THE SALVATION ARMY
USA Western Territory
Adult Rehabilitation Centers Command
180 East Ocean Boulevard, 3'd Floor
Long Beach, CA 90802-4709

FOUNDED IN 1865

October 18, 2016

Re: Quarterly Groundwater Monitoring and Site Status Report
Third 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

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

Modesto Branch
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October 17, 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**
Third 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 Third Quarter 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. The northeast portion of the site includes the truck enclosure area. This area is where the former underground storage tank (UST) system was located. Fencing or walls enclose the truck enclosure area, which is used for loading/unloading trucks and for overnight truck parking/security. **Figure 2,** Site Plan illustrates the pertinent site features and the surrounding area.

1.2. Site History

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 below ground surface (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 couldn't 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 that had sandy clay from 16 to 18 feet bgs.

Soil from the boring SB6 consisted of silty sand to a depth of approximately 5 feet bgs. Fine sand was encountered from 5 feet to 15 feet bgs, and silty sand was encountered between 15 feet and 20 feet, the maximum depth to which the boring was characterized.

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. **Section 3.1 provides** a summary of previous groundwater monitoring and sampling activities.

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 to the south. Lake Merritt lies approximately 3,250 feet to the east-northeast upgradient of the site.

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 four wells that might be functioning water extraction wells for beneficial uses and therefore identified as potential sensitive receptors. 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 has installed, developed, and sampled four groundwater monitoring wells at the site.

No soil contamination has been detected below 20 feet bgs. HSA Boring P2 in the northwest corner of the truck enclosure area defines both the adsorbed and dissolved phase PHCs in both vadose and saturated zones. Otherwise, the extent of dissolved phase and vapor phase PHCs remains largely undefined.

ATC anticipates assessing PHCs in soil vapor onsite underneath the ARC Building in the fourth 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 - THIRD QUARTER 2016

2.1. Completed Activities - Third Quarter 2016

1. ATC prepared and submitted *Q1&Q2 GWMR*, dated April 26, 2016 that included a description and summary of the initial quarter groundwater monitoring and sampling event that occurred on October 23, 2015.

2. ATC performed quarterly groundwater monitoring and sampling on August 16, 2016 and submitted them for laboratory analysis.

3. During the third quarter 2016 sampling on August 16, 2016, ATC detected 2.04 inches/0.17 feet of non-aqueous phase liquid (NAPL) in MW3. Consequently, in accordance with Title 23, California Code of Regulations, Chapter 16, Section 2655. On September 8, 2016, ATC installed a passive skimmer in MW-3.

4. On August 24, 2016, ATC collected a sample of the water standing in the elevator basement shaft and submitted it for laboratory analysis. The results are pending and will be reported separately in a future letter report.

3.0 QUARTERLY GROUNDWATER MONITORING AND SAMPLING ACTIVITIES & RESULTS

3.1. Summary of Previous Groundwater Monitoring and Sampling Activities

The history of groundwater monitoring at the site is short but ATC will track the following initial observations over time to test their validity.

3.1.1. Summary of Previous Groundwater Elevations and Hydrogeologic Conditions

During the previous three groundwater monitoring events, groundwater follow direction has consistently been to the southwest to west-southwest at an average gradient of 0.0119 feet/foot.

3.1.2. Summary of Analytical Results of Previous Groundwater Sampling

The highest concentrations of dissolved phase PHC have been detected in the groundwater samples collected from MW-3 and include reported concentrations of total petroleum hydrocarbons as gasoline (TPHg), total petroleum hydrocarbons as diesel (TPHd) and benzene, toluene, ethylbenzene, and total xylenes (BTEX). No fuel oxygenates were detected in any of the samples collected from the site's monitoring wells except for intermittent detections of low concentrations of MTBE in MW-1 and MW-4. In the second quarter of 2016[1], the speciated organic lead compounds tetramethyl lead (TML) and tetraethyl lead (TEL) were present. Tetramethyl lead was reported in MW1 at a concentration of 0.023 µg/L and tetraethyl lead was reported in MW3 at a concentration of 0.23 µg/L. Concentrations of 1,2-DCA have been intermittently reported for samples collected from MW-1 and MW-4.

3.2. Summary of Current Monitoring and Sampling Activities – Third Quarter 2016

3.2.1. Groundwater Monitoring

On August 16, 2016, the third Quarter 2016 monitoring and sampling was performed. Quarterly monitoring and sampling included collecting depth to groundwater measurements and collecting groundwater samples from the site's four monitoring wells (MW-1 through MW-4).

3.2.1.1. Groundwater Elevations and Hydrogeologic Conditions

The third Quarter 2016 monitoring and sampling event included collecting depth to groundwater measurements from four monitoring wells (MW-1 through MW-4).

During the first quarter 2016 sampling event, the calculated groundwater elevations ranged from a high of 12.12 feet (MW-1) to a low of 10.88 feet above msl in MW-4. Depth to water ranged from 10.88 to 19.96. Historical groundwater elevation data is presented in **Table 1**.

Based on groundwater elevations observed on August 16, for the third quarter 2016 the groundwater gradient and flow direction was towards the southwest at a gradient of offsite 0.124 feet per foot (**Figure 3)**. **Table 2** presents a summary of the calculated groundwater gradient calculations.

3.2.1.2. Groundwater Sample Collection Procedure

Prior to sampling, each well was purged, removing three well casing volumes of purge water using a new disposable polyethylene bailer for each well. While purging, groundwater parameters (pH,

[1] Inadvertently omitted from the previous quarterly report.

conductivity, temperature) were monitored and allowed to stabilize before water samples were collected. Prior to disposal, purged groundwater was contained on site in a 55-gallon drum. Groundwater sampling logs are included in **Appendix A**.

ATC placed the groundwater samples collected in a cooler with ice and transported them under standard chain-of-custody documentation procedures to state-certified laboratory TestAmerica, Inc. in Pleasanton, California for chemical analyses.

3.2.1.3. Analytical Results of Collected Groundwater Samples

Third quarter 2016 groundwater samples were analyzed utilizing USEPA Method 8260B for TPHg, BTEX, and fuel oxygenates and USEPA Method 8015B for total petroleum hydrocarbons as diesel (TPHd).

Laboratory analytical results indicated the following:

- TPHg was reported in the groundwater samples collected from all the monitoring wells in the monitoring well network. The highest concentration of TPHg was reported in MW-3 (110,000 µg/L) and the lowest concentration was in MW-2 (2,400 µg/L). These concentrations were slightly lower than last quarter. There is no applicable ESL for TPHg established for this case (vapor intrusion from groundwater).

- TPHd was reported in the groundwater samples collected from all the monitoring wells in the monitoring well network except MW-2. The highest concentration of TPHg occurred in MW-3 (9,200 µg/L) and the lowest concentrations in MW-4 (160 µg/L). There is no applicable ESL for TPHd established for this case (vapor intrusion from groundwater).

- Benzene was reported in the groundwater samples collected from all the monitoring wells in the monitoring well network. The highest concentration of TPHg occurred in MW-3 (90,000 µg/L) and the lowest concentrations in MW-2 (340 µg/L). All reported concentrations exceed the ESL for benzene of 260 µg/L

- Ethyl benzene was reported all collected groundwater samples, with one reported concentration, 14,000 µg/L in MW-3, exceeding the ESL of 3,300 µg/L.

- MTBE was reported in one well, MW-3 at a concentration of 130 µg/L and does not exceed the ESL of 130,000 µg/L.

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

- Organic Lead was not was detected in any of the groundwater samples collected from the monitoring well network this quarter. There is no applicable ESL for TML or TEL established for these analytes. Last quarter (second quarter of 2016), the speciated organic lead

compounds tetramethyl lead (TML) and tetraethyl lead (TEL) were reported[2]. Tetramethyl lead was reported in MW1 at a concentration of 0.023 µg/L and tetraethyl lead was reported in MW3 at a concentration of 0.23 µg/L. **Table 2** presents the **c**urrent and historical analytical results for constituents of concern (COCs)**. Figures 4** through **8**, respectively present the isoconcentrations for TPHg, TPHd, benzene, ethylbenzene, and MTBE for the first quarter of 2016. All laboratory analytical results reports are included in **Attachment B**.

3.2.2. Groundwater Sample – Elevator Shaft

On August 25, 2016, ATC used a disposable bailer to collect a water sample from the Freight Elevator shaft pit that is closest to Seventh Street. ATC placed the groundwater samples collected in a cooler with ice and transported under standard chain-of-custody documentation procedures to a state-certified laboratory CAEL in Ceres, California for chemical analyses.

While the origin of this water is not certain, an earlier ATC investigation did establish that groundwater is likely present within 2-7 feet below the basement floor surface. This investigation of the relative elevation of the building's elevator shafts is further detailed in ATC's *Report on Survey of Basement Elevation and Elevator Configuration, The Salvation Army ARC Building, 601 Webster Street, Oakland, California*, dated May 24, 2016.

Preliminary results show that water samples collected from the elevator shaft contain the following detected analytes.

Analyte	Result	MCL	Reporting Limit
	(µg/l)	(µg/l)	(µg/l)
$TPH_{o\&g}$	15,000,000	NE	20,000
TPH_d	820,000	NE	100,000
TPH_d	68	NE	50
Benzene	1.4	1.0	0.5
Naphthalene	1.0	170	1.0

$TPH_{o\&g}$ = Total Petroleum Hydrocarbons as Oil and Grease
NE = Not established

The laboratory analytical results report is included in **Attachment C**.

ATC is currently examining chromatograms and other measures to verify the validity of the results. When this investigation is completed, ATC will report these findings in a future letter report.

[2] Inadvertently omitted from the previous quarterly report.

In the meantime, TSA understands that the water is considered contaminated and therefore must not be disposed by conventional means of sewer or stormwater disposal, but must disposed by acceptable alternative legal means for water contaminated with petroleum products. TSA is currently looking for a qualified elevator service company to assist it with the elevator repairs and the lock out/tag out safety procedures that will allow them to recover and dispose of the accumulated water.

4.0 CONCLUSIONS

ATC concludes the following:

- In general, concentrations of dissolved phase PHC detected in groundwater samples collected from the monitoring well network trended down from the previous quarter.

- Results of the third quarter 2016 groundwater sampling event indicated concentrations of benzene and ethylbenzene in excess of their respective ESLs. The lateral extent benzene exceeding the ESL exceedances remains undefined, while the lateral extent of ethylbenzene exceeding the ESL is defined to the W, NW, N, and NE and remains undefined to the E, SE, S, and SW.

- NAPL PHC was reported at thickness of 0.17 feet 2.04 inches/ MW-3.

- There appears to be correlation between detected dissolved phase PHC and changes in groundwater elevation in MW-1 and MW-4 with dissolved phase PHC concentrations increasing with increased groundwater elevation.

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.
- Implement the proposed subslab vapor survey in the basement of the ARC building.
- Following implementation and reporting of the vapor survey, install additional monitoring wells to define the extent of benzene and ethylbenzene exceeding ESL in groundwater should be proposed following implementation and reporting of the vapor survey.
- Continue separate-phase PHC recovery using a passive skimmer in MW-3.
- Complete the evaluation of the sensitive receptor wells.

  Continue analyze and report the composition of the water sample collected from the 7th Street Freight elevator shaft.

6.0 PLANNED ACTIVITIES - FOURTH QUARTER 2016

6.1. Complete Quarterly Groundwater Monitoring, Sampling, and Reporting

The next quarterly groundwater monitoring and sampling is scheduled for November 15, 2016. ATC will prepare and submit a quarterly groundwater monitoring report after laboratory analytical results have been completed and received.

6.2. Complete 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 that may be involved with groundwater extraction and transfers.

6.3. Implement Soil Gas Intrusion Study (SGIS)

ATC will implement the work plan for soil gas intrusion study included in *Work Plan for Continued Subsurface Investigation, The Salvation Army, Adult Rehabilitation Center, 601 Webster Street, Oakland, California* dated February 24, 2015 with approval with modifications as described in ACEH's August 3, 2016 letter entitled, *Work Plan Authorization for a Soil Gas Investigation; Fuel Leak Case No. R00003084 and Geotracker Global ID T10000003428, The Salvation Army, 601 Webster St., Oakland, CA 94607.*

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. ATC makes no other warranties, expressed or implied.

TABLES

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

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

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

Table 2
Historical Groundwater Elevation Data
The Salvation Army
Adult Rehabilitation Center (ARC)
601 Webster Street
Oakland, California

Well ID	Screen Interval	Date Gauged	TOC	DTW	Groundwater Elevation
MW-1	(15-30)	10/23/15	32.08	20.50	11.58
		02/24/16	32.08	19.74	12.34
		05/11/16	32.08	19.45	12.63
		08/16/16	32.08	19.96	12.12
MW-2	(15-30)	10/23/15	30.12	18.91	11.21
		02/24/16	30.12	18.11	12.01
		05/11/16	30.12	17.87	12.25
		08/16/16	30.12	18.34	11.78
MW-3	(15-30)	10/23/15	30.45	19.08	11.37
		02/24/16	30.45	18.48	11.97
		05/11/16	30.45	18.02	12.43
		08/16/16	30.45	18.65	11.80
MW-4	(15-30)	10/23/15	30.65	20.23	10.42
		02/24/16	30.65	19.53	11.12
		05/11/16	30.65	19.22	11.43
		08/16/16	30.65	19.77	10.88

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

Table 3
Summary of Calculated
Groundwater Gradient Information
The Salvation Army
Adult Rehabilitation Center (ARC)
601 Webster Street
Oakland, California

Yr	Qtr	Date	Direction	Gradient (ft./ft.)
2015	4	10/23/15	w-sw	0.0104
2016	1	02/24/16	sw	0.0124
2016	2	05/11/16	w-sw	0.0125
2016	3	08/16/16	sw	0.0124

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

Table 4
Groundwater Sample
Analytical Results
The Salvation Army
Adult Rehabilitation Center (ARC)
601 Webster Street
Oakland, California

Water Samples Derived from Investigative Borings

Date	Sample ID	Note	TPH_g	TPH_d	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	ETBE	DIPE	TBA	TAME	1,2-DCA	EDB	TML	TEL
7/29/2013	SB1-W	1	210,000	NA	35,000	47,000	3,000	16,000	240	<50	<50	<500	<50	<50	<50	NA	NA
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	NA	NA
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	NA	NA
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	NA	NA
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	NA	NA
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	NA	NA
10/12/2015	L2-W	1	9,400	NA	1,300	2,100	240	1,200	<10	<10	<10	<100	<10	<10	<10	NA	NA
10/12/2015	L3-W	1	19,000	NA	2,200	2,200	470	2,300	<10	<10	<10	<100	<10	<10	<10	NA	NA
10/14/2015	L4-W	1	37,000	NA	4,000	6,200	800	4,300	<10	<10	<10	<100	<10	<10	<10	NA	NA
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	NA	NA

Table 4
Groundwater Sample
Analytical Results
The Salvation Army
Adult Rehabilitation Center (ARC)
601 Webster Street
Oakland, California

Water Samples Derived from Monitoring Wells

Date	Sample ID	Note	TPH_g	TPH_d	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	ETBE	DIPE	TBA	TAME	1,2-DCA	EDB	TML	TEL
10/23/2015	MW-1		18,000	NA	2,000	2,100	230	1,300	150	<5.0	<5.0	<50	<5.0	7.7	<5.0	NA	NA
2/24/2016	MW-1	2	6,500	1,500	1,600	1,200	110	700	90	<10	<10	<100	<10	<10	<10	NA	NA
5/11/2016	MW-1		28,000	1,200	7,600	5,400	750	2,800	770	<5.0	<5.0	<200	<5.0	NA	NA	0.023	<0.053
8/16/2016	MW-1		6,300	410	2,100	1,200	99	540	130	<5.0	<5.0	<200	<5.0	NA	NA	<0.021	<0.053
10/23/2015	MW-2		5,200	NA	520	870	120	560	<5.0	<5.0	<5.0	<50	<5.0	<5.0	<5.0	NA	NA
2/24/2016	MW-2	2	2,300	80	320	310	31	230	<5.0	<5.0	<5.0	<50	<5.0	<5.0	<5.0	NA	NA
5/11/2016	MW-2		1,000	<50	170	200	25	150	<0.5	<0.5	<0.5	<20	<0.5	NA	NA	<0.021	<0.053
8/16/2016	MW-2		2,400	<61	340	580	71	380	<0.5	<0.5	<0.5	<20	<0.5	NA	NA	<0.021	<0.053
10/23/2015	MW-3		7,300	NA	540	610	68	460	<5.0	<5.0	<5.0	<50	<5.0	<5.0	<5.0	NA	NA
2/24/2016	MW-3	2	190,000	270,000	1,000	25,000	4,400	23,000	<100	<100	<100	<1,000	<100	<100	<100	NA	NA
5/11/2016	MW-3		67,000	14,000	11,000	14,000	5,600	11,000	77	<50	<50	<2,000	<50	NA	NA	<0.021	0.23
8/16/2016	MW-3		110,000	9,200	9,100	20,000	14,000	23,000	<250	<250	<250	<10,000	<250	NA	NA	<0.021	<0.053
10/23/2015	MW-4		3,700	NA	440	210	72	160	<0.5	<0.5	<0.5	<5.0	<0.5	15	<0.5	NA	NA
2/24/2016	MW-4	2	<50	820	300	53	31	160	<5.0	<5.0	<5.0	<50	<5.0	7.4	<5.0	NA	NA
5/11/2016	MW-4		45,000	650	17,000	7,900	870	4,000	<250	<250	<250	<10,000	<250	NA	NA	NA	NA
8/16/2016	MW-4		5,900	160	1,200	500	87	350	<10	<10	<10	<400	<10	NA	NA	NA	NA
	ESLs		NE	NE	260	NE	3,300	NE	130,000	NE	NE	NE	NE	790	73	NE	NE

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

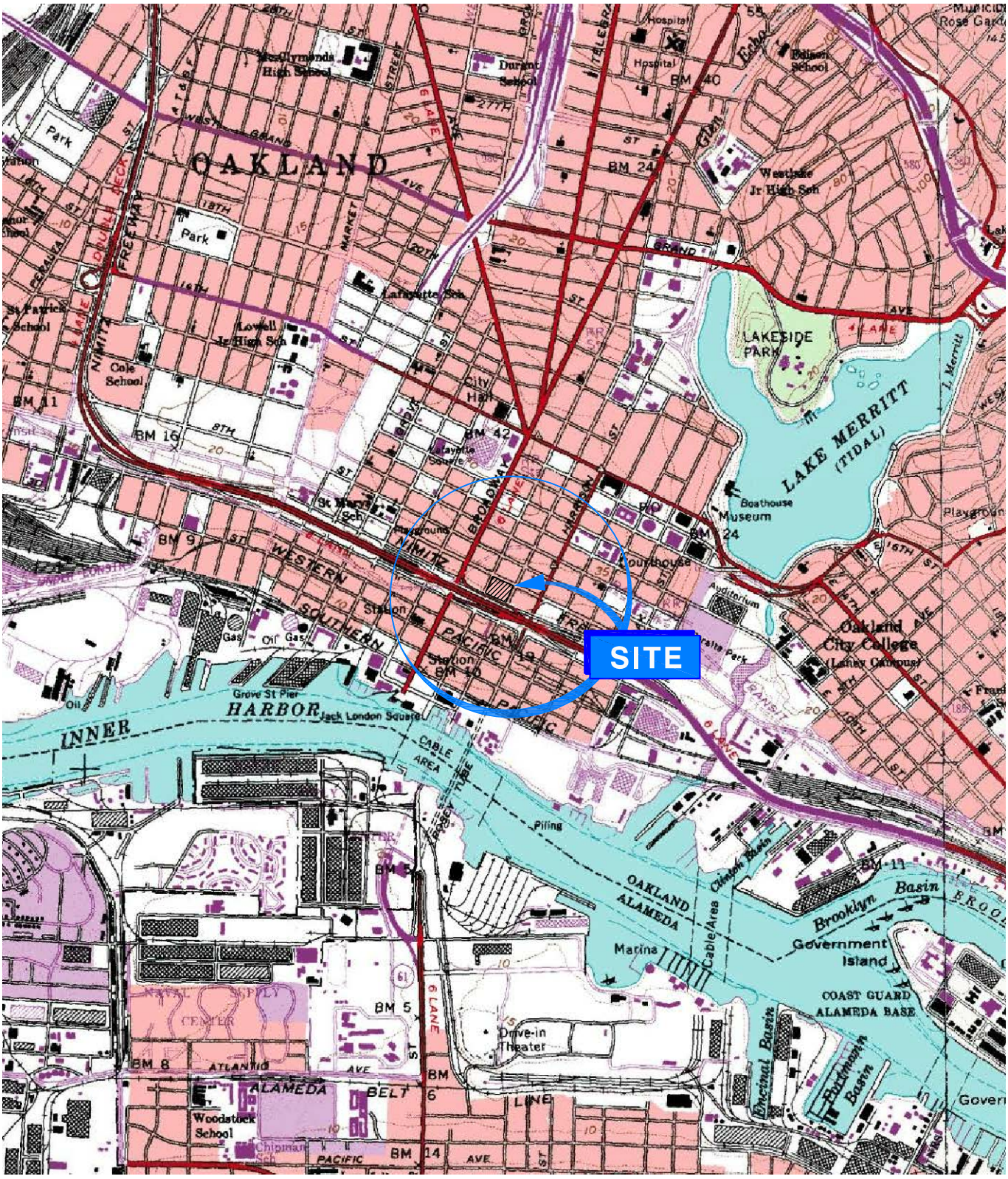
ESLs = Environmental Screening Levels for Groundwater Vapor Intrusion Human Health Risk Levels (Com/Ind: Fine to Coarse Scenario)

TEL = Tetra ethyl lead by EPA Method 8270 Modified

TML = Tetra methyl lead by EPA Method 8270 Modified

FIGURES

ENVIRONMENTAL • GEOTECHNICAL



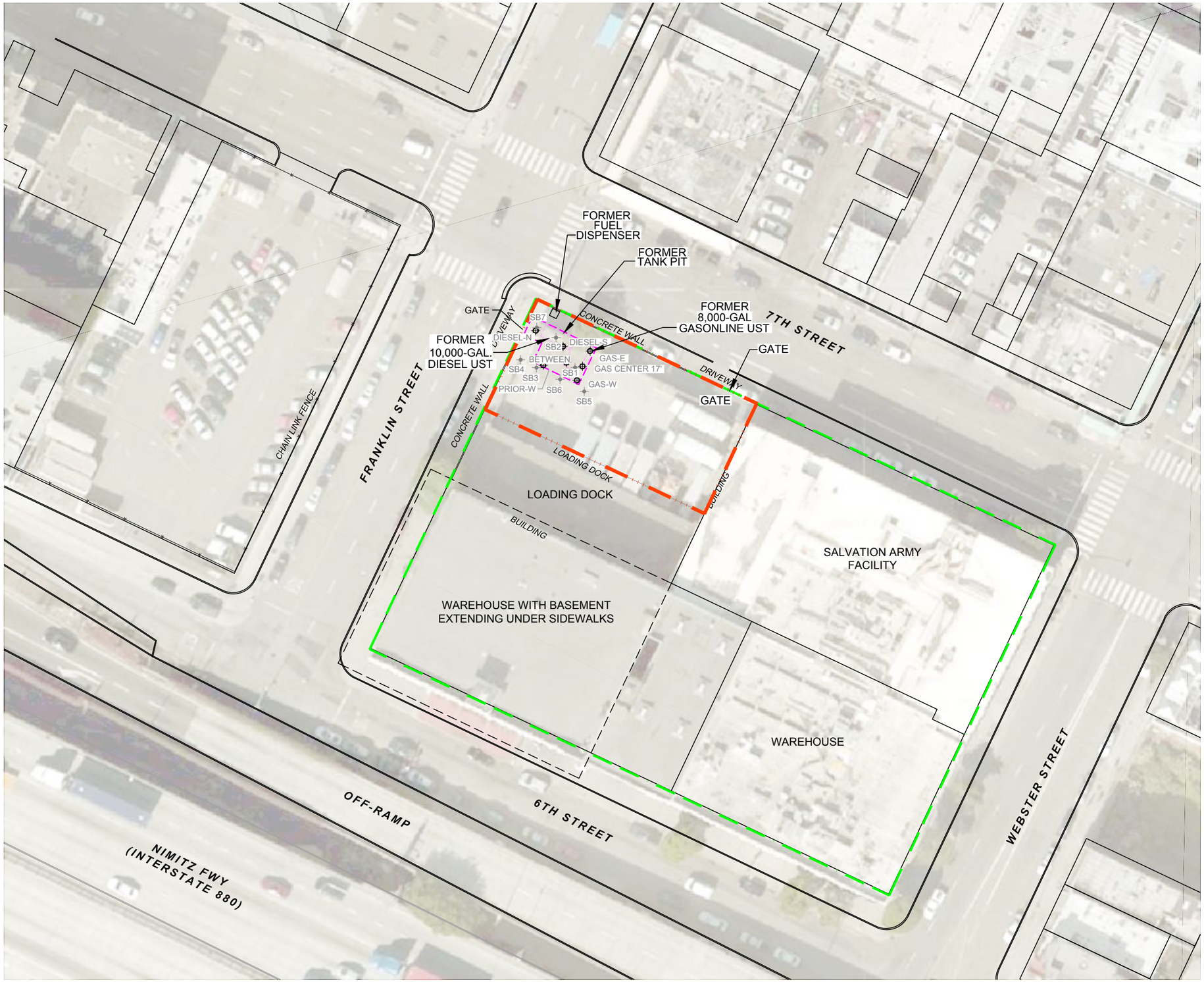
SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP
OAKLAND WEST QUADRANGLE, CALIFORNIA, DATE 1959, PHOTO-UPDATED 1980

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

FILE: M:\Enviromental\25026 – The Salvation Army\TSA–O–UST 601 Webster Oakland\Drawing & Figures\DWGs\04 Denise's CAD Folder\2015 4Q GW Contour 2.dwg



LEGEND

- APPROXIMATE FACILITY BOUNDARY
- FORMER UST
- FORMER EXCAVATION
- TRUCK ENCLOSURE AREA
- FORMER DIRECT PUSH BORING
- SOIL BORING

0 50' 100'

SCALE, FT

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

N

SITE PLAN

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: Z0540000066
APPROVED BY: M. SONKE
DATE: 12-8-15
DRAWN BY: DAW

FIGURE 2

ATC ENVIRONMENTAL • GEOTECHNICAL BUILDING SCIENCES • MATERIALS TESTING
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Modesto, California 95351
Ph: (209) 579-2221 *** Fax: (209) 579-2225

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GROUNDATER CONTOUR MAP - AUGUST 16, 2016

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: Z054000006		DATE: 9-16-16	FIGURE 6
APPROVED BY: M. SONKE		DRAWN BY: TH	

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FILE:

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

FILE:

TPHg in GROUNDWATER - AUGUST 16, 2016

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: Z054000006		DATE: 9-16-16	FIGURE 6
APPROVED BY: M. SONKE		DRAWN BY: TH	

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LEGEND

- APPROXIMATE FACILITY BOUNDARY
- FORMER UST
- FORMER EXCAVATION
- TRUCK ENCLOSURE AREA
- MONITORING WELL LOCATION
- 410 TPHd ISOCONCENTRATION (*ug*/L)
- TPHd ISOCONCENTRATION LINE

0 30' 60'

SCALE, FT

N

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

TPHd in GROUNDWATER - AUGUST 16, 2016

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: Z054000006		DATE: 9-16-16	FIGURE 8
APPROVED BY: M. SONKE		DRAWN BY: TH	

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Modesto, California 95351
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FILE:

LEGEND

- APPROXIMATE FACILITY BOUNDARY
- FORMER UST
- FORMER EXCAVATION
- TRUCK ENCLOSURE AREA
- MONITORING WELL LOCATION
- 2,100 BENZENE ISOCONCENTRATION (ug/L)
- BENZENE ISOCONCENTRATION LINE

SCALE, FT 0 30' 60'

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

N

BENZENE in GROUNDWATER - AUGUST 16, 2016

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: Z054000006		DATE: 9-16-16	FIGURE 10
APPROVED BY: M. SONKE		DRAWN BY: TH	

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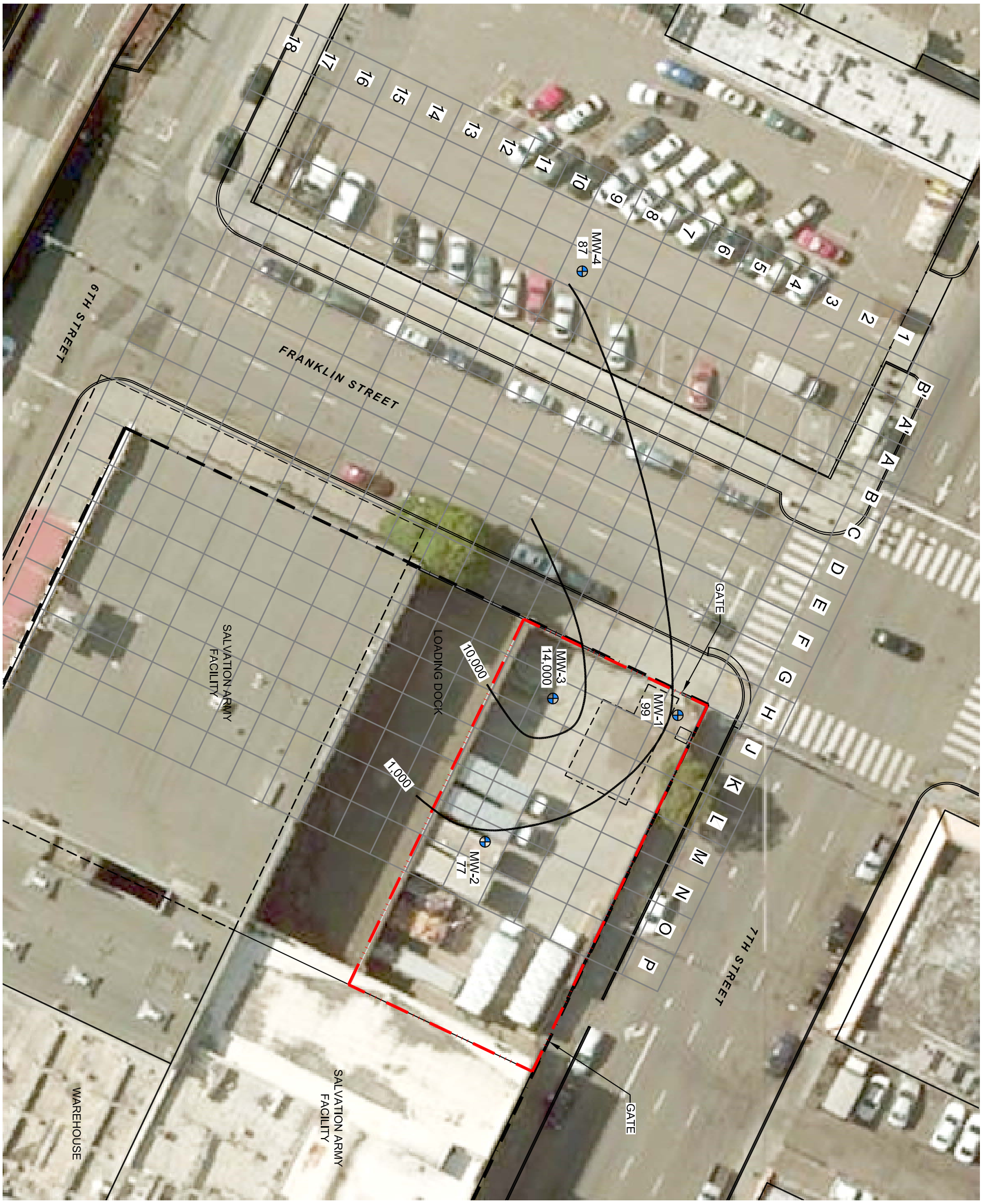

LEGEND

- APPROXIMATE FACILITY BOUNDARY
- FORMER UST
- FORMER EXCAVATION
- TRUCK ENCLOSURE AREA
- MONITORING WELL LOCATION
- 99 ETHYLBENZENE ISOCONCENTRATION (ug/L)
- ETHYLBENZENE ISOCONCENTRATION LINE

0 30' 60'

SCALE, FT

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

N

ETHYLBENZENE in GROUNDWATER - AUGUST 16, 2016

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: Z054000006		DATE: 9-26-16	FIGURE 10
APPROVED BY: M. SONKE		DRAWN BY: TH	

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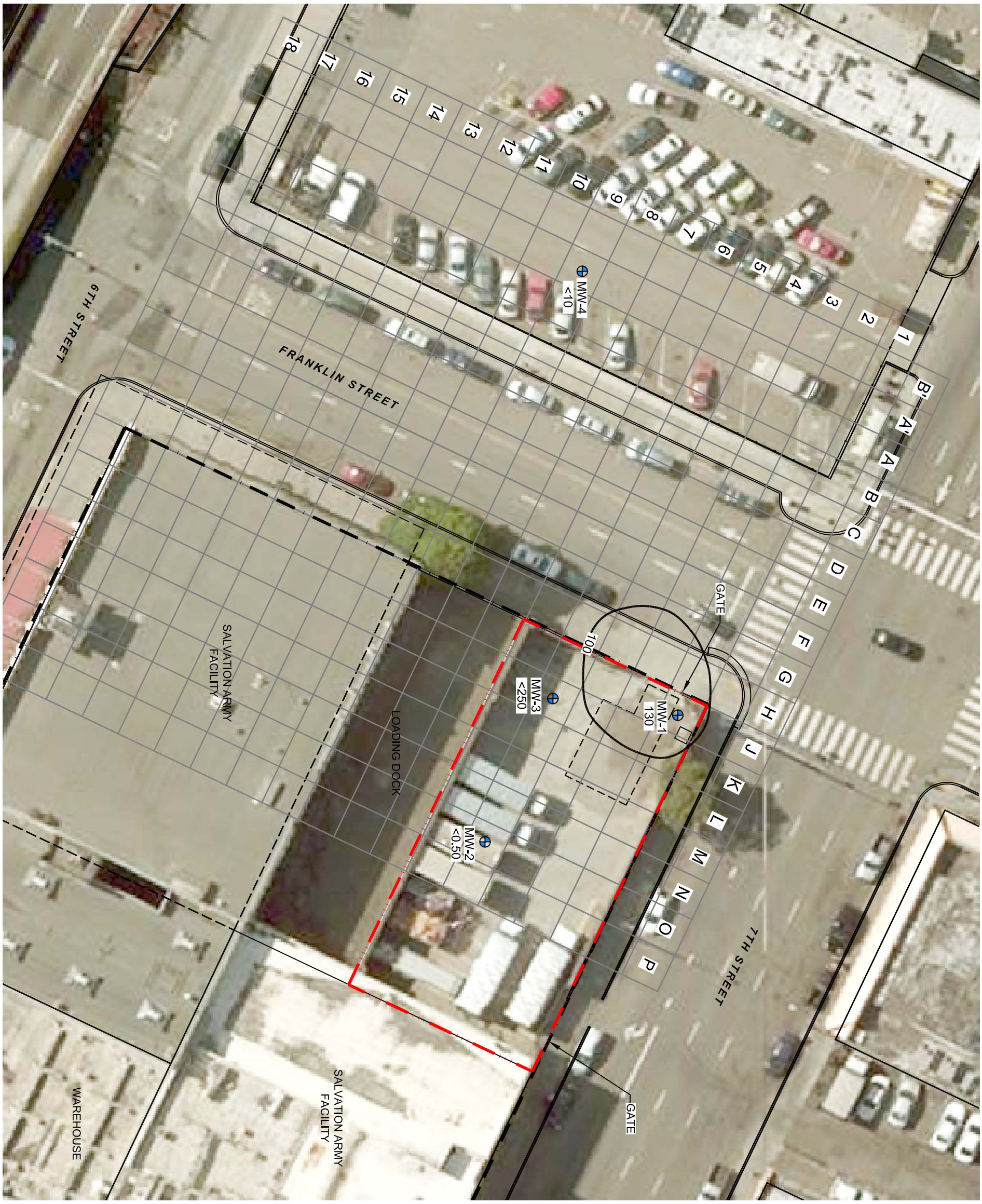

LEGEND

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

0 30' 60'

SCALE, FT

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

N

MTBE in GROUNDWATER - AUGUST 16, 2016

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: Z054000006		DATE: 9-16-16	FIGURE 12
APPROVED BY: M. SONKE		DRAWN BY: TH	

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Modesto, California 95351
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APPENDICES

ENVIRONMENTAL • GEOTECHNICAL

Appendix **A**

Groundwater Sampling Logs

Montoring Well Gauging Log

FLD-102
Revision 0.0
Jan-16

ATC Branch: **Modesto, CA**
Date: 081616
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: 05
Weather: Overcast
Temperature: 59 F
Water Level Meter Model/ID: Solinist 101/ 223605
Interface Probe Model/ID: Keck 100/ KIR 89

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	0705-0722	0758		19.96		29.72	Gas odor
MW-2	2	↓	0748		18.34		29.82	Gas odor
MW-3	2	↓	0810	18.48	18.65	0.17	29.75	LNAPL
MW-4	2	↓	0741		19.77		29.73	Gas odor.

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

Water meter calibration - Solinist & Keck @ MW-2
Solinist DTW = 18.34
Keck DTW = 18.30

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: 08/16/16	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: Overcast	Temperature: 62°F

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Solinist 101/ ~~212129~~ 223605	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

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

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

Purging Calculations

Casing Volumes (CV):
WC 9.76 x CM 0.16 = 1.56 (CV)(gal) x 3.0 CV (gal) = 4.68 PV

Monitoring Measurements

Depth to LNAPL (feet):	Total Well Depth (feet): 29.72
Depth to Water (DTW)(feet): 19.96	Water Column (WC)(feet): 9.76
LNAPL Thickness (ft):	Purging Start Time: 0930

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
0930	19.96	0.5	6.67	1.199	19.86			Begin hand bailing, Clear H2O, gasoline odor
0934	—	2.2	6.82	1.151	20.18			slightly sheen
0937	—	3.8	6.88	1.142	20.24			light grayish H2O
0940	21.88	5.2	6.91	1.137	20.29			Stop

Sample Data

Sample ID: MW- 1 Time of Sample: 1105

Container Types, Volumes, & Quantities:	Filtered (yes/no)	Preservatives	Analytical Parameters
Glass, 40mL, 3	No	HCl	BTEX 8260 TPHg EPA ~~8015m~~ Oxy's
Glass, ~~40mL, 2~~ 1 qt, 2	No	~~HCl~~ None	~~BTEX, Oxy's 5, TPHg~~
Plastic, 500ml, 1	No	None	Org Pb Speciation ~~1,2 DCA and EDB~~

Well Recovery Data

Maximum Drawdown (DTW*m*)(feet): 1.92	Approximate Flow Rate (GPM): 0.52
Recovery Type: ✓ Fast ____ Slow	% Recovery = 80.32

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

Comments: 5.2 gals purged.

Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Feb-16

ATC Branch: Modesto, Ca	Date: 081616	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- 2	Contractor:	
	Weather: Overcast	Temperature: 61°F

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Solinist 101/~~212129~~ 223605	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

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

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

Purging Calculations

Casing Volumes (CV): WC 11.48 CM 0.16 = 1.84 (CV)(gal) x 3.0 CV (gal) = 5.52 PV

Monitoring Measurements

Depth to LNAPL (feet):	Total Well Depth (feet): 29.82
Depth to Water (DTW)(feet): 18.34	Water Column (WC)(feet): 11.48
LNAPL Thickness (ft):	Purging Start Time: 0903

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
								Begin hand bailing
0903	18.34	0.5	6.70	1.243	19.16			Clear ltr.
0907	—	2.3	6.76	1.231	19.09			slight gas odor
0910	—	4.1	6.80	1.218	18.94			light brownish tint
0913	20.49	5.9	6.83	1.207	18.82			stop

Sample Data

Sample ID: MW- 2	Time of Sample: 1050	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				8260B
Glass, 40mL, 2	3	No	HCl	TPHg EPA ~~8015m~~
Glass, ~~40mL, 2~~	10, 2	No	NONE	~~BTEX, Oxy's 5~~
Plastic, 500ml,	1	NO	NONE	Org. Pb Speciation ~~1,2 DCA and EDB~~

Well Recovery Data

Maximum Drawdown (DTW*m*)(feet): 2.15	Approximate Flow Rate (GPM): 0.59
Recovery Type: ✓ Fast ____ Slow	% Recovery = 81.27

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

Comments: 5.9 gals purged.

Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Feb-16

ATC Branch: Modesto, Ca	Date: 08/16/16	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: Overcast	Temperature: 62°F

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Solinist 101/ ~~212129~~ 223605	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 11.10 x CM 0.16 = 1.78 (CV)(gal) x 3.0 CV (gal) = 5.34 PV

Monitoring Measurements

Depth to LNAPL (feet):	Total Well Depth (feet): 29.8 29.75
Depth to Water (DTW)(feet): 18.65	Water Column (WC)(feet): 11.10
LNAPL Thickness (ft):	Purging Start Time: 1005

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
1005	18.65	0.5	6.77	1.253	19.87			Begin hand bailing clear H_2O, sheen
1009	—	2.3	6.81	1.229	20.01			strong gas odor
1013	—	4.1	6.88	1.192	20.08			light gray/ish H_2O
1017	21.03	5.9	6.96	1.138	20.17			stop

Sample Data

Sample ID: MW-3	Time of Sample: 1125	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				BTEX, Oxy's 8260B
Glass, 40mL, ~~2~~ 3		No	HCl	TPHg EPA ~~8015m~~
Glass, ~~40mL, 2~~ 1Qt, 2		No	~~None~~ HCl	~~TPHd~~ ~~BTEX, Oxy's 5~~, Org. Pb Speciation ~~1,2 DCA and EDB~~
Plastic, 500ml, 1				

Well Recovery Data

Maximum Drawdown (DTW*m*)(feet): 2.38	Approximate Flow Rate (GPM): 0.492
Recovery Type: ✓ Fast ____ Slow	% Recovery = 78.55

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

Comments: 5.9 gals purged.

Monitoring Well Purging and Sampling Log

FLD-103 | Revision 1.0 | Feb-16

ATC Branch: Modesto, Ca	Date: 081616	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: Overcast	Temperature: 60°F

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Solinist 101/ ~~212129~~ 223605	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

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

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

Purging Calculations

Casing Volumes (CV):

WC 9.96 x CM 0.16 = 1.60 (CV)(gal) x 3.0 CV (gal) = 4.80 PV

Monitoring Measurements

Depth to LNAPL (feet):	Total Well Depth (feet): 29.73
Depth to Water (DTW)(feet): 19.77	Water Column (WC)(feet): 9.96
LNAPL Thickness (ft):	Purging Start Time: 0835

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
								Begin hand bailing
0835	19.77	0.5	6.72	1.070	20.08			Clear H_2O.
0839	—	2.1	6.76	1.082	20.25			slight gas odor
0842	—	3.7	6.84	1.091	20.36			light green olive H_2O
0845	21.16	5.3	6.86	1.088	2043			Stop.

Sample Data

Sample ID: MW-4	Time of Sample: 1030	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
Glass, 40mL, 2		No	HCl	TPHg EPA ~~8015m~~ 8260
Glass, 40mL, 2		No	HCl	BTEX, Oxy's 5
Glass, 1Qt, 2 TPHd.		NO	None	1,2 DCA and EDB

Well Recovery Data

Maximum Drawdown (DTW*m*)(feet): 1.39	Approximate Flow Rate (GPM): 0.53
Recovery Type: ✓ Fast ____ Slow	% Recovery = 86.04

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

Comments: 5.3 gals purged

1117 Lone Palm Ave., Suite 201B
Modesto, CA 95351
Main Line: (209) 579-2221
Facsimile: (209) 579-2225

CHAIN-OF-CUSTODY FORM

Project Name: The Salvation Army- Oakland ARC Client: ATC Group Servicess LLC
Project Number: Z054000006 Task: 0005 Global ID: T100000003428
Project Address: 601 Webster Street, Okland, CA
Laboratory: TestAmerica Contact: Dimple Sharma/ Karen Maxwell
Lab Address/Phone: 1220 Quarry Lane, Pleasanton, CA
ATC Project Manager: Mike Sonke
ATC PM Ph. No.: 209-579-2221 Email: mike.sonke@atcassociates.com
ATC Sampler: Alex Flores Email: gabe.stivala@atcassociates.com

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

ATC Sample ID	Sample Information: Date	Time	Matrix: Soil	Water	Vapor	Container Information: No.	Type	Preservative (HCL/HNO3 H2SO4)	Preserved	Ice	HCl	Field ID	Analyses Requested: TPH-g, BTEX, 5 Oxy's by EPA 8260B	TPH-d w/ silica gel clean up EPA 8015/3630C	Organic Lead Speciation EPA 8270 GC/ECD
MW-1	8/16/2016	1105		X		6	VOAS	HCL	X	3	3		X	X	X
MW-2	8/16/2016	1050		X		6	↓	↓	X	3	3		X	X	X
MW-3	8/16/2016	1125		X		6	↓	↓	X	3	3		X	X	X
MW-4	8/16/2016	1030		X		5	↓	↓	X	2	3		X	X	

Additional Comments:

X EDF FORMAT

Relinquished By: Alex Flores Date/Time: 08/16/ 1250 Received By: John Nuñez Date/Time: 8-16-16 1250
Relinquished By: ____ Date/Time: ____ Received By: ____ Date/Time: ____
Relinquished By: ____ Date/Time: ____ Received By: ____ Date/Time: ____

Sample Condition. Good? Yes ___ No ___ On Ice? Yes ___ No ___ Cooler Temp ____ Transportation Method: ____

Page _1__ of _1__ 7.4°

White - Lab Yellow - Lab Pink - ATC

Field Report

FLD100
Revision 0.0
Mar-16

ATC Branch: **54-Modesto**	Date: 081616	Page 1 of 1
ATC Representative(s): Alex Flores	Project: **The Salvation Army ARC**	
Role: Technician	Location: **601 Webster Avenue., Oakland, CA**	
Contact Information: Mike Sonke	Project No: **Z054000006**	Task No: **01**
Scope of Work: ✓ Monitoring ___ Assessment ___ Remediation ___ Closure	Weather: Overcast	Temperature: 59°F
	Contractor:	

Time:	Comments:
0705	Arrived to site. Tailgate Safety meeting. JSA, HASP
	Opened up monitoring wells: MW-4, 3, 2 & 1 Let gw equilibrate.
	Set up equipment decon. Alconox & rinsate water- pH meter calibration -
0741	Begin gauging - MW-4, 3, 2 & 1
0820	Completed well gauging.
0835	Begin purging, hand bail. all wells with disposable bailers - MW-4, 3, 1 & 2
1125	Sample all wells with disposable bailers.
	see chain of custody for lab analysis.
	Samples to TestAmerica SFO.
	Contained well purged water in a 55g drum. Labeled drum
	Cleaned up, load up.
1155	Left site.
1255	Delivered samples to Test America (SFO).

Calibration of:	Dissolved Oxygen	pH	pH	Cond.	ORP	Unit Inspection: (Pass) / Fail	
meter type: YSI 556	(%)	(7.00)	(4.00)	(1.413) (mS/cm)	(220) (mV)	Battery levels:	80
						Screen / Casing:	
Pre / Post	99.1 / 100.0	7.01 / 7.00	4.03 / 4.00	1.408 / 1.413	221.1 / 220.0	Commets:	

Calibration Solution Expiration Date: 03/2017	Cable Unit Serial No.: 11J77
	Handheld Unit Serial No.: 04L 1783 AD.
Copies To: Mike S.	Project Manager: Mike Sonke.
	Reviewed By:

Appendix **B**

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

ENVIRONMENTAL • GEOTECHNICAL

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: 720-73962-1
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:
8/23/2016 3:44:42 PM

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

Table of Contents

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

TestAmerica Job ID: 720-73962-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Glossary

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

Job ID: 720-73962-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-73962-1

Comments
No additional comments.

Receipt
The samples were received on 8/16/2016 12:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 7.4° C.

Receipt Exceptions

Received improper containers for O-Lead Speciation. Used 1 of the 2 ambers for diesel for O-Lead.

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

GC Semi VOA
Method 8015B: Capric acid Surrogate recovery for the following sample was outside control limits: MW-3 (720-73962-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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: 720-73962-1

Client Sample ID: MW-1 — Lab Sample ID: 720-73962-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	130		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Benzene	2100		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	99		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Toluene	1200		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	540		100		ug/L	100		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	6300		5000		ug/L	100		8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	410		61		ug/L	1		8015B	Silica Gel Cleanup

Client Sample ID: MW-2 — Lab Sample ID: 720-73962-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	340		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	71		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Toluene	580		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	380		10		ug/L	10		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	2400		500		ug/L	10		8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-3 — Lab Sample ID: 720-73962-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	9100		500		ug/L	1000		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	14000		250		ug/L	500		8260B/CA_LUFT MS	Total/NA
Toluene	20000		500		ug/L	1000		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	23000		1000		ug/L	1000		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	110000		50000		ug/L	1000		8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	9200		120		ug/L	2		8015B	Silica Gel Cleanup

Client Sample ID: MW-4 — Lab Sample ID: 720-73962-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1200		10		ug/L	20		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	87		10		ug/L	20		8260B/CA_LUFT MS	Total/NA
Toluene	500		10		ug/L	20		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	350		20		ug/L	20		8260B/CA_LUFT MS	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

TestAmerica Job ID: 720-73962-1

Client Sample ID: MW-4 (Continued)

Lab Sample ID: 720-73962-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics (GRO) -C5-C12	5900		1000		ug/L	20		8260B/CA_LUFT MS	Total/NA
Diesel Range Organics [C10-C28]	160		50		ug/L	1		8015B	Silica Gel Cleanup

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-1
Date Collected: 08/16/16 11:05
Date Received: 08/16/16 12:50

Lab Sample ID: 720-73962-1
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	**130**		50		ug/L			08/16/16 16:49	100
Benzene	**2100**		50		ug/L			08/16/16 16:49	100
Ethylbenzene	**99**		50		ug/L			08/16/16 16:49	100
Toluene	**1200**		50		ug/L			08/16/16 16:49	100
Xylenes, Total	**540**		100		ug/L			08/16/16 16:49	100
Gasoline Range Organics (GRO) -C5-C12	**6300**		5000		ug/L			08/16/16 16:49	100
TBA	ND		2000		ug/L			08/16/16 16:49	100
DIPE	ND		50		ug/L			08/16/16 16:49	100
TAME	ND		50		ug/L			08/16/16 16:49	100
Ethyl t-butyl ether	ND		50		ug/L			08/16/16 16:49	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*67 - 130*		*08/16/16 16:49*	*100*
1,2-Dichloroethane-d4 (Surr)	*97*		*72 - 130*		*08/16/16 16:49*	*100*
Toluene-d8 (Surr)	*98*		*70 - 130*		*08/16/16 16:49*	*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]	**410**		61		ug/L		08/17/16 11:05	08/17/16 23:28	1
Motor Oil Range Organics [C24-C36]	ND		120		ug/L		08/17/16 11:05	08/17/16 23:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.2*		*0 - 5*	*08/17/16 11:05*	*08/17/16 23:28*	*1*
p-Terphenyl	*83*		*31 - 150*	*08/17/16 11:05*	*08/17/16 23:28*	*1*

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

TestAmerica Job ID: 720-73962-1

Client Sample ID: MW-2
Date Collected: 08/16/16 10:50
Date Received: 08/16/16 12:50

Lab Sample ID: 720-73962-2
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			08/16/16 17:17	1
Benzene	**340**		5.0		ug/L			08/22/16 14:34	10
Ethylbenzene	**71**		0.50		ug/L			08/16/16 17:17	1
Toluene	**580**		5.0		ug/L			08/22/16 14:34	10
Xylenes, Total	**380**		10		ug/L			08/22/16 14:34	10
Gasoline Range Organics (GRO) -C5-C12	**2400**		500		ug/L			08/22/16 14:34	10
TBA	ND		20		ug/L			08/16/16 17:17	1
DIPE	ND		0.50		ug/L			08/16/16 17:17	1
TAME	ND		0.50		ug/L			08/16/16 17:17	1
Ethyl t-butyl ether	ND		0.50		ug/L			08/16/16 17:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*67 - 130*		*08/16/16 17:17*	*1*
4-Bromofluorobenzene	*100*		*67 - 130*		*08/22/16 14:34*	*10*
1,2-Dichloroethane-d4 (Surr)	*102*		*72 - 130*		*08/16/16 17:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*72 - 130*		*08/22/16 14:34*	*10*
Toluene-d8 (Surr)	*102*		*70 - 130*		*08/16/16 17:17*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*08/22/16 14:34*	*10*

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		61		ug/L		08/17/16 11:05	08/17/16 23:52	1
Motor Oil Range Organics [C24-C36]	ND		120		ug/L		08/17/16 11:05	08/17/16 23:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.0007*		*0 - 5*	*08/17/16 11:05*	*08/17/16 23:52*	*1*
p-Terphenyl	*83*		*31 - 150*	*08/17/16 11:05*	*08/17/16 23:52*	*1*

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

TestAmerica Job ID: 720-73962-1

Client Sample ID: MW-3
Date Collected: 08/16/16 11:25
Date Received: 08/16/16 12:50

Lab Sample ID: 720-73962-3
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	ND		250		ug/L			08/16/16 17:45	500
Benzene	**9100**		500		ug/L			08/22/16 15:03	1000
Ethylbenzene	**14000**		250		ug/L			08/16/16 17:45	500
Toluene	**20000**		500		ug/L			08/22/16 15:03	1000
Xylenes, Total	**23000**		1000		ug/L			08/22/16 15:03	1000
Gasoline Range Organics (GRO) -C5-C12	**110000**		50000		ug/L			08/22/16 15:03	1000
TBA	ND		10000		ug/L			08/16/16 17:45	500
DIPE	ND		250		ug/L			08/16/16 17:45	500
TAME	ND		250		ug/L			08/16/16 17:45	500
Ethyl t-butyl ether	ND		250		ug/L			08/16/16 17:45	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*67 - 130*		*08/16/16 17:45*	*500*
4-Bromofluorobenzene	*98*		*67 - 130*		*08/22/16 15:03*	*1000*
1,2-Dichloroethane-d4 (Surr)	*98*		*72 - 130*		*08/16/16 17:45*	*500*
1,2-Dichloroethane-d4 (Surr)	*106*		*72 - 130*		*08/22/16 15:03*	*1000*
Toluene-d8 (Surr)	*100*		*70 - 130*		*08/16/16 17:45*	*500*
Toluene-d8 (Surr)	*97*		*70 - 130*		*08/22/16 15:03*	*1000*

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]	**9200**		120		ug/L		08/17/16 11:05	08/18/16 11:50	2
Motor Oil Range Organics [C24-C36]	ND		250		ug/L		08/17/16 11:05	08/18/16 11:50	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*8*	*X*	*0 - 5*	*08/17/16 11:05*	*08/18/16 11:50*	*2*
p-Terphenyl	*82*		*31 - 150*	*08/17/16 11:05*	*08/18/16 11:50*	*2*

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

TestAmerica Job ID: 720-73962-1

Client Sample ID: MW-4
Date Collected: 08/16/16 10:30
Date Received: 08/16/16 12:50

Lab Sample ID: 720-73962-4
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		10		ug/L			08/22/16 15:32	20
Benzene	**1200**		10		ug/L			08/22/16 15:32	20
Ethylbenzene	**87**		10		ug/L			08/22/16 15:32	20
Toluene	**500**		10		ug/L			08/22/16 15:32	20
Xylenes, Total	**350**		20		ug/L			08/22/16 15:32	20
Gasoline Range Organics (GRO) -C5-C12	**5900**		1000		ug/L			08/22/16 15:32	20
TBA	ND		400		ug/L			08/22/16 15:32	20
DIPE	ND		10		ug/L			08/22/16 15:32	20
TAME	ND		10		ug/L			08/22/16 15:32	20
Ethyl t-butyl ether	ND		10		ug/L			08/22/16 15:32	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*67 - 130*		*08/22/16 15:32*	*20*
1,2-Dichloroethane-d4 (Surr)	*109*		*72 - 130*		*08/22/16 15:32*	*20*
Toluene-d8 (Surr)	*99*		*70 - 130*		*08/22/16 15:32*	*20*

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]	**160**		50		ug/L		08/17/16 11:05	08/18/16 11:26	1
Motor Oil Range Organics [C24-C36]	ND		100		ug/L		08/17/16 11:05	08/18/16 11:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.005*		*0 - 5*	*08/17/16 11:05*	*08/18/16 11:26*	*1*
p-Terphenyl	*66*		*31 - 150*	*08/17/16 11:05*	*08/18/16 11:26*	*1*

Surrogate Summary

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

TestAmerica Job ID: 720-73962-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	12DCE	TOL
Lab Sample ID	Client Sample ID	(67-130)	(72-130)	(70-130)
720-73962-1	MW-1	97	97	98
720-73962-2	MW-2	100	102	102
720-73962-2	MW-2	100	109	98
720-73962-3	MW-3	101	98	100
720-73962-3	MW-3	98	106	97
720-73962-4	MW-4	102	109	99
LCS 720-207677/5	Lab Control Sample	97	94	99
LCS 720-207677/7	Lab Control Sample	97	98	100
LCS 720-207986/7	Lab Control Sample	105	105	104
LCS 720-207986/9	Lab Control Sample	101	101	102
LCSD 720-207677/6	Lab Control Sample Dup	96	96	100
LCSD 720-207677/8	Lab Control Sample Dup	96	98	100
LCSD 720-207986/10	Lab Control Sample Dup	105	102	103
LCSD 720-207986/8	Lab Control Sample Dup	107	99	102
MB 720-207677/4	Method Blank	99	96	98
MB 720-207986/6	Method Blank	97	109	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**

		Percent Surrogate Recovery (Acceptance Limits)	
		NDA1	PTP1
Lab Sample ID	Client Sample ID	(0-5)	(31-150)
720-73962-1	MW-1	0.2	83
720-73962-2	MW-2	0.0007	83
720-73962-3	MW-3	8 X	82
720-73962-4	MW-4	0.005	66
LCS 720-207777/2-A	Lab Control Sample		85
LCSD 720-207777/3-A	Lab Control Sample Dup		74
MB 720-207777/1-A	Method Blank	0.001	78

Surrogate Legend

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

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Lab Sample ID: MB 720-207677/4
Matrix: Water
Analysis Batch: 207677

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			08/16/16 08:23	1
Benzene	ND		0.50		ug/L			08/16/16 08:23	1
Ethylbenzene	ND		0.50		ug/L			08/16/16 08:23	1
Toluene	ND		0.50		ug/L			08/16/16 08:23	1
Xylenes, Total	ND		1.0		ug/L			08/16/16 08:23	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			08/16/16 08:23	1
TBA	ND		20		ug/L			08/16/16 08:23	1
DIPE	ND		0.50		ug/L			08/16/16 08:23	1
TAME	ND		0.50		ug/L			08/16/16 08:23	1
Ethyl t-butyl ether	ND		0.50		ug/L			08/16/16 08:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*67 - 130*		*08/16/16 08:23*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*72 - 130*		*08/16/16 08:23*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*08/16/16 08:23*	*1*

Lab Sample ID: LCS 720-207677/5
Matrix: Water
Analysis Batch: 207677

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	24.9		ug/L		99	62 - 130
Benzene	25.0	25.1		ug/L		100	79 - 130
Ethylbenzene	25.0	24.4		ug/L		98	80 - 120
Toluene	25.0	24.6		ug/L		98	78 - 120
m-Xylene & p-Xylene	25.0	24.4		ug/L		98	70 - 142
o-Xylene	25.0	24.2		ug/L		97	70 - 130
TBA	250	252		ug/L		101	70 - 130
DIPE	25.0	26.1		ug/L		104	69 - 134
TAME	25.0	26.7		ug/L		107	79 - 130
Ethyl t-butyl ether	25.0	25.7		ug/L		103	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*94*		*72 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: LCS 720-207677/7
Matrix: Water
Analysis Batch: 207677

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	485		ug/L		97	71 - 125

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

Lab Sample ID: LCS 720-207677/7
Matrix: Water
Analysis Batch: 207677

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	*97*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*98*		*72 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 720-207677/6
Matrix: Water
Analysis Batch: 207677

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	25.3		ug/L		101	62 - 130	2	20
Benzene			25.0	24.9		ug/L		100	79 - 130	1	20
Ethylbenzene			25.0	24.5		ug/L		98	80 - 120	0	20
Toluene			25.0	24.4		ug/L		98	78 - 120	1	20
m-Xylene & p-Xylene			25.0	24.8		ug/L		99	70 - 142	1	20
o-Xylene			25.0	24.5		ug/L		98	70 - 130	1	20
TBA			250	252		ug/L		101	70 - 130	0	20
DIPE			25.0	26.2		ug/L		105	69 - 134	0	20
TAME			25.0	27.6		ug/L		110	79 - 130	3	20
Ethyl t-butyl ether			25.0	26.2		ug/L		105	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	*96*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*96*		*72 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 720-207677/8
Matrix: Water
Analysis Batch: 207677

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	480		ug/L		96	71 - 125	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	*96*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*98*		*72 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: MB 720-207986/6
Matrix: Water
Analysis Batch: 207986

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			08/22/16 09:14	1
Benzene	ND		0.50		ug/L			08/22/16 09:14	1
Ethylbenzene	ND		0.50		ug/L			08/22/16 09:14	1
Toluene	ND		0.50		ug/L			08/22/16 09:14	1
Xylenes, Total	ND		1.0		ug/L			08/22/16 09:14	1

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

Lab Sample ID: MB 720-207986/6
Matrix: Water
Analysis Batch: 207986

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			08/22/16 09:14	1
TBA	ND		20		ug/L			08/22/16 09:14	1
DIPE	ND		0.50		ug/L			08/22/16 09:14	1
TAME	ND		0.50		ug/L			08/22/16 09:14	1
Ethyl t-butyl ether	ND		0.50		ug/L			08/22/16 09:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*67 - 130*		*08/22/16 09:14*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*72 - 130*		*08/22/16 09:14*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*08/22/16 09:14*	*1*

Lab Sample ID: LCS 720-207986/7
Matrix: Water
Analysis Batch: 207986

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	28.3		ug/L		113	62 - 130
Benzene	25.0	28.6		ug/L		115	79 - 130
Ethylbenzene	25.0	28.9		ug/L		116	80 - 120
Toluene	25.0	27.2		ug/L		109	78 - 120
m-Xylene & p-Xylene	25.0	28.7		ug/L		115	70 - 142
o-Xylene	25.0	28.7		ug/L		115	70 - 130
TBA	250	276		ug/L		110	70 - 130
DIPE	25.0	28.7		ug/L		115	69 - 134
TAME	25.0	29.2		ug/L		117	79 - 130
Ethyl t-butyl ether	25.0	29.1		ug/L		117	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*105*		*72 - 130*
Toluene-d8 (Surr)	*104*		*70 - 130*

Lab Sample ID: LCS 720-207986/9
Matrix: Water
Analysis Batch: 207986

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	516		ug/L		103	71 - 125

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

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

Lab Sample ID: LCSD 720-207986/10
Matrix: Water
Analysis Batch: 207986

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	517		ug/L		103	71 - 125	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*102*		*72 - 130*
Toluene-d8 (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 720-207986/8
Matrix: Water
Analysis Batch: 207986

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	26.0		ug/L		104	62 - 130	8	20
Benzene			25.0	28.2		ug/L		113	79 - 130	2	20
Ethylbenzene			25.0	29.2		ug/L		117	80 - 120	1	20
Toluene			25.0	27.7		ug/L		111	78 - 120	2	20
m-Xylene & p-Xylene			25.0	28.8		ug/L		115	70 - 142	0	20
o-Xylene			25.0	29.1		ug/L		116	70 - 130	1	20
TBA			250	281		ug/L		112	70 - 130	2	20
DIPE			25.0	28.2		ug/L		113	69 - 134	2	20
TAME			25.0	27.0		ug/L		108	79 - 130	8	20
Ethyl t-butyl ether			25.0	27.4		ug/L		109	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*99*		*72 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

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

Lab Sample ID: MB 720-207777/1-A
Matrix: Water
Analysis Batch: 207752

Client Sample ID: Method Blank
Prep Type: Silica Gel Cleanup
Prep Batch: 207777

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		50		ug/L		08/17/16 11:05	08/18/16 03:06	1
Motor Oil Range Organics [C24-C36]	ND		99		ug/L		08/17/16 11:05	08/18/16 03:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.001*		*0 - 5*	*08/17/16 11:05*	*08/18/16 03:06*	*1*
p-Terphenyl	*78*		*31 - 150*	*08/17/16 11:05*	*08/18/16 03:06*	*1*

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

Lab Sample ID: LCS 720-207777/2-A
Matrix: Water
Analysis Batch: 207752

Client Sample ID: Lab Control Sample
Prep Type: Silica Gel Cleanup
Prep Batch: 207777

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics [C10-C28]			2500	1190		ug/L		48	32 - 119		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl	*85*		*31 - 150*

Lab Sample ID: LCSD 720-207777/3-A
Matrix: Water
Analysis Batch: 207752

Client Sample ID: Lab Control Sample Dup
Prep Type: Silica Gel Cleanup
Prep Batch: 207777

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			2500	1370		ug/L		55	32 - 119	14	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
p-Terphenyl	*74*		*31 - 150*

QC Association Summary

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

TestAmerica Job ID: 720-73962-1

GC/MS VOA

Analysis Batch: 207677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73962-1	MW-1	Total/NA	Water	8260B/CA_LUFT MS	
720-73962-2	MW-2	Total/NA	Water	8260B/CA_LUFT MS	
720-73962-3	MW-3	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-207677/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-207677/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-207677/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-207677/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-207677/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	

Analysis Batch: 207986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73962-2	MW-2	Total/NA	Water	8260B/CA_LUFT MS	
720-73962-3	MW-3	Total/NA	Water	8260B/CA_LUFT MS	
720-73962-4	MW-4	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-207986/6	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-207986/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-207986/9	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-207986/10	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-207986/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	

GC Semi VOA

Analysis Batch: 207752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73962-1	MW-1	Silica Gel Cleanup	Water	8015B	207777
720-73962-2	MW-2	Silica Gel Cleanup	Water	8015B	207777
MB 720-207777/1-A	Method Blank	Silica Gel Cleanup	Water	8015B	207777
LCS 720-207777/2-A	Lab Control Sample	Silica Gel Cleanup	Water	8015B	207777
LCSD 720-207777/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	8015B	207777

Prep Batch: 207777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73962-1	MW-1	Silica Gel Cleanup	Water	3510C SGC	
720-73962-2	MW-2	Silica Gel Cleanup	Water	3510C SGC	
720-73962-3	MW-3	Silica Gel Cleanup	Water	3510C SGC	
720-73962-4	MW-4	Silica Gel Cleanup	Water	3510C SGC	
MB 720-207777/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	
LCS 720-207777/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	

GC Semi VOA (Continued)

Prep Batch: 207777 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 720-207777/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	

Analysis Batch: 207827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-73962-3	MW-3	Silica Gel Cleanup	Water	8015B	207777
720-73962-4	MW-4	Silica Gel Cleanup	Water	8015B	207777

Lab Chronicle

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

TestAmerica Job ID: 720-73962-1

Client Sample ID: MW-1

Date Collected: 08/16/16 11:05
Date Received: 08/16/16 12:50

Lab Sample ID: 720-73962-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		100	207677	08/16/16 16:49	LPL	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			207777	08/17/16 11:05	NDU	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	207752	08/17/16 23:28	JXL	TAL PLS

Client Sample ID: MW-2

Date Collected: 08/16/16 10:50
Date Received: 08/16/16 12:50

Lab Sample ID: 720-73962-2
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	207677	08/16/16 17:17	LPL	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		10	207986	08/22/16 14:34	LPL	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			207777	08/17/16 11:05	NDU	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	207752	08/17/16 23:52	JXL	TAL PLS

Client Sample ID: MW-3

Date Collected: 08/16/16 11:25
Date Received: 08/16/16 12:50

Lab Sample ID: 720-73962-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		500	207677	08/16/16 17:45	LPL	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1000	207986	08/22/16 15:03	LPL	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			207777	08/17/16 11:05	NDU	TAL PLS
Silica Gel Cleanup	Analysis	8015B		2	207827	08/18/16 11:50	JXL	TAL PLS

Client Sample ID: MW-4

Date Collected: 08/16/16 10:30
Date Received: 08/16/16 12:50

Lab Sample ID: 720-73962-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		20	207986	08/22/16 15:32	LPL	TAL PLS
Silica Gel Cleanup	Prep	3510C SGC			207777	08/17/16 11:05	NDU	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	207827	08/18/16 11:26	JXL	TAL PLS

Laboratory References:

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

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

Certification Summary

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

TestAmerica Job ID: 720-73962-1

Laboratory: TestAmerica Pleasanton

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

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

Method Summary

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

TestAmerica Job ID: 720-73962-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTMS	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: 720-73962-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-73962-1	MW-1	Water	08/16/16 11:05	08/16/16 12:50
720-73962-2	MW-2	Water	08/16/16 10:50	08/16/16 12:50
720-73962-3	MW-3	Water	08/16/16 11:25	08/16/16 12:50
720-73962-4	MW-4	Water	08/16/16 10:30	08/16/16 12:50

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1608786 **Amended:** 08/23/2016

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: 08/17/2016

Analytical Report reviewed & approved for release on 08/22/2016 by:

Angela Rydelius,
Laboratory Manager

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

Glossary of Terms & Qualifier Definitions

Client: Test America
Project: 72011870; Salvation Army
WorkOrder: 1608786

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Qualifiers

a3	sample diluted due to high organic content.

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

Analytical Report

Client: Test America
Date Received: 8/17/16 11:27
Date Prepared: 8/17/16
Project: 72011870; Salvation Army

WorkOrder: 1608786
Extraction Method: SW3510C
Analytical Method: MAI-Organic Pb
Unit: µg/L

Organic Lead (speciated) by GC-MS

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-1 (720-73962-1)	1608786-001A	Water	08/16/2016 11:05	GC30	125312

Analytes	Result	RL	DF	Date Analyzed
Tetraethyl Lead	ND	1.2	10	08/17/2016 21:42
Tetramethyl Lead	ND	1.2	10	08/17/2016 21:42

Surrogates	REC (%)	Limits	
2-Fluorobiphenyl	96	50-150	08/17/2016 21:42

Analyst(s): TD Analytical Comments: a3

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-2 (720-73962-2)	1608786-002A	Water	08/16/2016 10:50	GC30	125312

Analytes	Result	RL	DF	Date Analyzed
Tetraethyl Lead	ND	1.2	10	08/17/2016 22:59
Tetramethyl Lead	ND	1.2	10	08/17/2016 22:59

Surrogates	REC (%)	Limits	
2-Fluorobiphenyl	93	50-150	08/17/2016 22:59

Analyst(s): TD Analytical Comments: a3

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-3 (720-73962-3)	1608786-003A	Water	08/16/2016 11:25	GC30	125312

Analytes	Result	RL	DF	Date Analyzed
Tetraethyl Lead	ND	6.2	50	08/17/2016 23:25
Tetramethyl Lead	ND	6.2	50	08/17/2016 23:25

Surrogates	REC (%)	Limits	
2-Fluorobiphenyl	105	50-150	08/17/2016 23:25

Analyst(s): TD Analytical Comments: a3

Angela Rydelius, Lab Manager
8/23/2016

McCampbell Analytical, Inc.
"When Quality Counts"

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

Quality Control Report

Client:	Test America	**WorkOrder:**	1608786
Date Prepared:	8/17/16	**BatchID:**	125312
Date Analyzed:	8/17/16	**Extraction Method:**	SW3510C
Instrument:	GC30	**Analytical Method:**	MAI-Organic Pb
Matrix:	Water	**Unit:**	µg/L
Project:	72011870; Salvation Army	**Sample ID:**	MB/LCS-125312 1608786-001AMS/MSD

QC Summary Report for Organic Lead by GC-MS

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Tetraethyl Lead	ND	2.05	0.12	2.5	-	82	50-150
Tetramethyl Lead	ND	2.37	0.12	2.5	-	95	50-150
Surrogate Recovery							
2-Fluorobiphenyl	5.33	5.24		5	107	105	50-150

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Tetraethyl Lead	1.84	1.83	2.5	ND<1.2	74	73	50-150	0.653	30
Tetramethyl Lead	2.12	2.09	2.5	ND<1.2	85	83	50-150	1.47	30
Surrogate Recovery									
2-Fluorobiphenyl	4.59	4.72	5		92	94	50-150	2.82	30

QA/QC Officer
8/23/2016

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1608786 **ClientCode: TAM**

☐ WaterTrax ☐ WriteOn ☐ EDF ☑ Excel ☐ EQuIS ☑ 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: 3 days;

Date Received: **08/17/2016**
Date Logged: **08/17/2016**

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
1608786-001	MW-1 (720-73962-1)	Water	8/16/2016 11:05	☐	A											
1608786-002	MW-2 (720-73962-2)	Water	8/16/2016 10:50	☐	A											
1608786-003	MW-3 (720-73962-3)	Water	8/16/2016 11:25	☐	A											

Test Legend:

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

Prepared by: Jena Alfaro

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: TEST AMERICA
Project: 72011870; Salvation Army
Comments:

QC Level: LEVEL 2
Client Contact: Dimple Sharma
Contact's Email: dimple.sharma@testamericainc.com

Work Order: 1608786
Date Logged: 8/17/2016

☐ 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
1608786-001A	MW-1 (720-73962-1)	Water	Organic Lead (speciated)	1	1LA	☐	8/16/2016 11:05	3 days	Present	☐	
1608786-002A	MW-2 (720-73962-2)	Water	Organic Lead (speciated)	1	1LA	☐	8/16/2016 10:50	3 days	Present	☐	
1608786-003A	MW-3 (720-73962-3)	Water	Organic Lead (speciated)	1	1LA	☐	8/16/2016 11:25	3 days	Present	☐	

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

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

TestAmerica Pleasanton
1220 Quarry Lane
Pleasanton, CA 94566
Phone (925) 484-1919 Fax (925) 600-3002

RUSH 16087786

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Sharma, Dimple	Carrier Tracking No(s):	CCC No: 720-29990.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: dimple.sharma@testamericainc.com		Page: Page 1 of 1
Company: McCampbell Analytical, Inc.				Job #: 720-73962-1
Address: 1534 Willow Pass Road, ,	Due Date Requested: 8/22/2016			
City: Pittsburg	TAT Requested (days):			
State, Zip: CA, 94565				
Phone:	PO #:			
Email:	WO #:			
Project Name: Salvation Army	Project #: 72011870			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Tetraethyl & Tetramethyl lead by 8270Mod)/ Tetraethyl & Tetramethyl lead by 8270Mod	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-1 (720-73962-1)	8/16/16	11:05 Pacific		Water			X	1	
MW-2 (720-73962-2)	8/16/16	10:50 Pacific		Water			X	1	
MW-3 (720-73962-3)	8/16/16	11:25 Pacific		Water			X	1	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	8/17/16 11:27	TA		8/17/16 1127	MAI
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name:	**Test America**	Date and Time Received:	**8/17/2016 11:27**
Project Name:	**72011870; Salvation Army**	Date Logged:	**8/17/2016**
WorkOrder №:	**1608786** Matrix: Water	Received by:	Jena Alfaro
Carrier:	Client Drop-In	Logged by:	Jena Alfaro

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	
Sample/Temp Blank temperature	Temp: 2.2°C				NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☐	No	☐	NA ☑
Sample labels checked for correct preservation?	Yes	☑	No	☐	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA ☑
Samples Received on Ice?	Yes	☑	No	☐	
(Ice Type: WET ICE)					

UCMR3 Samples:

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

Comments:

720-73962

170437

8/23/2016

1117 Lone Palm Ave., Suite 201B
Modesto, CA 95351
Main Line: (209) 579-2221
Facsimile: (209) 579-2225

CHAIN-OF-CUSTODY FORM

Project Name: The Salvation Army- Oakland ARC Client: ATC Group Servicess LLC
Project Number: Z054000006 Task: 0005 Global ID: T100000003428
Project Address: 601 Webster Street, Okland, CA
Laboratory: TestAmerica Contact: Dimple Sharma/ Karen Maxwell
Lab Address/Phone: 1220 Quarry Lane, Pleasanton, CA
ATC Project Manager: Mike Sonke
ATC PM Ph. No: 209-579-2221 Email: mike.sonke@atcassociates.com
ATC Sampler: Alex Flores Email: gabe.stivala@atcassociates.com

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

ATC Sample ID	Sample Information: Date	Time	Matrix: Soil	Water	Vapor	Container Information: No.	Type	Preservative (HCL/HNO3/H2SO4)	Preserved	Ice	HCl	Field ID	Analyses Requested: TPH-g, BTEX, 5 Oxy's by EPA 8260B	TPH-d w/ silica gel clean up EPA 8015/3630C	Organic Lead Speciation EPA 8270 GC/ECD
MW-1	8/16/2016	1105		X		6	VOAS	HCL	X	3	3		X	X	X
MW-2	8/16/2016	1050		X		6	↓	↓	X	3	3		X	X	X
MW-3	8/16/2016	1125		X		6	↓	↓	X	3	3		X	X	X
MW-4	8/16/2016	1030		X		5	↓	↓	X	2	3		X	X	

720-73962 Chain of Custody

Additional Comments:

X EDF FORMAT

Relinquished By: Alex Flores Date/Time: 08/16/1250 Received By: [signature] Date/Time: 8-16-16 1250
Relinquished By: ____ Date/Time: ____ Received By: ____ Date/Time: ____
Relinquished By: ____ Date/Time: ____ Received By: ____ Date/Time ____

Sample Condition Good? Yes ___ No ___ On Ice? Yes ___ No ___ Cooler Temp ____ Transportation Method: ____

Page _1_ of _1_ 7.4c

Page 31 of 32

White - Lab
L:\Admin\Subsurface Group\TSA Oakland, revised 03/08/01

Yellow - Lab

Pink - ATC

Login Sample Receipt Checklist

Client: ATC Group Services LLC.

Job Number: 720-73962-1

Login Number: 73962
List Number: 1
Creator: Mullen, Joan

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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.	False	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix C

Laboratory Analytical Data Report
and Chain of Custody Documents
Elevator Shaft Water Sample

ENVIRONMENTAL • GEOTECHNICAL

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

19 September 2016

ATC Group Services LLC
Jeanne Homsey
1117 Lone Palm Ave., Suite B
Modesto, CA 95351

RE: Salvation Army Project Data

Enclosed are the results for sample(s) received on 08/29/16 11:05 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,

Wayne E 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

5608028/1608290268

Project #: Z054000006	Client: ATC Group Services LLC
Project Title: Salvation Army - Oakland	Address: 1117 Lone Palm Ave Modesto CA
Location: Oakland, CA	Contact: Mike Sonke
Sampler's Name: (Please print) Mike Sonke	Phone: 209-579-2221
Sampler's Signature: Michael D Sonke	Fax: 209-579-2225
	Bill To:
	Client:
	Address:
	Notes:

TURN AROUND TIME

SAME DAY	24 HOUR	48 HOUR	5 DAYS (STANDARD)	10 - 14 DAYS (SPECIAL)
☐	☐	☐	☑	☐

SAMPLE ID	DATE	TIME	# CONTAINERS	MATRIX	TPHg (8260)	BTEX (8260)	TPHd (8015M)	Naphthalene	Hydraulic Oil (80-15M Oil & Grease)								SPECIAL INSTRUCTIONS: COMMENTS
7th St Freight Sump	8/24/16	1212	8	Water	X	X	X	X	X								ice & HCl

RELINQUISHED BY: Michael D Sonke	DATE: 8-25-2016	TIME:	RECEIVED BY: Castillo
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:

DATE: 8.29.16 TIME: 11:05

Cal Ag & Enviro Lab. Sample Receipt Checklist

Client Name: ATC Group Services Date & Time Received: 08/29/16 11:05

Project Name: Salvation Army - Oakland Project Number: Z054000006

Received By: JC Matrix: Water ☑ Soil ☐ Sludge ☐

Sample Carrier: Client ☐ Laboratory ☑ Fed Ex ☐ UPS ☐ Other ☐

Argon Labs Project Number: S608028/1608290268

Shipper Container in good condition?				Samples received in proper containers?	Yes ☑	No ☐	
	N/A_____	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:

♥ ♣ ♦ ♠

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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	S608028
Modesto, CA 95351	Project Manager: Jeanne Homsey	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
7th St Freight Sump	S608028-01	Water	08/24/16 12:12	08/29/16 11:05

Wayne E Scott

Approved By

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

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ATC Group Services LLC	Project Number: Z054000006	Work Order No.:
1117 Lone Palm Ave., Suite B	Project Name: Salvation Army	S608028
Modesto, CA 95351	Project Manager: Jeanne Homsey	

ANALYSIS REPORT

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
7th St Freight Sump (S608028-01) Water	**Sampled: 24-Aug-16 12:12**		**Received: 29-Aug-16 11:05**				
Oil & Grease	**15000**	20	mg/L	4	09-Sep-16	1664A	

Wayne E. Scott

Approved By

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

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ATC Group Services LLC	Project Number: Z054000006	Work Order No.:
1117 Lone Palm Ave., Suite B	Project Name: Salvation Army	S608028
Modesto, CA 95351	Project Manager: Jeanne Homsey	

Total Petroleum Hydrocarbons @ Diesel

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
7th St Freight Sump (S608028-01) Water	**Sampled: 24-Aug-16 12:12**		**Received: 29-Aug-16 11:05**				
Diesel	**820000**	100000	ug/L	2000	30-Aug-16	EPA 8015Mod	
Surr. Rec.:		*1200 %*			"	"	

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

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ATC Group Services LLC	Project Number: Z054000006	Work Order No.:
1117 Lone Palm Ave., Suite B	Project Name: Salvation Army	S608028
Modesto, CA 95351	Project Manager: Jeanne Homsey	

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
7th St Freight Sump (S608028-01) Water	**Sampled: 24-Aug-16 12:12**		**Received: 29-Aug-16 11:05**				
Total Petroleum Hydrocarbons @ Gasoline	**68**	50	ug/L	1	02-Sep-16	8260B	
Benzene	**1.4**	0.5	"	"	"	"	
Toluene	ND	0.5	"	"	"	"	
Xylenes, total	ND	1.0	"	"	"	"	
Ethylbenzene	ND	0.5	"	"	"	"	
Naphthalene	**1.0**	1.0	"	"	"	"	
Surr. Rec.:		*104 %*			"	"	

Wayne E Scott

Approved By

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

ATC Group Services LLC	Project Number: Z054000006	Work Order No.:
1117 Lone Palm Ave., Suite B	Project Name: Salvation Army	S608028
Modesto, CA 95351	Project Manager: Jeanne Homsey	

ANALYSIS REPORT - Quality Control

California Agriculture & Environmental Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S600776 - General Prep										
Blank (S600776-BLK1)				Prepared & Analyzed: 09/09/16						
Oil & Grease	ND	5.0	mg/L							
LCS (S600776-BS1)				Prepared & Analyzed: 09/09/16						
Hexadecane	33.0		mg/L	50		66	80-120			
LCS Dup (S600776-BSD1)				Prepared & Analyzed: 09/09/16						
Hexadecane	37.5		mg/L	50		75	80-120	13	20	

Wayne E. Scott

Approved By

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ATC Group Services LLC	Project Number: Z054000006	Work Order No.:
1117 Lone Palm Ave., Suite B	Project Name: Salvation Army	S608028
Modesto, CA 95351	Project Manager: Jeanne Homsey	

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 S600806 - EPA 3510C										
Blank (S600806-BLK1)				Prepared & Analyzed: 08/30/16						
Surrogate: p-Terphenyl	*88.0*		*ug/L*	*100*		*88*	*70-130*			
Diesel	ND	50	"							
LCS (S600806-BS1)				Prepared & Analyzed: 08/30/16						
Surrogate: p-Terphenyl	*90.0*		*ug/L*	*100*		*90*	*70-130*			
Diesel	236		"	200		118	80-120			
LCS Dup (S600806-BSD1)				Prepared & Analyzed: 08/30/16						
Surrogate: p-Terphenyl	*100*		*ug/L*	*100*		*100*	*70-130*			
Diesel	238		"	200		119	80-120	0.8	20	

Wayne E Scott

Approved By

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

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ATC Group Services LLC	Project Number: Z054000006	Work Order No.:
1117 Lone Palm Ave., Suite B	Project Name: Salvation Army	S608028
Modesto, CA 95351	Project Manager: Jeanne Homsey	

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 S600734 - EPA 5030B										
Blank (S600734-BLK1)				Prepared & Analyzed: 09/02/16						
Surrogate: Fluorobenzene	*51.0*		*ug/L*	*50*		*102*	*70-130*			
Total Petroleum Hydrocarbons @ Gasoline	ND	50	"							
Benzene	ND	0.5	"							
Toluene	ND	0.5	"							
Xylenes, total	ND	1.0	"							
Ethylbenzene	ND	0.5	"							
Naphthalene	ND	1.0	"							
LCS (S600734-BS1)				Prepared & Analyzed: 09/02/16						
Surrogate: Fluorobenzene	*50.5*		*ug/L*	*50*		*101*	*70-130*			
Benzene	24.5		"	25		98	80-120			
LCS (S600734-BS2)				Prepared & Analyzed: 09/02/16						
Surrogate: Fluorobenzene	*51.5*		*ug/L*	*50*		*103*	*70-130*			
Total Petroleum Hydrocarbons @ Gasoline	998		"	1000		100	80-120			
LCS Dup (S600734-BSD1)				Prepared & Analyzed: 09/02/16						
Surrogate: Fluorobenzene	*51.0*		*ug/L*	*50*		*102*	*70-130*			
Benzene	25.2		"	25		101	80-120	3	20	
LCS Dup (S600734-BSD2)				Prepared & Analyzed: 09/02/16						
Surrogate: Fluorobenzene	*53.0*		*ug/L*	*50*		*106*	*70-130*			
Total Petroleum Hydrocarbons @ Gasoline	1060		"	1000		106	80-120	6	20	
Matrix Spike (S600734-MS1)		**Source: S608028-01**		Prepared & Analyzed: 09/02/16						
Surrogate: Fluorobenzene	*47.5*		*ug/L*	*50*		*95*	*70-130*			
Total Petroleum Hydrocarbons @ Gasoline	968		"	1000	68.0	90	70-130			
Matrix Spike Dup (S600734-MSD1)		**Source: S608028-01**		Prepared & Analyzed: 09/02/16						
Surrogate: Fluorobenzene	*49.0*		*ug/L*	*50*		*98*	*70-130*			
Total Petroleum Hydrocarbons @ Gasoline	1020		"	1000	68.0	95	70-130	5	20	

Wayne E. Scott

Approved By

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

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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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