24.1		ug/L		97	70 - 130	1	20
trans-1,3-Dichloropropene	25.0	25.3		ug/L		101	70 - 140	1	20
cis-1,2-Dichloroethene	25.0	23.7		ug/L		95	70 - 130	1	20
Chloroform	25.0	24.5		ug/L		98	70 - 130	1	20
Vinyl acetate	25.0	23.9		ug/L		96	43 - 163	3	20
Dichlorofluoromethane	25.0	24.9		ug/L		100	70 - 130	2	20
Vinyl chloride	25.0	28.5		ug/L		114	54 - 135	2	20
tert-Butylbenzene	25.0	25.0		ug/L		100	70 - 135	2	20
Carbon tetrachloride	25.0	25.7		ug/L		103	70 - 146	1	20
1,4-Dichlorobenzene	25.0	25.4		ug/L		102	70 - 130	0	20
1,3-Dichloropropane	25.0	23.8		ug/L		95	70 - 130	2	20
Dichlorobromomethane	25.0	24.4		ug/L		98	70 - 130	3	20

LCSD LCSD %Recovery Qualifier Limits 96 67 - 130 4-Bromofluorobenzene

1,2-Dichloroethane-d4 (Surr) 94 72 - 130 Toluene-d8 (Surr) 102 70 - 130

Lab Sample ID: LCSD 720-218566/8

**Matrix: Water** 

Surrogate

Analysis Batch: 218566

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

LCSD LCSD Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit 500 89 Gasoline Range Organics (GRO) 445 ug/L 71 - 125 20 -C5-C12

	LCSD I	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	97		67 - 130
1,2-Dichloroethane-d4 (Surr)	97		72 - 130
Toluene-d8 (Surr)	102		70 - 130

#### Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 720-218049/1-A

**Matrix: Water** 

Analysis Batch: 218062

Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 218049

MB MB Result Qualifier RL MDL Unit Prepared Analyzed 50 Diesel Range Organics [C10-C28] ND ug/L 02/17/17 16:59 02/18/17 12:58

TestAmerica Pleasanton

3/9/2017

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Client: ATC Group Services LLC. Project/Site: Salvation Army

MB MB

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac p-Terphenyl 91 23 - 156 02/17/17 16:59 02/18/17 12:58

Lab Sample ID: LCS 720-218049/2-A

**Matrix: Water** Analysis Batch: 218062 Prep Batch: 218049 LCS LCS Spike Analyte Added Result Qualifier Unit %Rec

1980

LCSD LCSD

MDL Unit

LCS LCS

LCSD LCSD

1720

Result Qualifier

1810

Result Qualifier

ug/L

1890

RL

50

Limits

0 - 5

31 - 150

Spike Added

2500

Spike

Added

2500

2500

Spike

Added

2500

Diesel Range Organics [C10-C28]

Surrogate %Recovery Qualifier p-Terphenyl 100

LCS LCS

Limits 23 - 156

Lab Sample ID: LCSD 720-218049/3-A

**Matrix: Water** 

Analysis Batch: 218062

Analyte

Diesel Range Organics [C10-C28]

LCSD LCSD

Qualifier Limits Surrogate %Recovery p-Terphenyl 23 - 156 99

Lab Sample ID: MB 720-218047/1-A

**Matrix: Water** 

Analysis Batch: 218061

MR MR

Analyte

Result Qualifier

Diesel Range Organics [C10-C28] ND MB MB

Surrogate %Recovery Qualifier Capric Acid (Surr) 0 p-Terphenyl 80

Lab Sample ID: LCS 720-218047/2-A **Matrix: Water** 

Analysis Batch: 218061

Diesel Range Organics [C10-C28]

LCS LCS

%Recovery Qualifier Surrogate Limits p-Terphenyl 88 31 - 150

Lab Sample ID: LCSD 720-218047/3-A

**Matrix: Water** 

Analysis Batch: 218061

Analyte Diesel Range Organics

[C10-C28]

Analyte

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

79 34 - 115

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 218049

RPD %Rec. Limits RPD Limit

Result Qualifier Unit %Rec 76 35 ug/L 34 - 115 5

Unit

ug/L

Unit

ug/L

D

D

D

ug/L

Client Sample ID: Method Blank Prep Type: Silica Gel Cleanup

Prep Batch: 218047

Dil Fac Prepared Analyzed 02/17/17 15:25 02/18/17 21:17

Prepared Analyzed Dil Fac 02/17/17 15:25 02/18/17 21:17 02/17/17 15:25 02/18/17 21:17

Client Sample ID: Lab Control Sample Prep Type: Silica Gel Cleanup

Prep Batch: 218047

%Rec.

Limits %Rec 72

32 - 119

Client Sample ID: Lab Control Sample Dup

Prep Type: Silica Gel Cleanup

**Prep Batch: 218047** %Rec. **RPD** 

%Rec Limits RPD Limit 69 32 \_ 119

TestAmerica Pleasanton

## **QC Sample Results**

Limits

31 - 150

Client: ATC Group Services LLC. Project/Site: Salvation Army

TestAmerica Job ID: 720-77663-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

LCSD LCSD

%Recovery Qualifier

90

Lab Sample ID: LCSD 720-218047/3-A

**Matrix: Water** 

Surrogate

p-Terphenyl

Analysis Batch: 218061

Client Sample ID: Lab Control Sample Dup Prep Type: Silica Gel Cleanup

**Prep Batch: 218047** 

Client: ATC Group Services LLC. Project/Site: Salvation Army

#### **GC/MS VOA**

#### Analysis Batch: 218396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-77663-1	MW-1	Total/NA	Water	8260B/CA_LUFT	
				MS	
720-77663-2	MW-2	Total/NA	Water	8260B/CA_LUFT	
				MS	
MB 720-218396/5	Method Blank	Total/NA	Water	8260B/CA_LUFT	
				MS	
LCS 720-218396/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT	
				MS	
LCS 720-218396/9	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT	
				MS	
LCSD 720-218396/10	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT	
				MS	
LCSD 720-218396/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT	
_				MS	

#### Analysis Batch: 218424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Bar
720-77663-3	MW-3	Total/NA	Water	8260B/CA_LUFT
				MS
MB 720-218424/9	Method Blank	Total/NA	Water	8260B/CA_LUFT
				MS
LCS 720-218424/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT
				MS
LCS 720-218424/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT
				MS
LCSD 720-218424/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT
				MS
LCSD 720-218424/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT
				MS

#### Analysis Batch: 218566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method P	rep Batch
720-77663-4	MW-4	Total/NA	Water	8260B/CA_LUFT	
				MS	
MB 720-218566/4	Method Blank	Total/NA	Water	8260B/CA_LUFT	
				MS	
LCS 720-218566/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT	
				MS	
LCS 720-218566/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT	
				MS	
LCSD 720-218566/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT	
				MS	
LCSD 720-218566/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT	
				MS	

#### GC Semi VOA

#### Prep Batch: 218047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-77663-1	MW-1	Silica Gel Cleanup	Water	3510C SGC	
720-77663-2	MW-2	Silica Gel Cleanup	Water	3510C SGC	
720-77663-3	MW-3	Silica Gel Cleanup	Water	3510C SGC	
720-77663-4	MW-4	Silica Gel Cleanup	Water	3510C SGC	
MB 720-218047/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	
LCS 720-218047/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	

## **QC Association Summary**

Client: ATC Group Services LLC. Project/Site: Salvation Army

TestAmerica Job ID: 720-77663-1

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#### GC Semi VOA (Continued)

## Prep Batch: 218047 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 720-218047/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	

#### Prep Batch: 218049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-77663-1	MW-1	Total/NA	Water	3510C	
720-77663-2	MW-2	Total/NA	Water	3510C	
720-77663-3	MW-3	Total/NA	Water	3510C	
720-77663-4	MW-4	Total/NA	Water	3510C	
MB 720-218049/1-A	Method Blank	Total/NA	Water	3510C	
LCS 720-218049/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 720-218049/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

#### Analysis Batch: 218061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-77663-4	MW-4	Total/NA	Water	8015B	218049
MB 720-218047/1-A	Method Blank	Silica Gel Cleanup	Water	8015B	218047
LCS 720-218047/2-A	Lab Control Sample	Silica Gel Cleanup	Water	8015B	218047
LCSD 720-218047/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	8015B	218047

#### Analysis Batch: 218062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-218049/1-A	Method Blank	Total/NA	Water	8015B	218049
LCS 720-218049/2-A	Lab Control Sample	Total/NA	Water	8015B	218049
LCSD 720-218049/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	218049

#### Analysis Batch: 218102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-77663-1	MW-1	Silica Gel Cleanup	Water	8015B	218047
720-77663-1	MW-1	Total/NA	Water	8015B	218049
720-77663-2	MW-2	Silica Gel Cleanup	Water	8015B	218047
720-77663-2	MW-2	Total/NA	Water	8015B	218049
720-77663-3	MW-3	Silica Gel Cleanup	Water	8015B	218047
720-77663-3	MW-3	Total/NA	Water	8015B	218049
720-77663-4	MW-4	Silica Gel Cleanup	Water	8015B	218047

TestAmerica Pleasanton

Client: ATC Group Services LLC. Project/Site: Salvation Army

Lab Sample ID: 720-77663-1

Matrix: Water

Client Sample ID: MW-1 Date Collected: 02/13/17 11:12 Date Received: 02/14/17 09:45

Batch Dilution Batch Batch Prepared Method Prep Type Type Run Factor Number or Analyzed Analyst Lab Total/NA Analysis 8260B/CA\_LUFTMS 50 218396 02/25/17 05:17 JRM TAL PLS 3510C SGC TAL PLS Silica Gel Cleanup Prep 218047 02/17/17 15:25 NDU Silica Gel Cleanup TAL PLS Analysis 8015B 218102 02/20/17 14:17 JXL Prep TAL PLS Total/NA 3510C 218049 02/17/17 16:59 NDU Total/NA 8015B 218102 02/20/17 15:54 JXL TAL PLS Analysis

Client Sample ID: MW-2 Lab Sample ID: 720-77663-2

Date Collected: 02/13/17 11:10 Matrix: Water Date Received: 02/14/17 09:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		10	218396	02/25/17 05:45	JRM	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			218047	02/17/17 15:25	NDU	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	218102	02/20/17 14:41	JXL	TAL PLS
Total/NA	Prep	3510C			218049	02/17/17 16:59	NDU	TAL PLS
Total/NA	Analysis	8015B		1	218102	02/20/17 16:18	JXL	TAL PLS

Client Sample ID: MW-3 Lab Sample ID: 720-77663-3

Date Collected: 02/13/17 12:15 **Matrix: Water** 

Date Received: 02/14/17 09:45

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		50	218424	02/26/17 00:59	JRM	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			218047	02/17/17 15:25	NDU	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	218102	02/20/17 15:05	JXL	TAL PLS
Total/NA	Prep	3510C			218049	02/17/17 16:59	NDU	TAL PLS
Total/NA	Analysis	8015B		1	218102	02/20/17 16:43	JXL	TAL PLS

Client Sample ID: MW-4 Lab Sample ID: 720-77663-4

Date Collected: 02/13/17 11:50 Matrix: Water Date Received: 02/14/17 09:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		20	218566	03/01/17 16:35	MJK	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			218047	02/17/17 15:25	NDU	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	218102	02/20/17 15:30	JXL	TAL PLS
Total/NA	Prep	3510C			218049	02/17/17 16:59	NDU	TAL PLS
Total/NA	Analysis	8015B		1	218061	02/18/17 17:52	JXL	TAL PLS

#### **Laboratory References:**

= McCampbell Analytical, Inc., 1534 Willow Pass Road, Pittsburg, CA 94565

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

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## **Certification Summary**

Client: ATC Group Services LLC. Project/Site: Salvation Army

TestAmerica Job ID: 720-77663-1

#### **Laboratory: TestAmerica Pleasanton**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-18

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## **Method Summary**

Client: ATC Group Services LLC. Project/Site: Salvation Army

TestAmerica Job ID: 720-77663-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTM S	8260B / CA LUFT MS	SW846	TAL PLS
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL PLS
Tetraethyl & Tetramethyl lead by 8270Mod	General Sub Contract Method	NONE	

#### Protocol References:

NONE = NONE

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

= McCampbell Analytical, Inc., 1534 Willow Pass Road, Pittsburg, CA 94565

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

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## **Sample Summary**

Matrix

Water

Water

Water

Water

Client: ATC Group Services LLC. Project/Site: Salvation Army

Client Sample ID

MW-1

MW-2

MW-3

MW-4

Lab Sample ID

720-77663-1

720-77663-2

720-77663-3

720-77663-4

TestAmerica Job ID: 720-77663-1

Collected Received
--------------------

02/13/17 12:15

02/13/17 11:50

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02/14/17 09:45

02/14/17 09:45

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# McCampbell Analytical, Inc.

"When Quality Counts"

## **Analytical Report**

**WorkOrder:** 1702772

**Report Created for:** Test America

1220 Quarry Lane

Pleasanton, CA 94566

**Project Contact:** Dimple Sharma **Project P.O.:** 720-77663-1

**Project Name:** 72011870; Salvation Army

**Project Received:** 02/14/2017

Analytical Report reviewed & approved for release on 02/21/2017 by:

Angela Rydelius, Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com

CA ELAP 1644 ♦ NELAP 4033ORELAP

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## **Glossary of Terms & Qualifier Definitions**

**Client:** Test America

**Project:** 72011870; Salvation Army

WorkOrder: 1702772

#### **Glossary Abbreviation**

%D Serial Dilution Percent Difference

95% Interval 95% Confident Interval

DF Dilution Factor

DI WET (DISTLC) Waste Extraction Test using DI water

DISS Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)

DLT Dilution Test (Serial Dilution)

DUP Duplicate

EDL Estimated Detection Limit

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

N/A Not Applicable

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PDS Post Digestion Spike

PDSD Post Digestion Spike Duplicate

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value

SPLP Synthetic Precipitation Leachate Procedure

ST Sorbent Tube

TCLP Toxicity Characteristic Leachate Procedure

TEQ Toxicity Equivalents

WET (STLC) Waste Extraction Test (Soluble Threshold Limit Concentration)

#### **Analytical Qualifiers**

a3 sample diluted due to high organic content.

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## **Analytical Report**

Client: Test America
Date Received: 2/14/17 14:55
Date Prepared: 2/15/17

**Project:** 

72011870; Salvation Army

Keport

WorkOrder: 1702772 Extraction Method: SW3510C Analytical Method: SW8270C

 $\textbf{Unit:} \hspace{1cm} \mu g/L$ 

Client ID	Lab ID	Matrix	Da	ate Collecte	Batch ID						
MW-1 (720-77663-1)	1702772-001A	Water	02	/13/2017 11:1	2 GC30	134212					
<u>Analytes</u>	<u>Result</u>	<u>M</u>	DL RL	<u>DF</u>		Date Analyzed					
Tetraethyl Lead	ND	0.	26 0.63	2 5		02/16/2017 16:59					
Tetramethyl Lead	ND	0.	11 0.6	2 5		02/16/2017 16:59					
Surrogates	REC (%)		<u>Lin</u>	<u>nits</u>							
2-Fluorobiphenyl	110		50	-150		02/16/2017 16:59					
Analyst(s): TD		Analytical Comments: a3									

Client ID	Lab ID	Matrix	Date (	Collected Instrument	Batch ID
MW-3 (720-77663-3)	1702772-002A	Water	02/13/2	017 12:15 GC30	134212
<u>Analytes</u>	Result	<u>MDL</u>	<u>RL</u>	<u>DF</u>	Date Analyzed
Tetraethyl Lead	ND	0.26	0.62	5	02/16/2017 17:25
Tetramethyl Lead	ND	0.11	0.62	5	02/16/2017 17:25
<u>Surrogates</u>	REC (%)		<u>Limits</u>		
2-Fluorobiphenyl	112		50-150		02/16/2017 17:25
Analyst(s): TD		Aı	nalytical Con	nments: a3	

## **Quality Control Report**

WorkOrder: **Client:** Test America 1702772 **Date Prepared:** 2/15/17 **BatchID:** 134212 **Date Analyzed:** 2/16/17 **Extraction Method: SW3510C Instrument:** GC30 **Analytical Method:** SW8270C **Matrix:** Water **Unit:** μg/L

**Project:** 72011870; Salvation Army **Sample ID:** MB/LCS-134212

1702772-001AMS/MSD

## QC Summary Report for Organic Lead by GC-MS

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Tetraethyl Lead	ND	2.62	0.053	0.12	2.5	-	105	50-150
Tetramethyl Lead	ND	3.15	0.021	0.12	2.5	-	126	50-150
Surrogate Recovery								
2-Fluorobiphenyl	5.088	5.02			5	102	100	50-150

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Tetraethyl Lead	2.93	3.02	2.5	ND<0.62	117	121	50-150	2.87	30
Tetramethyl Lead	3.16	3.13	2.5	ND<0.62	126	125	50-150	0.685	30
Surrogate Recovery									
2-Fluorobiphenyl	5.26	5.39	5		105	108	50-150	2.38	30

## McCampbell Analytical, Inc.

## **CHAIN-OF-CUSTODY RECORD**

ClientCode: TAM

Page 1 of 1

1534 Willow Pass Rd Pittsburg, CA 94565-1701 (925) 252-9262

WaterTrax WriteOn EDF ⊌Excel ■EQuIS ⊌Email HardCopy ThirdParty ⊌J-flag

WorkOrder: 1702772

Report to: Bill to: Requested TAT: 5 days;

Dimple Sharma Email: dimple.sharma@testamericainc.com Accounts Payable Test America cc/3rd Party: TestAmerica

 1220 Quarry Lane
 PO:
 720-77663-1
 4101 Shuffel Street NW
 Date Received:
 02/14/2017

 Pleasanton, CA 94566
 ProjectNo:
 72011870; Salvation Army
 North Canton, OH 44720
 Date Logged:
 02/14/2017

(925) 484-1919 FAX: (925) 600-3002 AccountsPayable@testamericainc.com

								Re	quested	Tests (	See leg	end bel	ow)			
Lab ID	Client ID	Matrix	<b>Collection Date</b>	Hold	1	2	3	4	5	6	7	8	9	10	11	12
		<del>-</del>														
1702772-001	MW-1 (720-77663-1)	Water	2/13/2017 11:12		Α											
1702772-002	MW-3 (720-77663-3)	Water	2/13/2017 12:15		Α											

#### Test Legend:

1 MAI_OPBMS_W (J)	2	3	4
5	6	7	8
9	10	11	12

Prepared by: Tina Perez

#### **Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).

Hazardous samples will be returned to client or disposed of at client expense.

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## McCampbell Analytical, Inc.

"When Quality Counts"

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

**WORK ORDER SUMMARY** 

Client Name: TEST AMERICA Project: 72011870; Salvation Army Work Order: 1702772

Client Contact: Dimple Sharma

QC Level: LEVEL 2

Contact's Email: dimple.sharma@testamericainc.com

Comments:

Date Logged: 2/14/2017

		WaterTrax	WriteOn EDF	<b>∠</b> Excel	Fax Fmail	HardC	opy ThirdPart	y <b>√</b> J-	flag
Lab ID	Client ID	Matrix	Test Name	Containers /Composites	<b>Bottle &amp; Preservative</b>	De- chlorinated	Collection Date & Time	TAT	Sediment Hold SubOut Content
1702772-001A	MW-1 (720-77663-1	) Water	Organic Lead (speciated)	2	1LA		2/13/2017 11:12	5 days	Present
1702772-002A	MW-3 (720-77663-3	) Water	Organic Lead (speciated)	2	1LA		2/13/2017 12:15	5 days	Present

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

Page 1 of 1

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Pleasanton

1220 Quarry Lane Pleasanton, CA 94566	U <sub>1</sub>	hain (	of Cus	Chain of Custody Record	cord					
Phone (925) 484-1919 Fax (925) 600-3002						The same			THE LEADER IN EN	THE LEADER IN ENVIRONMENTAL TESTING
Client Information (Sub Contract Lab)	Sampler:			Lab PM: Sharma	Lab PM: Sharma, Dimple	Carr	Carrier Tracking No(s):		COC No: 720-32506.1	
Client Contact: Shipping/Receiving	Phone:			E-Mail: dimple.s	E-Mail: dimple.sharma@testamericainc.com	4	State of Origin: California		Page: Page 1 of 1	
Company: McCampbell Analytical, Inc.				Acc	Accreditations Required (See note):	;e):			Job #: 720-77663-1	N.
Address: 1534 Willow Pass Road,	Due Date Requested: 2/20/2017	:p:		y.	An	Analysis Requested	sted		ŏ	S: M-Hovenon
City. Pittsburg	TAT Requested (days):	ys):			/(1				B - NaOH C - Zn Acetate	N - None O - AsNaO2
State, Zip: CA, 94565										Q - Na2O4S Q - Na2SO3 R - Na2S2O3
Phone:	PO #:			(0		P				S - H2SO4 T - TSP Dodecahydrate
Email:	:# OM			N 10 S	yl lead					U - Acetone V - MCAA
Project Name: Salvation Army	Project #: 72011870			6 (Ye	amethy			enístr	K-EDIA L-EDA	W - pH 4-5 Z - other (specify)
Site:	:#MOSS			ldmeS	& Tetra			100 10	Other:	
		Sample	Sample Type (C=comp,	Matrix (W=water, E=solid, O=waste/oil, d=	MISM mothe Bl (Tetraethyl IsT & lydiaeth			redmuM lato		-
Sample Identification - Client ID (Lab ID)	Sample Date	Time	G=grab)	S=grab)   BT=Tissue, A=Air)   II. Preservation Code:	ıs			ı×	Special Inst	Special Instructions/Note:
MW-1 (720-77663-1)	2/13/17	11:12 Pacific		Water	×			2		
MW-3 (720-77663-3)	2/13/17	12:15 Pacific		Water	×			2		-
ě										
				,				,		
				-						
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample share of Origin listed above for analysis/tests/markix being analyzed, the samples must be shipped back to the TestAmerica aboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc.	Laboratories, Inc. places the ris/tests/matrix being analyz current to date, return the si	ownership of n ed, the sample gned Chain of	nethod, analyte s must be ship Custody attest	& accreditation cor ped back to the Tes ing to said complica	npliance upon out subcontrac tAmerica laboratory or other i nce to TestAmerica Laborato	t laboratories. This s nstructions will be pr ries, Inc.	sample shipment is f ovided. Any change	orwarded under s to accreditatic	chain-of-custody. If then status should be bro	te laboratory does not ught to TestAmerica
Possible Hazard Identification		-			Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)	ee may be asse	ssed if samples	s are retaine	d longer than 1 n	nonth)
Unconfirmed		d			Return To Client	Dispo	Disposal By Lab	Archive For	re For	Months
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank: 2	ble Rank: 2			Special Instructions/QC Requirements:	Requirements:				36
Empty Kit Relinquished by:		Date:		Tir	Time:		Method of Shipment:	nt:		
Relinquished by:	Date/Time;	11 6	955	Company	Received by:	<i>\</i>	Date/Time	-/14/17	1455	Company H
Relinquished by:	Date/Time:	6/ 6	2000	Compahy	Received by:	$\chi$	Date/Time:	ime:		Company
Relinquished by:	Date/Time:	1		Company	Received by:	0	Date/Time:	ime:		Company

Custody Seal No.:

Custody Seals Intact:
A Yes A No

Page 7 of 8

Cooler Temperature(s) C and Other Remarks:

## **Sample Receipt Checklist**

Client Name: Project Name:	Test America 72011870; Salvation Army			Date and Time Received Date Logged: Received by:	2/14/2017 14:55 2/14/2017 Benjamin Yslas
WorkOrder №:	<b>1702772</b> Matrix: <u>Water</u>			Logged by:	Tina Perez
Carrier:	Benjamin Yslas (MAI Courier)				
	Chain of C	ustody	(COC) Infor	<u>mation</u>	
Chain of custody	present?	Yes	<b>✓</b>	No 🗆	
Chain of custody	signed when relinquished and received?	Yes	<b>✓</b>	No 🗌	
Chain of custody	agrees with sample labels?	Yes	<b>✓</b>	No 🗆	
Sample IDs note	d by Client on COC?	Yes	<b>✓</b>	No 🗆	
Date and Time o	f collection noted by Client on COC?	Yes	<b>✓</b>	No 🗌	
Sampler's name	noted on COC?	Yes		No 🗹	
	Samp	le Rece	eipt Informati	<u>ion</u>	
Custody seals in	tact on shipping container/cooler?	Yes		No 🗆	NA 🗹
Shipping contain	er/cooler in good condition?	Yes	<b>✓</b>	No 🗌	
Samples in prop	er containers/bottles?	Yes	<b>✓</b>	No 🗌	
Sample containe	rs intact?	Yes	<b>✓</b>	No 🗌	
Sufficient sample	e volume for indicated test?	Yes	<b>✓</b>	No 🗌	
	Sample Preservati	on and	Hold Time (I	HT) Information	
All samples rece	ived within holding time?	Yes	<b>✓</b>	No 🗌	NA 🗌
Sample/Temp Bl	ank temperature		Temp:		NA 🗹
Water - VOA via	s have zero headspace / no bubbles?	Yes		No 🗆	NA 🗹
Sample labels ch	necked for correct preservation?	Yes	<b>✓</b>	No 🗌	
pH acceptable up	oon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes		No 🗆	NA 🗹
Samples Receive	ed on Ice?	Yes	<b>✓</b>	No 🗆	
	(Ісе Тур	e: WE	TICE )		
UCMR3 Samples Total Chlorine	<u>s:</u> tested and acceptable upon receipt for EPA 522?	Yes		No 🗌	NA 🗸
Free Chlorine 1 300.1, 537, 53	ested and acceptable upon receipt for EPA 218.7, 9?	Yes		No 🗆	NA 🗹
Comments:			<u> </u>		

Company:	ctions/QC Requirements & Comments: Fuel Ox	Non-Hazard Plammable Skin Irritant Poison B	Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Viction in the lab is to dispose of the sample.	Preservation Used: 1= lce, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other		720-77663 Chain of Custody			MW-4	MVV-3	MW2	MW-1 021317		Sample Identification Date	Geotracker EDF Global ID #: T10000003428.	Site: Facility Number: Project #. 20540000006	Project Name: The Salvation Army Oakland ARC		579-2225	City/State/Zip: Modesto, CA, 95351 Calendar ( C	Address: 1117 Lone Palm Avenue, Suite 201B An	ATC Group Services LLC TellFax: (209) 579-2221	Client Contact Project Mana	phone 925.484.1919 fax 925.800,3002 Regula		TestAmerica Pleasanton
Date/Time:	TBE, DIPE, MTBE, TBA and TAME	Unknown	Please List any EPA Waste Codes for the sample in the	ther					1150 Water 6	72.5   Water 10	JIO Water G	1125 Glass Water 10		Sample Sample # of	1 day	2 days	1 week	2 weeks	TAT if different from Below	Calendar ( C ) or Work Days (W)	Analysis Turnaround Time	9) 579-2221	Project Manager: Mike Sonke	Regulatory Program: Dw NPDES		1
Received by:	, 1,2 DCA and EDB.	Return to Client	Sample Disposal ( A fee i						×××	××××	× × ×	× × ×	E E	EPA 8015 / 3630C	Frab = G TPH-d TPH-d TPH-g, Scaven	wo/ s w/ sil BTEX gers,	lica g , 5 Ox Naphi		ead			Lab Contact: Dimple Sharma	Site Contact: Alex Flores	SRCRA		Chain of Custody Record
Company:	.5°C	Disposal by Lab Archive for	Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)																			carrier: TAL Courier	Date: 02/317	Other:		294
Date/Time:		Months	etained longer than 1 month)												Sampler: Alex Flores		Job / SDG No.:		Lab Sampling:	Walk-in Clent.	For Lab Use Only:	of COCs	COC No.	TestAmerica Laboratories, Inc.	THE LEADER IN ENVIRONMENTAL TESTING	Tect & merica

Relinquished by:

### **Login Sample Receipt Checklist**

Client: ATC Group Services LLC. Job Number: 720-77663-1

Login Number: 77663 List Source: TestAmerica Pleasanton

List Number: 1 Creator: Arauz, Dennis

Cleator. Arauz, Demiis		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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# Appendix **E**

ATC's Standard Field
Procedures
for
Soil Vapor Sampling and
Laboratory Analysis





# ATC Group Services STANDARD FIELD PROCEDURES FOR SOIL VAPOR SAMPLING AND ANALYSIS

These procedures were developed in accordance with the Cardno ATC workplan dated August 14, 2014 and applicable LOP regulatory guidance as provided by ACEH their August 3, 2016 letter.

The vapor intrusion assessment will be conducted in accordance with the site-specific safety plan. The scope will also be performed in general accordance with methodologies for soil vapor sampling established in the Advisory Active Soil vapor Investigations, California Environmental Protection Agency, Department of Toxic Substances Control, Los Angeles Regional Water Quality Control Board, San Francisco Regional Water Quality Control Board, July 2015.

In preparation for sampling, a three-way probe sampling assembly will be constructed. One of the three ports will be attached to a Teflon tube connected to the sub-slab soil vapor sampling point. A second port will be connected to a vacuum/pressure gauge to measure the vacuum while purging. The third port will be used to withdraw soil vapor samples. Sample withdrawal rates will be restricted to 100 to 200-ml per minute by a flow constrictor device included within the sampling assembly.

The sampling assembly will be purged by removing three purge volumes of air from the assembly using a 60-ml plastic syringe. Purge volumes will be derived by adding the annular void space created within the substrate below the vapor pin because of boring through the slab, and the internal volume of sampling assembly. Once purging is complete, the syringe will be removed and replaced with a 200-ml/minute flow restrictor connected to a dedicated 400-ml SUMMA® canisters canister provided by an off-site analytical laboratory. This completed the sampling assembly.

The probe sampling assemblies dedicated to each location will be subjected to "shut in" and leak testing prior to use. The "shut in" test will be used to check the integrity of the assembly by establishing a vacuum of approximately 10 to 15 inches of mercury (in Hg) by closing external valves and drawing the purging syringe back to create a vacuum and then holding the vacuum steady for approximately 10 minutes. The assembly maintained vacuum of 10 to 15 in Hg over 10 minutes indicating an absence of leaks.

During purging, testing, and sampling activities, a "leak test" will be conducted. A temporary plastic enclosure will be constructed to envelope the assembly. A leak check compound 1,1-difluoroethane (1,1-DFA) will be introduced into the enclosure. This set up exposes the assembly's connections, surface seals, and the top of the temporary soil vapor point to the leak check compound.

One soil vapor sample will be collected from each of the three (3) subslab vapor pins using a dedicated SUMMA® canister. The Vapor Intrusion Guidance, states that when more than four samples will be collected, one (1) duplicate sample is to be collected for QA/QC purposes. Since only three samples will be collected, no duplicate sample will be indicated.

Once the soil vapor samples will be collected, the SUMMA® canisters will be shipped under chain-of-custody procedures to H&P Mobile Geochemistry, a California-certified laboratory (ELAP Cert #69070) in Carlsbad, California, for analysis.

### 1.1. SOIL VAPOR SAMPLE ANALYSES

The contents of each soil vapor sample contained within its SUMMA® canister will be analyzed

SOIL VAPOR SAMPLE ANALYSES	
EPA Method TO-15 <sup>1</sup>	
Total Petroleum Hydrocarbons as Gasoline (TPHg)	Ethyl Tertiary Butyl Ether (ETBE)
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)	1,2-Dichloroethane (EDC))
Methyl Tertiary-Butyl Ether (MTBE)	Ethyl Dibromide (EDB)
Tertiary Butyl Alcohol (TBA)	Naphthalene
Di-Isopropyl Ether (DIPE)	1,1-difluoroethane (1,1-DFA) <sup>2</sup>
Tertiary Amyl Methyl Ether (TAME)	
EPA Method TO-17 <sup>3</sup>	
Naphthalene	
ASTM D 1946	
Oxygen	
Carbon dioxide	
EPA Method 8015 <sup>1</sup>	
Methane	

<sup>3</sup> - ACDEH had requested that one sample be analyzed for naphthalene by test method T-17,

<sup>&</sup>lt;sup>1</sup> - The TO-15 analytical method will be used since this method typically provide the lowest practical detection limits and better accuracy when compared to EPA Methods 8015M and 8260B.

<sup>&</sup>lt;sup>2</sup> - 1,1-DFA = leak detection compound

<sup>&</sup>lt;sup>1</sup> The analytical lab recommended Method 8015 as reporting limits were lower.

# Appendix **F**

**Subslab Soil Vapor Sampling Log** 



	A / 34-7								FLD-102
			SOIL	Vapor	Sampli	ng Log			Revision 0.0
				-	-	•	,		Jul-08
	Modesto, CA; 5				Date: 02	21317			Page 1 of 1
Cardno Repre	esentative(s):	ALLX Flo	res		Project: TS	CAS			
					Location: 6C	1 webs/	er Au	ie, (	Dakland, CA
Contact Inform	mation: Mike So	onke		,	Project No: Z	20540000	306		Task No: U1
					Weather: S	YNNU			Temperature:
Water Level M	Meter Model/ID:	Solinist 100			Interface Prob	e Model/ID: N/	/A		
	Sampling Point /	Time of Sample	Time of (	Gauging*	initial P		Contai	iner	Other
Well ID	Туре	Сар	Start:	Finish:	"H&	"Hg	400M	Svano.	Cont. SN
BSS-1	Subsurface	1335	1346	1350	-25	-1			00%purge & sample
BSS-2		1415	1426	1430	-25	-2		I	67 purge & sample
BSS-3	1	1445	1456	1500	-25	-2	1	C	ℋpurge & sample
BSS-1	Sub Y4" Surface	1335	1346	1347			Sorber	nt	G0183852
BSS-2		1415	1426	1427		-	ĺ		G0186955
BSS-3	1	1445	1456	1457					G0188543
							-		
Comments:	Flow r	ate pr	v both	Sorbe	nt & s	SUMMA	Car	rist	er zoocc
per	mine	ute.	Conduct	t pres	sure la	eak te	29+	at	marifold 8
Leat	: Test	7: PC	ducter.	@ each	n Sample	e locati	on d	Luxi	ing sampling.

#### Notes:

If top of screen is submerged, allow at least 15 minutes for well equilibration following well cap removal.

All measurements to be reported to nearest 0.01 ft.

ID

= Identification.

LNAPL

= Light Non-Aqueous Phase Liquid.

Sheen

= Discontinuous, non-measurable thickness of LNAPL (less than 0.01 ft).

Trace

= Continuous, non-measurable thickness of LNAPL.

# Appendix **G**

Laboratory Analytical Data Report and Chain of Custody Documents Subslab Soil Vapor Samples







Mr. Mike Sonke ATC Group Services - Modesto 1117 Lone Palm Ave., Suite B Modesto, CA 95351

H&P Project: ATC022117-14

Client Project: TSAO / Oakland, CA

Dear Mr. Mike Sonke:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 21-Feb-17 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody
- Sampling Logs (if applicable)

Unless otherwise noted, I certify that all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,

Janis La Roux Laboratory Director

H&P Mobile Geochemistry, Inc. is certified under the California ELAP, the National Environmental Laboratory Accreditation Conference (NELAC) and the Department of Defense Accreditation Programs.

2470 Impala Drive Carlsbad, CA 92010 760-804-9678 Phone 760-804-9159 Fax

ATC Group Services - Modesto

Project: ATC022117-14

1117 Lone Palm Ave., Suite B Modesto, CA 95351 Project Number: TSAO / Oakland, CA Reported:
Project Manager: Mr. Mike Sonke 02-Mar-17 13:29

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BSS-1	E702104-01	Vapor	13-Feb-17	21-Feb-17
BSS-2	E702104-02	Vapor	13-Feb-17	21-Feb-17
BSS-3	E702104-03	Vapor	13-Feb-17	21-Feb-17

2470 Impala Drive Carlsbad, CA 92010 760-804-9678 Phone 760-804-9159 Fax

ATC Group Services - Modesto Project: ATC022117-14

1117 Lone Palm Ave., Suite B Project Number: TSAO / Oakland, CA Reported:
Modesto, CA 95351 Project Manager: Mr. Mike Sonke 02-Mar-17 13:29

### **DETECTIONS SUMMARY**

ample ID: BSS-1	Laboratory ID: <b>E7</b> 0	72104-01			
		Reporting			
Analyte	Result	Limit	Units	Method	Notes
Carbon dioxide	3.3	0.20	%	ASTM D1945	
Oxygen	16	0.20	%	ASTM D1945	
Nitrogen	81	0.20	%	ASTM D1945	
Chloromethane	5.4	2.1	ug/m3	EPA TO-15	
Toluene	22	3.8	ug/m3	EPA TO-15	
ample ID: BSS-2	Laboratory ID: E70	2104-02			
		Reporting			
Analyte	Result	Limit	Units	Method	Notes
Carbon dioxide	3.2	0.20	%	ASTM D1945	
Oxygen	16	0.20	%	ASTM D1945	
Nitrogen	81	0.20	%	ASTM D1945	
Methane	14	10	ppmv	EPA 8015M	
Diisopropyl ether (DIPE)	5.5	4.2	ug/m3	EPA TO-15	
Benzene	37	3.2	ug/m3	EPA TO-15	
Trichloroethene	5.6	5.5	ug/m3	EPA TO-15	
Toluene	260	3.8	ug/m3	EPA TO-15	
Tetrachloroethene	40	6.9	ug/m3	EPA TO-15	
Ethylbenzene	34	4.4	ug/m3	EPA TO-15	
m,p-Xylene	75	8.8	ug/m3	EPA TO-15	
Styrene	4.4	4.3	ug/m3	EPA TO-15	
o-Xylene	21	4.4	ug/m3	EPA TO-15	
1,2,4-Trimethylbenzene	9.8	5.0	ug/m3	EPA TO-15	
ample ID: BSS-3	Laboratory ID: E70	2104-03			
		Reporting			
Analyte	Result	Limit	Units	Method	Notes
Carbon dioxide	4.2	0.20	%	ASTM D1945	
Oxygen	16	0.20	%	ASTM D1945	
Nitrogen	79	0.20	%	ASTM D1945	
Toluene	38	3.8	ug/m3	EPA TO-15	

2470 Impala Drive Carlsbad, CA 92010 760-804-9678 Phone 760-804-9159 Fax

ATC Group Services - Modesto 1117 Lone Palm Ave., Suite B

Modesto, CA 95351

Project: ATC022117-14

Project Number: TSAO / Oakland, CA Project Manager: Mr. Mike Sonke Reported: 02-Mar-17 13:29

### Soil Gas and Vapor Analysis

		Reporting		Dilution					
Analyte	Result	Limit	Units	Factor	Batch	Prepared	Analyzed	Method	Notes
BSS-1 (E702104-01) Vapor	Sampled: 13-Feb-17 Received:	21-Feb-17							
Carbon dioxide	3.3	0.20	%	1	EB72410	24-Feb-17	24-Feb-17	ASTM D1945	
Oxygen	16	0.20	"	"	"	"	"	"	
Nitrogen	81	0.20	"	"	"	"	"	"	
Methane	ND	10	ppmv	"	EB72409	24-Feb-17	24-Feb-17	EPA 8015M	
BSS-2 (E702104-02) Vapor	Sampled: 13-Feb-17 Received:	21-Feb-17							
Carbon dioxide	3.2	0.20	%	1	EB72410	24-Feb-17	24-Feb-17	ASTM D1945	
Oxygen	16	0.20	"	"	"	"	"	"	
Nitrogen	81	0.20	"	"	"	"	"	"	
Methane	14	10	ppmv	"	EB72409	24-Feb-17	24-Feb-17	EPA 8015M	
BSS-3 (E702104-03) Vapor	Sampled: 13-Feb-17 Received:	21-Feb-17							
Carbon dioxide	4.2	0.20	%	1	EB72410	24-Feb-17	24-Feb-17	ASTM D1945	
Oxygen	16	0.20	"	"	"	"	"	"	
Nitrogen	79	0.20	"	"	"	"	"	"	
Methane	ND	10	ppmv	"	EB72409	24-Feb-17	24-Feb-17	EPA 8015M	

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ATC Group Services - Modesto 1117 Lone Palm Ave., Suite B Project: ATC022117-14 Project Number: TSAO / Oakland, CA

Modesto, CA 95351 Project Manager: Mr. Mike Sonke

Reported: 02-Mar-17 13:29

### **Volatile Organic Compounds by EPA TO-15**

Analyta	Result	Reporting Limit	Lluita	Dilution	Datah	Droporod	Analwand	Mathad	Notes
Analyte	Result	Limit	Units	Factor	Batch	Prepared	Analyzed	Method	Notes
BSS-1 (E702104-01) Vapor Sampled: 13-Feb-17	Received: 21	-Feb-17							
1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EC70109	28-Feb-17	01-Mar-17	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	5.4	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	4.2	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	,,	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	4.2	"	"	"	"	,,	"	
Trichloroethene	ND	5.5	"	"	"	"	,,	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	,,	"	
Bromodichloromethane	ND	6.8	"	"	"	"	,,	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	,,	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	,,	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	,,	"	
Toluene	22	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
Tetrachloroethene	ND ND	6.9	,,	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND ND	7.8	,,	"	"	"	"	"	
1,2-Diotomoculane (EDB)	טא	1.0							

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ATC Group Services - Modesto 1117 Lone Palm Ave., Suite B Project: ATC022117-14 Project Number: TSAO / Oakland, CA

Modesto, CA 95351 Project Manager: Mr. Mike Sonke

Reported: 02-Mar-17 13:29

### **Volatile Organic Compounds by EPA TO-15**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
BSS-1 (E702104-01) Vapor Sampled: 13-Fel	b-17 Received: 21-	Feb-17							
1,1,1,2-Tetrachloroethane	ND	7.0	ug/m3	1	EC70109	28-Feb-17	01-Mar-17	EPA TO-15	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
Naphthalene	ND	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		105 %	76-1	134	"	"	"	"	
Surrogate: Toluene-d8		85.6 %	78-	125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		79.7 %	77-	127	"	"	"	"	
BSS-2 (E702104-02) Vapor Sampled: 13-Fel	b-17 Received: 21-	Feb-17							
1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EC70109	28-Feb-17	01-Mar-17	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	3.6	"	"	"	"	"	"	

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ATC Group Services - Modesto

Project: ATC022117-14 Project Number: TSAO / Oakland, CA

1117 Lone Palm Ave., Suite B Project Number: TSAO / Oakland, Modesto, CA 95351 Project Manager: Mr. Mike Sonke

Reported: 02-Mar-17 13:29

### **Volatile Organic Compounds by EPA TO-15**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
BSS-2 (E702104-02) Vapor Sampled: 13-Feb-	17 Received: 2	1-Feb-17							
1,1-Dichloroethane	ND	4.1	ug/m3	1	EC70109	28-Feb-17	01-Mar-17	EPA TO-15	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	5.5	4.2	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	37	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	4.2	"	"	"	"	"	"	
Trichloroethene	5.6	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	260	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
Tetrachloroethene	40	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	34	4.4	"	"	"	"	"	"	
m,p-Xylene	75	8.8	"	"	"	"	"	"	
Styrene	4.4	4.3	"	"	"	"	"	"	
o-Xylene	21	4.4	"	"	"	"	"	"	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	9.8	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene			"	"	"	"	"	"	
			"	"	"	"	"	"	
			"	"	"	"	"	"	
	ND ND ND ND	12 12 12 5.3	"	"	"	"	"	"	

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ATC Group Services - Modesto 1117 Lone Palm Ave., Suite B Project: ATC022117-14 Project Number: TSAO / Oakland, CA

1117 Lone Palm Ave., Suite BProject Number:TSAO / Oakland, CAReported:Modesto, CA 95351Project Manager:Mr. Mike Sonke02-Mar-17 13:29

### **Volatile Organic Compounds by EPA TO-15**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Note
BSS-2 (E702104-02) Vapor Sampled: 13-Fe	eb-17 Received: 2	1-Feb-17				-	-		
1,2,4-Trichlorobenzene	ND	38	ug/m3	1	EC70109	28-Feb-17	01-Mar-17	EPA TO-15	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		106 %	76-	134	"	"	"	"	
Surrogate: Toluene-d8		89.3 %	78-	125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		81.5 %	77-	127	"	"	"	"	
BSS-3 (E702104-03) Vapor Sampled: 13-Fe	eb-17 Received: 2	1-Feb-17							
1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	1	EC70109	28-Feb-17	01-Mar-17	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	4.2	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	4.2	"	"	"	"	"	"	
Trichloroethene	ND	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	

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ATC Group Services - Modesto 1117 Lone Palm Ave., Suite B Project: ATC022117-14

1117 Lone Palm Ave., Suite B Project Number: TSAO / Oakland, CA
Modesto, CA 95351 Project Manager: Mr. Mike Sonke

Reported: 02-Mar-17 13:29

### **Volatile Organic Compounds by EPA TO-15**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
BSS-3 (E702104-03) Vapor Sampled: 13-Feb-17	Received: 21	l-Feb-17							
4-Methyl-2-pentanone (MIBK)	ND	8.3	ug/m3	1	EC70109	28-Feb-17	01-Mar-17	EPA TO-15	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	38	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
Tetrachloroethene	ND	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
Naphthalene	ND	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	38	"	"	"	"	"	"	
Hexachlorobutadiene	ND	54	"	"	"	"	"	"	
0 12011 1		02.664		124	"	"	"		
Surrogate: 1,2-Dichloroethane-d4		93.6 %		134	"	"	"	"	
Surrogate: Toluene-d8		110 %		125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		84.6 %	77-	127	"	"	"	"	

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ATC Group Services - Modesto 1117 Lone Palm Ave., Suite B Project: ATC022117-14

Project Number: TSAO / Oakland, CA Project Manager: Mr. Mike Sonke Reported: 02-Mar-17 13:29

Soil Gas and Vapor Analysis - Quality Control H&P Mobile Geochemistry, Inc.

Spike %REC RPD Reporting Source Result Units Level %REC RPD Limit Analyte Limit Result Limits Notes

Batch EB72409 - GC

Modesto, CA 95351

Blank (EB72409-BLK1) Prepared & Analyzed: 24-Feb-17

Methane ND 10 ppmv

Batch EB72410 - GC

 Blank (EB72410-BLK1)
 Prepared & Analyzed: 24-Feb-17

 Carbon dioxide
 ND
 0.20
 %

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Reported:

RPD

%REC

Limits

02-Mar-17 13:29

RPD

Limit

Notes

ATC Group Services - Modesto

Project: ATC022117-14

1117 Lone Palm Ave., Suite B Modesto, CA 95351

Analyte

Project Number: TSAO / Oakland, CA
Project Manager: Mr. Mike Sonke

Spike

Level

Source

Result

%REC

## Volatile Organic Compounds by EPA TO-15 - Quality Control H&P Mobile Geochemistry, Inc.

Units

Reporting

Limit

Result

паг	Mobile	Geochemistry, inc	·•

Blank (EC70109-BLK1)				Prepared & Analyzed: 28-Feb-17
1,1-Difluoroethane (LCC)	ND	5.5	ug/m3	
Dichlorodifluoromethane (F12)	ND	5.0	"	
Chloromethane	ND	2.1	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	
Vinyl chloride	ND	2.6	"	
Bromomethane	ND	16	"	
Chloroethane	ND	8.0	"	
Trichlorofluoromethane (F11)	ND	5.6	"	
1,1-Dichloroethene	ND	4.0	"	
Tertiary-butyl alcohol (TBA)	ND	6.1	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	7.7	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	
Carbon disulfide	ND	6.3	"	
trans-1,2-Dichloroethene	ND	8.0	"	
Methyl tertiary-butyl ether (MTBE)	ND	3.6	"	
1,1-Dichloroethane	ND	4.1	"	
2-Butanone (MEK)	ND	30	"	
cis-1,2-Dichloroethene	ND	4.0	"	
Diisopropyl ether (DIPE)	ND	4.2	"	
Chloroform	ND	4.9	"	
Ethyl tert-butyl ether (ETBE)	ND	4.2	"	
1,1,1-Trichloroethane	ND	5.5	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	
Benzene	ND	3.2	"	
Carbon tetrachloride	ND	6.4	"	
Tertiary-amyl methyl ether (TAME)	ND	4.2	"	
Trichloroethene	ND	5.5	"	
1,2-Dichloropropane	ND	9.4	"	
Bromodichloromethane	ND	6.8	"	
cis-1,3-Dichloropropene	ND	4.6	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	
trans-1,3-Dichloropropene	ND	4.6	"	
Toluene	ND	3.8	"	
1,1,2-Trichloroethane	ND	5.5	"	

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ATC Group Services - Modesto

Project: ATC022117-14

1117 Lone Palm Ave., Suite B Modesto, CA 95351 Project Number: TSAO / Oakland, CA Project Manager: Mr. Mike Sonke Reported: 02-Mar-17 13:29

RPD

%REC

## Volatile Organic Compounds by EPA TO-15 - Quality Control H&P Mobile Geochemistry, Inc.

Reporting

Spike

Source

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
	resuit	Limit	Cinto	Level	Result	/VICEC	Limits	101.0	Limit	110103
Batch EC70109 - TO-15				Dranged &	z Analyzed:	29 Eab 17				
Blank (EC70109-BLK1)	ND	0.0		1 Tepared &	Anaryzcu.	26-1-00-17				
2-Hexanone (MBK)	ND	8.3	ug/m3							
Dibromochloromethane	ND	8.6	"							
Tetrachloroethene	ND	6.9	,,							
1,2-Dibromoethane (EDB)	ND	7.8	,,							
1,1,1,2-Tetrachloroethane	ND	7.0	,,							
Chlorobenzene	ND	4.7								
Ethylbenzene	ND	4.4	"							
n,p-Xylene	ND	8.8	"							
Styrene	ND	4.3	"							
o-Xylene	ND	4.4	"							
Bromoform	ND	10	"							
1,1,2,2-Tetrachloroethane	ND	7.0	"							
1-Ethyltoluene	ND	5.0	"							
,3,5-Trimethylbenzene	ND	5.0	"							
,2,4-Trimethylbenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	12	"							
,4-Dichlorobenzene	ND	12	"							
1,2-Dichlorobenzene	ND	12	"							
Naphthalene	ND	5.3	"							
1,2,4-Trichlorobenzene	ND	38	"							
Hexachlorobutadiene	ND	54	"							
Surrogate: 1,2-Dichloroethane-d4	44.3		"	42.9		103	76-134			
Surrogate: Toluene-d8	40.2		"	41.4		97.0	78-125			
Surrogate: 4-Bromofluorobenzene	64.3		"	72.9		88.2	77-127			
LCS (EC70109-BS1)				Prepared &	z Analyzed:	28-Feb-17				
Dichlorodifluoromethane (F12)	110	5.0	ug/m3	101		106	59-128			
Vinyl chloride	50	2.6	"	52.0		95.7	64-127			
Chloroethane	54	8.0	"	53.6		100	63-127			
Frichlorofluoromethane (F11)	110	5.6	"	113		94.4	62-126			
1,1-Dichloroethene	69	4.0	"	80.8		85.2	61-133			
1,1,2-Trichlorotrifluoroethane (F113)	140	4.0 7.7	"	155		88.9	66-126			
Methylene chloride (Dichloromethane)	58	7.7 3.5	"	70.8		82.0	62-115			

2470 Impala Drive Carlsbad, CA 92010 760-804-9678 Phone 760-804-9159 Fax

ATC Group Services - Modesto 1117 Lone Palm Ave., Suite B

Modesto, CA 95351

Project: ATC022117-14

Project Number: TSAO / Oakland, CA Project Manager: Mr. Mike Sonke Reported: 02-Mar-17 13:29

## Volatile Organic Compounds by EPA TO-15 - Quality Control H&P Mobile Geochemistry, Inc.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Anaryte	Result	LIIIIt	Ullits	Level	Resuit	70KEC	Lillits	KrD	LIIIII	Notes
Batch EC70109 - TO-15										
LCS (EC70109-BS1)				Prepared &	& Analyzed:	28-Feb-17				
trans-1,2-Dichloroethene	63	8.0	ug/m3	80.8		78.5	67-124			
1,1-Dichloroethane	72	4.1	"	82.4		87.7	68-126			
cis-1,2-Dichloroethene	66	4.0	"	80.0		82.6	70-121			
Chloroform	88	4.9	"	99.2		88.3	68-123			
1,1,1-Trichloroethane	110	5.5	"	111		97.6	68-125			
1,2-Dichloroethane (EDC)	77	4.1	"	82.4		93.1	65-128			
Benzene	58	3.2	"	64.8		90.2	69-119			
Carbon tetrachloride	140	6.4	"	128		110	68-132			
Trichloroethene	110	5.5	"	110		98.3	71-123			
Toluene	69	3.8	"	76.8		90.1	66-119			
1,1,2-Trichloroethane	100	5.5	"	111		92.5	73-119			
Tetrachloroethene	140	6.9	"	138		99.0	66-124			
1,1,1,2-Tetrachloroethane	140	7.0	"	140		102	67-129			
Ethylbenzene	88	4.4	"	88.4		99.7	70-124			
m,p-Xylene	85	8.8	"	88.4		96.3	61-134			
o-Xylene	88	4.4	"	88.4		99.6	67-125			
1,1,2,2-Tetrachloroethane	130	7.0	"	140		92.1	65-127			
Surrogate: 1,2-Dichloroethane-d4	45.5		"	42.9		106	76-134			
Surrogate: Toluene-d8	41.2		"	41.4		99.6	78-125			
Surrogate: 4-Bromofluorobenzene	68.1		"	72.9		93.4	77-127			

2470 Impala Drive Carlsbad, CA 92010 760-804-9678 Phone 760-804-9159 Fax

ATC Group Services - Modesto Project: ATC022117-14
1117 Lone Palm Ave., Suite B Project Number: TSAO / Oakland, CA

1117 Lone Palm Ave., Suite BProject Number: TSAO / Oakland, CAReported:Modesto, CA 95351Project Manager: Mr. Mike Sonke02-Mar-17 13:29

#### **Notes and Definitions**

LCC Leak Check Compound

ND Analyte NOT DETECTED at or above the reporting limit

MDL Method Detection Limit

%REC Percent Recovery

RPD Relative Percent Difference

### **Appendix**

H&P Mobile Geochemistry, Inc. is approved as an Environmental Testing Laboratory and Mobile Laboratory in accordance with the DoD-ELAP and the ISO 17025 programs, certification number L15-279-R1

H&P is approved by the State of Arizona as an Environmental Testing Laboratory and Mobile Laboratory, certification numbers AZM758 and AZ0779.

H&P is approved by the State of California as an Environmental Laboratory and Mobile Laboratory in conformance with the Environmental Laboratory Accreditation Program (ELAP) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste, certification numbers 2740, 2741, 2743, 2744, 2745, 2754 & 2930.

H&P is approved by the State of Florida Department of Health under the National Environmental Laboratory Accreditation Conference (NELAC) certification number E871100.

The complete list of stationary and mobile laboratory certifications along with the fields of testing (FOTs) and analyte lists are available at <a href="https://www.handpmg.com/about/certifications">www.handpmg.com/about/certifications</a>.



2470 Impala Drive, Carlsbad, CA 92010 & Field Office - Signal Hill, CA W handpmg.com E info@handpmg.com P 760.804.9678 F 760.804.9159

## **VAPOR / AIR Chain of Custody**

DATE: <u>021817</u> Page <u>|</u> of <u>|</u>

	Lab Client and Project Information												Sample	e Rec	eipt (La	ab Use	Only)		
Lab Client/Consultant: ATC GVA	up Lorvice	5 11	C.	Project Name / #: -	TSAD	nii e						Date	Rec'd:	2/21	117	Contro	1#:17	009	8.02
Lab Client Project Manager:	Sonke	<u> </u>	_	Project Location:	Oaklar	4 (	A					H&P F	Project	# AT	CO:	2211			0.0
Lab Client Address:	JONE	· Aves	wife	Report E-Mail(s):				,				Lab W	Vork Ord		Ulifornia de	02			
Lab Client City, State, Zip:	one rain			MIKE.J	Sonke Co	steass	ocial	es.Co	sur			Samp	le Intac			No [			ow
Mod	esto, CA	795	71	Jim. K	undert@	Partas	rocia	ites.	Cou			BECKER LINE		ge ID:				Temp:	
(2011)11,000			Sampler Information							de Lab:		1110				1 \ 1			
Reporting Requirem					Sampler(s):		_				7			s/Trackir	na #·				
Standard Report   Level III	☐ Level IV	5-7 da		24-Hr Rush	AL	ex 7	lore	-5			7/21/17	12	93T	TOI	705	1700	438	3	
Excel EDD Other EDD:	71670	☐ 3-day	Rush	☐ Mobile Lab	Signature:	ly	Fre	w	_										
CA Geotracker Global ID: T10	0000003428	☐ 48-Hr	Rush	Other:	Date: 621	817					KIM					5.5	Lab l	PM Initia	ıls: KIM
* Preferred VOC units (please cl	hoose one): · 🛉	STM DIG		Y + NAPH +  U2, O2, N2  (In e k  SAMPLE TYPE  Indoor Air (IA), Ambient  Air (AA), Subslab (SS),	CONTAINER SIZE & TYPE 400mL/1L/6L Summa		Lab use only: Receipt Vac	VOCs Standard Full List  ☐ 8260SV ( TO-15	VOCs Short List / Project	Oxygenates    8260SV   TO-15	Naphthalene Naphthalene	TPHv as Gas ☐ 8260SVm ☐ TO-15m	Aromatic/Aliphatic Fractions  8260SVm T0-15m	Leak Check Compound	Methane by EPA 8015m	Fixed Gases by ASTM D1945	Final pirsure	•	
SAMPLE NAME	(if applicable)	mm/dd/yy	24hr clock	Soil Vapor (SV)	Tedlar, Tube, etc.	CON	Lab u	% C	° 00 □	Oxyg	Naph	TPH =	Aron	Leak Ch	Meth	Fixed	77		
BSS-1	BSS-1	021317	1350	22	400mL	008	-1.82	X		×	XX	=		X	×	×	-1	1-1	
BSS-2	BSS-2		1430	55	1	167	-1.94	X		X	女女	4		X	X	X	-2		
BSS-3	BSS-3	1	1500	SS	1	064	-1.08	X		X	XI	F		¥	×	X	-2		
GD 183852	BSS 1	031317	1350	55	Sitube	-AF					*	AF							
60 186955	BSS-2	021317		55	1	AF					X	AF		H.	T SAFE				
GO 188543	8553	0213/7	1500	-53	-	AF					X	AF							
											¥:								
Approved/Relinquished by:  Flor		ATC Company:	0	Date: 21817	Time:		Jon'l	"War	wa	rt		Company			2/2 date	1/17		Γime: [Ο:3	30
Approved/Relinquished by:		Company:		Date:	Time:	Received by:						Company	r.		Date			ime:	
Approved/Relinquished by:		Company:		Date:	Time:	Received by:			4. 4			Company	r:		Date			Γime:	



## **Calscience**



## WORK ORDER NUMBER: 17-02-1501

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For** 

Client: ATC Group Services LLC

Client Project Name: TSAO / Z054000006

Attention: Mike Sonke

1117 Lone Palm Ave.

Suite 201B

Modesto, CA 95351-1531

ResultLink >

Email your PM >

Approved for release on 03/01/2017 by:

Lori Thompson Project Manager

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



## **Contents**

Client Project Name:	TSAO / Z054000006
Work Order Number:	17-02-1501

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2	Sample Summary	4
3	Client Sample Data	5 5
4	Quality Control Sample Data.     4.1 LCS/LCSD.	6 6
5	Sample Analysis Summary	7
6	Glossary of Terms and Qualifiers	8
7	Chain-of-Custody/Sample Receipt Form	9



### **Work Order Narrative**

Work Order: 17-02-1501 Page 1 of 1

### **Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 02/16/17. They were assigned to Work Order 17-02-1501.

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

### **Holding Times:**

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

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

### **Quality Control:**

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

### **Subcontractor Information:**

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

### **Additional Comments:**

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

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



### **Sample Summary**

Client: ATC Group Services LLC

Work Order: Project Name: 17-02-1501

1117 Lone Palm Ave., Suite 201B

PO Number:

TSAO / Z054000006

Modesto, CA 95351-1531

Date/Time

02/16/17 18:40

Received:

Number of Containers:

3

Attn: Mike Sonke

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
G0183852	17-02-1501-1	02/13/17 13:50	1	Air
G0186955	17-02-1501-2	02/13/17 14:30	1	Air
G0188543	17-02-1501-3	02/13/17 15:00	1	Air



### **Analytical Report**

 ATC Group Services LLC
 Date Received:
 02/16/17

 1117 Lone Palm Ave., Suite 201B
 Work Order:
 17-02-1501

 Modesto, CA 95351-1531
 Preparation:
 N/A

 Method:
 EPA TO-17 (M)

 Units:
 ug/m3

 Project: TSAO / Z054000006
 Page 1 of 1

G0183852         17-02-1501-1-A         02/13/17 13:50         Air         GC/MS MMM         N/A         02/17/17 21:43         17-02-1501-1-A         17-02-15	QC Batch ID	Date/Time Analyzed	Date Prepared	Instrument	Matrix	Date/Time Collected	Lab Sample Number	Client Sample Number
Naphthalene         ND         10         1.00           Surrogate         Rec. (%)         Control Limits         Qualifiers	170217L02		N/A	GC/MS MMM	Air		17-02-1501-1-A	G0183852
Surrogate Rec. (%) Control Limits Qualifiers	<u>rs</u>	Qualifi	<u>DF</u>	=	<u>R</u>	Result		<u>Parameter</u>
<del></del>			1.00	)	1	ND		Naphthalene
1,4-Bromofluorobenzene 96 57-129			Qualifiers	ontrol Limits	<u>C</u>	Rec. (%)		Surrogate
				'-129	5	96		1,4-Bromofluorobenzene

G0186955	17-02-1501-2-A	02/13/17 14:30	Air	GC/MS MMM	N/A	02/18/17 09:32	170217L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>ifiers</u>
Naphthalene		ND		10	1.00		
Surrogate		Rec. (%)		Control Limits	Qualifiers		
1,4-Bromofluorobenzene		96		57-129			

G0188543	17-02-1501-3-A	02/13/17 15:00	Air	GC/MS MMM	N/A	02/17/17 22:54	170217L02
Parameter		<u>Result</u>	<u>R</u>	<u>L</u>	<u>DF</u>	Qu	alifiers
Naphthalene		ND	1	0	1.00		
Surrogate		Rec. (%)	<u>C</u>	ontrol Limits	Qualifiers		
1,4-Bromofluorobenzene		96	5	7-129			

Method Blank	099-15-178-57	N/A	Air G	GC/MS MMM N/A	02/17/17 170217L 16:12	_02
Comment(s):	- MB data is reported in ng/sample.					
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>	
Naphthalene		ND	2.0	1.00		
<u>Surrogate</u>		Rec. (%)	<u>Contr</u>	ol Limits Qual	<u>fiers</u>	
1,4-Bromofluoro	benzene	96	57-12	29		

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



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

 ATC Group Services LLC
 Date Received:
 02/16/17

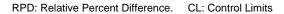
 1117 Lone Palm Ave., Suite 201B
 Work Order:
 17-02-1501

 Modesto, CA 95351-1531
 Preparation:
 N/A

Method: EPA TO-17 (M)

Project: TSAO / Z054000006 Page 1 of 1

Quality Control Sample ID	Туре	Mat	rix	Instrument	Date Prep	ared Date	Analyzed	LCS/LCSD Ba	atch Number
099-15-178-57	LCS	Air		GC/MS MMM	N/A	02/1	7/17 13:29	170217L02	
099-15-178-57	LCSD	Air		GC/MS MMM	N/A	02/1	7/17 14:11	170217L02	
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Naphthalene	100.0	90.09	90	87.62	88	40-190	3	0-35	





## **Sample Analysis Summary Report**

Work Order: 17-02-1501				Page 1 of 1
<u>Method</u>	Extraction	Chemist ID	Instrument	Analytical Location
EPA TO-17 (M)	N/A	884	GC/MS MMM	2



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

Work Order: 17-02-1501 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.
В	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 cample extract was subjected to Silica Gal treatment prior to analysis

- 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.

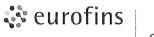
Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless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

	coln Way, Garden Grove, CA 928 er service / sample drop off inform	Calscience Ht	t Project Project tronhol	Nanaayl t #: F	W: KIW HC02131 D098.0		NO. / LAB USE ON	- <b>02</b> -1	501		AIR C	CHAIN-O DATE PAGE	≣: <u> </u>		DY REC	es es
	ORYCLIENT: C GWOOD Se	nation, contact us26_sales@etur	rofinsus.com or c	all us.	JO 190.00	CLIE	NT PROJECT NAM	IE / NO.:		0007	1 <u> </u>	P.O. NO.:		ş Marika Garanda da kar		
1117 Lone Palm Ave, Suite 201B CITY: STATE: ZIP:						1 SAO / 2054000 C					LAB CONTACT OR QUOTE NO.:					
EL:	odesto	E-MAIL:	<u> </u>	953		PRO.	MIKE.	704KE		······································		SAMPLER(S)	: (PRINT)		V	
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□ SAME DAY □ 24 HR □ 48 HR □ 72 HR □ 5 DAYS STANDAI EDD: UNITS: US/W <sup>3</sup>					ARD	CITY: STATE: ZIP:						REQUESTED ANALYSES				
PECIAL I	LT EDF OTHER	Sample	Valum+	- ~ 1	0000	Der -	<u>Jaria</u> tube	<u> </u>		<u> </u>			£			
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AB		FIELD ID /	MATRIX Indoor (I)	SAMPLING EQUIPM Canister		IENT Flow	START SAMPLING INFORMATION Cani		MATION Canister	STOP SAMPLING INFO		RMATION Canister	老			verterenista
JSE NLY	SAMPLE ID	POINT OF COLLECTION	Soil Vap. (SV) Ambient (A)	Media ID	Size 6L or 1L	Controller ID	Date	Time (24 hr clock)	Pressure (in Hg)	Date	Time (24 hr clock)	Pressure (in Hg)	Z			
	30183852	BSS-1	SV	<b></b>			02/3/7	1350					X			
2	S0186955	<u>BSS-2</u>	SV				021317	1430					1×			
4	20188543	<u>BSS-3</u>	SV				021317	1500					<del> </del> X			+
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	hed by: (Signature)		1		1	(Signature/Affil	liation)		and the second s		Date			Time:		
Alux Flore Relinquished by: (Signature)					Received by: (Signature/Affiliation)							021517 154 Date: 2/16/17 1540				
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DANNISH Return to Contents Elr

2014-07-01 Revision



WORK ORDER NUMBER: 17-020 of 10 0/

## SAMPLE RECEIPT CHECKLIST COOLER \_ 1 OF \_ 1

CLIENT:	DATE: <b>02</b>	16	/ 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):3_,°C (w/ CF):3_,  □ Sample(s) outside temperature criteria (PM/APM contacted by:)  □ Sample(s) outside temperature criteria but received on ice/chilled on same day of sample Sample(s) received at ambient temperature; placed on ice for transport by courier  Ambient Temperature: □ Air □ Filter	ling		nple 611
CUSTODY SEAL:  Cooler			671 1053
SAMPLE CONDITION: Chain-of-Custody (COC) document(s) received with samples  COC document(s) received complete  □ Sampling date □ Sampling time □ Matrix □ Number of containers		No	N/A
□ No analysis requested □ Not relinquished □ No relinquished date □ No relinquishe  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	Ø		
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  Uvolatile Organics  Total Metals  Dissolved Metals  Container(s) for certain analysis free of headspace  Uvolatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)			e o
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)  Tedlar™ bag(s) free of condensation  CONTAINER TYPE: (Trip Blank Lot !	Number:		,
Aqueous: VOA VOAh VOAna₂ 100PJ 100PJna₂ 125AGB 125AGB 125AGBh 100PJna₂ 125AGB 125AGBh 100PJna₂ 125AGBh 125AGBh<	500AGJ	AGJs  I  Bag  ed by: _	1053