



## THE SALVATION ARMY

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**RECEIVED**

By Alameda County Environmental Health 9:21 am, Sep 27, 2016

August 31, 2016

Re: Quarterly Groundwater Monitoring and Site Status Report  
First and Second Quarter 2016  
The Salvation Army Oakland ARC  
601 Webster Street,  
Oakland, CA  
Fuel Leak Case No. R00003084,  
Geotracker Global ID T10000003428

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

Submitted by:

Mark Nelson, Major  
ARC Command General Secretary

August 30, 2016

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

Subject: **Quarterly Groundwater Monitoring and Site Status Report  
First and Second Quarter 2016**  
The Salvation Army Oakland ARC  
601 Webster Street,  
Oakland, California,  
Fuel Leak Case No. R00003084,  
Geotracker Global ID T10000003428

Dear Mr. Nowell,

ATC Group Services LLC (ATC) has prepared this Quarterly Groundwater Monitoring and Site Status Report for the First and Second Quarters of 2016 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 or our recommendations, please contact us at your convenience.

Sincerely,

ATC Group Services LLC



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## 1.0 INTRODUCTION

### 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. A former underground storage tank (UST) system was located in the northeast portion of the site in what is known as the truck enclosure area. The truck enclosure area is enclosed by fencing or walls and is used for loading/unloading trucks, for truck parking. Pertinent site features and the surrounding area are shown on the site plan (**Figure 2**).



## 1.2. Site History

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 by Terry Hamilton, a California licensed general engineering contractor (CA License 339108). The two USTs were triple rinsed and dry ice was added to render the USTs inert. The USTs were then tested and certified non-hazardous by a Certified Marine Chemist, loaded onto a flatbed truck, and transported to Stanislaus County for use as non-potable water tanks in a fire-suppression system. The USTs appeared to be in good condition, with no visible holes or signs of leakage, however laboratory analysis of soil samples collected from the base of the UST pit indicated that petroleum hydrocarbons (PHCs) related to gasoline were present. Diesel was not detected in any of the soil samples. This work was described in the report produced by Terry Hamilton named *Underground Storage Tank, Removal Report, Jobsite Address: The Salvation Army, 601 Webster Street, Oakland, CA 94607*, dated August 8, 2011.

In early 2011, TSA retained ATC Associates (now ATC Group Services LLC) to investigate and assist in fulfilling obligations that may have resulted from the uninvestigated release.

After a discussion with the Oakland City Fire Department (OFD), ATC developed a *Subsurface Investigation Workplan, Salvation Army, 601 Webster Street, Oakland, California*, dated March 18, 2011. This was a limited-scope workplan designed to derive preliminary information regarding the relative magnitude and distribution of 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. The LOP Agency in Alameda County is Alameda County Environmental Health (ACEH) which is part of the Alameda County, Health Care Services Agency. The workplan included advancing five Geoprobe® direct-push borings to first encountered groundwater, estimated to be at approximately 16 to 25 feet bgs. Two of the borings were proposed for placement in the truck enclosure area, two in Franklin Street west of the truck enclosure area, and one within 6th street south of the ARC building.

In September 2011, the environmental case oversight authority was transferred from OFD to ACEH.

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 the *Subsurface Investigation Workplan Revised* dated March 1, 2013. In a letter dated May 31, 2013, ACEH approved the workplan with an additional directive to develop a site conceptual model.

On July 29 and July 30, 2013, Cardno ATC advanced seven direct-push soil borings at the site. Borings SB1 through SB7 were proposed to be advanced to groundwater but due to soil conditions, refusal was met prior to reaching groundwater in most of the borings. Despite the difficulties, 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 ATC reported on this work in the *Site Conceptual Model with Data Gap Identification, and Preliminary Subsurface Investigation Report, The Salvation Army, 601 Webster Street, Oakland, California, Fuel Leak Case No. R00003084*, dated January 13, 2014.

On July 2, 2014, ACEH arranged a meeting to discuss the site at their offices in Oakland. This meeting was attended by Keith Nowell and Dilan Roe of ACEH, Kaye Patterson and Major Jack Phillips of Salvation Army, and Todd Hafner and Mike Sonke of Cardno ATC. In a follow up email the same date, ACEH directed the development of a workplan that addressed 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 for Continued Subsurface Investigation, The Salvation Army, Adult Rehabilitation Center, 601 Webster Street, Oakland, California*, dated August 14, 2014. This workplan proposed advancing twelve to sixteen membrane interface probe (MIP) borings to screen the soil and water for the presence of contamination followed by the advancement of eight to ten Hollow Stem Auger (HSA) borings and installation of four monitoring wells to confirm the released PHCs concentrations in soil and groundwater.

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 cannot be filled with MIP data. ACEH directed the advancement of additional 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 gas 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 wanted the preliminary data (including laboratory test results, boring logs and well construction details, depth to water data, and cross sections) collected from the soil and groundwater portion of the investigation for consideration prior to conducting the soil gas portion of the investigation. ACEH stated that if a diesel release had occurred, it did not appear to have been significant and total petroleum hydrocarbons as diesel (TPHd) could be eliminated from the analysis scope. ACEH directed the placement of three onsite monitoring wells but believed it was premature to identify locations of groundwater monitoring wells in offsite locations.

In February 2015, Cardno ATC responded by reissuing the *Workplan for Continued Subsurface Investigation, The Salvation Army, Adult Rehabilitation Center, 601 Webster Street, Oakland, California*, dated February 24, 2015.

In a letter dated June 1, 2015, ACEH directed the inclusion of several supplemental sampling activities to address data needs under the LTCP. These activities included advancing 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 additional soil sample collection from the interval between ten feet bgs and first encountered groundwater in all borings that showed 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 confer with ACEH prior to installing additional wells. ACEH also believed it was premature to collect soil gas samples until the depth to groundwater (DTW) had been established through the installation and gauging of monitoring wells.

### **1.3. Geology and Hydrogeology**

#### **1.3.1. Regional 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.

#### **1.3.2. Site-Specific Geology and Hydrogeology**

Soil from borings SB1, SB2, and SB7 advanced at the site in July 2103 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 which 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.

The surface topography in the vicinity of the site slopes gently to moderately from the northeast to the southwest. Without data to the contrary, groundwater flow direction would be predicted to flow parallel the surface topography. However available data obtained from other nearby leaking underground storage tank (LUST) sites reveals the direction of regional groundwater flow to be quite variable. During the initial gauging of the four onsite monitoring wells performed on October 23, 2015 by ATC following their installation and development, ATC established an initial site specific groundwater flow direction to the west-southwest at a gradient of offsite 104 feet per foot.

### **1.4. Sensitive Receptors**

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, according to East Bay Municipal Utility District (EBMUD), the area's water purveyor, ninety percent of all of



EBMUD's water is imported from the 577-square mile watershed of the Mokelumne River on the western slope of the Sierra Nevada and travels through miles of pipelines and aqueducts to the east bay. According to EBMUD, all potable drinking water for the City of Oakland is imported from the Mokelumne River watershed.

The nearest surface water body to the site is Oakland Inner Harbor/Oakland Estuary, located approximately 2,000 feet downslope to the south. Lake Merritt lies approximately 3,250 feet to the east-northeast and is therefore outside the search area.

In the fall of 2015, ATC conducted a sensitive well receptor survey. Of the initial 742 candidate wells identified, ATC was able to eliminate all but the following wells as prospective potential receptors.

Prospect SRS Wells								
Well ID	Source	Approximate Distance (ft.) and Direction from Site		Listed or Presumed Use	Drill Date/Year Installed	Total Depth (feet bgs)	Screened Interval (feet bgs)	Casing Diameter (inches)
A	ACDPW	800	NNW	unk	unk	unk	unk	unk
B	ACDPW	1,850	NE	unk	unk	unk	unk	unk
C	ACDPW	1,850	NE	unk	unk	unk	unk	unk
D	DWR	1,500	NW	irrigation	7/9/1990	470	180 - 470	16/6

These four wells remain as prospects as they were identified as functioning water extraction wells for beneficial uses.

During a meeting held on May 4, 2016, Mr. Nowell indicated that cathodic protection wells should be included on the list of potential sensitive receptor wells.

### 1.5. Characterization Status

ATC has conducted three investigative mobilizations advancing 14 MIP borings and 15 conventional hollow stem auger soil borings. Additionally ATC and has installed, developed and sampled 4 groundwater monitoring wells.

Adsorbed phase PHCs has been defined to the northwest in the truck enclosure area but otherwise largely remains undefined.

Dissolved phase and vapor phase PHCs remains undefined.

ATC anticipates investigating possibility of soil gas intrusion containing PHCs in to the building during the third quarter of 2016.



## **1.6. Remediation Status**

The path to closure of the site involves the exploration of the parameters set forth in the LTCP. The exploration of the LTCP parameters is largely incomplete at this site. Consequently the establishment or exclusion of the need for active remediation has not yet been determined for this site.

## **2.0 SITE PERFORMANCE SUMMARY - FIRST & SECOND QUARTER 2016**

### **2.1. Completed Activities - First & Second Quarter 2016**

1. ATC performed quarterly groundwater monitoring and sampling on February 24, 2016 and May 11, 2016.
2. ATC prepared and submitted *Soil and Groundwater Investigation Report, The Salvation Army, 601 Webster Street, Oakland, California*, dated April 26, 2016 which included a description and summary of the initial quarter groundwater monitoring and sampling event that occurred on October 23, 2015.
3. On Wednesday May 4, 2016 representatives from Salvation Army, ACEH, and ATC attended a meeting to discuss the report dated April 26, 2016 and the path to closure. ACEH stated that cathodic protection wells should be added to the list of potential sensitive receptors and directed an investigation of the construction of the ARC buildings elevators as potential pathways for PHC contaminated soil gas into the ARC building.
4. ATC mobilized to the site and prepared and submitted *TSA Oakland ARC Warehouse Building's basement's elevation and the configuration of the warehouse's three elevators, The Salvation Army Adult Rehabilitation Center, 601 Webster Street, Oakland, CA 94607*, dated May 25, 2016. This report included 1.) A determination of the elevation of the ARC basement's foundation bottom relative to observed groundwater elevation, 2.) An investigation of the construction of the ARC building elevators. This included a determination of the elevation of the elevator shaft bottom relative to the established groundwater elevation and 3.) a determination whether elevator shaft dewatering was occurring or if water collecting in sumps consists of groundwater, and, if so, whether dewatering discharge is properly permitted considering the potential for the presence of PHCs in dewatering discharge.





### 3.0 QUARTERLY GROUNDWATER MONITORING AND SAMPLING ACTIVITIES & RESULTS

#### 3.1. Summary of Previous Monitoring and Sampling Activities

During the fourth quarter 2015, the site's initial four groundwater monitoring wells were initially gauged and sampled on October 23. Laboratory analysis identified dissolved phase PHCs to be present in groundwater samples collected from each of the four of the wells at that time. Laboratory analysis by US EPA Method 8260 clearly identified gasoline range organics or TPHg to be present with the highest concentrations occurring in MW-1.

#### 3.2. Summary of Current Monitoring and Sampling Activities - First & Second Quarter 2016

Monitoring wells MW-1 through MW-4 were sampled during the first and second quarters of 2016.

Groundwater monitoring and sampling for the first quarter of 2016 was completed on January 24, 2016, and the second quarter 2016 groundwater monitoring and sampling occurred on May 11, 2016.

##### 3.2.1. Groundwater Elevations and Hydrogeologic Conditions

During the first quarter 2016 sampling event, depth to groundwater measured below the top of the well casing (TOC) ranged from 18.11 feet (MW-2) to 19.74 feet (MW-1) and during the second quarter 2016 sampling event, measured depth to groundwater ranged from 17.87 feet (MW-2) to 19.45 feet (MW-1) below the top of the well casing (TOC).

Historical groundwater elevation data is presented in **Table 1**.

Based on groundwater elevations observed on February 24, for the first quarter 2016 the groundwater gradient and flow direction was towards the southwest at a gradient of offsite 124 feet per foot. (**Figure 3**); and on May 11, for the second quarter 2016 the groundwater gradient and flow direction was towards the west-southwest at a gradient of offsite 125 feet per foot. (**Figure 4**);

The summary of calculated groundwater gradient calculations is presented in **Table 2**.

##### 3.2.2. Groundwater Sample Collection Procedure

During each groundwater sampling event, three well casing volumes were removed from each well prior to sample collection using a new disposable bailer for each well. Groundwater sampling logs are included in **Appendix A**. The collected groundwater samples were placed in a cooler chilled with ice and transported under chain-of-custody documentation procedures to a California state-certified laboratory for chemical analyses.



### 3.2.3. Analytical Results of Collected Groundwater Samples

The collected groundwater samples from the 2016 first quarter monitoring event were received under chain-of-custody procedures by California state-certified laboratory CAEL in Ceres, California for chemical analyses.

The collected groundwater samples for the 2016 second quarter monitoring event were submitted under chain-of-custody procedures by California state-certified laboratory TestAmerica, Inc. in Pleasanton, California for chemical analyses.

Historical analytical results of the constituents of concern (COCs) are presented in **Table 2**. All laboratory analytical results reports are included in **Attachment B**.

In both the first and second quarters of 2016 collected groundwater samples were analyzed utilizing USEPA Method 8260B for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, total xylenes (BTEX), and fuel oxygenates and total petroleum hydrocarbons as diesel (TPHd) utilizing USEPA Method 8015B.

#### 3.2.3.1. COCs Detected in First Quarter 2016

The following represent some highlights of the first quarter of 2016:

- TPHg was reported in the groundwater samples collected from all the monitoring wells in the truck enclosure area (MW-1, MW-2, & MW-3) with the highest concentration occurring in MW-3 (190,000 µg/L). The lowest concentrations of TPHg was detected in the groundwater sample collected from monitoring well MW-2 (2,300 µg/L) with the sample collected from monitoring well MW-4 in the used car lot containing no detectable concentrations of TPHg. There is no environmental screening level (ESL) established for TPHg.
- TPHd was reported in the groundwater samples collected from all the monitoring wells across the site with the highest concentration occurring again in MW-3 (270,000 µg/L). The lowest concentrations of TPHd was detected in the groundwater sample collected from monitoring well MW-2 (320 µg/L) and MW-4 (300 µg/L). There is no ESL established for TPHd.
- The ESL for benzene is 260 µg/L. Benzene was reported in the groundwater samples collected from all the monitoring wells across the site with the highest concentration occurring in MW-1 (1,600 µg/L). The lowest concentration was detected in MW-4 (300 µg/L).
- The ESL for ethyl benzene is 3,300 µg/L. Although ethyl benzene was reported in the groundwater samples collected from all the monitoring wells across the site, only the groundwater sampled collected from MW-3 exceeded the ESL (4,400 µg/L).
- The ESL for MTBE is 130,000 µg/L. None of the groundwater samples collected from the monitoring well network exceeded the ESL.





- The ESL for 1,2-DCA is 790 µg/L. None of the groundwater samples collected from the monitoring well network exceeded the ESL.

Isoconcentrations for TPHg, TPHd, benzene, and MTBE for the first quarter of 2016 are presented on **Figures 5, 7, 9, and 11**, respectively.

### 3.2.3.2. COCs Detected in Second Quarter 2016

The following represent some highlights of the second quarter of 2016:

- TPHg was reported in the groundwater samples collected from all the monitoring wells in the truck enclosure area (MW-1, MW-2, & MW-3) with the highest concentration occurring in MW-3 (67,000 µg/L). The lowest concentrations of TPHg was detected in the groundwater sample collected from monitoring well MW-2 (1,000 µg/L). There is no ESL established for TPHg.
- TPHd was reported in the groundwater samples collected from MW-1, MW-3, & MW-4 with the highest concentration occurring again in MW-3 (14,000 µg/L). The lowest concentrations of TPHd was detected in the groundwater sample collected from monitoring well MW-4 (650 µg/L) and MW-2 which did not exceed the laboratory detection limit. There is no ESL established for TPHd.
- The ESL for benzene is 260 µg/L. Benzene was reported in the groundwater samples collected from all the monitoring wells across the site with the highest concentration occurring in MW-4 (17,000 µg/L). The lowest concentration was detected in MW-2 (170 µg/L).
- The ESL for ethyl benzene is 3,300 µg/L. Although ethyl benzene was reported in the groundwater samples collected from all the monitoring wells across the site, only the groundwater sampled collected from MW-3 exceeded the ESL (5,600 µg/L).
- The ESL for MTBE is 130,000 µg/L. None of the groundwater samples collected from the monitoring well network exceeded the ESL.
- The ESL for 1,2-DCA is 790 µg/L. None of the groundwater samples collected from the monitoring well network exceeded the laboratory detection limit for 1,2-DCA.

Isoconcentrations for TPHg, TPHd, benzene, and MTBE for the second quarter of 2016 are presented on **Figures 6, 8, 10, and 12**, respectively.



## 4.0 CONCLUSIONS

ATC concludes the following:

- During the first and second quarter 2016 groundwater sampling events, the groundwater samples collected from each of the site's four monitoring wells contained dissolved phase PHCs in excess of their respective ESLs, representing a widespread distribution of dissolved phase PHCs across the site.
- During the first and second quarter, the groundwater samples collected from MW-1 and MW-3 appear to exhibit the highest concentrations of dissolved phase PHCs, including exceeding the ESLs for both benzene and ethyl benzene.
- The current network of monitoring wells at the site do not provide adequate definition of dissolved phase PHCs shown to be present at the site.
- The site-wide presence of TPHd in groundwater samples collected in all of the site's monitoring wells prevents diesel from being eliminated from the COC list. This finding also provides a stimulus to expand the site exploration to include an on or offsite source of the dissolved phase diesel.

## 5.0 RECOMMENDATIONS

ATC recommends the following:

- Continue to sample and analyze groundwater samples from the monitoring well network on the existing quarterly groundwater sampling schedule and include analysis for TPHd by EPA Method 8015B/3630 during all future quarterly monitoring events.
- Evaluate the soil gas impact on the ARC building.
- Continue to pursue lateral definition/delineation of dissolved phase PHCs in groundwater.

Complete the evaluation of the sensitive receptor wells.



## **6.0 PLANNED ACTIVITIES - THIRD QUARTER 2016**

### **6.1. Quarterly Groundwater Monitoring, Sampling, and Reporting**

The next quarterly groundwater monitoring and sampling is scheduled for August 16, 2016. ATC will prepare and submit a quarterly groundwater monitoring report after laboratory analytical results have been completed and received.

### **6.2. SRS Follow-up**

ATC will re-review the candidate SRS well list for cathodic protection wells as well as conduct a field investigation of the nearby identified candidate water extraction wells which may be involved with groundwater extraction and transfers.

### **6.3. Soil Gas Intrusion Study (SGIS)**

ATC has previously completed a soil gas sampling workplan that ACEH had reviewed with minimal comments. ATC hopes to finalize this workplan and develop a proposal for the client's approval based on the modified workplan. Once the ACEH comments are incorporated into the established workplan and a proposal is developed for TSA, TSA's approval will be sought. Once TSA's approval is attained, ATC will begin executing the modified workplan.

## **7.0 LIMITATIONS**

This report was prepared 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 this report was prepared and applicable to the location of the site. No other warranties, expressed or implied are made by ATC.

# TABLES



**Table 1**  
**Historical Groundwater Elevation Data**  
The Salvation Army  
Adult Rehabilitation Center (ARC)  
601 Webster Street  
Oakland, California  
(Page 1 of 1)

<b>Well ID</b>	<b>Screen Interval</b>	<b>Date Gauged</b>	<b>TOC</b>	<b>DTW</b>	<b>Groundwater Elevation</b>
<b>MW-1</b>	(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
<b>MW-2</b>	(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
<b>MW-3</b>	(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
<b>MW-4</b>	(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

DTW = Depth to Water measured in feet from TOC  
TOC = Top of Casing

**Table 2**  
**Summary of Calculated**  
**Groundwater Gradient Information**

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

<b>Yr</b>	<b>Qtr</b>	<b>Date</b>	<b>Direction</b>	<b>Gradient</b> <small>(ft./ft.)</small>
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

Average hydraulic gradient is measured in feet/foot  
NA = Not Available  
NC = Not calculated due to insufficient data  
--- = flat

**Table 3**  
**Groundwater Sample**  
**Analytical Results**  
The Salvation Army  
Adult Rehabilitation Center (ARC)  
601 Webster Street  
Oakland, California  
(Page 1 of 1)

Date	Sample ID	Note	TPH <sub>g</sub>	TPH <sub>d</sub>	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	ETBE	DIPE	TBA	TAME	1,2-DCA	EDB
7/29/2013	SB1-W	1	210,000	NA	35,000	47,000	3,000	16,000	240	<50	<50	<500	<50	<50	<50
7/29/2013	SB2-W	1	350	NA	70	26	7.9	15	12	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
7/30/2013	SB4-W	1	280,000	NA	35,000	30,000	3,900	20,000	5,300	<50	<50	<500	<50	<50	<50
7/30/2013	SB5-W	1	3,200	<50	370	470	42	200	<2.0	<2.0	<2.0	<20	<2.0	<2.0	<2.0
7/30/2013	SB6-W	1	64,000	45,000	6,000	10,000	1,700	8,600	<20	<20	<20	<200	<20	<20	<20
7/30/2013	SB7-W	1	1,100	<50	100	170	22	120	37	<1.0	<1.0	<10	<1.0	<1.0	<1.0
10/12/2015	L2-W	1	9,400	NA	1,300	2,100	240	1,200	<10	<10	<10	<100	<10	<10	<10
10/12/2015	L3-W	1	19,000	NA	2,200	2,200	470	2,300	<10	<10	<10	<100	<10	<10	<10
10/14/2015	L4-W	1	37,000	NA	4,000	6,200	800	4,300	<10	<10	<10	<100	<10	<10	<10
10/14/2015	P2-W	1	120	NA	1.9	5.1	0.9	4.7	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	<0.5
10/23/2015	MW1		18,000	NA	2,000	2,100	230	1,300	150	<5.0	<5.0	<50	<5.0	7.7	<5.0
2/24/2016	MW1	2	6,500	1,500	1,600	1,200	110	700	90	<10	<10	<100	<10	<10	<10
5/11/2016	MW1		28,000	1,200	7,600	5,400	750	2,800	770	<5.0	<5.0	<200	<5.0	NA	NA
10/23/2015	MW2		5,200	NA	520	870	120	560	<5.0	<5.0	<5.0	<50	<5.0	<5.0	<5.0
2/24/2016	MW2	2	2,300	80	320	310	31	230	<5.0	<5.0	<5.0	<50	<5.0	<5.0	<5.0
5/11/2016	MW2		1,000	<50	170	200	25	150	<0.5	<0.5	<0.5	<20	<0.5	NA	NA
10/23/2015	MW3		7,300	NA	540	610	68	460	<5.0	<5.0	<5.0	<50	<5.0	<5.0	<5.0
2/24/2016	MW3	2	190,000	270,000	1,000	25,000	4,400	23,000	<100	<100	<100	<1,000	<100	<100	<100
5/11/2016	MW3		67,000	14,000	11,000	14,000	5,600	11,000	77	<50	<50	<2,000	<50	NA	NA
10/23/2015	MW4		3,700	NA	440	210	72	160	<0.5	<0.5	<0.5	<5.0	<0.5	15	<0.5
2/24/2016	MW4	2	<50	820	300	53	31	160	<5.0	<5.0	<5.0	<50	<5.0	7.4	<5.0
5/11/2016	MW4		45,000	650	17,000	7,900	870	4,000	<250	<250	<250	<10,000	<250	NA	NA
<b>ESLs</b>			NE	NE	260	NE	3,300	NE	130,000	NE	NE	NE	NE	790	73

**Notes:**

1 = sample collected from temporary boring

2 = sample analyzed for TPHd = Total Petroleum Hydrocarbons as Diesel by EPA Method 8015 (interference)

Results in micrograms per liter (µg/L)

NA = Not Analyzed/Not Applicable

NE = None Established

< = Not Detected at or Above Stated Method Detection Limit

TPHd = Total Petroleum Hydrocarbons as Diesel by EPA Method 8016/3630 (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

MTBE = Methyl Tertiary Butyl Ether by EPA Method 8260B

ETBE = Ethyl tert-Butyl Ether by EPA Method 8260B

DIPE = Diisopropyl Ether by EPA Method 8260B

TBA = tert-Butyl Alcohol by EPA Method 8260B

TAME = Tertiary Amyl Methyl Ether by EPA Method 8260B

1,2-DCA = 1,2-Dichloroethane by EPA Method 8260B

EDB = 1,2-Dibromoethane by EPA Method 8260B

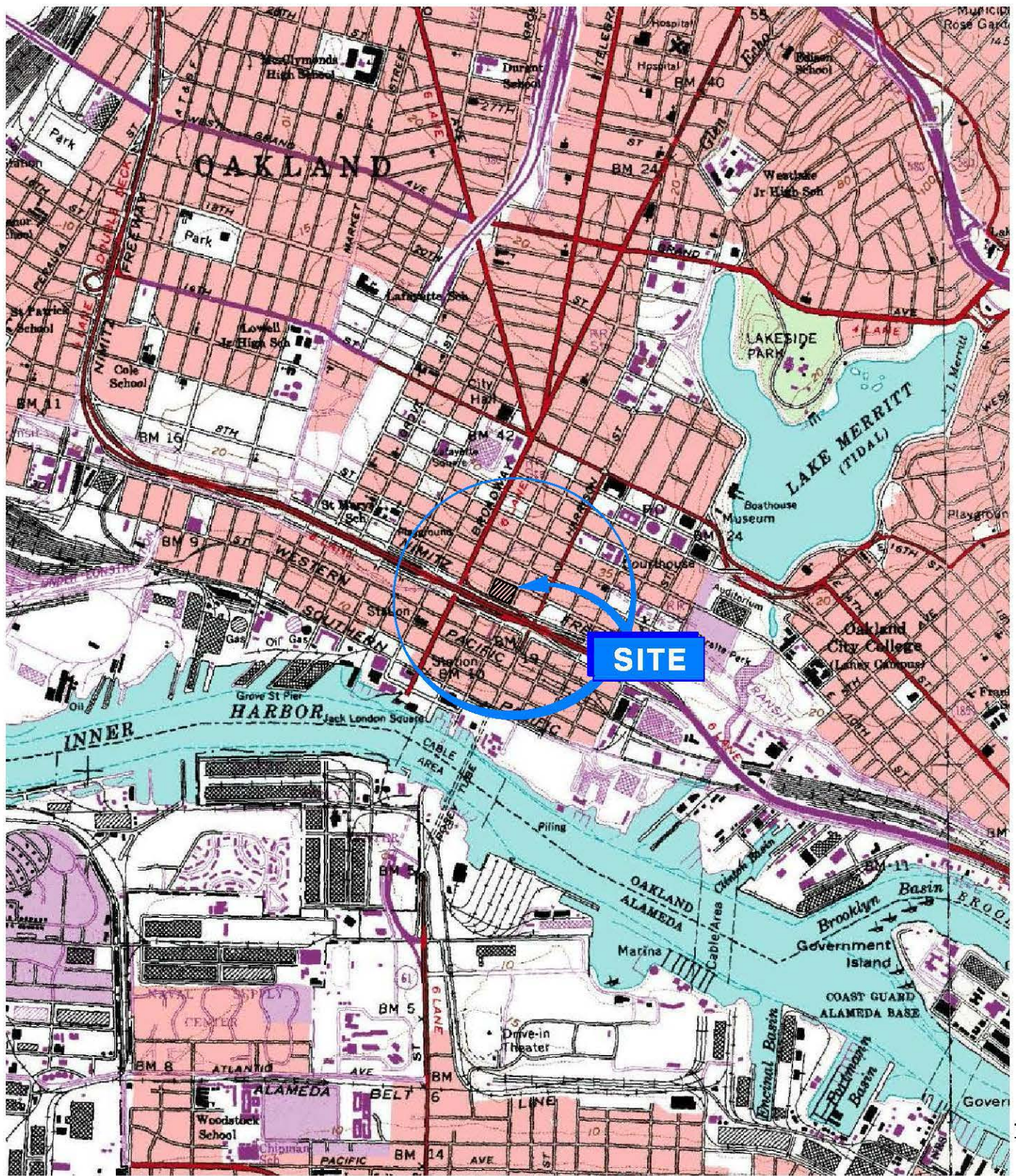
ESLs = Environmental Screening Levels for Groundwater Vapor Intrusion

Human Health Risk Levels (Com/Ind: Fine to Coarse Scenario )

# FIGURES







SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP  
 OAKLAND WEST QUADRANGLE, CALIFORNIA, DATE 1959, PHOTO-UPDATED 1980

**FIGURE 1**  
**SITE LOCATION MAP**  
 THE SALVATION ARMY  
 601 WEBSTER STREET  
 OAKLAND, CALIFORNIA

**ATC**  
 ENVIRONMENTAL • GEOTECHNICAL  
 BUILDING SCIENCES • MATERIALS TESTING

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

PROJECT NUMBER: Z054000006

DESIGNED BY: MDS

APPROVED BY: JH

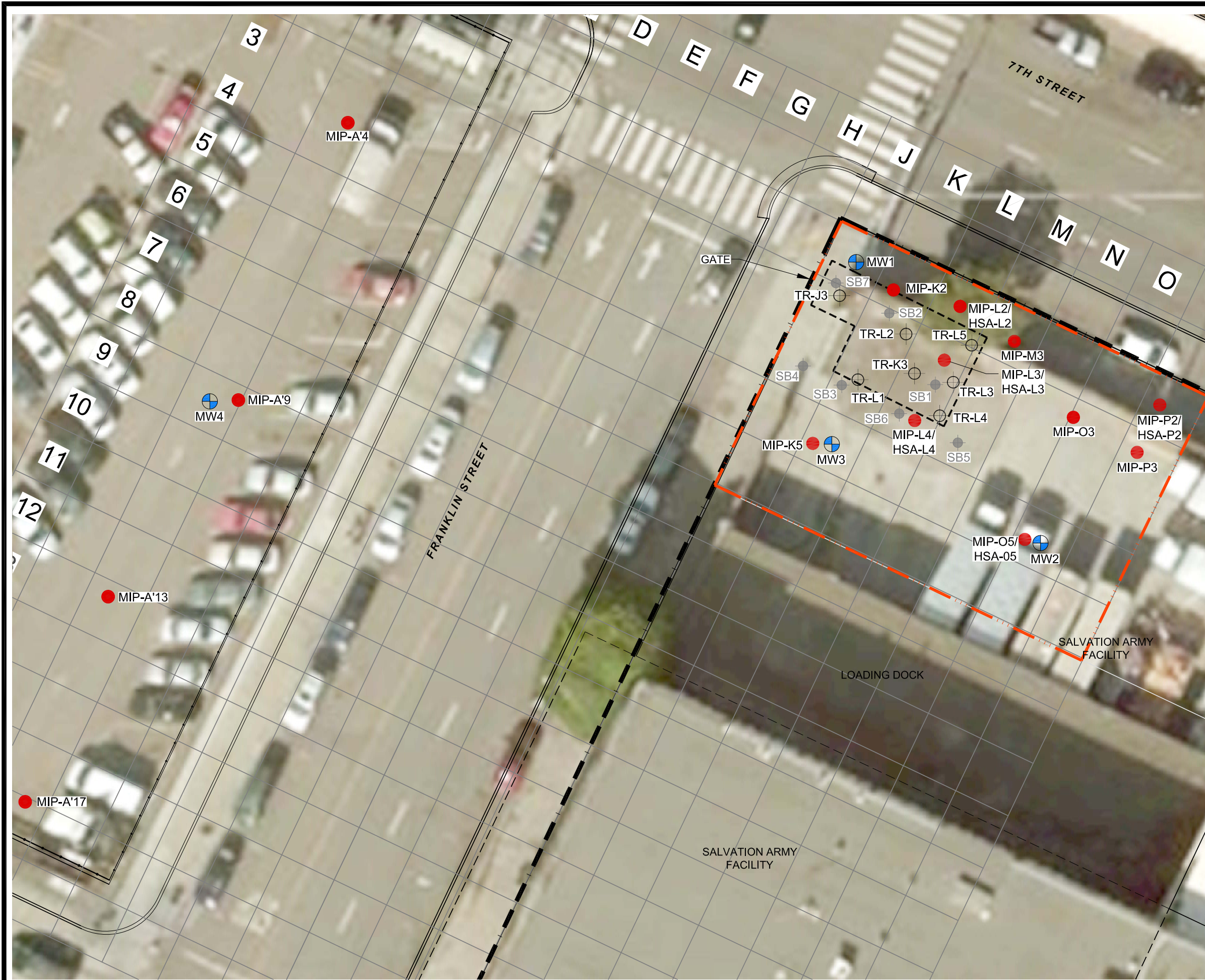
DATE: 1-22-15

REVIEWED BY: MDS

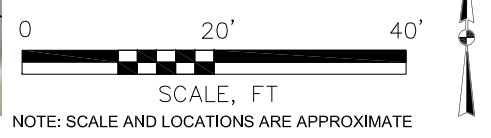
DRAWN BY: DAW

SCALE: 1:24,000





- LEGEND**
- APPROXIMATE FACILITY BOUNDARY
  - FORMER UST
  - FORMER EXCAVATION
  - TRUCK ENCLOSURE AREA
  - ⊕ TANK REMOVAL SOIL SAMPLE LOCATION
  - TR-J3 = DIESEL-N 14'
  - TR-L1 = PRIOR-WEST 14'
  - TR-L2 = DIESEL-S 14'
  - TR-L3 = GAS CENTER 17'
  - TR-L4 = GAS-WEST 14'
  - TR-L5 = GAS-EAST 14'
  - TR-K3 = BETWEEN TANKS 14'
  - ⊕ FORMER SOIL BORING LOCATION
  - MIP AND HSA BORING LOCATION
  - ⊕ MONITORING WELL LOCATION



PROJECT NUMBER: Z054000066  
 APPROVED BY: M. SONKE  
 DATE: 8-22-16  
 DRAWN BY: DAW

**FIGURE 2**

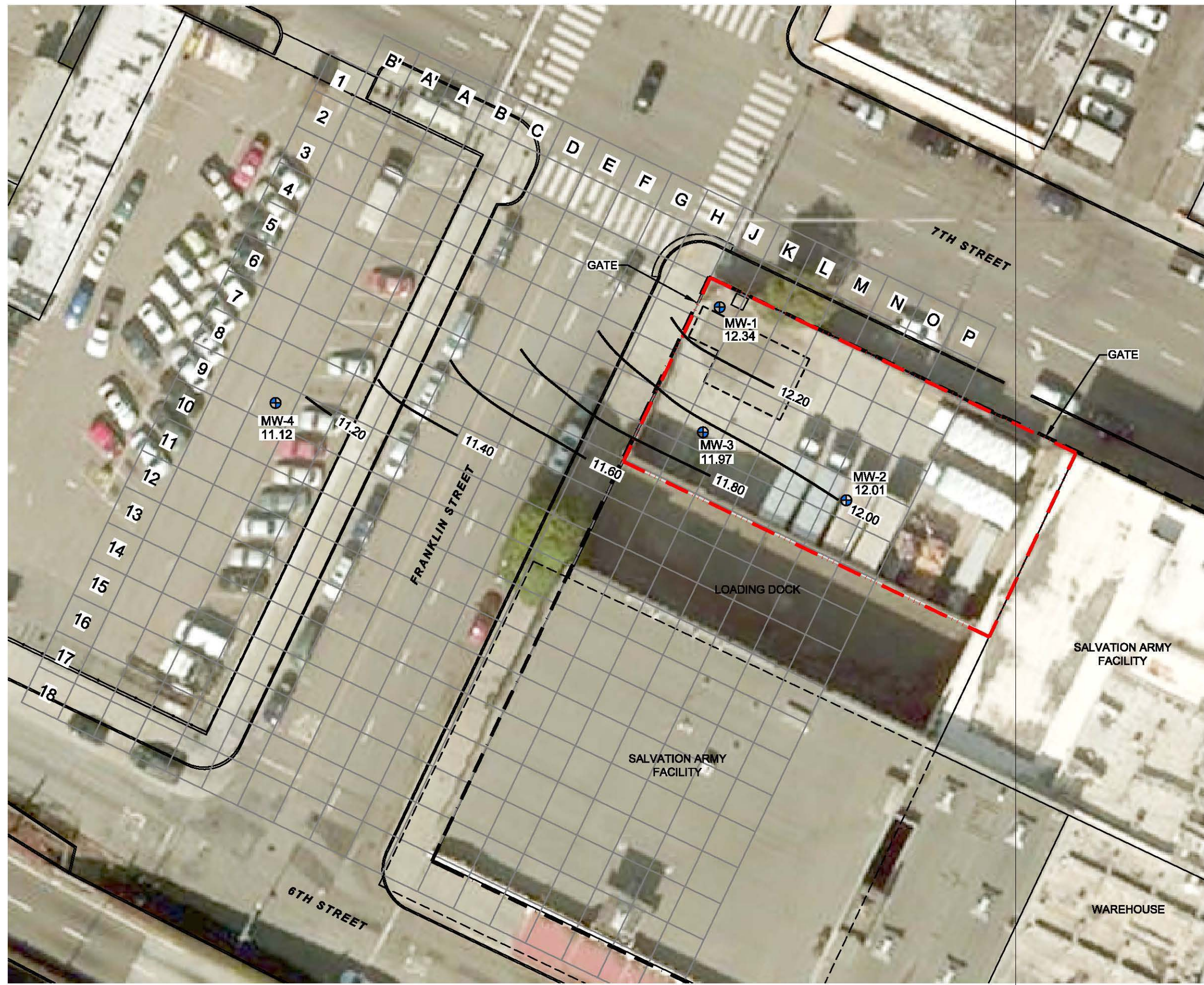
1117 Lone Palm Avenue, Ste. 201  
 Modesto, California 95351  
 Ph: (209) 579-2221 \*\*\* Fax: (209) 579-2225

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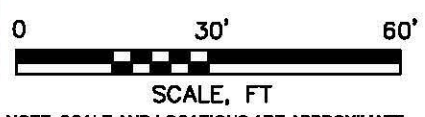
**SITE PLAN**

THE SALVATION ARMY  
 601 WEBSTER STREET  
 OAKLAND, CA





- LEGEND**
- APPROXIMATE FACILITY BOUNDARY
  - FORMER UST
  - FORMER EXCAVATION
  - TRUCK ENCLOSURE AREA
  - ⊕ MONITORING WELL LOCATION
  - 12.34 WATER LEVEL ELEVATION IN FEET
  - WATER LEVEL CONTOUR



NOTE: SCALE AND LOCATIONS ARE APPROXIMATE



PROJECT NUMBER: Z054000008  
 DATE: 3-18-16  
 APPROVED BY: M. SONKE  
 DRAWN BY: TH

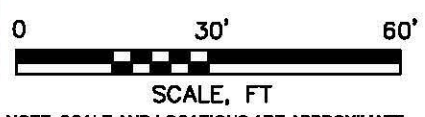
**GROUNDWATER CONTOUR MAP - FEBRUARY 24, 2016**  
 THE SALVATION ARMY  
 601 WEBSTER STREET  
 OAKLAND, CA

FIGURE 3  
 1117 Lone Palm Avenue, Ste. 201  
 Modesto, California 95351  
 Ph: (209) 579-2221 \*\*\* Fax: (209) 579-2225  
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- LEGEND**
- APPROXIMATE FACILITY BOUNDARY
  - FORMER UST
  - FORMER EXCAVATION
  - TRUCK ENCLOSURE AREA
  - MONITORING WELL LOCATION
  - 12.63** WATER LEVEL ELEVATION IN FEET
  - WATER LEVEL CONTOUR



NOTE: SCALE AND LOCATIONS ARE APPROXIMATE



**GROUNDWATER CONTOUR MAP - MAY 11, 2016**

THE SALVATION ARMY  
601 WEBSTER STREET  
OAKLAND, CA

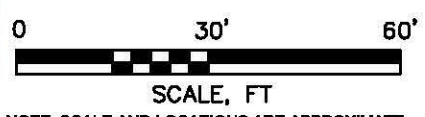
PROJECT NUMBER: Z054000008 DATE: 8-8-16 FIGURE 4  
APPROVED BY: M. SONKE DRAWN BY: TH

1117 Lone Palm Avenue, Ste. 201  
Modesto, California 95351  
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- LEGEND**
- APPROXIMATE FACILITY BOUNDARY
  - FORMER UST
  - FORMER EXCAVATION
  - TRUCK ENCLOSURE AREA
  - ⊕ MONITORING WELL LOCATION
  - 6,500 TPHg ISOCONCENTRATION (ug/L)



PROJECT NUMBER: Z054000008 DATE: 8-30-16 FIGURE 5  
 APPROVED BY: M. SONKE DRAWN BY: TH

1117 Lone Palm Avenue, Ste. 201  
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**TPHg in GROUNDWATER - FEBRUARY 24, 2016**

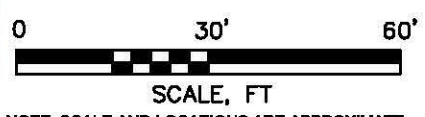
THE SALVATION ARMY  
 601 WEBSTER STREET  
 OAKLAND, CA

FILE: \_\_\_\_\_





- LEGEND**
- APPROXIMATE FACILITY BOUNDARY
  - FORMER UST
  - FORMER EXCAVATION
  - TRUCK ENCLOSURE AREA
  - ⊕ MONITORING WELL LOCATION
  - 28,000 TPHg ISOCONCENTRATION (ug/L)
  - TPHg ISOCONCENTRATION LINE



PROJECT NUMBER: Z054000008  
 DATE: 8-30-16  
 APPROVED BY: M. SONKE  
 DRAWN BY: TH

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FIGURE **6**

**TPHg in GROUNDWATER - MAY 11, 2016**

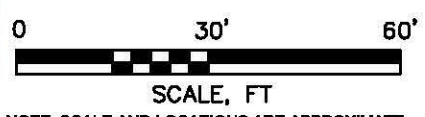
THE SALVATION ARMY  
 601 WEBSTER STREET  
 OAKLAND, CA

FILE: \_\_\_\_\_





- LEGEND**
- APPROXIMATE FACILITY BOUNDARY
  - - - FORMER UST
  - - - FORMER EXCAVATION
  - TRUCK ENCLOSURE AREA
  - ⊕ MONITORING WELL LOCATION
  - 1,500 TPHd ISOCONCENTRATION (ug/L)
  - TPHd ISOCONCENTRATION LINE



PROJECT NUMBER: Z054000008  
 DATE: 8-30-16  
 APPROVED BY: M. SONKE  
 DRAWN BY: TH

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FIGURE 7

**TPHd in GROUNDWATER - FEBRUARY 24, 2016**

THE SALVATION ARMY  
 601 WEBSTER STREET  
 OAKLAND, CA

FILE: \_\_\_\_\_





- LEGEND**
- APPROXIMATE FACILITY BOUNDARY
  - FORMER UST
  - FORMER EXCAVATION
  - - - TRUCK ENCLOSURE AREA
  - ⊕ MONITORING WELL LOCATION
  - 1,200 TPHd ISOCONCENTRATION (ug/L)
  - TPHd ISOCONCENTRATION LINE



PROJECT NUMBER: Z054000008  
 DATE: 8-30-16  
 APPROVED BY: M. SONKE  
 DRAWN BY: TH

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FIGURE 8

**TPHd in GROUNDWATER - MAY 11, 2016**

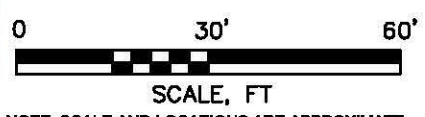
THE SALVATION ARMY  
 601 WEBSTER STREET  
 OAKLAND, CA

FILE: \_\_\_\_\_





- LEGEND**
- APPROXIMATE FACILITY BOUNDARY
  - FORMER UST
  - FORMER EXCAVATION
  - TRUCK ENCLOSURE AREA
  - + MONITORING WELL LOCATION
  - + 300 BENZENE ISOCONCENTRATION (ug/L)
  - BENZENE ISOCONCENTRATION LINE



PROJECT NUMBER: Z054000008  
 DATE: 8-30-16  
 APPROVED BY: M. SONKE  
 DRAWN BY: TH

**BENZENE in GROUNDWATER - FEBRUARY 24, 2016**  
 THE SALVATION ARMY  
 601 WEBSTER STREET  
 OAKLAND, CA

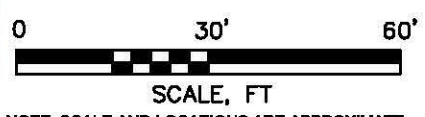
FIGURE 9  
 1117 Lone Palm Avenue, Ste. 201  
 Modesto, California 95351  
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FILE: \_\_\_\_\_





- LEGEND**
- APPROXIMATE FACILITY BOUNDARY
  - FORMER UST
  - FORMER EXCAVATION
  - TRUCK ENCLOSURE AREA
  - ⊕ MONITORING WELL LOCATION
  - 170 BENZENE ISOCONCENTRATION (ug/L)
  - BENZENE ISOCONCENTRATION LINE



**BENZENE in GROUNDWATER - MAY 11, 2016**

THE SALVATION ARMY  
601 WEBSTER STREET  
OAKLAND, CA

PROJECT NUMBER: Z054000008	DATE: 8-30-16	FIGURE
APPROVED BY: M. SONKE	DRAWN BY: TH	10

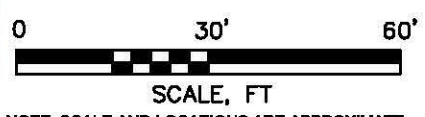
1117 Lone Palm Avenue, Ste. 201  
Modesto, California 95351  
Ph: (209) 579-2221 \*\*\* Fax: (209) 579-2225







- LEGEND**
- APPROXIMATE FACILITY BOUNDARY
  - FORMER UST
  - FORMER EXCAVATION
  - TRUCK ENCLOSURE AREA
  - ⊕ MONITORING WELL LOCATION
  - 90 MTBE ISOCONCENTRATION (ug/L)
  - / BENZENE ISOCONCENTRATION LINE



PROJECT NUMBER: Z054000008  
 DATE: 8-30-16  
 APPROVED BY: M. SONKE  
 DRAWN BY: TH

FIGURE 11

**ATC**  
 ENVIRONMENTAL • GEOTECHNICAL  
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**MTBE in GROUNDWATER - FEBRUARY 24, 2016**

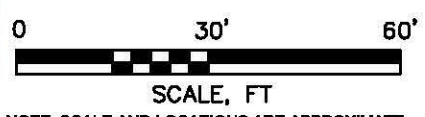
THE SALVATION ARMY  
 601 WEBSTER STREET  
 OAKLAND, CA

FILE: \_\_\_\_\_





- LEGEND**
- APPROXIMATE FACILITY BOUNDARY
  - FORMER EXCAVATION
  - TRUCK ENCLOSURE AREA
  - MONITORING WELL LOCATION
  - MTBE ISOCONCENTRATION (ug/L)
  - BENZENE ISOCONCENTRATION LINE



NOTE: SCALE AND LOCATIONS ARE APPROXIMATE



PROJECT NUMBER: Z054000008  
 DATE: 8-30-16  
 APPROVED BY: M. SONKE  
 DRAWN BY: TH

**ATC**  
 ENVIRONMENTAL • GEOTECHNICAL  
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FIGURE 12

**MTBE in GROUNDWATER - MAY 11, 2016**

THE SALVATION ARMY  
 601 WEBSTER STREET  
 OAKLAND, CA

FILE: \_\_\_\_\_



# APPENDICES



# Appendix **A**

Groundwater Sampling Logs



# Appendix **A1**

Groundwater Sampling Log - February 24, 2016





# Monitoring Well Gauging Log

FLD-102

Revision 0.0

Oct-15

ATC Branch: Modesto, CA

Date: 022416

Page 1 of 1

ATC Representative(s): Alex Flores

Project: The Salvation Army ARC

Location: 601 Webster Street, Oakland, CA

Contact Information: Mike Sonke

Project No: Z054000006

Task No: 01

Weather: clear

Temperature: 53°F

Water Level Meter Model/ID: Solinist 101/ 212129

Interface Probe Model/ID: N/A

Well ID	Casing Diameter (inches) / Type	Time of Well Cap Removal*	Time of Gauging*	Depth To LNAPL (feet)	Depth To Water (feet)	LNAPL Thickness (feet)	Total Well Depth (feet)	Comment
MW-1	2	0715-0730	0813		19.74		29.72	strong gas odor
MW-2	2	↓	0800		18.11		29.82	slight gas odor
MW-3	2		0807		18.48		29.75	slight gas odor
MW-4	2		↓	0749		19.53	29.73	slightly gas odor

Comments: Monitoring Order: MW-4, 3, 2 & 1. MW-4, 2, 3 & 1

17 draws - 14 soil, 3 purged water.

- 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.





# Monitoring Well Purging and Sampling Log

FLD-103

Revision 1.0

Feb-16

ATC Branch: Modesto, Ca

Date: 022416

Page 1 of 1

ATC Representative(s): Alex Flores

Project: The Salvation Army ARC

Location: 601 Webster Street, Oakland CA

Contact Information: Mike Sonke

Project No: Z054000006

Task No: 01

Well ID: MW- 1

Contractor:

Weather: Sunny

Temperature: 57°F

## Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Solinist 101/ 212129

Interface Probe (Model/ID): N/A

Water Quality Meter (Model/ID): YSI 556/ 11J77

Decontamination Method: Alconox and risate water

Purging Method:  PVC Bailer  Disp. Bailer  Submersible Pump  Centrifugal Pump Other: 3 Well Volumes  Low Flow  Micro Purge  Intake Depth (feet below TOC) Sampling Method:  Teflon Bailer  Disposable Bailer  Dedicated Tubing Other: 

### Casing Volume Information

### Purging Calculations

Casing Diameter (Circle): 2" 4" 6" OtherCasing Volumes (CV): WC 9.98 x CM 0.16 = 1.60 (CV)(gal) x 3.0 CV (gal) = 4.80 PV

Casing Multiplier (CM)(gallons/foot): 0.16 0.65 1.47

### Monitoring Measurements

Depth to LNAPL (feet):           Total Well Depth (feet): 29.72Depth to Water (DTW)(feet): 19.74Water Column (WC)(feet): 9.98LNAPL Thickness (ft):           Purging Start Time: 1010

### Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	pH (± 0.1)	Specific Cond. (mS/cm) (± 5%)	Temp (°C) (± 1°)	Dissolved Oxygen (mg/L) (± 10%)	ORP (mV) (± 10 mV)	Comment
1010	19.74	0.5	6.99	1.101	20.67			Begin hand bailing
1013	—	2.1	6.92	1.065	21.08			clear H <sub>2</sub> O gas odor
1016	—	3.7	6.90	1.053	21.15			light brownish H <sub>2</sub> O
1019	20.11	5.3	6.87	1.040	21.21			Stop.

### Sample Data

Sample ID: MW- 1	Time of Sample: 1130	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
Glass, 40mL, 2		No	HCl	TPHg EPA 8015m
Glass, 40mL, 2		No	HCl	BTEX, Oxy's 5
Glass, 10L, 2		No	None	TPHd, 1,2 DCA and EDB

### Well Recovery Data

Maximum Drawdown (DTW<sub>m</sub>)(feet): 0.37 Approximate Flow Rate (GPM): 0.588Recovery Type:  Fast  Slow% Recovery = 96.29

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:



# Monitoring Well Purging and Sampling Log

FLD-103

Revision 1.0

Feb-16

ATC Branch: Modesto, Ca	Date: <b>022416</b>	Page <b>1</b> of <b>1</b>
ATC Representative(s): Alex Flores	Project: The Salvation Army ARC	
	Location: 601 Webster Street, Oakland CA	
Contact Information: <b>Mike Sonke</b>	Project No: Z054000006	Task No: 01
<b>Well ID: MW- 2</b>	Contractor:	
	Weather:	Temperature: <b>55°F</b>

### Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Solinist 101/ 212129	Interface Probe (Model/ID): N/A
Water Quality Meter (Model/ID): YSI 556/ 11J77	Decontamination Method: Alconox and risate water
Purging Method: <input type="checkbox"/> PVC Bailer <input checked="" type="checkbox"/> Disp. Bailer <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Centrifugal Pump Other: _____	
3 Well Volumes <input checked="" type="checkbox"/> Low Flow <input type="checkbox"/> Micro Purge <input type="checkbox"/> Intake Depth (feet below TOC) _____	
Sampling Method: <input type="checkbox"/> Teflon Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Dedicated Tubing Other: _____	

#### Casing Volume Information

#### Purging Calculations

Casing Diameter (Circle): <b>2"</b> 4" 6" Other	Casing Volumes (CV):
Casing Multiplier (CM)(gallons/foot): <b>0.16</b> 0.65 1.47	WC <b>11.71</b> x CM <b>0.16</b> = <b>1.874</b> (CV)(gal) x 3.0 CV (gal) = <b>5.62</b> PV

### Monitoring Measurements

Depth to LNAPL (feet): _____	Total Well Depth (feet): <b>29.82</b>
Depth to Water (DTW)(feet): <b>18.11</b>	Water Column (WC)(feet): <b>11.71</b>
LNAPL Thickness (ft): _____	Purging Start Time: <b>0906</b>

### Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	pH (± 0.1)	Specific Cond. (mS/cm) (± 5%)	Temp (°C) (± 1°)	Dissolved Oxygen (mg/L) (± 10%)	ORP (mV) (± 10 mV)	Comment
<b>0906</b>	<b>18.11</b>	<b>0.5</b>	<b>7.03</b>	<b>1.336</b>	<b>19.27</b>			<i>Begin hand bailing</i>
<b>0910</b>	—	<b>2.3</b>	<b>7.07</b>	<b>1.394</b>	<b>19.49</b>			<i>Clear H<sub>2</sub>O.</i>
<b>0913</b>	—	<b>4.2</b>	<b>7.10</b>	<b>1.407</b>	<b>19.56</b>			<i>Slight gas odor</i>
<b>0917</b>	<b>19.53</b>	<b>6.1</b>	<b>7.12</b>	<b>1.415</b>	<b>19.68</b>			<i>Slight sheen light brownish H<sub>2</sub>O</i>
								<i>Stop.</i>

### Sample Data

Sample ID: MW- <b>2</b>	Time of Sample: <b>1100</b>	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
Glass, 40mL, 2		No	HCl	TPHg EPA 8015m
Glass, 40mL, 2		No	HCl	BTEX, Oxy's 5
Glass, 0.1, 2		<b>NO</b>	<b>None</b>	<b>TPHg</b> 1,2 DCA and EDB

### Well Recovery Data

Maximum Drawdown (DTW <sub>m</sub> )(feet): <b>1.42</b>	Approximate Flow Rate (GPM): <b>0.554</b>
Recovery Type: <input checked="" type="checkbox"/> Fast <input type="checkbox"/> Slow	% Recovery = <b>87.87</b>
Purge Water Disposition (Attach Drum Inventory Log - FLD 108):	

Comments:





# Monitoring Well Purging and Sampling Log

FLD-103

Revision 1.0

Feb-16

ATC Branch: Modesto, Ca

Date: 022416

Page 1 of 1

ATC Representative(s): Alex Flores

Project: The Salvation Army ARC

Location: 601 Webster Street, Oakland CA

Contact Information: Mike Sonke

Project No: Z054000006

Task No: 01

Well ID: MW-3

Contractor:

Weather: Sunny

Temperature: 55°F

## Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Solinist 101/ 212129

Interface Probe (Model/ID): N/A

Water Quality Meter (Model/ID): YSI 556/ 11J77

Decontamination Method: Alconox and risate water

Purging Method:  PVC Bailer  Disp. Bailer  Submersible Pump  Centrifugal Pump Other: \_\_\_\_\_3 Well Volumes  Low Flow  Micro Purge  Intake Depth (feet below TOC) \_\_\_\_\_Sampling Method:  Teflon Bailer  Disposable Bailer  Dedicated Tubing Other: \_\_\_\_\_

### Casing Volume Information

### Purging Calculations

Casing Diameter (Circle): 2" 4" 6" Other

Casing Volumes (CV):

Casing Multiplier (CM)(gallons/foot): 0.16 0.65 1.47

WC 11.27 x CM 0.16 = 1.803 (CV)(gal) x 3.0 CV (gal) = 5.41 PV

### Monitoring Measurements

Depth to LNAPL (feet): \_\_\_\_\_

Total Well Depth (feet): 29.75

Depth to Water (DTW)(feet): 18.48

Water Column (WC)(feet): 11.27

LNAPL Thickness (ft): \_\_\_\_\_

Purging Start Time: 0937

### Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	pH (± 0.1)	Specific Cond. (mS/cm) (± 5%)	Temp (°C) (± 1°)	Dissolved Oxygen (mg/L) (± 10%)	ORP (mV) (± 10 mV)	Comment
0937	18.48	0.5	7.07	1.179	19.96			Begin hand bailing
0941	4	2.3	7.00	1.170	20.13			Clear H <sub>2</sub> O
0945	—	4.2	6.96	1.163	20.21			light brownish H <sub>2</sub> O. Strong gas odor, heavy sheen
0948	20.03	6.0	6.91	1.151	20.26			light brownish H <sub>2</sub> O Stop

### Sample Data

Sample ID: MW-3	Time of Sample: 1120	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
Glass, 40mL, 2		No	HCl	TPHg EPA 8015m
Glass, 40mL, 2		No	HCl	BTEX, Oxy's 5
Glass, 1qt, 2		No	None	TPHg 1,2 DCA and EDB

### Well Recovery Data

Maximum Drawdown (DTW <sub>m</sub> )(feet): 1.55	Approximate Flow Rate (GPM): 0.545
Recovery Type: <input checked="" type="checkbox"/> Fast <input type="checkbox"/> Slow	% Recovery = 86.25

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments: heavy sheen, strong gas odor



# Monitoring Well Purging and Sampling Log

FLD-103

Revision 1.0

Feb-16

ATC Branch: Modesto, Ca

Date: 022416

Page 1 of 1

ATC Representative(s): Alex Flores

Project: The Salvation Army ARC

Location: 601 Webster Street, Oakland CA

Contact Information: Mike Sonke

Project No: Z054000006

Task No: 01

Well ID: MW-4

Contractor:

Weather: Sunny

Temperature: 54°F

## Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Solinist 101/ 212129

Interface Probe (Model/ID): N/A

Water Quality Meter (Model/ID): YSI 556/ 11J77

Decontamination Method: Alconox and risate water

Purging Method:  PVC Bailer  Disp. Bailer  Submersible Pump  Centrifugal Pump Other: \_\_\_\_\_3 Well Volumes  Low Flow  Micro Purge  Intake Depth (feet below TOC) \_\_\_\_\_Sampling Method:  Teflon Bailer  Disposable Bailer  Dedicated Tubing Other: \_\_\_\_\_

### Casing Volume Information

### Purging Calculations

Casing Diameter (Circle): 2" 4" 6" Other

Casing Volumes (CV): 1.632 4.90

Casing Multiplier (CM)(gallons/foot): 0.16 0.65 1.47

WC 10.2 x CM 0.16 = 1.632 (CV)(gal) x 3.0 CV (gal) = 4.90 PV

### Monitoring Measurements

Depth to LNAPL (feet): \_\_\_\_\_

Total Well Depth (feet): 29.73

Depth to Water (DTW)(feet): \_\_\_\_\_

Water Column (WC)(feet): 19.53 10.20

LNAPL Thickness (ft): \_\_\_\_\_

Purging Start Time: 10.20

### Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	pH (± 0.1)	Specific Cond. (mS/cm) (± 5%)	Temp (°C) (± 1°)	Dissolved Oxygen (mg/L) (± 10%)	ORP (mV) (± 10 mV)	Comment
0831	19.53	0.5	6.97	1.037	19.13			Begin hand bailing
0834	—	2.1	7.04	1.068	20.04			clear H <sub>2</sub> O.
0837	—	3.7	7.02	1.075	20.47			light brownish H <sub>2</sub> O
0840	20.86	5.4	7.05	1.080	20.60			slight gas odor
								stop.

### Sample Data

Sample ID: MW-4	Time of Sample: 1048	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
Glass, 40mL, 2		No	HCl	TPHg EPA 8015m
Glass, 40mL, 2		No	HCl	BTEX, Oxy's 5
Glass, 1qt, 2		NO	NO	TPHCL, 1,2 DCA and EDB

### Well Recovery Data

Maximum Drawdown (DTW<sub>m</sub>)(feet): 1.33      Approximate Flow Rate (GPM): 0.60

Recovery Type:  Fast  Slow      % Recovery = 86.97

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:







# Appendix **A2**

Groundwater Sampling Log - May 11, 2016









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# Monitoring Well Purging and Sampling Log

FLD-103

Revision 1.0

Jul-08

ATC Branch: Modesto, CA.	Date: 5-18-16	Page 1 of 1
ATC Representative(s): JK, MS	Project: T540	
	Location: 601 Webster, Oakland, CA	
Contact Information:	Project No: 3054000006	Task No:
Well ID: MW 1	Contractor: —	
	Weather: Partly Cloudy	Temperature:

## Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Solinst	Interface Probe (Model/ID): Reck
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox w/cristal wine
Purging Method: <input checked="" type="checkbox"/> PVC Bailer <input type="checkbox"/> Vacuum Truck <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Peristaltic Pump Other: _____	
3 Well Volumes <input checked="" type="checkbox"/> Low Flow <input type="checkbox"/> Micro Purge <input type="checkbox"/> Intake Depth (feet below TOC) _____	
Sampling Method: <input checked="" type="checkbox"/> Teflon Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Dedicated Tubing Other: _____	

### Casing Volume Information

### Purging Calculations

Casing Diameter (Circle): 2" 4" 6" Other	Casing Volumes (CV):
Casing Multiplier (CM)(gallons/foot): 0.16 0.65 1.47	WC 10.27 x CM 0.16 = 1.64 (CV)(gal) x 3.0 CV (gal) = 8.92 PV

## Monitoring Measurements

Depth to LNAPL (feet): -	Total Well Depth (feet): 29.72
Depth to Water (DTW)(feet): 19.75	Water Column (WC)(feet): 10.27
LNAPL Thickness (ft): -	Purging Start Time: 1500

## Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
1500	19.75	1	21.81	0.909			6.92		clear
1508		2	21.13	0.964			6.67		moderate
1516		4	20.87	0.959			6.61		very silty
1525	20.70	6	20.85	0.958			6.63		moderate
									silty

## Sample Data

Sample ID: MW 1	Time of Sample: 1530	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
VOA, 40 mL, X3		N	HCl	
Amber, 1 L, X2		N	—	

## Well Recovery Data

Maximum Drawdown (DTW <sub>m</sub> )(feet):	Approximate Flow Rate (GPM):
Recovery Type: _____ Fast _____ Slow	% Recovery =
Purge Water Disposition (Attach Drum Inventory Log - FLD 108):	added to existing drums
Comments:	



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# Monitoring Well Purging and Sampling Log

FLD-103

Revision 1.0

Jul-08

ATC Branch: Modesto, CA.		Date: 5-11-16	Page 1 of 1
ATC Representative(s): JK, MS		Project: TSAO	
		Location: 601 Webster, Oakland, CA	
Contact Information:		Project No: 3054000006	Task No:
Well ID MW 2		Contractor: —	
		Weather: partly cloudy	Temperature: 60-70's

## Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Solinst	Interface Probe (Model/ID): Kede
Water Quality Meter (Model/ID): YSI 556 MYS	Decontamination Method: Alcohol w/ water mix
Purging Method: <input checked="" type="checkbox"/> PVC Bailer <input type="checkbox"/> Vacuum Truck <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Peristaltic Pump Other: _____	
3 Well Volumes <input checked="" type="checkbox"/> Low Flow <input type="checkbox"/> Micro Purge <input type="checkbox"/> Intake Depth (feet below TOC) _____	
Sampling Method: <input checked="" type="checkbox"/> Teflon Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Dedicated Tubing Other: _____	

### Casing Volume Information

### Purging Calculations

Casing Diameter (Circle): 2" 4" 6" Other	Casing Volumes (CV):
Casing Multiplier (CM)(gallons/foot): 0.16 0.65 1.47	WC 11.95 x CM 0.16 = 1.91 (CV)(gal) x 3.0 CV (gal) = 5.73 PV

## Monitoring Measurements

Depth to LNAPL (feet): —	Total Well Depth (feet): 29.82
Depth to Water (DTW)(feet): 17.87	Water Column (WC)(feet): 11.95
LNAPL Thickness (ft): —	Purging Start Time: 1300

## Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
1300	17.87	2.0	20.09	1.047			5.77		brown milky Reintake
1310		2.0	19.37	1.081			5.95		" "
1317		4.0	19.26	1.065			6.25		" "
1325	18.26	6.0	19.23	1.031			6.37		" "
									STOP

## Sample Data

Sample ID: MW 2	Time of Sample: 1300	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
WA, 40ml x3		N	HCl	see CDC
Amber, 1 Liter, x2		N	—	

## Well Recovery Data

Maximum Drawdown (DTW <sub>m</sub> )(feet): 0.5	Approximate Flow Rate (GPM): 0.25
Recovery Type: <input checked="" type="checkbox"/> Fast <input type="checkbox"/> Slow	% Recovery = 97%

Purge Water Disposition (Attach Drum Inventory Log - FLD 108): added to existing drums

Comments:





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# Monitoring Well Purging and Sampling Log

FLD-103

Revision 1.0

Jul-08

ATC Branch: Modesto, CA.	Date: 5-11-16	Page 1 of 1
ATC Representative(s): JK, MS	Project: TSAO	
	Location: 601 Webster, Oakland, CA	
Contact Information:	Project No: 2054000006	Task No:
Well ID: MW 3	Contractor: —	
	Weather: Partly Cloudy	Temperature:

## Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Solinst	Interface Probe (Model/ID): Keck
Water Quality Meter (Model/ID): YSI 556 MFS	Decontamination Method: Alconox w/ultra-rinse
Purging Method: <input checked="" type="checkbox"/> PVC Bailor	<input type="checkbox"/> Vacuum Truck
<input type="checkbox"/> Submersible Pump	<input type="checkbox"/> Peristaltic Pump
<input type="checkbox"/> Other:	
3 Well Volumes <input checked="" type="checkbox"/> Low Flow	<input type="checkbox"/> Micro Purge
<input type="checkbox"/> Intake Depth (feet below TOC)	
Sampling Method: <input checked="" type="checkbox"/> Teflon Bailor	<input type="checkbox"/> Disposable Bailor
<input type="checkbox"/> Dedicated Tubing	<input type="checkbox"/> Other:

### Casing Volume Information

### Purging Calculations

Casing Diameter (Circle): 2" 4" 6" Other	Casing Volumes (CV): 5.64
Casing Multiplier (CM)(gallons/foot): 0.16 0.65 1.47	WC 11.73 x CM 0.16 = 1.87 (CV)(gal) x 3.0 CV (gal) = 5.64 PV

## Monitoring Measurements

Depth to LNAPL (feet):	Total Well Depth (feet): 29.75
Depth to Water (DTW)(feet): 18.02	Water Column (WC)(feet): 11.73
LNAPL Thickness (ft):	Purging Start Time: 1700

## Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
1700	18.02	1st	20.61	0.982			6.86		Clear, only slight odor
1704		2nd	20.20	0.995			6.89		slight odor
1709		3rd	20.21	0.981			6.86		slight odor
1714	19.55	4th							
1719	18.50	5th							

## Sample Data

Sample ID: MW 3	Time of Sample: 1725	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
VOA, 70 mL, x3		N	HCl	
Amber, 1 L, x2		N	—	

## Well Recovery Data

Maximum Drawdown (DTWm)(feet): 1.53	Approximate Flow Rate (GPM): 0.4
Recovery Type: <input checked="" type="checkbox"/> Fast <input type="checkbox"/> Slow	% Recovery = 96%

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments: no higher cut of free product visible, slight screen in bucket



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# Monitoring Well Purging and Sampling Log

FLD-103

Revision 1.0

Jul-08

ATC Branch: Modesto, CA.		Date: 5-11-16	Page 1 of 1
ATC Representative(s): JK, MS		Project: TSAO	
		Location: 601 Webster, Oakland, CA	
Contact Information:		Project No: 2054000006	Task No:
Well ID: MW 4		Contractor: —	
		Weather: clear - partly cloudy	Temperature: 70, +

## Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Solinst	Interface Probe (Model/ID):
Water Quality Meter (Model/ID): YSI 556 MYS	Decontamination Method: Alconox w/ rinse water
Purging Method: <input checked="" type="checkbox"/> PVC Bailer <input type="checkbox"/> Vacuum Truck <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Other: _____	
3 Well Volumes <input checked="" type="checkbox"/> Low Flow <input type="checkbox"/> Micro Purge <input type="checkbox"/> Intake Depth (feet below TOC) _____	
Sampling Method: <input checked="" type="checkbox"/> Teflon Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Dedicated Tubing <input type="checkbox"/> Other: _____	

### Casing Volume Information

### Purging Calculations

Casing Diameter (Circle): 2" 4" 6" Other	Casing Volumes (CV):
Casing Multiplier (CM)(gallons/foot): 0.16 0.65 1.47	WC 10.51 x CM 0.16 = 1.7 (CV)(gal) x 3.0 CV (gal) = 5.1 PV

## Monitoring Measurements

Depth to LNAPL (feet): -	Total Well Depth (feet): 29.73
Depth to Water (DTW)(feet): 19.22	Water Column (WC)(feet): 10.51
LNAPL Thickness (ft): -	Purging Start Time: 1540

## Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
1540	19.22	1.7	20.84	0.809			7.05		
1546		2	20.68	0.802			6.82		very cloudy slt. odor
1552		4	20.65	0.798			6.64		"
1600	20.81	6	20.62	0.790			6.62		"
									STOP

## Sample Data

Sample ID: MW-4	Time of Sample: 1600	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
VOA, 40 mL, x3		N	HCl	
Amber, 1 L, x2		N	—	

## Well Recovery Data

Maximum Drawdown (DTWm)(feet):	Approximate Flow Rate (GPM):
Recovery Type: _____ Fast _____ Slow	% Recovery =
Purge Water Disposition (Attach Drum Inventory Log - FLD 108): added to existing drums	
Comments:	





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# Field Report

FLD-100

Revision 2.0

Feb-16

ATC Branch: Modesto, CA		Date: 5-11-16	Page 1 of
ATC Representative(s): JK, MS		Project: TSA-0	
Role: Technician		Location: 610 Webster, Oakland, CA	
Contact Information:		Project No: 2054000006	Task No: 06054
Scope of Work:		Weather: Partly Cloudy	Temperature:
<input checked="" type="checkbox"/> Monitoring <input checked="" type="checkbox"/> Assessment <input type="checkbox"/> Remediation <input type="checkbox"/> Closure		Contractor: —	

Time:	Comments:
1030	arrive, check in w/ lot and w/ keys in truck deck tailgate
	open MW1, take gravity wad into basement & extend through sky light hole basement reading 20.965
	MW1 4.71
1130-1145	open MW 2, 3, 4 to allow stabilization
1210	calibrate YSI 556 mds for cc & pH
1300-1330	purge 6 gal for MW 2
1340	sample MW 2
1400-1430	purge & sample MW 3
1500-1530	purge & sample MW 1
1540-1610	purge & sample MW 4
	purge water to onsite drums, clean & close up to allow TSAO to close truck deck for day
1620	offsite
1740	samples to Test America in Pleasanton; drop off

Equipment Used:		
Contractor Hours (per Person):	Staff / Technician Hours:	Mileage:
Copies To:	Project Manager:	
	Reviewed By:	





# Appendix **A**

Laboratory Analytical Data Report  
and Chain of Custody Documents





# Appendix **B1**

Laboratory Analytical Data Report  
and Chain of Custody Document -  
2016Q1





CALIFORNIA  
AGRICULTURE & ENVIRONMENTAL  
LABORATORY

2905 Railroad Avenue, Ceres, CA 95307

Phone: (209) 581-9280

Fax: (209) 581-9282

11 March 2016

ATC Group Services LLC  
Mike Sonke  
1117 Lone Palm Ave, Suite B  
Modesto, CA 95351

RE: Salvation Army Project Data

Enclosed are the results for sample(s) received on 02/25/16 12:55 by California Agriculture & Environmental Laboratory. The sample(s) were analyzed according to instructions in accompanying chain-of-custody. Results are summarized on the following pages.

Please see quality control report for a summary of QC data pertaining to this project.

The sample(s) will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Sample(s) may be archived by prior arrangement.

Thank you for the opportunity to service the needs of your company.

Sincerely,

A handwritten signature in blue ink that reads "Wayne Scott".

Wayne Scott

Lab Manager



CALIFORNIA AGRICULTURE & ENVIRONMENTAL LABORATORY

2905 Railroad Avenue, Ceres, CA 95307
Phone: (209) 581-9280
Fax: (209) 581-9282

ENVIRONMENTAL CHAIN OF CUSTODY

Handwritten ID: 560201911602250117

Project #: Z054000006
Project Title: The Salvation Army ARC
Location: 601 Webster Street Oakland, CA
Client: ATC Group Services LLC
Address: 1117 Lone Palm Ave Modesto CA
Contact: Mike Sonke
Phone: 209-579-2221
Fax: 209-579-2225
Notes: Oxygenates to include: TBA, ETBE, DIPE, MTBE, TAME; 1,2 DCA and EDB.
Geotracker ID #: mike.sonke@atcassociates.com

Table with columns: TURN AROUND TIME, ANALYSIS (BTEX 8260B, Oxy's 8260B, TPHg 8015M, TPHd 5630), SPECIAL INSTRUCTIONS (TPH diesel method 5630 with 10 grams of silica gel...), and COMMENTS (VOC's preserved with HCl). Rows include MW-1, MW-2, MW-3, MW-4, Trip Blank.

Handwritten numbers: -01, -02, -03, -04, -05

RELINQUISHED BY: Alex Flores DATE: 2-25-16 TIME: 12:55
RECEIVED BY: [Signature] DATE: 2-25-16 TIME: 12:55

# Argon Laboratories Sample Receipt Checklist

Client Name: ATC Group Services Date & Time Received: 02/25/16 12:55

Project Name: Salvation Army ARC Client Project Number: Z054000006

Received By: JM Matrix: Water  Soil  Sludge

Sample Carrier: Client  Laboratory  Fed Ex  UPS  Other

Argon Labs Project Number: S602019/1602250117

Shipper Container in good condition? N/A  Yes  No  Samples received in proper containers? Yes  No

Samples received intact? Yes  No

Samples received under refrigeration? Yes  No  Sufficient sample volume for requested tests? Yes  No

Chain of custody present? Yes  No  Samples received within holding time? Yes  No

Chain of Custody signed by all parties? Yes  No  Do samples contain proper preservative?  
N/A  Yes  No

Chain of Custody matches all sample labels? Yes  No  Do VOA vials contain zero headspace?  
(None submitted ) Yes  No

**ANY "No" RESPONSE MUST BE DETAILED IN THE COMMENTS SECTION BELOW**

Date Client Contacted: \_\_\_\_\_ Person Contacted: \_\_\_\_\_

Contacted By: \_\_\_\_\_ Subject: \_\_\_\_\_

*Comments:*

*Action Taken:*

**ADDITIONAL TEST(S) REQUEST / OTHER**

Contacted By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Call Received By: \_\_\_\_\_

*Comments:*




CALIFORNIA  
AGRICULTURE & ENVIRONMENTAL  
LABORATORY

2905 Railroad Avenue, Ceres, CA 95307

Phone: (209) 581-9280

Fax: (209) 581-9282

ATC Group Services LLC

Project Number: Z054000006

Work Order No.:

1117 Lone Palm Ave, Suite B

Project Name: Salvation Army

S602019

Modesto, CA 95351

Project Manager: Mike Sonke

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	S602019-01	Water	02/24/16 11:30	02/25/16 12:55
MW-2	S602019-02	Water	02/24/16 11:00	02/25/16 12:55
MW-3	S602019-03	Water	02/24/16 11:20	02/25/16 12:55
MW-4	S602019-04	Water	02/24/16 10:48	02/25/16 12:55
Trip Blank	S602019-05	Water	02/24/16 00:00	02/25/16 12:55

Approved By

California Agriculture & Environmental Laboratory, California D.O.H.S. Cert. #2359





**CALIFORNIA  
AGRICULTURE & ENVIRONMENTAL  
LABORATORY**

2905 Railroad Avenue, Ceres, CA 95307

Phone: (209) 581-9280

Fax: (209) 581-9282

ATC Group Services LLC	Project Number: Z054000006	Work Order No.:
1117 Lone Palm Ave, Suite B	Project Name: Salvation Army	S602019
Modesto, CA 95351	Project Manager: Mike Sonke	

**Total Petroleum Hydrocarbons @ Diesel**

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
<b>MW-1 (S602019-01) Water    Sampled: 24-Feb-16 11:30    Received: 25-Feb-16 12:55</b>							
<b>Diesel</b>	<b>1500</b>	50	ug/L	1	01-Mar-16	EPA 8015Mod	
Surr. Rec.:		105 %			"	"	
<b>MW-2 (S602019-02) Water    Sampled: 24-Feb-16 11:00    Received: 25-Feb-16 12:55</b>							
<b>Diesel</b>	<b>80</b>	50	ug/L	1	01-Mar-16	EPA 8015Mod	
Surr. Rec.:		98 %			"	"	
<b>MW-3 (S602019-03) Water    Sampled: 24-Feb-16 11:20    Received: 25-Feb-16 12:55</b>							
<b>Diesel</b>	<b>270000</b>	2500	ug/L	50	01-Mar-16	EPA 8015Mod	
Surr. Rec.:		125 %			"	"	
<b>MW-4 (S602019-04) Water    Sampled: 24-Feb-16 10:48    Received: 25-Feb-16 12:55</b>							
<b>Diesel</b>	<b>820</b>	50	ug/L	1	01-Mar-16	EPA 8015Mod	
Surr. Rec.:		98 %			"	"	

Wayne E. Acosta

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ATC Group Services LLC	Project Number: Z054000006	Work Order No.:
1117 Lone Palm Ave, Suite B	Project Name: Salvation Army	S602019
Modesto, CA 95351	Project Manager: Mike Sonke	

**Total Petroleum Hydrocarbons @ Gasoline**

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
<b>MW-1 (S602019-01) Water</b> <b>Sampled: 24-Feb-16 11:30</b> <b>Received: 25-Feb-16 12:55</b>							
<b>Total Petroleum Hydrocarbons @ Gasoline</b>	<b>6500</b>	<b>250</b>	<b>ug/L</b>	<b>5</b>	<b>26-Feb-16</b>	<b>8015M</b>	
Surr. Rec.:		<i>108 %</i>			"	"	
<b>MW-2 (S602019-02) Water</b> <b>Sampled: 24-Feb-16 11:00</b> <b>Received: 25-Feb-16 12:55</b>							
<b>Total Petroleum Hydrocarbons @ Gasoline</b>	<b>2300</b>	<b>50</b>	<b>ug/L</b>	<b>1</b>	<b>26-Feb-16</b>	<b>8015M</b>	
Surr. Rec.:		<i>123 %</i>			"	"	
<b>MW-3 (S602019-03) Water</b> <b>Sampled: 24-Feb-16 11:20</b> <b>Received: 25-Feb-16 12:55</b>							
<b>Total Petroleum Hydrocarbons @ Gasoline</b>	<b>190000</b>	<b>12000</b>	<b>ug/L</b>	<b>250</b>	<b>29-Feb-16</b>	<b>8015M</b>	
Surr. Rec.:		<i>96 %</i>			"	"	
<b>MW-4 (S602019-04) Water</b> <b>Sampled: 24-Feb-16 10:48</b> <b>Received: 25-Feb-16 12:55</b>							
<b>Total Petroleum Hydrocarbons @ Gasoline</b>	<b>ND</b>	<b>50</b>	<b>ug/L</b>	<b>1</b>	<b>26-Feb-16</b>	<b>8015M</b>	
Surr. Rec.:		<i>110 %</i>			"	"	
<b>Trip Blank (S602019-05) Water</b> <b>Sampled: 24-Feb-16 00:00</b> <b>Received: 25-Feb-16 12:55</b>							
<b>Total Petroleum Hydrocarbons @ Gasoline</b>	<b>ND</b>	<b>50</b>	<b>ug/L</b>	<b>1</b>	<b>26-Feb-16</b>	<b>8015M</b>	
Surr. Rec.:		<i>84 %</i>			"	"	

*Wayne E. Smith*

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ATC Group Services LLC	Project Number: Z054000006	Work Order No.:
1117 Lone Palm Ave, Suite B	Project Name: Salvation Army	S602019
Modesto, CA 95351	Project Manager: Mike Sonke	

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
<b>MW-1 (S602019-01) Water    Sampled: 24-Feb-16 11:30    Received: 25-Feb-16 12:55</b>							
<b>Benzene</b>	1600	10	ug/L	20	26-Feb-16	8260B	
<b>Toluene</b>	1200	10	"	"	"	"	
<b>Xylenes, total</b>	700	20	"	"	"	"	
<b>Ethylbenzene</b>	110	10	"	"	"	"	
t-Butanol	ND	100	"	"	"	"	
<b>Methyl tert-Butyl Ether</b>	90	10	"	"	"	"	
Di-Isopropyl Ether	ND	10	"	"	"	"	
Ethyl tert-Butyl Ether	ND	10	"	"	"	"	
tert-Amyl Methyl Ether	ND	10	"	"	"	"	
1,2-Dichloroethane	ND	10	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	10	"	"	"	"	
Surr. Rec.:		101 %			"	"	
<b>MW-2 (S602019-02) Water    Sampled: 24-Feb-16 11:00    Received: 25-Feb-16 12:55</b>							
<b>Benzene</b>	320	5.0	ug/L	10	26-Feb-16	8260B	
<b>Toluene</b>	310	5.0	"	"	"	"	
<b>Xylenes, total</b>	230	10	"	"	"	"	
<b>Ethylbenzene</b>	31	5.0	"	"	"	"	
t-Butanol	ND	50	"	"	"	"	
Methyl tert-Butyl Ether	ND	5.0	"	"	"	"	
Di-Isopropyl Ether	ND	5.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	5.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	5.0	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	
Surr. Rec.:		97 %			"	"	

*Wayne E. Scott*

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ATC Group Services LLC	Project Number: Z054000006	Work Order No.:
1117 Lone Palm Ave, Suite B	Project Name: Salvation Army	S602019
Modesto, CA 95351	Project Manager: Mike Sonke	

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	----------	--------	-------

**MW-3 (S602019-03) Water**    **Sampled: 24-Feb-16 11:20**    **Received: 25-Feb-16 12:55**

<b>Benzene</b>	<b>1000</b>	100	ug/L	200	26-Feb-16	8260B	
<b>Toluene</b>	<b>25000</b>	250	"	500	"	"	
<b>Xylenes, total</b>	<b>23000</b>	200	"	200	"	"	
<b>Ethylbenzene</b>	<b>4400</b>	100	"	"	"	"	
t-Butanol	ND	1000	"	"	"	"	
Methyl tert-Butyl Ether	ND	100	"	"	"	"	
Di-Isopropyl Ether	ND	100	"	"	"	"	
Ethyl tert-Butyl Ether	ND	100	"	"	"	"	
tert-Amyl Methyl Ether	ND	100	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	100	"	"	"	"	
Surr. Rec.:		95 %			"	"	

**MW-4 (S602019-04) Water**    **Sampled: 24-Feb-16 10:48**    **Received: 25-Feb-16 12:55**

<b>Benzene</b>	<b>300</b>	5.0	ug/L	10	26-Feb-16	8260B	
<b>Toluene</b>	<b>53</b>	5.0	"	"	"	"	
<b>Xylenes, total</b>	<b>160</b>	10	"	"	"	"	
<b>Ethylbenzene</b>	<b>31</b>	5.0	"	"	"	"	
t-Butanol	ND	50	"	"	"	"	
Methyl tert-Butyl Ether	ND	5.0	"	"	"	"	
Di-Isopropyl Ether	ND	5.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	5.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	5.0	"	"	"	"	
<b>1,2-Dichloroethane</b>	<b>7.4</b>	5.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	
Surr. Rec.:		102 %			"	"	

*Wayne E. Scott*

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ATC Group Services LLC	Project Number: Z054000006	Work Order No.:
1117 Lone Palm Ave, Suite B	Project Name: Salvation Army	S602019
Modesto, CA 95351	Project Manager: Mike Sonke	

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
<b>Trip Blank (S602019-05) Water    Sampled: 24-Feb-16 00:00    Received: 25-Feb-16 12:55</b>							
Benzene	ND	0.5	ug/L	1	26-Feb-16	8260B	
Toluene	ND	0.5	"	"	"	"	
Xylenes, total	ND	1.0	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	
t-Butanol	ND	5.0	"	"	"	"	
Methyl tert-Butyl Ether	ND	0.5	"	"	"	"	
Di-Isopropyl Ether	ND	0.5	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.5	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.5	"	"	"	"	
1,2-Dichloroethane	ND	0.5	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.5	"	"	"	"	
Surr. Rec.:		99 %			"	"	

*Wayne E. Scott*

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ATC Group Services LLC	Project Number: Z054000006	Work Order No.:
1117 Lone Palm Ave, Suite B	Project Name: Salvation Army	S602019
Modesto, CA 95351	Project Manager: Mike Sonke	

**Total Petroleum Hydrocarbons @ Diesel - Quality Control**

**California Agriculture & Environmental Laboratory**

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

**Batch S600181 - EPA 3510C**

**Blank (S600181-BLK1)**

Prepared & Analyzed: 03/01/16

Surrogate: %SS1	104		ug/L	100		104	0-200		
Diesel	ND	50	"						

**LCS (S600181-BS1)**

Prepared & Analyzed: 03/01/16

Surrogate: %SS1	105		ug/L	100		105	0-200		
Diesel	224		"	200		112	80-120		

Wayne E. Scott

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ATC Group Services LLC	Project Number: Z054000006	Work Order No.:
1117 Lone Palm Ave, Suite B	Project Name: Salvation Army	S602019
Modesto, CA 95351	Project Manager: Mike Sonke	

**Total Petroleum Hydrocarbons @ Gasoline - Quality Control**

**California Agriculture & Environmental Laboratory**

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

**Batch S600153 - EPA 5030B**

<b>Blank (S600153-BLK1)</b>										
Prepared & Analyzed: 02/26/16										
Surrogate: a,a,a-Trifluorotoluene	41.0		ug/L	50		82	70-130			
Total Petroleum Hydrocarbons @ Gasoline	ND	50	"							

<b>LCS (S600153-BS1)</b>										
Prepared & Analyzed: 02/26/16										
Surrogate: a,a,a-Trifluorotoluene	59.0		ug/L	50		118	70-130			
Total Petroleum Hydrocarbons @ Gasoline	1030		"	1000		103	80-120			

<b>LCS Dup (S600153-BSD1)</b>										
Prepared & Analyzed: 02/26/16										
Surrogate: a,a,a-Trifluorotoluene	57.5		ug/L	50		115	70-130			
Total Petroleum Hydrocarbons @ Gasoline	1050		"	1000		105	80-120	2	20	

<b>Matrix Spike (S600153-MS1)</b>										
Source: S602019-01										
Prepared & Analyzed: 02/26/16										
Surrogate: a,a,a-Trifluorotoluene	57.0		ug/L	50		114	70-130			
Total Petroleum Hydrocarbons @ Gasoline	33700		"	1000	32500	121	70-130			

<b>Matrix Spike Dup (S600153-MSD1)</b>										
Source: S602019-01										
Prepared & Analyzed: 02/26/16										
Surrogate: a,a,a-Trifluorotoluene	61.0		ug/L	50		122	70-130			
Total Petroleum Hydrocarbons @ Gasoline	33700		"	1000	32500	128	70-130	0.2	20	

**Batch S600154 - EPA 5030B**

<b>Blank (S600154-BLK1)</b>										
Prepared & Analyzed: 02/29/16										
Surrogate: a,a,a-Trifluorotoluene	39.5		ug/L	50		79	70-130			
Total Petroleum Hydrocarbons @ Gasoline	ND	50	"							

<b>LCS (S600154-BS1)</b>										
Prepared & Analyzed: 02/29/16										
Surrogate: a,a,a-Trifluorotoluene	53.5		ug/L	50		107	70-130			
Total Petroleum Hydrocarbons @ Gasoline	1130		"	1000		113	80-120			

<b>LCS Dup (S600154-BSD1)</b>										
Prepared & Analyzed: 02/29/16										
Surrogate: a,a,a-Trifluorotoluene	54.0		ug/L	50		108	70-130			
Total Petroleum Hydrocarbons @ Gasoline	1060		"	1000		106	80-120	7	20	

<b>Matrix Spike (S600154-MS1)</b>										
Source: S602019-03										
Prepared & Analyzed: 02/29/16										
Surrogate: a,a,a-Trifluorotoluene	51.0		ug/L	50		102	70-130			

Approved By *Wayne L. Swett*

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1117 Lone Palm Ave, Suite B	Project Name: Salvation Army	S602019
Modesto, CA 95351	Project Manager: Mike Sonke	

**Total Petroleum Hydrocarbons @ Gasoline - Quality Control**

**California Agriculture & Environmental Laboratory**

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

**Batch S600154 - EPA 5030B**

<b>Matrix Spike (S600154-MS1)</b>		<b>Source: S602019-03</b>		<b>Prepared &amp; Analyzed: 02/29/16</b>						
Total Petroleum Hydrocarbons @ Gasoline	48500000		ug/L	1000	48500000	76	70-130			
<b>Matrix Spike Dup (S600154-MSD1)</b>		<b>Source: S602019-03</b>		<b>Prepared &amp; Analyzed: 02/29/16</b>						
<i>Surrogate: a,a,a-Trifluorotoluene</i>	49.5		ug/L	50		99	70-130			
Total Petroleum Hydrocarbons @ Gasoline	48500000		"	1000	48500000	73	70-130	0.00006	20	

*Wayne E. Scott*

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Modesto, CA 95351	Project Manager: Mike Sonke	

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**California Agriculture & Environmental Laboratory**

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

**Batch S600175 - EPA 5030B**

**Blank (S600175-BLK1)**

Prepared & Analyzed: 02/26/16

<i>Surrogate: Fluorobenzene</i>	48.5		ug/L	50		97	70-130			
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Xylenes, total	ND	1.0	"							
Ethylbenzene	ND	0.5	"							
t-Butanol	ND	5.0	"							
Methyl tert-Butyl Ether	ND	0.5	"							
Di-Isopropyl Ether	ND	0.5	"							
Ethyl tert-Butyl Ether	ND	0.5	"							
tert-Amyl Methyl Ether	ND	0.5	"							
1,2-Dichloroethane	ND	0.5	"							
1,2-Dibromoethane (EDB)	ND	0.5	"							

**LCS (S600175-BS1)**

Prepared & Analyzed: 02/26/16

<i>Surrogate: Fluorobenzene</i>	50.0		ug/L	50		100	70-130			
Di-Isopropyl Ether	21.4		"	25		85	80-120			

**LCS Dup (S600175-BSD1)**

Prepared & Analyzed: 02/26/16

<i>Surrogate: Fluorobenzene</i>	52.5		ug/L	50		105	70-130			
Di-Isopropyl Ether	21.9		"	25		88	80-120	2	20	



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Modesto, CA 95351	Project Manager: Mike Sonke	

**Notes and Definitions**

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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# Appendix **B1**

Laboratory Analytical Data Report  
and Chain of Custody Document -  
2016Q**2**



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

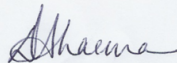
## ANALYTICAL REPORT

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

TestAmerica Job ID: 720-72163-1  
Client Project/Site: Salvation Army

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

Attn: Mr. Gabe Stivala



Authorized for release by:  
5/18/2016 4:47:59 PM

Dimple Sharma, Senior Project Manager  
(925)484-1919  
[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

Review your project  
results through  
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Have a Question?



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*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: 720-72163-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

### GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
X	Surrogate is outside control limits

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: 720-72163-1

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**Job ID: 720-72163-1**

---

**Laboratory: TestAmerica Pleasanton**

---

**Narrative**

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**Job Narrative**  
**720-72163-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 5/11/2016 5:44 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 17.0° C.

**GC/MS VOA**

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

**GC Semi VOA**

Method 8015B: The following sample required a dilution due to the nature of the sample matrix: MW3 (720-72163-3). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

**Organic Prep**

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



# Detection Summary

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

TestAmerica Job ID: 720-72163-1

## Client Sample ID: MW1

## Lab Sample ID: 720-72163-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	770		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
Benzene	7600		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	750		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
Toluene	5400		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	2800		100		ug/L	100		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	28000		5000		ug/L	100		8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	1200		50		ug/L		1	8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	130		100		ug/L		1	8015B	Silica Gel Cleanup

## Client Sample ID: MW2

## Lab Sample ID: 720-72163-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	170		0.50		ug/L		1	8260B/CA_LUFT MS	Total/NA
Ethylbenzene	25		0.50		ug/L		1	8260B/CA_LUFT MS	Total/NA
Toluene	200		0.50		ug/L		1	8260B/CA_LUFT MS	Total/NA
Xylenes, Total	150		1.0		ug/L		1	8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	1000		50		ug/L		1	8260B/CA_LUFT MS	Total/NA

## Client Sample ID: MW3

## Lab Sample ID: 720-72163-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	77		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Benzene	11000		250		ug/L	500		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	5600		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Toluene	14000		250		ug/L	500		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	11000		500		ug/L	500		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	67000		25000		ug/L	500		8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	14000		250		ug/L		5	8015B	Silica Gel Cleanup

## Client Sample ID: MW4

## Lab Sample ID: 720-72163-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	17000		250		ug/L	500		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	870		250		ug/L	500		8260B/CA_LUFT MS	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton



# Detection Summary

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

TestAmerica Job ID: 720-72163-1

## Client Sample ID: MW4 (Continued)

## Lab Sample ID: 720-72163-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	7900		250		ug/L	500		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	4000		500		ug/L	500		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	45000		25000		ug/L	500		8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	650		50		ug/L	1		8015B	Silica Gel Cleanup

## Client Sample ID: TRIP BLANK

## Lab Sample ID: 720-72163-5

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

# Client Sample Results

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

TestAmerica Job ID: 720-72163-1

**Client Sample ID: MW1**

**Date Collected: 05/11/16 15:30**

**Date Received: 05/11/16 17:44**

**Lab Sample ID: 720-72163-1**

**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	770		5.0		ug/L			05/17/16 12:40	10
Benzene	7600		50		ug/L			05/18/16 11:52	100
Ethylbenzene	750		5.0		ug/L			05/17/16 12:40	10
Toluene	5400		50		ug/L			05/18/16 11:52	100
Xylenes, Total	2800		100		ug/L			05/18/16 11:52	100
Gasoline Range Organics (GRO) -C5-C12	28000		5000		ug/L			05/18/16 11:52	100
TBA	ND		200		ug/L			05/17/16 12:40	10
DIPE	ND		5.0		ug/L			05/17/16 12:40	10
TAME	ND		5.0		ug/L			05/17/16 12:40	10
Ethyl t-butyl ether	ND		5.0		ug/L			05/17/16 12:40	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	105		67 - 130		05/17/16 12:40	10
4-Bromofluorobenzene	100		67 - 130		05/18/16 11:52	100
1,2-Dichloroethane-d4 (Surr)	108		72 - 130		05/17/16 12:40	10
1,2-Dichloroethane-d4 (Surr)	108		72 - 130		05/18/16 11:52	100
Toluene-d8 (Surr)	101		70 - 130		05/17/16 12:40	10
Toluene-d8 (Surr)	99		70 - 130		05/18/16 11:52	100

**Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1200		50		ug/L		05/12/16 12:29	05/12/16 17:44	1
Motor Oil Range Organics [C24-C36]	130		100		ug/L		05/12/16 12:29	05/12/16 17:44	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
Capric Acid (Surr)	0.7		0 - 5	05/12/16 12:29	05/12/16 17:44	1			
p-Terphenyl	87		31 - 150	05/12/16 12:29	05/12/16 17:44	1			

# Client Sample Results

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

TestAmerica Job ID: 720-72163-1

**Client Sample ID: MW2**  
**Date Collected: 05/11/16 13:40**  
**Date Received: 05/11/16 17:44**

**Lab Sample ID: 720-72163-2**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			05/17/16 12:11	1
<b>Benzene</b>	<b>170</b>		0.50		ug/L			05/17/16 12:11	1
<b>Ethylbenzene</b>	<b>25</b>		0.50		ug/L			05/17/16 12:11	1
<b>Toluene</b>	<b>200</b>		0.50		ug/L			05/17/16 12:11	1
<b>Xylenes, Total</b>	<b>150</b>		1.0		ug/L			05/17/16 12:11	1
<b>Gasoline Range Organics (GRO) -C5-C12</b>	<b>1000</b>		50		ug/L			05/17/16 12:11	1
TBA	ND		20		ug/L			05/17/16 12:11	1
DIPE	ND		0.50		ug/L			05/17/16 12:11	1
TAME	ND		0.50		ug/L			05/17/16 12:11	1
Ethyl t-butyl ether	ND		0.50		ug/L			05/17/16 12:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 130		05/17/16 12:11	1
1,2-Dichloroethane-d4 (Surr)	110		72 - 130		05/17/16 12:11	1
Toluene-d8 (Surr)	101		70 - 130		05/17/16 12:11	1

**Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		51		ug/L		05/12/16 12:29	05/12/16 18:09	1
Motor Oil Range Organics [C24-C36]	ND		100		ug/L		05/12/16 12:29	05/12/16 18:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.006		0 - 5	05/12/16 12:29	05/12/16 18:09	1
p-Terphenyl	94		31 - 150	05/12/16 12:29	05/12/16 18:09	1



# Client Sample Results

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

TestAmerica Job ID: 720-72163-1

**Client Sample ID: MW3**  
**Date Collected: 05/11/16 14:25**  
**Date Received: 05/11/16 17:44**

**Lab Sample ID: 720-72163-3**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	77		50		ug/L			05/17/16 13:10	100
Benzene	11000		250		ug/L			05/18/16 12:19	500
Ethylbenzene	5600		50		ug/L			05/17/16 13:10	100
Toluene	14000		250		ug/L			05/18/16 12:19	500
Xylenes, Total	11000		500		ug/L			05/18/16 12:19	500
Gasoline Range Organics (GRO) -C5-C12	67000		25000		ug/L			05/18/16 12:19	500
TBA	ND		2000		ug/L			05/17/16 13:10	100
DIPE	ND		50		ug/L			05/17/16 13:10	100
TAME	ND		50		ug/L			05/17/16 13:10	100
Ethyl t-butyl ether	ND		50		ug/L			05/17/16 13:10	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 130		05/17/16 13:10	100
4-Bromofluorobenzene	101		67 - 130		05/18/16 12:19	500
1,2-Dichloroethane-d4 (Surr)	107		72 - 130		05/17/16 13:10	100
1,2-Dichloroethane-d4 (Surr)	111		72 - 130		05/18/16 12:19	500
Toluene-d8 (Surr)	102		70 - 130		05/17/16 13:10	100
Toluene-d8 (Surr)	99		70 - 130		05/18/16 12:19	500

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	14000		250		ug/L		05/12/16 12:29	05/12/16 21:56	5
Motor Oil Range Organics [C24-C36]	ND		500		ug/L		05/12/16 12:29	05/12/16 21:56	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0		0 - 5	05/12/16 12:29	05/12/16 21:56	5
p-Terphenyl	0	X D	31 - 150	05/12/16 12:29	05/12/16 21:56	5

# Client Sample Results

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

TestAmerica Job ID: 720-72163-1

**Client Sample ID: MW4**  
**Date Collected: 05/11/16 16:00**  
**Date Received: 05/11/16 17:44**

**Lab Sample ID: 720-72163-4**  
**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		250		ug/L			05/18/16 12:47	500
<b>Benzene</b>	<b>17000</b>		250		ug/L			05/18/16 12:47	500
<b>Ethylbenzene</b>	<b>870</b>		250		ug/L			05/18/16 12:47	500
<b>Toluene</b>	<b>7900</b>		250		ug/L			05/18/16 12:47	500
<b>Xylenes, Total</b>	<b>4000</b>		500		ug/L			05/18/16 12:47	500
<b>Gasoline Range Organics (GRO) -C5-C12</b>	<b>45000</b>		25000		ug/L			05/18/16 12:47	500
TBA	ND		10000		ug/L			05/18/16 12:47	500
DIPE	ND		250		ug/L			05/18/16 12:47	500
TAME	ND		250		ug/L			05/18/16 12:47	500
Ethyl t-butyl ether	ND		250		ug/L			05/18/16 12:47	500
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	101		67 - 130					05/18/16 12:47	500
1,2-Dichloroethane-d4 (Surr)	112		72 - 130					05/18/16 12:47	500
Toluene-d8 (Surr)	98		70 - 130					05/18/16 12:47	500

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>650</b>		50		ug/L		05/12/16 12:29	05/12/16 18:58	1
Motor Oil Range Organics [C24-C36]	ND		100		ug/L		05/12/16 12:29	05/12/16 18:58	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Capric Acid (Surr)	0.2		0 - 5				05/12/16 12:29	05/12/16 18:58	1
p-Terphenyl	92		31 - 150				05/12/16 12:29	05/12/16 18:58	1



# Client Sample Results

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

TestAmerica Job ID: 720-72163-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 720-72163-5**

**Date Collected: 05/11/16 09:30**

**Matrix: Water**

**Date Received: 05/11/16 17:44**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			05/17/16 11:12	1
Benzene	ND		0.50		ug/L			05/17/16 11:12	1
Ethylbenzene	ND		0.50		ug/L			05/17/16 11:12	1
Toluene	ND		0.50		ug/L			05/17/16 11:12	1
Xylenes, Total	ND		1.0		ug/L			05/17/16 11:12	1
Gasoline Range Organics (GRO)	ND		50		ug/L			05/17/16 11:12	1
-C5-C12									
TBA	ND		20		ug/L			05/17/16 11:12	1
DIPE	ND		0.50		ug/L			05/17/16 11:12	1
TAME	ND		0.50		ug/L			05/17/16 11:12	1
Ethyl t-butyl ether	ND		0.50		ug/L			05/17/16 11:12	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	101		67 - 130					05/17/16 11:12	1
1,2-Dichloroethane-d4 (Surr)	109		72 - 130					05/17/16 11:12	1
Toluene-d8 (Surr)	103		70 - 130					05/17/16 11:12	1

# Surrogate Summary

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

TestAmerica Job ID: 720-72163-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (67-130)	12DCE (72-130)	TOL (70-130)
720-72163-1	MW1	105	108	101
720-72163-1	MW1	100	108	99
720-72163-2	MW2	102	110	101
720-72163-2 MS	MW2	102	107	103
720-72163-2 MSD	MW2	101	103	102
720-72163-3	MW3	102	107	102
720-72163-3	MW3	101	111	99
720-72163-4	MW4	101	112	98
720-72163-5	TRIP BLANK	101	109	103
LCS 720-202403/5	Lab Control Sample	101	104	101
LCS 720-202403/7	Lab Control Sample	101	106	102
LCS 720-202492/6	Lab Control Sample	105	107	99
LCS 720-202492/8	Lab Control Sample	100	112	102
LCSD 720-202403/6	Lab Control Sample Dup	100	104	102
LCSD 720-202403/8	Lab Control Sample Dup	101	107	102
LCSD 720-202492/7	Lab Control Sample Dup	103	109	99
LCSD 720-202492/9	Lab Control Sample Dup	100	113	100
MB 720-202403/4	Method Blank	98	104	101
MB 720-202492/5	Method Blank	98	112	98

**Surrogate Legend**

BFB = 4-Bromofluorobenzene  
12DCE = 1,2-Dichloroethane-d4 (Surr)  
TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Silica Gel Cleanup

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		NDA1 (0-5)	PTP1 (31-150)
720-72163-1	MW1	0.7	87
720-72163-2	MW2	0.006	94
720-72163-3	MW3	0	0 X D
720-72163-4	MW4	0.2	92
LCS 720-202156/2-A	Lab Control Sample		72
LCSD 720-202156/3-A	Lab Control Sample Dup		74
MB 720-202156/1-A	Method Blank	0.01	94

**Surrogate Legend**

NDA = Capric Acid (Surr)  
PTP = p-Terphenyl



# QC Sample Results

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

TestAmerica Job ID: 720-72163-1

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

**Lab Sample ID: MB 720-202403/4**  
**Matrix: Water**  
**Analysis Batch: 202403**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			05/17/16 08:45	1
Benzene	ND		0.50		ug/L			05/17/16 08:45	1
Ethylbenzene	ND		0.50		ug/L			05/17/16 08:45	1
Toluene	ND		0.50		ug/L			05/17/16 08:45	1
Xylenes, Total	ND		1.0		ug/L			05/17/16 08:45	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			05/17/16 08:45	1
TBA	ND		20		ug/L			05/17/16 08:45	1
DIPE	ND		0.50		ug/L			05/17/16 08:45	1
TAME	ND		0.50		ug/L			05/17/16 08:45	1
Ethyl t-butyl ether	ND		0.50		ug/L			05/17/16 08:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 130		05/17/16 08:45	1
1,2-Dichloroethane-d4 (Surr)	104		72 - 130		05/17/16 08:45	1
Toluene-d8 (Surr)	101		70 - 130		05/17/16 08:45	1

**Lab Sample ID: LCS 720-202403/5**  
**Matrix: Water**  
**Analysis Batch: 202403**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	26.3		ug/L		105	62 - 130
Benzene	25.0	25.9		ug/L		104	79 - 130
Ethylbenzene	25.0	26.4		ug/L		105	80 - 120
Toluene	25.0	25.9		ug/L		104	78 - 120
m-Xylene & p-Xylene	25.0	26.3		ug/L		105	70 - 142
o-Xylene	25.0	26.1		ug/L		104	70 - 130
TBA	250	274		ug/L		109	70 - 130
DIPE	25.0	28.9		ug/L		116	69 - 134
TAME	25.0	27.0		ug/L		108	79 - 130
Ethyl t-butyl ether	25.0	27.1		ug/L		108	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	104		72 - 130
Toluene-d8 (Surr)	101		70 - 130

**Lab Sample ID: LCS 720-202403/7**  
**Matrix: Water**  
**Analysis Batch: 202403**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	500	554		ug/L		111	71 - 125

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# QC Sample Results

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

TestAmerica Job ID: 720-72163-1

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

**Lab Sample ID: LCS 720-202403/7**  
**Matrix: Water**  
**Analysis Batch: 202403**

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	106		72 - 130
Toluene-d8 (Surr)	102		70 - 130

**Lab Sample ID: LCSD 720-202403/6**  
**Matrix: Water**  
**Analysis Batch: 202403**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	25.0	26.2		ug/L		105	62 - 130	1	20
Benzene	25.0	25.9		ug/L		104	79 - 130	0	20
Ethylbenzene	25.0	26.5		ug/L		106	80 - 120	1	20
Toluene	25.0	26.2		ug/L		105	78 - 120	1	20
m-Xylene & p-Xylene	25.0	26.4		ug/L		105	70 - 142	0	20
o-Xylene	25.0	26.3		ug/L		105	70 - 130	1	20
TBA	250	272		ug/L		109	70 - 130	0	20
DIPE	25.0	29.0		ug/L		116	69 - 134	0	20
TAME	25.0	27.4		ug/L		110	79 - 130	2	20
Ethyl t-butyl ether	25.0	27.2		ug/L		109	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	100		67 - 130
1,2-Dichloroethane-d4 (Surr)	104		72 - 130
Toluene-d8 (Surr)	102		70 - 130

**Lab Sample ID: LCSD 720-202403/8**  
**Matrix: Water**  
**Analysis Batch: 202403**

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	500	551		ug/L		110	71 - 125	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	107		72 - 130
Toluene-d8 (Surr)	102		70 - 130

**Lab Sample ID: 720-72163-2 MS**  
**Matrix: Water**  
**Analysis Batch: 202403**

**Client Sample ID: MW2**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	ND		25.0	25.4		ug/L		102	60 - 138
Benzene	170		25.0	189	4	ug/L		80	60 - 140
Ethylbenzene	25		25.0	48.2		ug/L		92	60 - 140
Toluene	200		25.0	211	E 4	ug/L		61	60 - 140
m-Xylene & p-Xylene	110		25.0	128	4	ug/L		80	60 - 140

TestAmerica Pleasanton



# QC Sample Results

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

TestAmerica Job ID: 720-72163-1

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

**Lab Sample ID: 720-72163-2 MS**  
**Matrix: Water**  
**Analysis Batch: 202403**

**Client Sample ID: MW2**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	45		25.0	68.4		ug/L		92	60 - 140
TBA	ND		250	244		ug/L		97	60 - 140
DIPE	ND		25.0	27.0		ug/L		108	60 - 140
TAME	ND		25.0	26.5		ug/L		106	60 - 140
Ethyl t-butyl ether	ND		25.0	26.0		ug/L		104	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	102		67 - 130
1,2-Dichloroethane-d4 (Surr)	107		72 - 130
Toluene-d8 (Surr)	103		70 - 130

**Lab Sample ID: 720-72163-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 202403**

**Client Sample ID: MW2**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	ND		25.0	26.3		ug/L		105	60 - 138	4	20
Benzene	170		25.0	188	4	ug/L		75	60 - 140	1	20
Ethylbenzene	25		25.0	50.2		ug/L		100	60 - 140	4	20
Toluene	200		25.0	213	E 4	ug/L		68	60 - 140	1	20
m-Xylene & p-Xylene	110		25.0	129	4	ug/L		86	60 - 140	1	20
o-Xylene	45		25.0	70.1		ug/L		99	60 - 140	2	20
TBA	ND		250	264		ug/L		105	60 - 140	8	20
DIPE	ND		25.0	28.0		ug/L		112	60 - 140	4	20
TAME	ND		25.0	27.8		ug/L		111	60 - 140	5	20
Ethyl t-butyl ether	ND		25.0	27.1		ug/L		108	60 - 140	4	20

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

**Lab Sample ID: MB 720-202492/5**  
**Matrix: Water**  
**Analysis Batch: 202492**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			05/18/16 09:34	1
Benzene	ND		0.50		ug/L			05/18/16 09:34	1
Ethylbenzene	ND		0.50		ug/L			05/18/16 09:34	1
Toluene	ND		0.50		ug/L			05/18/16 09:34	1
Xylenes, Total	ND		1.0		ug/L			05/18/16 09:34	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			05/18/16 09:34	1
TBA	ND		20		ug/L			05/18/16 09:34	1
DIPE	ND		0.50		ug/L			05/18/16 09:34	1
TAME	ND		0.50		ug/L			05/18/16 09:34	1
Ethyl t-butyl ether	ND		0.50		ug/L			05/18/16 09:34	1

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-72163-1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	98		67 - 130		05/18/16 09:34	1
1,2-Dichloroethane-d4 (Surr)	112		72 - 130		05/18/16 09:34	1
Toluene-d8 (Surr)	98		70 - 130		05/18/16 09:34	1

Lab Sample ID: LCS 720-202492/6  
Matrix: Water  
Analysis Batch: 202492

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	25.1		ug/L		100	79 - 130
Ethylbenzene	25.0	23.6		ug/L		95	80 - 120
Toluene	25.0	23.4		ug/L		94	78 - 120
m-Xylene & p-Xylene	25.0	24.0		ug/L		96	70 - 142
o-Xylene	25.0	24.4		ug/L		97	70 - 130
TBA	250	241		ug/L		96	70 - 130
DIPE	25.0	27.4		ug/L		110	69 - 134
TAME	25.0	30.4		ug/L		121	79 - 130
Ethyl t-butyl ether	25.0	29.3		ug/L		117	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	105		67 - 130
1,2-Dichloroethane-d4 (Surr)	107		72 - 130
Toluene-d8 (Surr)	99		70 - 130

Lab Sample ID: LCS 720-202492/8  
Matrix: Water  
Analysis Batch: 202492

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	100		67 - 130
1,2-Dichloroethane-d4 (Surr)	112		72 - 130
Toluene-d8 (Surr)	102		70 - 130

Lab Sample ID: LCSD 720-202492/7  
Matrix: Water  
Analysis Batch: 202492

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
								RPD	Limit
Methyl tert-butyl ether	25.0	31.0		ug/L		124	62 - 130	4	20
Benzene	25.0	25.0		ug/L		100	79 - 130	0	20
Ethylbenzene	25.0	22.7		ug/L		91	80 - 120	4	20
Toluene	25.0	22.9		ug/L		92	78 - 120	2	20
m-Xylene & p-Xylene	25.0	23.1		ug/L		92	70 - 142	4	20
o-Xylene	25.0	23.7		ug/L		95	70 - 130	3	20
TBA	250	237		ug/L		95	70 - 130	1	20
DIPE	25.0	28.7		ug/L		115	69 - 134	4	20
TAME	25.0	32.0		ug/L		128	79 - 130	5	20
Ethyl t-butyl ether	25.0	30.5		ug/L		122	70 - 130	4	20

TestAmerica Pleasanton

# QC Sample Results

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

TestAmerica Job ID: 720-72163-1

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

**Lab Sample ID: LCSD 720-202492/7**  
**Matrix: Water**  
**Analysis Batch: 202492**

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

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	103		67 - 130
1,2-Dichloroethane-d4 (Surr)	109		72 - 130
Toluene-d8 (Surr)	99		70 - 130

**Lab Sample ID: LCSD 720-202492/9**  
**Matrix: Water**  
**Analysis Batch: 202492**

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

Analyte	Spike Added	LCSD		Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
		Result	Qualifier						
Gasoline Range Organics (GRO) -C5-C12	500	506		ug/L		101	71 - 125	3	20

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	100		67 - 130
1,2-Dichloroethane-d4 (Surr)	113		72 - 130
Toluene-d8 (Surr)	100		70 - 130

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

**Lab Sample ID: MB 720-202156/1-A**  
**Matrix: Water**  
**Analysis Batch: 202145**

**Client Sample ID: Method Blank**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 202156**

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics [C10-C28]	ND		50		ug/L		05/12/16 09:59	05/12/16 18:58	1
Motor Oil Range Organics [C24-C36]	ND		99		ug/L		05/12/16 09:59	05/12/16 18:58	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Capric Acid (Surr)	0.01		0 - 5	05/12/16 09:59	05/12/16 18:58	1
p-Terphenyl	94		31 - 150	05/12/16 09:59	05/12/16 18:58	1

**Lab Sample ID: LCS 720-202156/2-A**  
**Matrix: Water**  
**Analysis Batch: 202145**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Silica Gel Cleanup**  
**Prep Batch: 202156**

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Diesel Range Organics [C10-C28]	2500	1680		ug/L		67	32 - 119

Surrogate	LCS		Limits
	%Recovery	Qualifier	
p-Terphenyl	72		31 - 150

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# QC Sample Results

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

TestAmerica Job ID: 720-72163-1

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

Lab Sample ID: LCSD 720-202156/3-A  
Matrix: Water  
Analysis Batch: 202145

Client Sample ID: Lab Control Sample Dup  
Prep Type: Silica Gel Cleanup  
Prep Batch: 202156

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	2500	1430		ug/L		57	32 - 119	16	35
<b>Surrogate</b>		<b>LCSD %Recovery</b>	<b>LCSD Qualifier</b>						<b>Limits</b>
<i>p-Terphenyl</i>		74							31 - 150

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# QC Association Summary

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

TestAmerica Job ID: 720-72163-1

## GC/MS VOA

### Analysis Batch: 202403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72163-1	MW1	Total/NA	Water	8260B/CA_LUFT MS	
720-72163-2	MW2	Total/NA	Water	8260B/CA_LUFT MS	
720-72163-2 MS	MW2	Total/NA	Water	8260B/CA_LUFT MS	
720-72163-2 MSD	MW2	Total/NA	Water	8260B/CA_LUFT MS	
720-72163-3	MW3	Total/NA	Water	8260B/CA_LUFT MS	
720-72163-5	TRIP BLANK	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-202403/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-202403/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-202403/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-202403/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-202403/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

### Analysis Batch: 202492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72163-1	MW1	Total/NA	Water	8260B/CA_LUFT MS	
720-72163-3	MW3	Total/NA	Water	8260B/CA_LUFT MS	
720-72163-4	MW4	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-202492/6	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-202492/8	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-202492/7	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-202492/9	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-202492/5	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

## GC Semi VOA

### Analysis Batch: 202144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72163-1	MW1	Silica Gel Cleanup	Water	8015B	202156
720-72163-2	MW2	Silica Gel Cleanup	Water	8015B	202156
720-72163-4	MW4	Silica Gel Cleanup	Water	8015B	202156

### Analysis Batch: 202145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72163-3	MW3	Silica Gel Cleanup	Water	8015B	202156
LCS 720-202156/2-A	Lab Control Sample	Silica Gel Cleanup	Water	8015B	202156
LCSD 720-202156/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	8015B	202156

TestAmerica Pleasanton

# QC Association Summary

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

TestAmerica Job ID: 720-72163-1

## GC Semi VOA (Continued)

### Analysis Batch: 202145 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-202156/1-A	Method Blank	Silica Gel Cleanup	Water	8015B	202156

### Prep Batch: 202156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-72163-1	MW1	Silica Gel Cleanup	Water	3510C SGC	
720-72163-2	MW2	Silica Gel Cleanup	Water	3510C SGC	
720-72163-3	MW3	Silica Gel Cleanup	Water	3510C SGC	
720-72163-4	MW4	Silica Gel Cleanup	Water	3510C SGC	
LCS 720-202156/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	
LCSD 720-202156/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	
MB 720-202156/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	



# Lab Chronicle

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

TestAmerica Job ID: 720-72163-1

## Client Sample ID: MW1

Date Collected: 05/11/16 15:30

Date Received: 05/11/16 17:44

## Lab Sample ID: 720-72163-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		10	202403	05/17/16 12:40	LPL	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		100	202492	05/18/16 11:52	LPL	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			202156	05/12/16 12:29	NDU	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	202144	05/12/16 17:44	JXL	TAL PLS

## Client Sample ID: MW2

Date Collected: 05/11/16 13:40

Date Received: 05/11/16 17:44

## Lab Sample ID: 720-72163-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	202403	05/17/16 12:11	LPL	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			202156	05/12/16 12:29	NDU	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	202144	05/12/16 18:09	JXL	TAL PLS

## Client Sample ID: MW3

Date Collected: 05/11/16 14:25

Date Received: 05/11/16 17:44

## Lab Sample ID: 720-72163-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		100	202403	05/17/16 13:10	LPL	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		500	202492	05/18/16 12:19	LPL	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			202156	05/12/16 12:29	NDU	TAL PLS
Silica Gel Cleanup	Analysis	8015B		5	202145	05/12/16 21:56	JXL	TAL PLS

## Client Sample ID: MW4

Date Collected: 05/11/16 16:00

Date Received: 05/11/16 17:44

## Lab Sample ID: 720-72163-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		500	202492	05/18/16 12:47	LPL	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			202156	05/12/16 12:29	NDU	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	202144	05/12/16 18:58	JXL	TAL PLS

## Client Sample ID: TRIP BLANK

Date Collected: 05/11/16 09:30

Date Received: 05/11/16 17:44

## Lab Sample ID: 720-72163-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	202403	05/17/16 11:12	LPL	TAL PLS

TestAmerica Pleasanton

# Lab Chronicle

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

TestAmerica Job ID: 720-72163-1

**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: 720-72163-1

## 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	01-31-17

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# Method Summary

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

TestAmerica Job ID: 720-72163-1

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



# Sample Summary

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

TestAmerica Job ID: 720-72163-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-72163-1	MW1	Water	05/11/16 15:30	05/11/16 17:44
720-72163-2	MW2	Water	05/11/16 13:40	05/11/16 17:44
720-72163-3	MW3	Water	05/11/16 14:25	05/11/16 17:44
720-72163-4	MW4	Water	05/11/16 16:00	05/11/16 17:44
720-72163-5	TRIP BLANK	Water	05/11/16 09:30	05/11/16 17:44

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# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1605486

**Report Created for:** Test America

1220 Quarry Lane  
Pleasanton, CA 94566

**Project Contact:** Dimple Sharma  
**Project P.O.:**  
**Project Name:** 72011870; Salvation Army

**Project Received:** 05/12/2016

Analytical Report reviewed & approved for release on 05/18/2016 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.*







## Glossary of Terms & Qualifier Definitions

**Client:** Test America  
**Project:** 72011870; Salvation Army  
**WorkOrder:** 1605486

### 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

J Result is less than the RL/ML but greater than the MDL. The reported concentration is an estimated value.



# Analytical Report

**Client:** Test America  
**Date Received:** 5/12/16 17:00  
**Date Prepared:** 5/13/16  
**Project:** 72011870; Salvation Army

**WorkOrder:** 1605486  
**Extraction Method:** SW3510C  
**Analytical Method:** MAI-Organic Pb  
**Unit:** µg/L

## Organic Lead (speciated)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW1(720-72163-1)	1605486-001A	Water	05/11/2016 15:30	GC8	120910

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Tetraethyl Lead	ND		0.053	0.12	1	05/14/2016 01:12
Tetramethyl Lead	<b>0.023</b>	J	0.021	0.12	1	05/14/2016 01:12
Surrogates	REC (%)			Limits		
2-Fluorobiphenyl	98			50-150		05/14/2016 01:12

Analyst(s): TD

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW3 (720-72163-3)	1605486-002A	Water	05/11/2016 14:25	GC8	120910

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Tetraethyl Lead	<b>0.23</b>		0.053	0.12	1	05/14/2016 03:42
Tetramethyl Lead	ND		0.021	0.12	1	05/14/2016 03:42
Surrogates	REC (%)			Limits		
2-Fluorobiphenyl	98			50-150		05/14/2016 03:42

Analyst(s): TD

 Angela Rydelius, Lab Manager



# Quality Control Report

**Client:** Test America  
**Date Prepared:** 5/13/16  
**Date Analyzed:** 5/13/16  
**Instrument:** GC8  
**Matrix:** Water  
**Project:** 72011870; Salvation Army

**WorkOrder:** 1605486  
**BatchID:** 120910  
**Extraction Method:** SW3510C  
**Analytical Method:** MAI-Organic Pb  
**Unit:** µg/L  
**Sample ID:** MB/LCS-120910  
1605486-001AMS/MSD

## QC Summary Report for Organic Lead

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Tetraethyl Lead	ND	2.23	0.053	0.12	2.5	-	89	50-150
Tetramethyl Lead	ND	2.16	0.021	0.12	2.5	-	87	50-150
<b>Surrogate Recovery</b>								
2-Fluorobiphenyl	2.46	2.48			2.5	99	99	50-150

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Tetraethyl Lead	2.05	2.00	2.5	ND	82	80	50-150	2.08	30
Tetramethyl Lead	2.23	2.14	2.5	ND	88	85	50-150	4.18	30
<b>Surrogate Recovery</b>									
2-Fluorobiphenyl	2.46	2.47	2.5		98	99	50-150	0.533	30





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

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1605486

ClientCode: TAM

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQulS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**

Dimple Sharma  
 Test America  
 1220 Quarry Lane  
 Pleasanton, CA 94566  
 (925) 484-1919    FAX: (925) 600-3002

Email: dimple.sharma@testamericainc.com  
 cc/3rd Party:  
 PO:  
 ProjectNo: 72011870; Salvation Army

**Bill to:**

Accounts Payable  
 TestAmerica  
 4101 Shuffel Street NW  
 North Canton, OH 44720  
 AccountsPayable@testamericainc.com

**Requested TAT: 5 days;**

**Date Received: 05/12/2016**

**Date Logged: 05/12/2016**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)													
					1	2	3	4	5	6	7	8	9	10	11	12		
1605486-001	MW1(720-72163-1)	Water	5/11/2016 15:30	<input type="checkbox"/>	A													
1605486-002	MW3(720-72163-3)	Water	5/11/2016 14:25	<input type="checkbox"/>	A													

**Test Legend:**

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

Prepared by: Valerie Riva

Comments: NO MDLs

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.



## WORK ORDER SUMMARY

**Client Name:** TEST AMERICA

**QC Level:** LEVEL 2

**Work Order:** 1605486

**Project:** 72011870; Salvation Army

**Client Contact:** Dimple Sharma

**Date Logged:** 5/12/2016

**Comments:** NO MDLs

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

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1605486-001A	MW1(720-72163-1)	Water	Organic Lead (speciated)	2	aVOA	<input type="checkbox"/>	5/11/2016 15:30	5 days	Present	<input type="checkbox"/>	
1605486-002A	MW3 (720-72163-3)	Water	Organic Lead (speciated)	2	aVOA	<input type="checkbox"/>	5/11/2016 14:25	5 days	Present	<input type="checkbox"/>	

**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.







Sample Receipt Checklist

Client Name: Test America Date and Time Received: 5/12/2016 17:00
Project Name: 72011870; Salvation Army Date Logged: 5/12/2016
WorkOrder No: 1605486 Matrix: Water Received by: Valerie Riva
Carrier: Benjamin Yslas (MAI Courier) Logged by: Valerie Riva

Chain of Custody (COC) Information

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

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes [ ] No [ ] NA [checked]
Shipping container/cooler in good condition? Yes [checked] No [ ]
Samples in proper containers/bottles? Yes [checked] No [ ]
Sample containers intact? Yes [checked] No [ ]
Sufficient sample volume for indicated test? Yes [checked] No [ ]

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes [checked] No [ ]
Sample/Temp Blank temperature Temp: 12.4°C NA [ ]
Water - VOA vials have zero headspace / no bubbles? Yes [checked] No [ ] NA [ ]
Sample labels checked for correct preservation? Yes [checked] No [ ]
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)? Yes [ ] No [ ] NA [checked]
Samples Received on Ice? Yes [checked] No [ ]
(Ice Type: WET ICE )

UCMR3 Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522? Yes [ ] No [ ] NA [checked]
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539? Yes [ ] No [ ] NA [checked]

Comments:

1128591



1117 Lone Palm Ave Ste. 201B  
 Modesto, CA 95358  
 Main Line: (209) 579-2221  
 Facsimile (209) 579-2225

**CHAIN-OF-CUSTODY FORM**

Project Name: The Salvation Army - Oakland ARC Client: The Salvation Army  
 Project Number: Z054000006 Task: '0005 054A01 Global ID: T10000003428  
 Project Address: 601 Webster Oakland, CA  
 Laboratory Name: TestAmerica Contact: Dimple Sharma/Karen Maxwell  
 Laboratory Phone: (925) 484-1919  
 Lab Address: 1220 Quarry Lane  
 Lab City: Pleasanton, Ca 94566  
 ATC Project Manager: Mike Sonke

ATC PM Ph. No.: 209-579-2221 Email: mike.sonke@atcassociates.com  
 ATC Sampler: Jim Kondrat Email: gabe.stivala@atcassociates.com

Turnaround  STANDARD  5 day  24 hr  
 Time:  10 day  3 day  2-8 hr  
 (working days)  7 day  2 day

**720-72163**

ATC Sample ID	Sample Information						Container Information						Analytes	Method	Container Size	Comments				
	Date	Time	Matrix			No.	Type	Preservall VG (HCL/HNO 3 H2SO4)	Preserved	Field ID	TPHg	TPHd					TPHd w/Silica Gel Cleanup	TPHg/BTEX/5 Oxys	Semi-VOCs	Organic Lead Speciation
			Soil	Water	Vapor															
MW1	5-11-16	1530	X			7						X	X		X					
MW2		1340	X			5						X	X							
MW3		1425	X			7						X	X		X					
MW4		1600	X			5						X	X							
Trip Blank		0930	X			2							X							



Additional Comments: \_\_\_\_\_  EDF FORMAT

Relinquished By: [Signature] Date/Time: 5-17-16 1744 5-11-16 1744 [Signature]  
 Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

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# Login Sample Receipt Checklist

Client: ATC Group Services LLC.

Job Number: 720-72163-1

**Login Number: 72163**  
**List Number: 1**  
**Creator: Bullock, Tracy**

**List Source: TestAmerica Pleasanton**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	