THE SALVATION ARMY
Adult Rehabilitation Centers Command
180 East Ocean Boulevard, 3rd Floor
Long Beach, CA 90802-4709
Corporate ID No. 78321

January 13, 2014

Re: Site Conceptual Model with Data Gap Identification, and Preliminary Subsurface Investigative Report
The Salvation Army Adult Rehabilitation Center
601 Webster Street
Oakland, CA 94607

"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
Command General Secretary

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January 13, 2014

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: **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, Geotracker Global ID T10000003428**

Dear Mr. Nowell:

Cardno ATC has prepared this report on the above referenced site, on behalf of The Salvation Army to report on the methods and results of a subsurface investigation evaluating the presence of petroleum hydrocarbon impacted soil and/or groundwater beneath the site. The detection of residual petroleum hydrocarbons in soil samples collected during the underground storage tank (UST) removal activities on November 22 and 23, 2010 prompted this investigation.

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

Sincerely,

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January 13, 2014
The Salvation Army - Oakland

enc:

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cc: Ms. Kaye Patterson, Property Project Manager, The Salvation Army, ARC Command (via email)

1.0 INTRODUCTION

1.1 Site Location

The site is located at 601 Webster Street in Oakland, California, as shown on Figure 1. The site is developed as a warehouse and distribution center for The Salvation Army (TSA). The site lies within the major metropolitan area of Oakland. The principal land use in the vicinity of the site consists of commercial properties including restaurants, a hotel, and several gas stations. The two streets which flank the truck yard are busy inner city streets; Franklin Street is primarily occupied with Salvation Army business, while 7th Street is a significant traffic arterial seeing hundreds of vehicles per hour. Just beyond 6th Street to the south of the TSA facility is State Highway 880, a major freeway serving the commute routes to San Francisco.

The facility is a major distribution center for the Salvation Army, a social services agency serving the needs of the homeless, impoverished, and addicted, substance abuse residents of the San Francisco Bay Area (SFBA). The distribution center is a busy hub where donated household items and clothing arrive daily from the various donation centers throughout the SFBA. These goods are then sorted, processed, and warehoused on-site, and eventually the processed goods are re-distributed to the TSA thrift stores, where they are sold to generate funds for the organization.

The former tank pit is located within the truck lot/loading dock area. The truck lot/loading dock (TL/LD) dimensions are approximately 100 by 50 feet. TSAs' fleet of as many as a dozen or so trucks of various sizes in the TL/LD, so conditions are tight. In addition, the TL/LD is also the site of the facility's daily auction where off-spec donations are sold to a dozen or so buyers, nearly every day.

The combination of the busy urban area outside the facility walls combined with the bustling donation distribution and processing center, add a layer of complexity to performing even the simplest of activities associated with this project.

Figure 2 is a depiction of pertinent site features and the surrounding area.

2.0 GEOLOGY AND HYDROGEOLOGY

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

Shallow groundwater in the site vicinity has been encountered at depths ranging from approximately 20 to 26 feet below ground surface (bgs). Surface topography suggests that groundwater would be predicted to flow to the southwest, though available data obtained from nearby leaking underground storage tank (LUST) sites similar to this one; reveal the direction of actual flows to be quite variable.

3.0 SITE BACKGROUND

According to TSA, the USTs at the site were used to fuel their fleet of commercial trucks. In early 2010, TSA made the decision to discontinue on-site fueling operations and remove the USTs and dispenser equipment from the site. In November 2010, a project to excavate and remove the 12,000-gallon diesel UST and the 8,000-gallon gasoline UST and the former fuel dispensers was planned and executed by Terry Hamilton, a California licensed, general engineering contractor (Ca. License 339108).

The UST removal activities occurred between November 22, and 23, 2010. On November 23, 2010, the two USTs were triple rinsed and rendered inert with dry ice, 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 UST pit indicated that petroleum hydrocarbons related to gasoline were present. Diesel was not detected.

In early 2011, TSA retained Cardno ATC to assist follow up with any obligations that may have resulted from the gasoline detected in the soil samples collected.

After initial contact with Oakland City Fire Department (OFD), Cardno ATC developed a limited-scope workplan dated March 18, 2011. The purpose of the workplan was to derive information about the magnitude of the release to assist OFD in determining if the case could be closed or if the case should be forwarded to the Alameda County, Health Care Services Agency Environmental Health Services, Environmental Protection (ACEH) as a Local Oversight Program (LOP) case. ACEH was a copied recipient of this workplan.

In May and November 2012 ACEH requested changes to the March 18, 2011 OFD workplan. A revised workplan dated February 28, 2013 was submitted to ACEH reflecting the required changes. In a letter dated May 31, 2013, ACEH approved the workplan but also required TSA to start to develop a site conceptual model (SCM) in table form which highlights the major SCM elements and identify associated data gaps, if any,

4.0 PRE-DRILLING ACTIVITIES

4.1 UST File Review

A review of available UST system compliance records was included in the scope of work to determine the formulation of the gasoline fuel stored and dispensed by the UST system. In particular, the search was for the likely fuel additives that would have been included in the gasoline that was released. An older release is likely to have contained tetraethyl lead, whereas a more recent release is likely to have included methyl tertiary-butyl ether (MTBE). Both compounds were added to gasoline to prevent “engine knocking”. Tetraethyl lead was included as part of the formula of early gasoline (“leaded” gasoline), whereas adding MTBE to gasoline was key to replacing lead in the early formulations of “”unleaded” gasoline. Neither compound is used in gasoline today.

On April 25, 2013, Cardno ATC reviewed the available UST compliance records at the City of Oakland Fire Department (OFD) which is the designated Certified Unified Program Agency (CUPA) for the City of Oakland. The OFD records did not identify the chemical formulation of the diesel and gasoline fuels that were stored and dispensed by the UST system. The information obtained from the OFD did however include information used in the construction of the SCM.

4.2 Utility Clearance

Cardno ATC notified Underground Services Alert (USA) as required by law, to mobilize local utility facility owners to mark potential underground utilities surrounding the site. Cardno ATC supplemented this information by contracting with Cruz Brothers Locators of Santa Cruz, California to also locate both public and private underground utilities that may have been present in the proposed work areas. The information obtained by these activities was used to derive the following limits to invasive drilling activities. No drilling was possible in the sidewalk or parking lane along 7th Street, as two separate utility lines, represented as electrical lines and telecommunications lines, were detected and marked under the sidewalk and a third was detected running parallel to the sidewalk under the parking lane. The sidewalk parallel to 7th street was furthermore excluded from drilling because it is only 6 feet wide in that direction adjacent to the site. This narrow width would not allow sufficient margin to meet the definition of a safe work area as defined by Federal law, the utility companies, and Cardno ATC. Figure 3 is a preliminary utility map.

4.3 Planning, Permitting & Scheduling

Cardno ATC obtained the necessary drilling permits for the advancement of up to ten soil borings from Alameda County Public Works Agency-Water Resources. Cardno ATC elected to forego obtaining an encroachment permit to work in the sidewalk paralleling 7th Street because of the information gained during the utility clearance activities described in the section above.

Cardno ATC scheduled field personnel and equipment on July 29 and July 30, 2013 to perform the necessary field preparations, job start-up activities, and perform the site investigation activities. Prior to these dates, Cardno ATC notified ACEH 48 hours in advance.

5.0 SITE INVESTIGATION ACTIVITIES

5.1 Advancement of Soil Borings

On July 29 and July 30, 2013, Cardno ATC supervised the advancement and sampling of seven soil borings within the truck dock area of the site. Boring locations are shown on Figure 2. The soil borings were advanced by Vironex, a California licensed, C57 driller (CA No. 705927), using truck-mounted drill rig using Geoprobe® narrow diameter, direct-push technology. Each boring except for SB3 was advanced to first encountered groundwater, encountered at approximately 26 to 30 feet bgs, though sandy soil and difficult recovery of samples from the sampling apparatus made an exact depth to water difficult to determine.

A field geologist was present to log all soil samples. Descriptions of soil types encountered and sample collection intervals are recorded on the boring logs. Soil collected was field screened with a Photo-Ionization Detection (PID) meter.

Soil samples were collected continuously. Due to soil sample collection difficulty experienced during the advancement of SB1 and SB2, soil characterization of all subsequent borings were limited to 20 feet bgs. This difficulty that occurred below 18 to 20 feet, included sample collection equipment jammed by sand, melted acetate sample sleeves, and loss of sampled soils during retrieval.

Soil samples were selected for laboratory analysis on the basis of 1.) significant changes in lithology, 2.) signs of contamination (odor, discoloration, PID responses, etc.), and 3.) at the soil/groundwater interface. Two or more soil samples from each of the borings were submitted for laboratory analysis. Based on PID readings, difficulties with sample collection and the requirement for additional assessment established during field activities, fewer than

four samples per boring were submitted for laboratory analysis. The field geologist on site recorded all collected information, including PID readings, on field boring logs which are included in Appendix A. The soil and groundwater samples from the soil borings were immediately placed in a cooler with ice and delivered under chain-of-custody documentation to State-certified Argon Labs (Environmental Laboratory Accreditation Program Certification No. 01142CA) in Ceres, California for chemical analyses.

Groundwater samples were collected from each boring, (except SB3), at 26 to 30 feet bgs, at the depth groundwater was first encountered. Groundwater samples were collected with a hydropunch rod with a Geoprobe® Screen Point 15 Groundwater Sampler. The hydropunch rod was threaded onto the leading end of the Geoprobe® direct pushrod train. While the sampler is advanced, O-ring seals and an expendable drive point provide a watertight system to ensure sample integrity. Once the sampler was advanced to the desired depth, extension rods were sent down hole to brace the bottom of the sample screen while the tool casing is retracted. When the casing is retracted, up to 41-inches of screen with slot sizes of 0.004 inches were exposed. Teflon® tubing with a check valve attached to one end was then inserted down the casing until it was immersed in groundwater. Water was then pumped through the tubing and to the ground surface for collection using a peristaltic pump. SB3 remained dry at depths similar to groundwater sampling depths in SB4, and was not sampled for groundwater.

Following soil and groundwater sample collection, the borings were backfilled with neat cement grout to the ground surface. Drill cuttings generated were stored on-site in a 55-gallon drum pending laboratory results.

Based on PID readings, difficulties with sample collection and the requirement for additional assessment established during field activities, fewer than four samples per boring were submitted for laboratory analysis.

6.0 SUBSURFACE CONDITIONS

6.1 Site-Specific Geology

Soil from the borings SB1, SB2, and SB7 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, 13 feet to 20 feet in SB2, and 13 feet to 20 feet in 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 5 to 7 feet to 20 feet, the maximum depths to which the borings were characterized, in all three borings, with the exception of SB3 which had sandy clay from 16 to 18 feet bgs.

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

Soil boring logs with a detailed description of soil types are contained in Appendix A. Figure 4 depicts the cross section location along the line between SB4 and SB5.and Figure 5 is the cross section.

6.2 Site-Specific Hydrogeology

Groundwater was generally first encountered at the site at a depth of approximately 26 feet bgs in each of the soil borings. Cardno ATC's preliminary research on other facilities in the downtown Oakland area concluded the

regional groundwater gradient is to the southwest with local interference from subsurface structures. An actual determination of the direction of the groundwater gradient beneath the site could not be determined, during this mobilization due to in ability to obtain accurate groundwater level readings from within the Geoprobe borings.

7.0 ANALYTICAL RESULTS

7.1 Soil Matrix Sampling Results

The soil samples collected from borings SB1 through SB7 at 13 to 15 and 20 feet bgs all contained detectable concentrations of TPHg, toluene, and xylenes. All but the 20 foot sample from SB1 contained detectable concentrations of benzene. All soil samples except for the 15 foot sample from SB1 contained detectable concentrations of ethylbenzene. Soil samples from SB3, SB4, SB6, and SB7 contained detectable concentrations of Total Petroleum Hydrocarbons diesel (TPHd). Soil samples from SB5 and SB7 contained detectable concentrations of MTBE. Naphthalene was detected in the shallow soil samples from SB4 and SB5.

The soil samples collected from borings SB1, SB-2, and SB4 through SB7 did not contain detectable concentrations of any fuel oxygenates other than MTBE. The results of the soil matrix analyses for petroleum hydrocarbons are summarized in Table 1. The laboratory report with a list of specific compounds analyzed, and the chain of custody for the soil samples, is contained in Appendix B. Soil Isoconcentration Maps for TPHg, TPHd, benzene, and MTBE are presented as Figures 6 through 13.

7.2 Groundwater Matrix Sampling Results

The groundwater samples collected from borings SB1 through SB7 contained detectable concentrations of TPHg and BTEX constituents. The groundwater samples collected from borings SB1, SB2, SB4, and SB7 contained detectable concentrations of MTBE, but no other fuel oxygenates were detected in any of the groundwater samples. TPHd was present at a detectable concentration in the groundwater sample collected from SB6, but was not detected in the groundwater samples collected from SB5 or SB7. The results of the groundwater analyses are summarized in Table 2. The laboratory report and chain of custody for the groundwater samples is contained in Appendix C. Groundwater Isoconcentration Maps for TPHg, TPHd, benzene, and MTBE are presented as Figures 14 through 17.

8.0 PRELIMINARY RISK ASSESSMENT

8.1 Soil Matrix Sampling Results

Due to the nature of the site and vicinity, sampling depths, and analytical results, Cardno ATC has chosen to compare the analytical results to the Deep Soil Screening Levels (ESLs) for commercial or industrial properties, as revised in May 2013. The results exceeded these ESLs as summarized below.

Compound	ESLs[1] - Deep Soil Screening Levels (kg/m^3) (Commercial/Industrial Land Use)		Highest Observed Concentration (kg/m^3)	Location of Highest Concentration	Number of Samples Exceeding Either ESL (of 16 total samples collected)
	Groundwater is a Drinking Water Source	Groundwater is NOT a Drinking Water Source			
TPH (Gasoline)	5.8E+02	2.4E+03	9.4E+03	SB3-20'	11
Benzene	4.4E-02	1.2E+00	1.1E+02	SB3-20'	13
Toluene	2.9E+00	9.3E+00	3.8E+02	SB3-20'	10
Ethyl Benzene	3.3E+00	4.7E+00	2.4E+02	SB3-20'	12
Total Xylenes	2.3E+00	1.1E+01	8.9E+02	SB3-20'	12
Naphthalene	1.2E+00	4.8E+00	4.7E+01	SB4-10'	2 [2]
Methyl Tert-Butyl Ether	2.3E-02	8.4E+00	5.9E+00	SB7-17'	5 [3]

[1] *2013 Tier 1 ESLs; Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater;* California Environmental Protection Agency, Regional Water Quality Control Board; San Francisco Bay Area Region. http://www.swrcb.ca.gov/rwqcb2/water_issues/programs/ESL/Lookup_Tables_Summary_May_2013.pdf

[2] Only two samples were analyzed for Naphthalene

[3] Method Detection Limits exceeded ESLs in eight additional samples

Analysis for lead was conducted on soil from SB1 and SB6 primarily for soil disposal purposes. The concentrations of lead detected were well below ESLs for deep soil and shallow soil.

8.2 Groundwater Matrix Sampling Results

Cardno ATC compared the groundwater analytical results to the ESLs for scenarios where groundwater is and is not used as a drinking water source, as revised in May 2013. The results exceeded these ESLs as summarized below.

Compound	Environmental Screening Levels [1] (µg/L)		Highest Observed Concentration (µg/L)	Location of Highest Concentration	Number of Samples Exceeding Either ESL (of 6 total samples collected)
	Groundwater is a Drinking Water Source	Groundwater is NOT a Drinking Water Source			
TPH (Gasoline)	1.0E+02	5.0E+02	2.8E+05	SB4	6
Benzene	1.0E+00	2.7E+01	3.5E+04	SB1 & SB4	6
Toluene	4.0E+01	1.3E+02	4.7E+04	SB1	5
Ethyl Benzene	3.0E+01	4.3E+01	3.9E+03	SB4	4
Total Xylenes	2.0E+01	1.0E+02	2.0E+04	SB4	5
Methyl Tert-Butyl Ether	5.0E+00	1.8E+03	5.3E+03	SB4	4 [2]

[1] *2013 Tier 1 ESLs; Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater;* California Environmental Protection Agency, Regional Water Quality Control Board; San Francisco Bay Area Region.
http://www.swrcb.ca.gov/rwqcb2/water_issues/programs/ESL/Lookup_Tables_Summary_May_2013.pdf

[2] MDL exceeded ESL in one sample

8.3 Site Conceptual Model and Investigative Data Gaps

A Site Conceptual Model (SCM) is a tool used to convey technical information regarding a release into the environment and their interaction. ACEH has developed a listing of the most commonly used SCM elements and placed it in a table format. Table 3 represents the preliminary SCM for this site. One column of this table identifies data gaps when they are present. A data gap represents an absence of one or more of the SCM elements.

Table 4 represents a Data Gap Summary. This table assists in planning future actions by identifying the data gaps and how this information will be obtained through future planned activities.

Cardno ATC compared the results summarized above with the LTCP. The concentrations of benzene found in groundwater during the course of this preliminary investigation exceed the range the LTCP considers acceptable for low threat closure, and the shallow soil concentration of naphthalene found in SB4 at 10 feet bgs exceeds the Direct Contact and Outdoor Air Quality threshold for commercial and industrial properties. A summary of the LTCP evaluation and a comparison of analytical concentrations with LTCP Table 1 values are included in Appendix D.

9.0 CONCLUSIONS AND RECOMMENDATIONS

This preliminary investigation indicates that the soil and groundwater beneath the northwest corner of the Salvation Army facility in Oakland has been impacted with volatile petroleum hydrocarbons typically associated with gasoline and diesel fuels. The concentrations in soil and groundwater exceed established ESLs by several orders of magnitude for some chemicals of concern, including benzene.
The location of the petroleum hydrocarbon impacted soil is consistent with releases from the UST system, however, the exact origin of the release at this site is not known. Due to the close proximity of the various components of the UST system to each other, the actual UST system component(s) responsible for the on-site release may not be able to be determined.

Due to the limited scope of this preliminary investigation, the horizontal and vertical extent of the groundwater impact remains undefined in all directions. Practical limitations on investigation, including subsurface utilities and simple access issues, likely preclude horizontal investigation to the north or very far to the west or east. Additional horizontal investigation to the south is likely limited due to the TSA building, but sampling within the extensive basement of the TSA building may be possible using specialized limited access drilling equipment.

The site-specific groundwater gradient across the site has not been defined. The review of groundwater gradient data from nearby LUST sites has indicated that considerable variance exists. This variance is likely due to native subsurface conditions and/or the presence of a Bay Area Rapid Transit (BART) tunnel. Groundwater pumping/dewatering occurs continuously surrounding the tunnel in order to prevent groundwater intrusion. Regardless, the regional gradient cannot be assumed to apply at the site without further investigation.

As a result of the first investigatory activities conducted at the site, Cardno ATC recommends the following course of investigation:

1. Perform a soil vapor intrusion study on the TSA building to ensure that the occupants of the building are not being exposed to fugitive gasoline vapors from the released gasoline. This scope should be planned and interpreted to take into account the high levels of regular motor vehicle traffic on and adjacent to the site.

2. Conduct a sensitive receptor survey to determine if any receptor wells or other groundwater extraction is taking place within approximately ¼ mile of the site.

3. Install a minimum of three (3) groundwater monitoring wells to establish the groundwater gradient that could result in the migration of the released petroleum hydrocarbons present at the site.

4. Advance at least one soil boring through the basement of the TSA building to the south of the former tank pit, to sample soil and groundwater. Conversion of this boring to a monitoring well should be considered despite the challenges associated with accurately surveying its location and elevation.

5. Advance two or more soil borings to the east, west, and/or immediately south of the former tank pit to establish the extent of direct soil impact. If possible and practical, one or more of these would be converted to wells per recommendation #3. This would be contingent on the approval of the City of Oakland for installing a well in their right-of-way (i.e. the sidewalk to the west of the former tank pit).

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
The Salvation Army
Oakland, California
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Date	Sample ID	Depth (feet bgs)	(Reported in mg/kg)									
			TPHg	TPHd	Benzene	Toluene	Ethyl Benzene	Xylenes	MTBE	Fuel Oxygenates[a]	Naphthalene	Lead
11/23/2010	Diesel-N 14'	14	**1,800**	<75	**4.2**	**4.4**	**52**	**190**	<2.0	<MDLs	--	--
	Diesel-S 14'	14	**2,800**	<150	**2.2**	**17**	**71**	**270**	<2.0	<MDLs	--	7.9
	Prior-W 14'	14	**2,400**	<150	<2.0	**4.3**	**77**	**190**	<2.0	<MDLs	--	--
	Gas-E 14'	14	**160**	<15	<0.16	<0.16	**2.8**	**4.4**	<0.16	<MDLs	--	--
	Gas-W 14'	14	**410**	<150	**0.71**	**2.6**	**11**	**36**	<0.40	<MDLs	--	--
	Between Tanks 14'	14	**90**	<15	<0.050	**0.063**	**1.6**	**2.4**	<0.050	<MDLs	--	--
	Gas Center 17'	17	**17,000**	<150	**300**	**1,200**	**320**	**1,700**	<16	<MDLs	--	--
	Stockpile Comp South		<1.0	<5.0	<0.005	<0.005	<0.005	<0.010	<0.005	<MDLs	--	--
	Stockpile Comp North		<1.0	<5.0	<0.005	<0.005	<0.005	<0.010	<0.005	<MDLs	--	--
	Pit Spoils		**210**	<15	<0.20	<0.20	**1.9**	**7.8**	<0.20	<MDLs	--	--
7/29/2013	SB1 - 15'	15	**1.6**	<15	**0.018**	**0.016**	<0.005	**0.034**	<0.005	<MDLs	--	--
	SB1 - 20'	20	**4.0**	<15	<0.005	**0.029**	**0.024**	**0.12**	<0.005	<MDLs	--	6.3
	SB2 - 15'	15	**360**	<15	**0.80**	**2.3**	**6.2**	**19**	<0.50	<MDLs	--	--
	SB2 - 20'	20	**1.9**	<5.0	**0.036**	**0.048**	**0.049**	**0.14**	<0.005	<MDLs	--	--
	SB3 - 15'	15	**8,100**	**97**	**60**	**320**	**210**	**810**	<2.0	<MDLs	--	--
	SB3 - 20'	20	**9,400**	**120**	**110**	**380**	**240**	**890**	<2.0	<MDLs	--	--
	SB4 - 10'	10	**2,400**	<25	**7.6**	**42**	**53**	**190**	<1.0	<MDLs	**47**	--
	SB4 - 15'	15	**1,500**	<25	**0.67**	**2.2**	**25**	**91**	<0.50	<MDLs	--	--
	SB4 - 20'	20	**5,700**	**56**	**52**	**200**	**130**	**460**	<1.0	<MDLs	--	--
7/30/2013	SB5 - 13'	13	**650**	<15	**6.4**	**29**	**25**	**49**	**0.32**	<MDLs	**11**	--
	SB5 - 20'	20	**3.6**	<15	**0.23**	**0.35**	**0.14**	**0.56**	**0.028**	<MDLs	--	--
	SB6 - 15'	15	**3,700**	**47**	**29**	**150**	**100**	**390**	<1.0	<MDLs	--	--
	SB6 - 20'	20	**1,900**	<15	**53**	**140**	**72**	**280**	<0.5	<MDLs	--	1.9
	SB7 - 15'	15	**1,000**	<15	**6.9**	**38**	**31**	**76**	**1.1**	<MDLs	--	--
	SB7 - 17'	17	**4,300**	**37**	**17**	**100**	**65**	**320**	**5.9**	<MDLs	--	--
	SB7 - 20'	20	**8,900**	**41**	**64**	**260**	**170**	**610**	**12**	<MDLs	--	--

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
The Salvation Army
Oakland, California
(Page 2 of 2)

Notes:

Units in Milligrams per Kilogram (mg/kg) = Parts per Million (ppm)

MTBE - Methyl Tertiary Butyl Ether by EPA Method 8260B
-- Not Analyzed
Benzene - Benzene by EPA Method 8020 or 8260B
Toluene - Toluene by EPA Method 8020 or 8260B
Ethyl Benzene - Ethylbenzene by EPA Method 8020 or 8260B
Xylenes - Xylenes by EPA Method 8020 or 8260B
TPHg - Total Petroleum Hydrocarbons as Gasoline by EPA Method 8015
TPHd - Total Petroleum Hydrocarbons as Diesel by DOHS LUFT Method
Lead - Total Lead by EPA Method 3050A or 6010
<MDLs - Not Detected at or Above Stated Method Detection Limit
a - See Laboratory Data Sheets for Laboratory Method Detection Limits (MDLs)
Fuel Oxygenates - Fuel Oygenates by EPA Method 8260 or 8260B; Only Constituents which were detected are listed

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
The Salvation Army
Oakland, California
(Page 1 of 1)

Date	Sample ID	(Reported in ug/L)							
		TPHg	TPHd	Benzene	Toluene	Ethyl Benzene	Xylenes	MTBE	Fuel Oxygenates[a]
7/29/2013	SB-1	**210,000**	--	**35,000**	**47,000**	**3,000**	**16,000**	**240**	<MDLs
	SB-2	**350**	--	**70**	**26**	**7.9**	**15**	**12**	<MDLs
7/30/2013	SB-4	**280,000**	--	**35,000**	**30,000**	**3,900**	**20,000**	**5,300**	<MDLs
	SB-5	**3,200**	<50	**370**	**470**	**42**	**200**	<2.0	<MDLs
	SB-6	**64,000**	**4,500**	**6,000**	**10,000**	**1,700**	**8,600**	<20	<MDLs
	SB-7	**1,100**	<50	**100**	**170**	**22**	**120**	**37**	<MDLs

Notes:
Units in Micrograms per Liter (ug/L) = Parts per Billion (ppb)

MTBE - Methyl Tertiary Butyl Ether by EPA Method 8260B
-- Not Analyzed
Benzene - Benzene by EPA Method 8015M/8021B
Toluene - Toluene by EPA Method 8015M/8021B
Ethyl Benzene - Ethylbenzene by EPA Method 8015M/8021B
Xylenes - Xylenes by EPA Method 8015M/8021B
TPHg - Total Petroleum Hydrocarbons as Gasoline by EPA Method 8015M
TPHd - Total Petroleum Hydrocarbons as Diesel by EPA Method 8015M

<MDLs - Not Detected at or Above Stated Method Detection Limit
a - See Laboratory Data Sheets for Laboratory Method Detection Limits (MDLs)
Fuel Oxygenates - Fuel Oygenates by EPA Method 8260 or 8260B; Only Constituents which were detected are listed

TABLE 3
SITE CONCEPTUAL MODEL
The Salvation Army
Oakland, California
(Page 1 of 6)

CSM Element	CSM Sub-Element	Description	Data Gap	How to Address
Geology and Hydrogeology	Regional	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. Oakland was formed as a result of uplift of the Oakland Hills along the Hayward Fault at the east edge of the valley and the formation of the San Francisco Bay basin to the north and west. Oakland is covered with alluvium deposited by the San Joaquin and Sacramento River systems from the Sierra Nevada mountain range, and by local creeks and streams flowing from the Oakland Hills. Sedimentary deposits consisting of non-marine sandstone, conglomerate, and mudstone underlie the alluvium.	None	No Gap
	Site	Geology: Borings advanced at the site indicate that subsurface materials consist primarily of sand with interbedded finer-grained deposits (clay, sandy clay, silt and sandy silt) to 20 to 25 feet below ground surface (bgs), the approximate depth to which these borings were advanced.	Site specific lithology below 26 feet has not been evaluated.	Advance deeper borings
		Hydrogeology: Shallow groundwater has been encountered at depths of approximately 26-28 feet bgs. Surface topography suggests that groundwater flows to the southwest, though nearby LUST cases similar to this one show considerable variation.	The hydraulic gradient and groundwater flow direction have not been specifically evaluated at the site.	Install groundwater wells in a configuration that would allow for the consistent measurement of groundwater elevations and calculation of gradient.

TABLE 3
SITE CONCEPTUAL MODEL
The Salvation Army
Oakland, California
(Page 2 of 6)

CSM Element	CSM Sub-Element	Description	Data Gap	How to Address
Surface Water Bodies	On-Site	There are no surface water bodies on the site.	None	No Gap
	Off-Site	The nearest surface water body to the site is the Oakland/Alameda Estuary, located to the south and southwest and approximately 1,900 feet from the site. The next closest surface water body is Lake Merritt, located approximately 3,200 feet ro the east. Connecting Lake Merritt to the Oakland/Alameda Estuary is a short creek, which is approximately 3,400 feet from the site at closest approach.	None	No Gap
Nearby Wells	On-Site	There are no wells located on the site.	None	No Gap
	Off-Site	Geotracker identifies 15 groundwater monitoring wells to the northwest, seven to the north, and 29 to the east, associated with six other UST cases.	The presence or absence of offsite wells has not been established.	Conduct a records search for wells via the california Department of Water Resources.
	Groundwater Use	The water needs of the City of Oakland are served by the East Bay Municipal Utility District (EBMUD), which derives most of its water from the Mokelumne River. EBMUD does not indicate any use of municipal supply wells in the Oakland area.	None	No Gap
Constituents of Concern	-	Gasoline and diesel fuel constituents and their by-products. This list includes but is not limited to benzene and MTBE for their potential impact on groundwater quality, and naphthalene for potential air quality concerns.	None related to expected on-site activities.	No Gap

TABLE 3
SITE CONCEPTUAL MODEL
The Salvation Army
Oakland, California
(Page 3 of 6)

CSM Element	CSM Sub-Element	Description	Data Gap	How to Address
Potential Sources	On-Site	Two sets of fuel storage tanks have been installed at the site in the past. None of the tanks remain in service, and have been removed along with the dispenser and related piping.	None	All likely on-site sources hae been identified and removed.
	Off-Site	Prior and current UST cases elsewhere in downtown Oakland include four former and current gas stations to the east, one former gas station to the north, and another to the northwest. While the recorded groundwater gradients at these sites does not suggest that they would affect the site, the regional groundwater gradient does place at least one of them in a generally up-gradient direction.	The impact of off-site releases on the site has not been evaluated. Wells or borings between the site and potential off-site sources may be problematic due to subsurface utilities and traffic concerns.	Continue to evaluate potential off-site drilling locations for safety, legality, and practicality.
Potential Presence of DNAPL	-	Based on the currently available information, there does not appear to be separate-phase product (i.e., DNAPL) in soil or groundwater at the site.	Sampling has been limited to grab samples from temporary borings.	Install monitoring wells.
Nature and Extent of Environmental Impacts	Extent in Soil	TPHg and BTEX (at concentrations greater than the commercial/industrial ESL) were detected in soil samples colelcted within the open former tank pit and from the seven subsequent soil borings (SB1 through SB7) at depths up to 20 feet bgs.	The extent of soil impact in the saturated zone, and in the vadose zone more than ten feet from the former tank pit, is unknown.	Install soil borings at a greater distance from the former tank pit.

TABLE 3
SITE CONCEPTUAL MODEL
The Salvation Army
Oakland, California
(Page 4 of 6)

CSM Element	CSM Sub-Element	Description	Data Gap	How to Address
Nature and Extent of Environmental Impacts (cont.)	Extent in Shallow Groundwater	Grab groundwater data are available for VOCs in the area immediately surrounding the former tank pit and encompassing an area roughly 40 feet across.	Site-specific groundwater gradient and the extent of groundwater impact are not known. Horizontal extent of release in shallow groundwater has not been investigated.	Obtain additional grab groundwater samples and/or install monitoring wells farther from the tank pit.
	Extent in Deep Groundwater	The extent of impact in groundwater below 30 feet bgs or more than ten lateral feet from the former tank pit has not been evaluated.	Site-specific groundwater gradient and the extent of groundwater impact are not known. Horizontal extent of release in deep groundwater has not been investigated.	Advance a deep soil boring, possibly with CPT/MIP techniques, in the vicinity of the former tank pit.
	Extent in Soil Vapor	The extent of soil vapor originating from the former tank pit has not been evaluated, though PID readings during initial soil and groundwater investigation do indicate the likely presence of soil vapor in soils within ten feet of the former tank pit.	The horizontal extent of soil vapor related to the former tanks is unknown.	Advance shallow soil borings or soil gas probes farther from the former tank pit.

TABLE 3
SITE CONCEPTUAL MODEL
The Salvation Army
Oakland, California
(Page 5 of 6)

CSM Element	CSM Sub-Element	Description	Data Gap	How to Address
Migration Pathways	Potential Conduits	Known on-site utilities include sanitary sewer laterals, water, gas, and electrical lines. An electrical line and sewer line have been located within twenty feet of the former tank pit to the south, and several electrical and telecommunications lines have been identified within twenty feet of the former tank pit to the north (along 7th Street). These facilities could act as conduits for vapor migration.	Soil gas readings are currently limited to PID readings during soil and groundwater sampling. Migration pathways have not been investigated beyond location.	Advance shallow soil borings or soil gas probes farther from the former tank pit.
Potential Receptors/ Risks	On-Site	Potable water at the site currently is provided via municipal supply and will continue to be in the foreseeable future. As such, direct contact to groundwater is not contemplated. Receptors at the site could include the following: • Current worker via vapor intrusion to indoor air • Future construction worker via soil, groundwater, and soil vapor • Future resident via vapor intrusion to indoor air • Future maintenance worker via soil and soil vapor	Potential impacts to on-site receptors are not known.	Human health risks will be evaluated following additional data collection.

TABLE 3
SITE CONCEPTUAL MODEL
The Salvation Army
Oakland, California
(Page 6 of 6)

CSM Element	CSM Sub-Element	Description	Data Gap	How to Address
Potential Receptors/ Risks (Con't)	Off-Site	Potential off-site receptors include:	Potential impacts to off-site receptors are not known.	Data will be obtained from the California Department of Water Resources and Zone 7 Water Agency regarding the location of nearby water-producing wells, including the depth at which groundwater is extracted, will be obtained. See Item 9 on Table 4. The potential for constituents at the site to impact off-site receptors will be evaluated pending the results of the proposed investigation.
	Nearby wells	• Nearby water-producing wells, if any are present		
	Nearby waterbodies	• Alameda Estuary		

Abbreviations
bgs = below ground surface
TPHd = total petroleum hydrocarbons as diesel
TPHmo = total petroleum hydrocarbons as motor oil
DNAPL = dense non-aqueous phase liquid
mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
µg/L = micrograms per liter
µg/m3 = micrograms per cubic meter
PID = photoionization detector
ppm = parts per million
ppmv = parts per million by volume

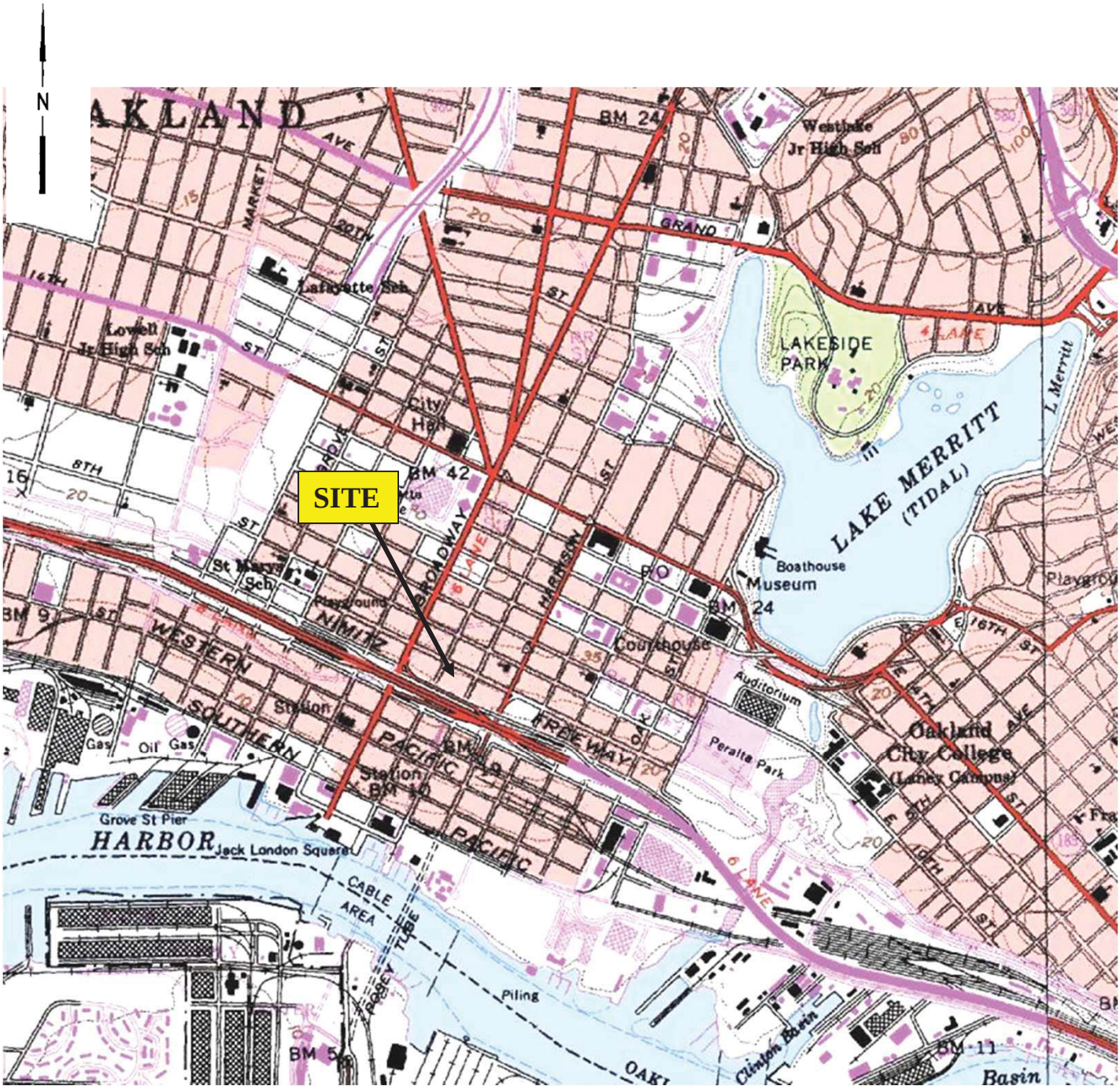
TABLE 4
DATA GAP SUMMARY
The Salvation Army
Oakland, California
(Page 1 of 2)

Item	Data Gap	Proposed Investigation	Rationale	Analysis
1	Site specific lithology below 26 feet has not been evaluated.	Conduct CPT/MIP investigation in the vicinity of the former tank pit.	Direct push techniques encounter problems in extremely sandy soils due to sampler jams, high friction melting sampling sleeves, and a greatly reduced frequency of samples. Characterization of deeper soil should be conducted in advance of monitoring well instalaltion to ensure proper depths and to address multiple zones should they be present.	NA
2	The hydraulic gradient and groundwater flow direction have not been specifically evaluated at the site.	Installation of monitoring wells in first-encountered groundwater	Groundwater gradients can not be adequately determined from regional data or interpretations, from first encountered depths during direct-push investigations, or from other cases.	NA
3	The existence and potential impact of off-site wells on the site has not been researched.	Documentation research for nearby case site to establish plume sizes and directions.	Wells or borings between the site and potential off-site sources are problematic due to subsurface utilities, accessible spaces, and traffic concerns.	NA
4	Sampling has been limited to grab samples from temporary borings.	See Item 2.	Grab sampling runs considerable risk of cross contamination through drag-down, slough, and hole collapse.	TPHg, TPHd, BTEX, Naphthalene, oxygenates, and lead scavengers.
5	The extent of soil impact in the saturated zone, and in the vadose zone more than ten feet from the former tank pit, is unknown.	Conduct soil and groundwater sampling more than ten lateral feet from the former tank pit.	Impact at and immediately surrounding the former tank pit has been established. Plume extent cannot be inferred from the data available.	TPHg, TPHd, BTEX, Naphthalene, oxygenates, and lead scavengers.
6	Site-specific groundwater gradient and the extent of groundwater impact are not known.	See Item 6.	See Item 6.	TPHg, TPHd, BTEX, oxygenates, and lead scavengers.
7	The horizontal extent of soil vapor related to the former tanks is unknown. Soil gas readings are currently limited to PID readings during soil and groundwater sampling.	Conduct Soil Vapor investigation around and, if possible, within the on-site structure.	PID readings are neither precise nor compound specific enough to provide data for vapor risk assessment.	TPH and Air Quality Standards by TO-14.

TABLE 4
DATA GAP SUMMARY
The Salvation Army
Oakland, California
(Page 2 of 2)

Item	Data Gap	Proposed Investigation	Rationale	Analysis
8	Potential impacts to on-site receptors are not known.	See Item 7.	See Item 7.	See Item 7.
9	The presence or absence of other wells or groundwater extraction in the site vicinity has not been established. Potential impacts to off-site receptors are not known.	A formal well survey will be performed to identify water-producing, monitoring, and cathodic protection wells. Data will be obtained regarding nearby, permitted wells from the California Department of Water Resources and Zone 7 Water Agency.	If groundwater downgradient of the site is being used for supply purposes, it is possible that VOCs related to the site could be impacting groundwater.	NA

Abbreviations
bgs = below ground surface
EPA = U.S. Environmental Protection Agency
PCE = tetrachloroethene
TPHg = total petroleum hydrocarbons quantified as gasoline
VOCs = volatile organic compounds



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

FIGURE 1

SITE LOCATION MAP

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CALIFORNIA

Cardno ATC
Shaping the Future
1117 Lone Palm Ave, Ste 201B
Modesto, CA 95351
(209) 579-2221

PROJECT NO: 54.25026.0001		
DESIGNED BY: JK	SCALE: 1:24,000	REVIEWED BY: JH
DRAWN BY: JK	DATE: 05/12	FILE: LOCATION

S:\Projects\54\25026 SALVATION ARMY\0001\2SITEMAP.dwg

LEGEND

APPROXIMATE FACILITY BOUNDARY

SOIL BORING

FORMER UST

FORMER EXCAVATION

0 40 80

SCALE, FT

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

SITE MAP WITH BORING LOCATIONS

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: 54.25026.0001		DATE: 1/9/14	FIGURE
APPROVED BY: MS		DRAWN BY: BK	2

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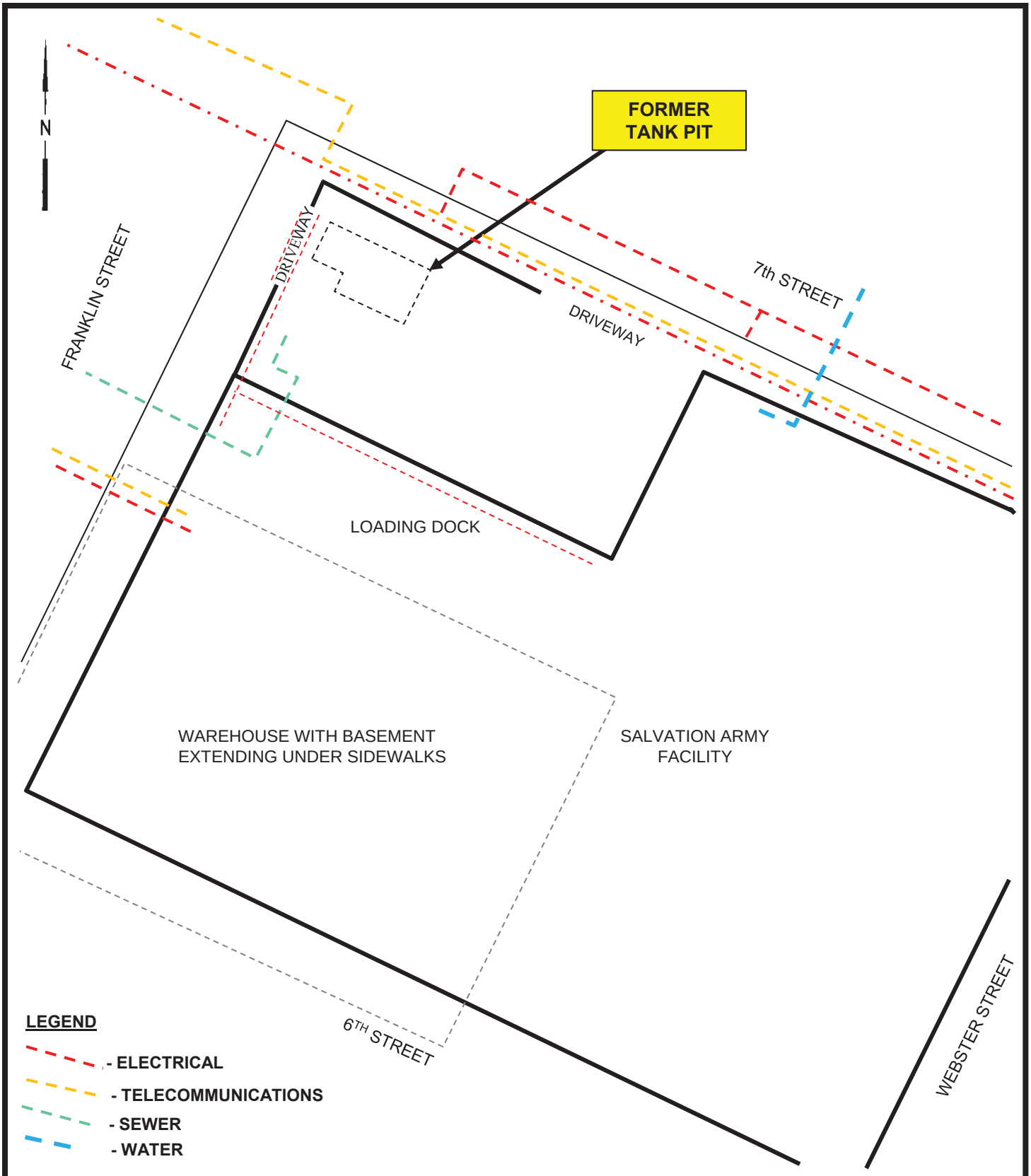

FIGURE 3

SITE MAP WITH SUBSURFACE UTILITIES

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CALIFORNIA

Cardno ATC
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Modesto, CA 95351
(209) 579-2221

PROJECT NO: 54.25026.0001		
DESIGNED BY: JK	SCALE: NTS	REVIEWED BY: JH
DRAWN BY: JK	DATE: 08/13	FILE: LOCATION

LEGEND

APPROXIMATE FACILITY BOUNDARY

SOIL BORING

FORMER EXCAVATION

A – A' CROSS SECTION

0 10 20

SCALE, FT

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

CROSS SECTION LOCATION MAP

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: 54.25026.0001		DATE: 1/12/14	FIGURE 4
APPROVED BY: JK		DRAWN BY: BK	

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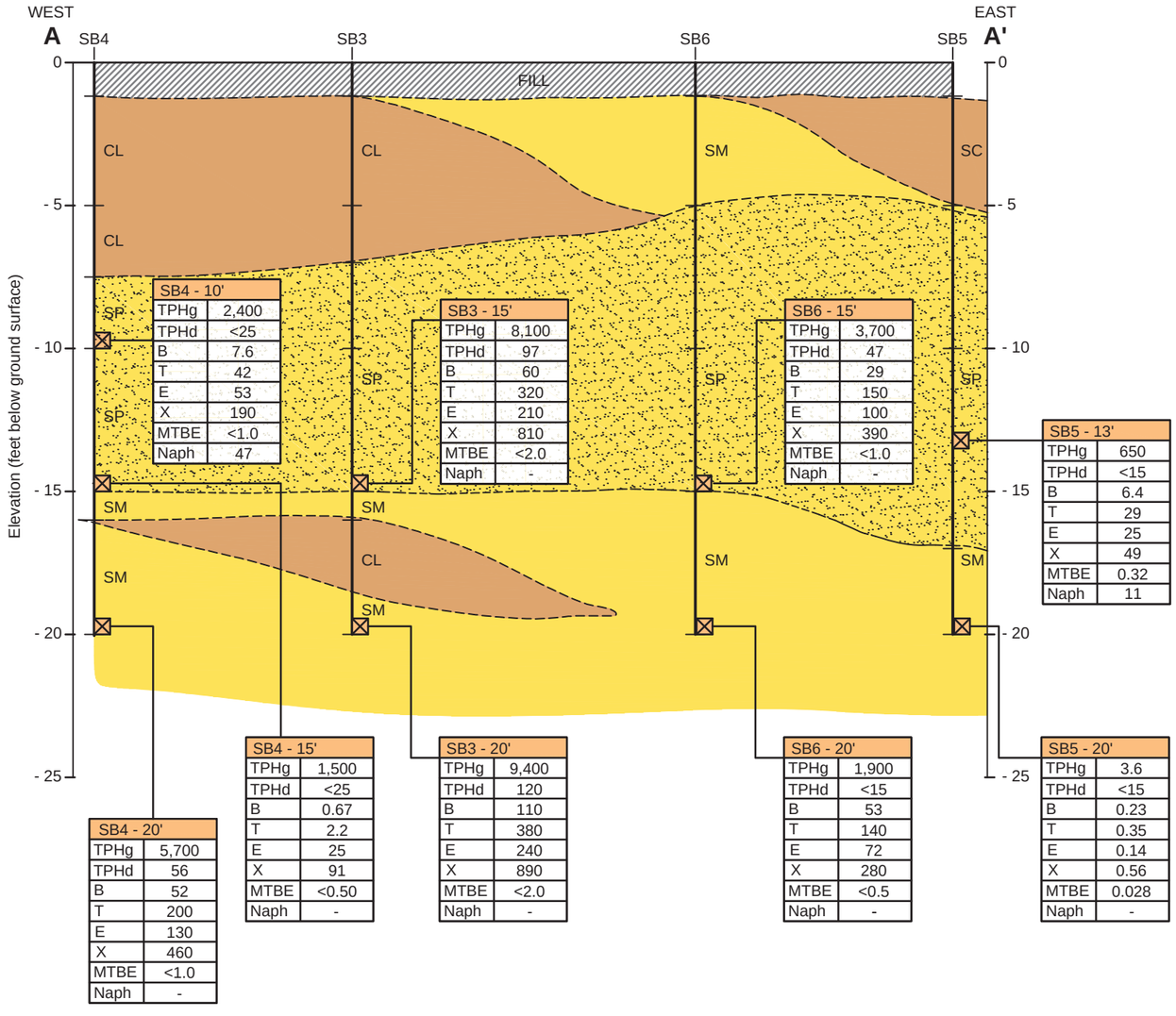

EXPLANATION

- Fill
- Coarse-grained unit (e.g., sands, gravels, silty and clayey sands and gravels)
- Poorly-grained unit (sands or gravelly sands)
- Fine-grained unit (clays, silts)
- Soil Sample Collected
- Soil vapor sample collected
- Grab groundwater sample collected
- Groundwater level measured in boring

Abbreviations

CL = Clay
GC = Gravel
ML = Silt
SC = Clayey sands
SM = Poorly-graded sands or gravelly sands
SW = Well-graded sands
ESL = Environmental Screening Level
TPHg = total petroleum hydrocarbons with gasoline
TPHd = total petroleum hydrocarbons with diesel
B = Benzene
T = Toulene
E = Ethyl Benzene
X = Xylenes
Naph = Naphthalene
< = not detected above the reporting limit shown
mg/kg = micorgrams per kilogram

NOTES:

1. Results for soil are reported in micrograms per kilogram (mg/kg).

SCALE IN FEET

FIGURE 5

DATE: 1/12/14
DRAWN BY: DW/BK
PROJECT NUMBER: 54.25026.0001
APPROVED BY: JK

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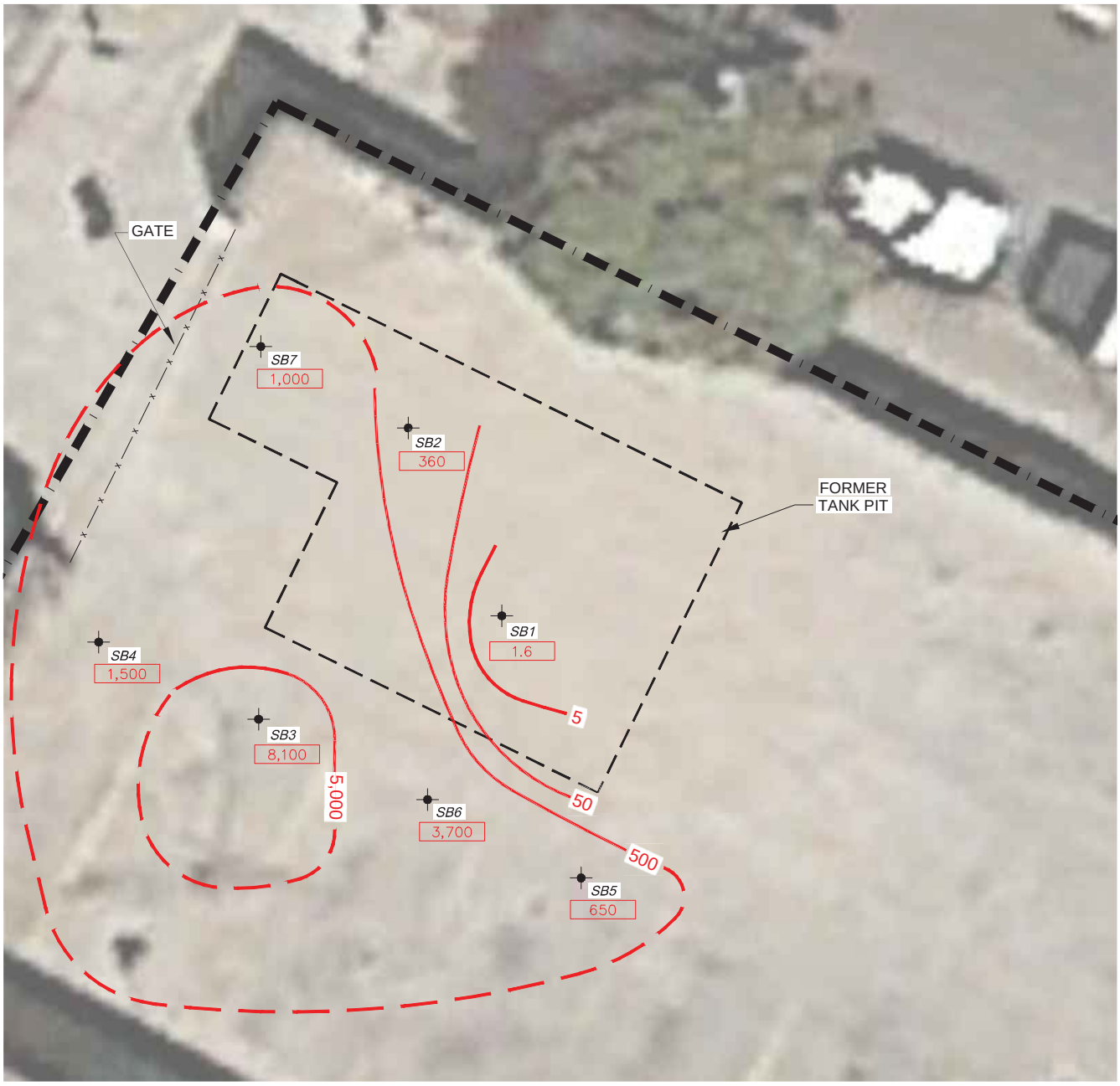
CROSS SECTION A-A'

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA



LEGEND

- APPROXIMATE FACILITY BOUNDARY
- SOIL BORING
- FORMER EXCAVATION
- 5,000 TPHg CONCENTRATION IN mg/kg
- TPHg ISOCONTOUR

0 10 20

SCALE, FT

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

ISOCONCENTRATION MAP - TPHg IN SOIL AT 15'

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: 54.25026.0001		DATE: 1/12/14	FIGURE 6
APPROVED BY: JK		DRAWN BY: BK	

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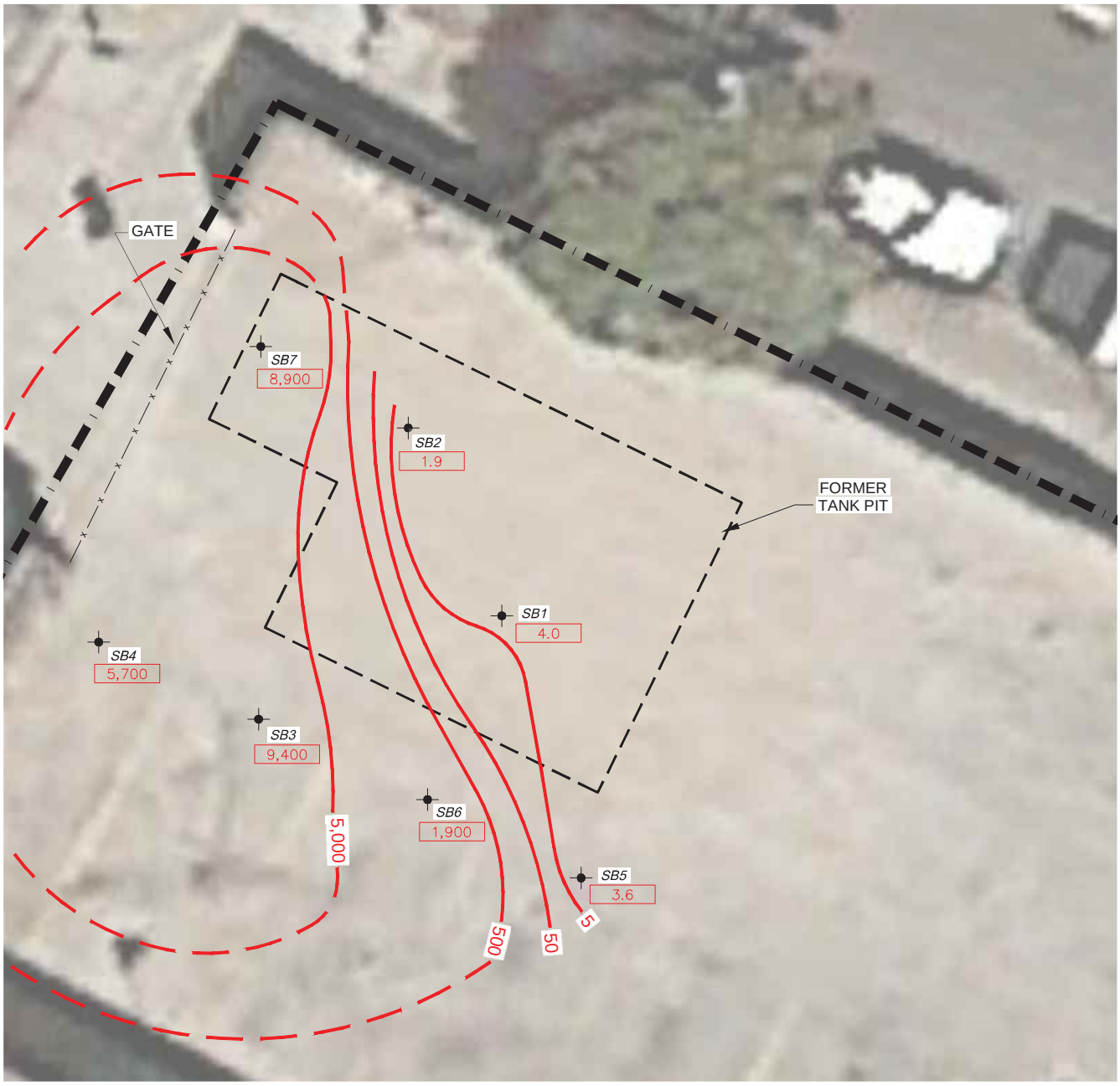

LEGEND

- APPROXIMATE FACILITY BOUNDARY
- SOIL BORING
- FORMER EXCAVATION
- 5,700 TPHg CONCENTRATION IN mg/kg
- TPHg ISOCONTOUR

0 10 20

SCALE, FT

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

ISOCONCENTRATION MAP - TPHg IN SOIL AT 20'

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: 54.25026.0001		DATE: 1/12/14	FIGURE 7
APPROVED BY: JK		DRAWN BY: BK	

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LEGEND

APPROXIMATE FACILITY BOUNDARY

SOIL BORING

FORMER EXCAVATION

97 TPHd CONCENTRATION IN mg/kg

TPHd ISOCONTOUR

0 10 20

SCALE, FT

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

ISOCONCENTRATION MAP - TPHd IN SOIL AT 15'

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: 54.25026.0001		DATE: 1/12/14	FIGURE 8
APPROVED BY: JK		DRAWN BY: BK	

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LEGEND

APPROXIMATE FACILITY BOUNDARY

SOIL BORING

FORMER EXCAVATION

56 TPHd CONCENTRATION IN mg/kg

TPHd ISOCONTOUR

0 10 20

SCALE, FT

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

ISOCONCENTRATION MAP - TPHd IN SOIL AT 20'

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: 54.25026.0001		DATE: 1/12/14	FIGURE 9
APPROVED BY: JK		DRAWN BY: BK	

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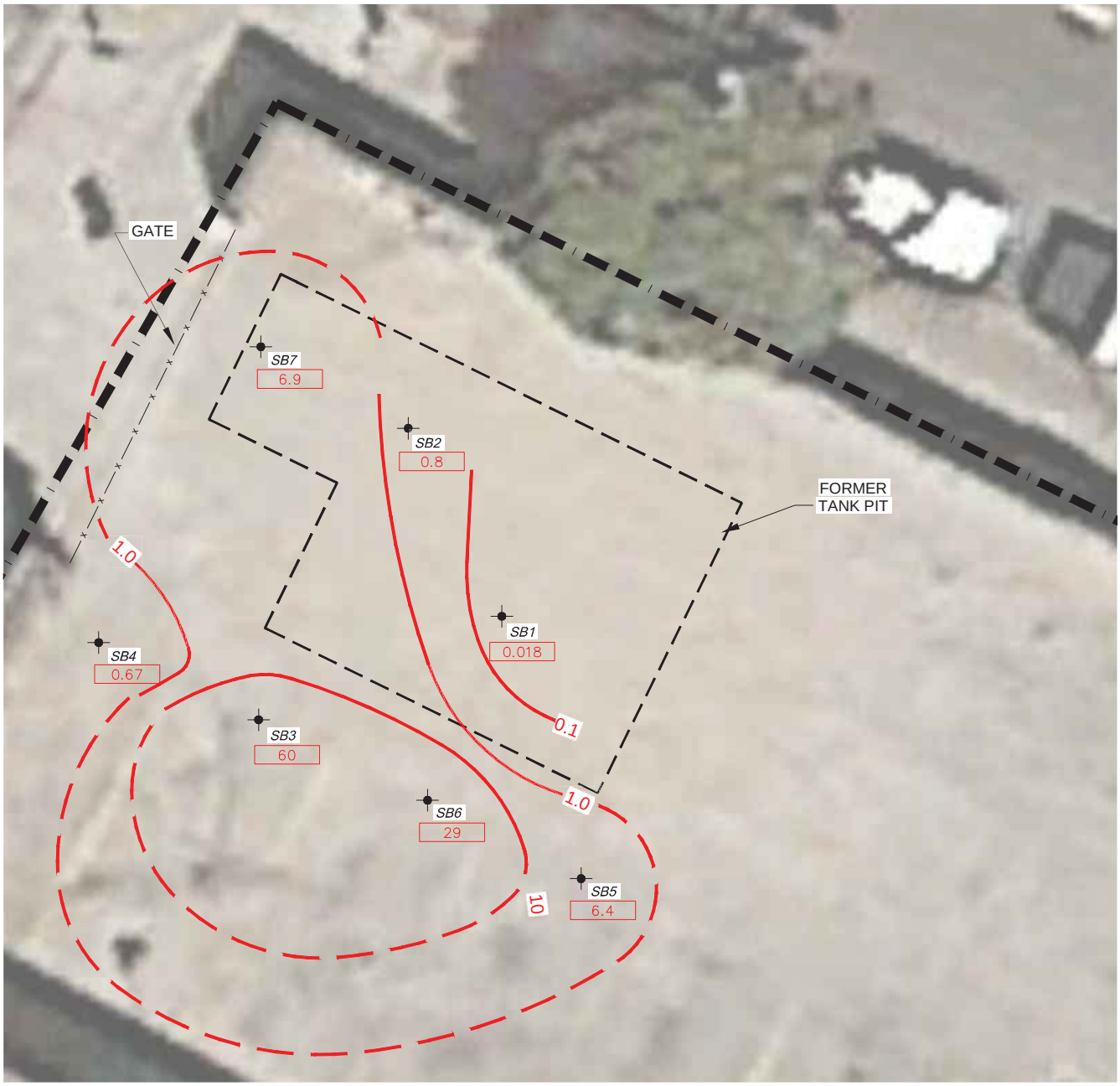

LEGEND

- APPROXIMATE FACILITY BOUNDARY
- SOIL BORING
- FORMER EXCAVATION
- 60 BENZENE CONCENTRATION IN mg/kg
- BENZENE ISOCONTOUR

0 10 20

SCALE, FT

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

ISOCONCENTRATION MAP - BENZENE IN SOIL AT 15'

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: 54.25026.0001		DATE: 1/12/14	FIGURE 10
APPROVED BY: JK		DRAWN BY: BK	

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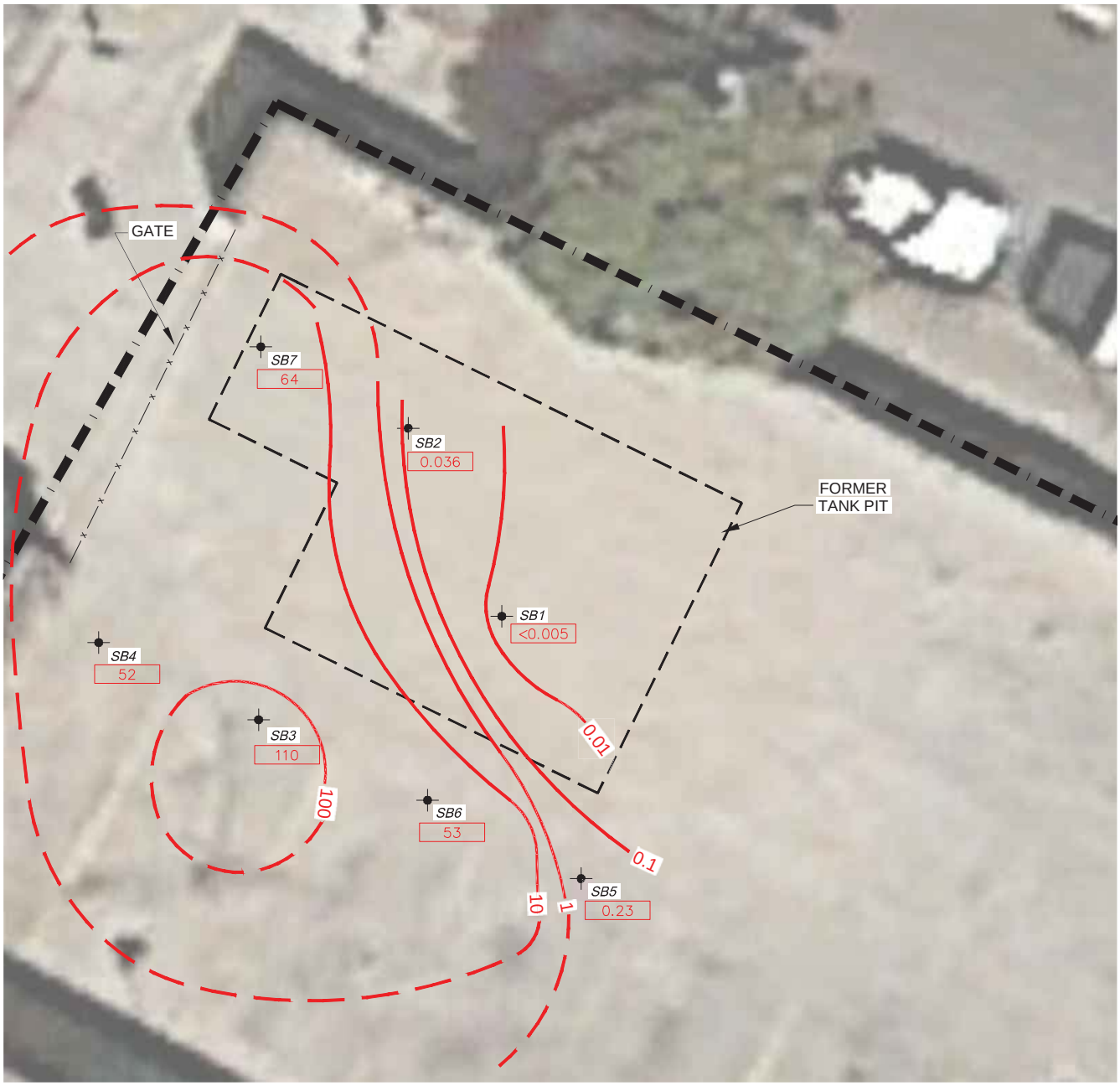

LEGEND

- APPROXIMATE FACILITY BOUNDARY
- SOIL BORING
- FORMER EXCAVATION
- 60 BENZENE CONCENTRATION IN mg/kg
- BENZENE ISOCONTOUR

0 10 20

SCALE, FT

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

ISOCONCENTRATION MAP - BENZENE IN SOIL AT 20'

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: 54.25026.0001		DATE: 1/12/14	FIGURE 11
APPROVED BY: JK		DRAWN BY: BK	

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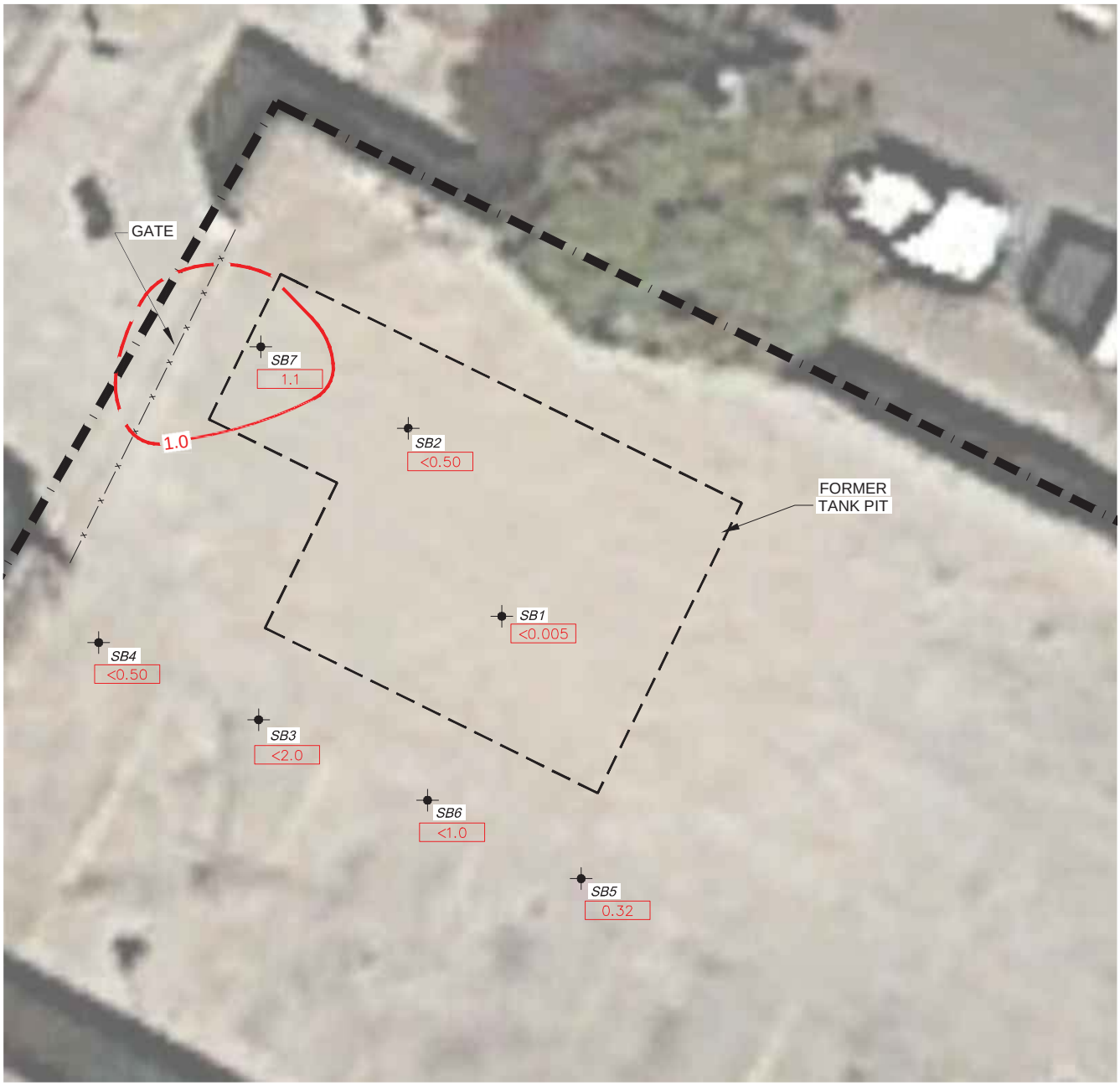

LEGEND

APPROXIMATE FACILITY BOUNDARY

SOIL BORING

FORMER EXCAVATION

60 MTBE CONCENTRATION IN mg/kg

MTBE ISOCONTOUR

0 10 20

SCALE, FT

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

ISOCONCENTRATION MAP - MTBE IN SOIL AT 15'

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: 54.25026.0001		DATE: 1/12/14	FIGURE 12
APPROVED BY: JK		DRAWN BY: BK	

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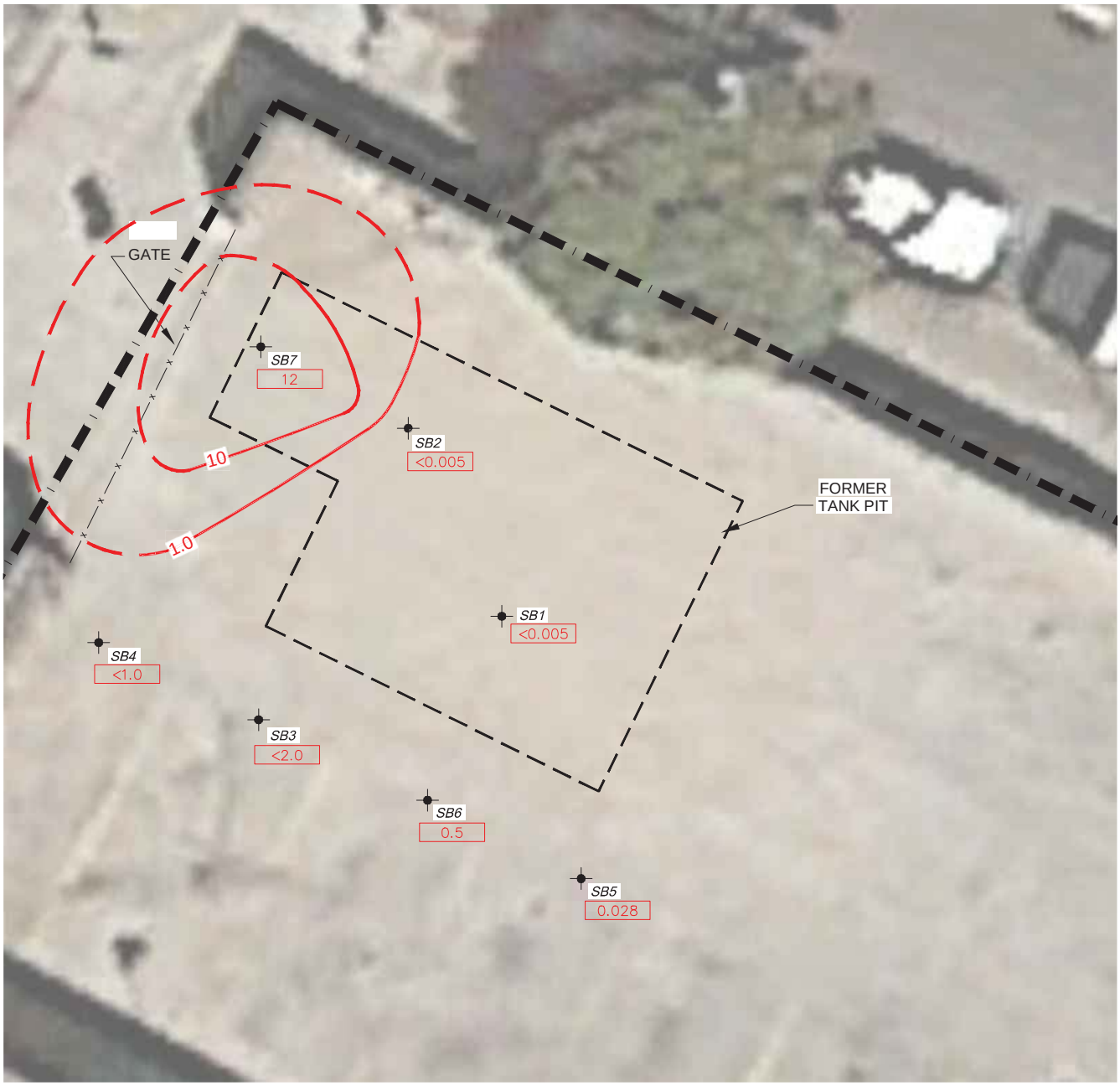

LEGEND

APPROXIMATE FACILITY BOUNDARY

SOIL BORING

FORMER EXCAVATION

12 MTBE CONCENTRATION IN mg/kg

MTBE ISOCONTOUR

0 10 20

SCALE, FT

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

ISOCONCENTRATION MAP - MTBE IN SOIL AT 20'

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: 54.25026.0001		DATE: 1/12/14	FIGURE 13
APPROVED BY: JK		DRAWN BY: BK	

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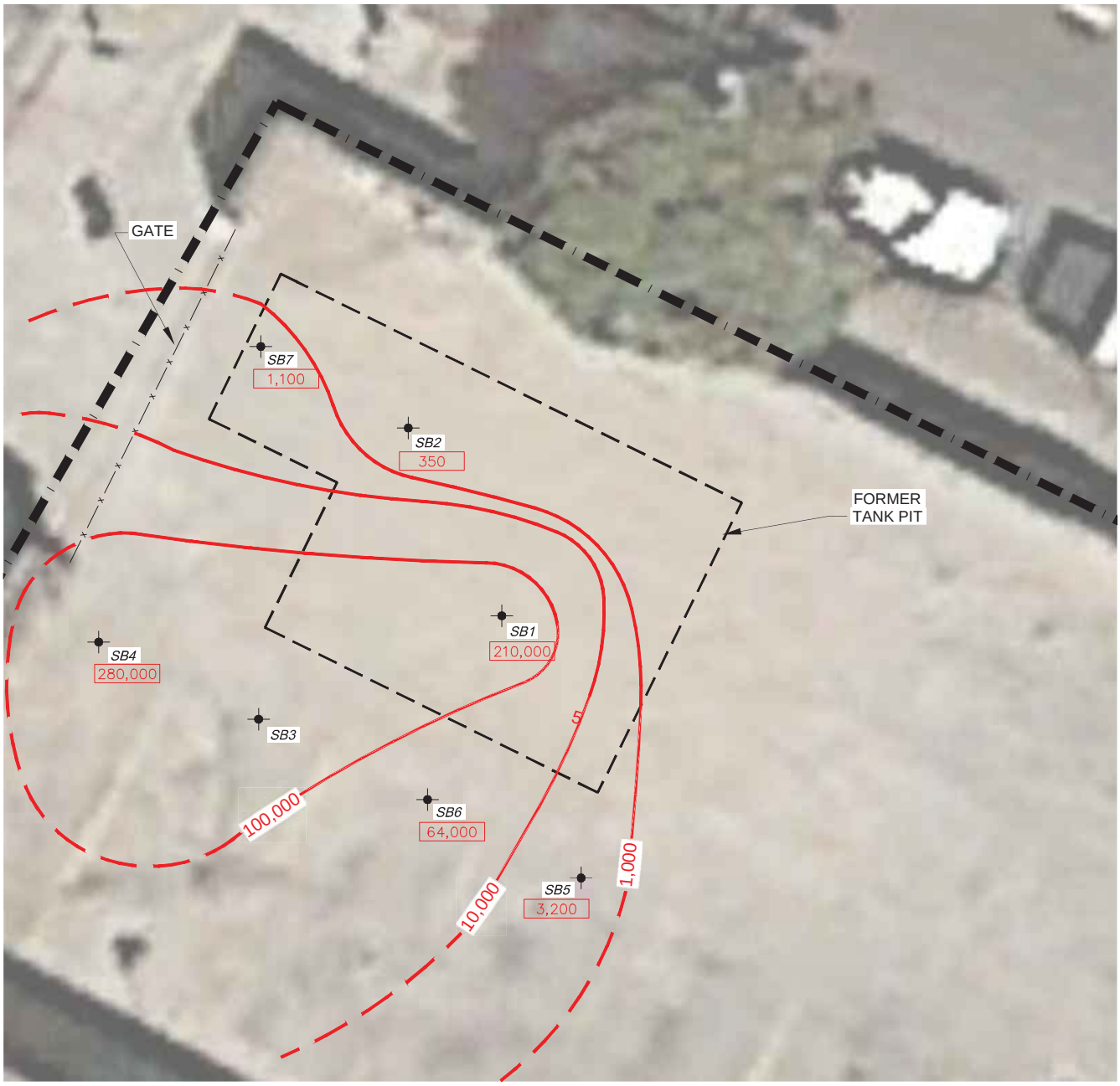

LEGEND

- APPROXIMATE FACILITY BOUNDARY
- SOIL BORING
- FORMER EXCAVATION
- 280,000 TPHg CONCENTRATION IN µg/L
- TPHg ISOCONTOUR

0 10 20

SCALE, FT

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

ISOCONCENTRATION MAP - TPHg IN WATER

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: 54.25026.0001		DATE: 1/12/14	FIGURE 14
APPROVED BY: JK		DRAWN BY: BK	

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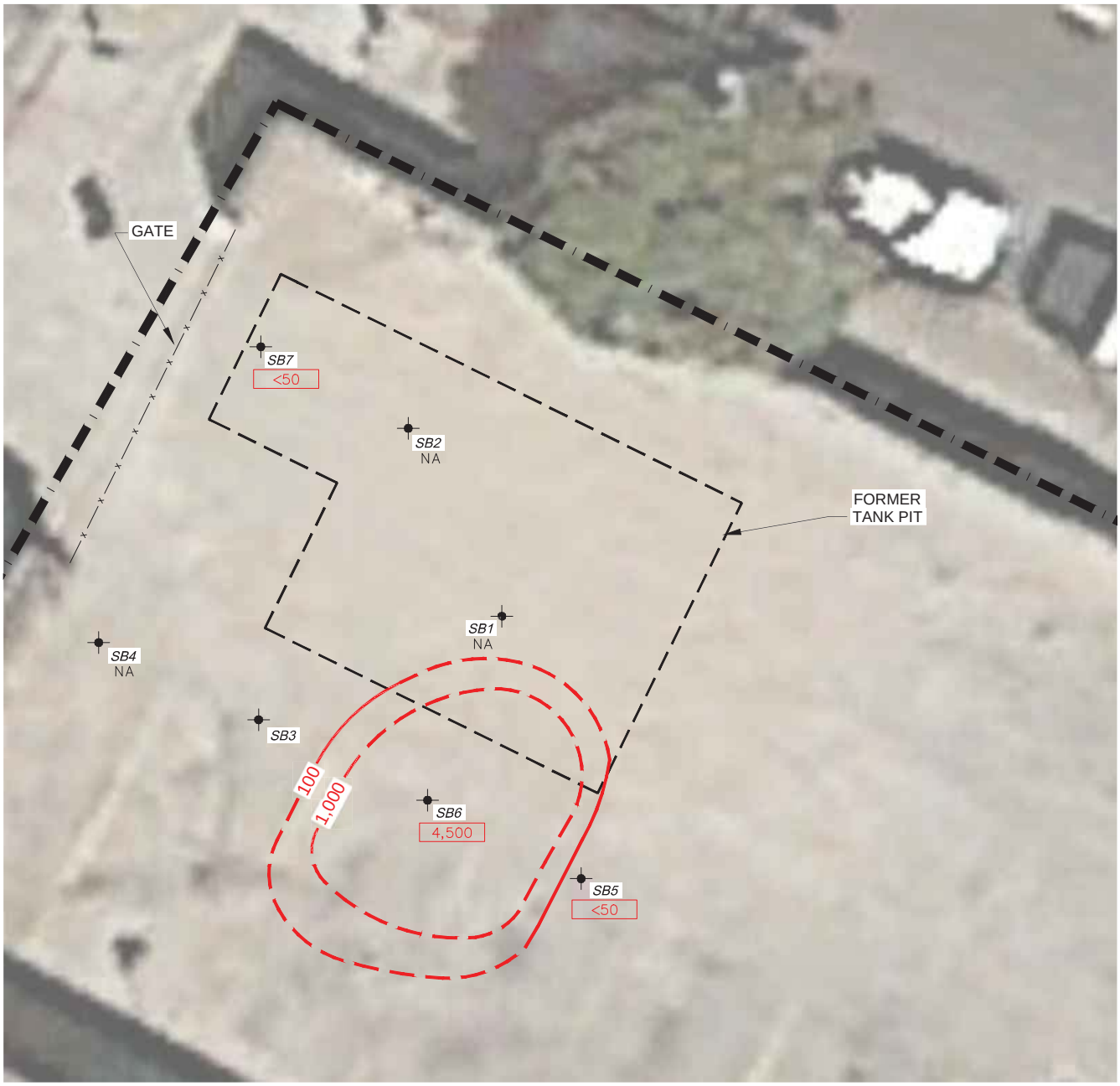

LEGEND

APPROXIMATE FACILITY BOUNDARY

SOIL BORING

FORMER EXCAVATION

4,500 TPHd CONCENTRATION IN µg/L

TPHd ISOCONTOUR

NA NOT ANALYZED

0 10 20

SCALE, FT

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

ISOCONCENTRATION MAP - TPHd IN WATER

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: 54.25026.0001		DATE: 1/12/14	FIGURE 15
APPROVED BY: JK		DRAWN BY: BK	

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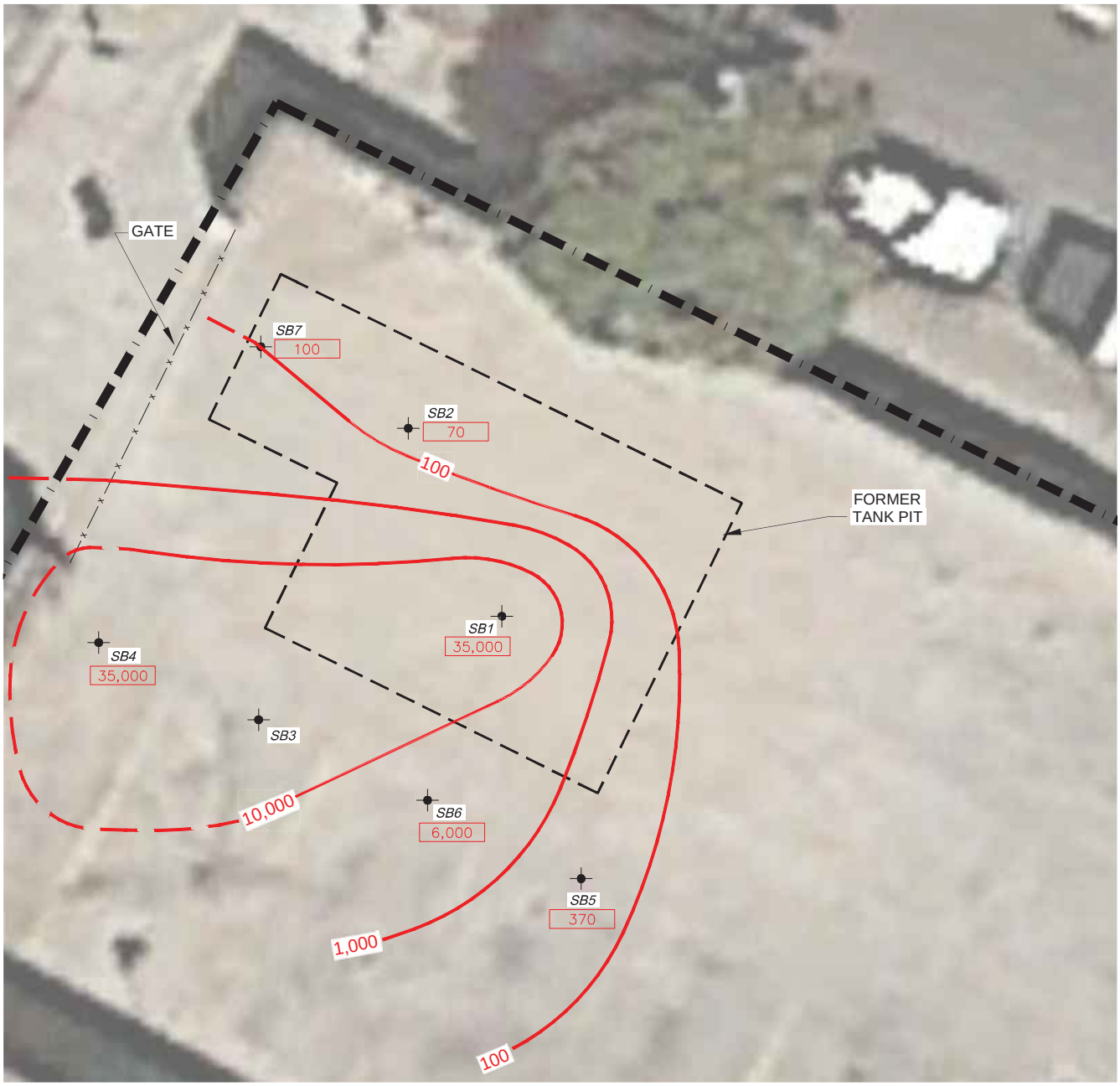

LEGEND

- APPROXIMATE FACILITY BOUNDARY
- SOIL BORING
- FORMER EXCAVATION
- 35,000 BENZENE CONCENTRATION IN µg/L
- BENZENE ISOCONTOUR

0 10 20

SCALE, FT

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

ISOCONCENTRATION MAP - BENZENE IN WATER

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: 54.25026.0001		DATE: 1/12/14	FIGURE 16
APPROVED BY: JK		DRAWN BY: BK	

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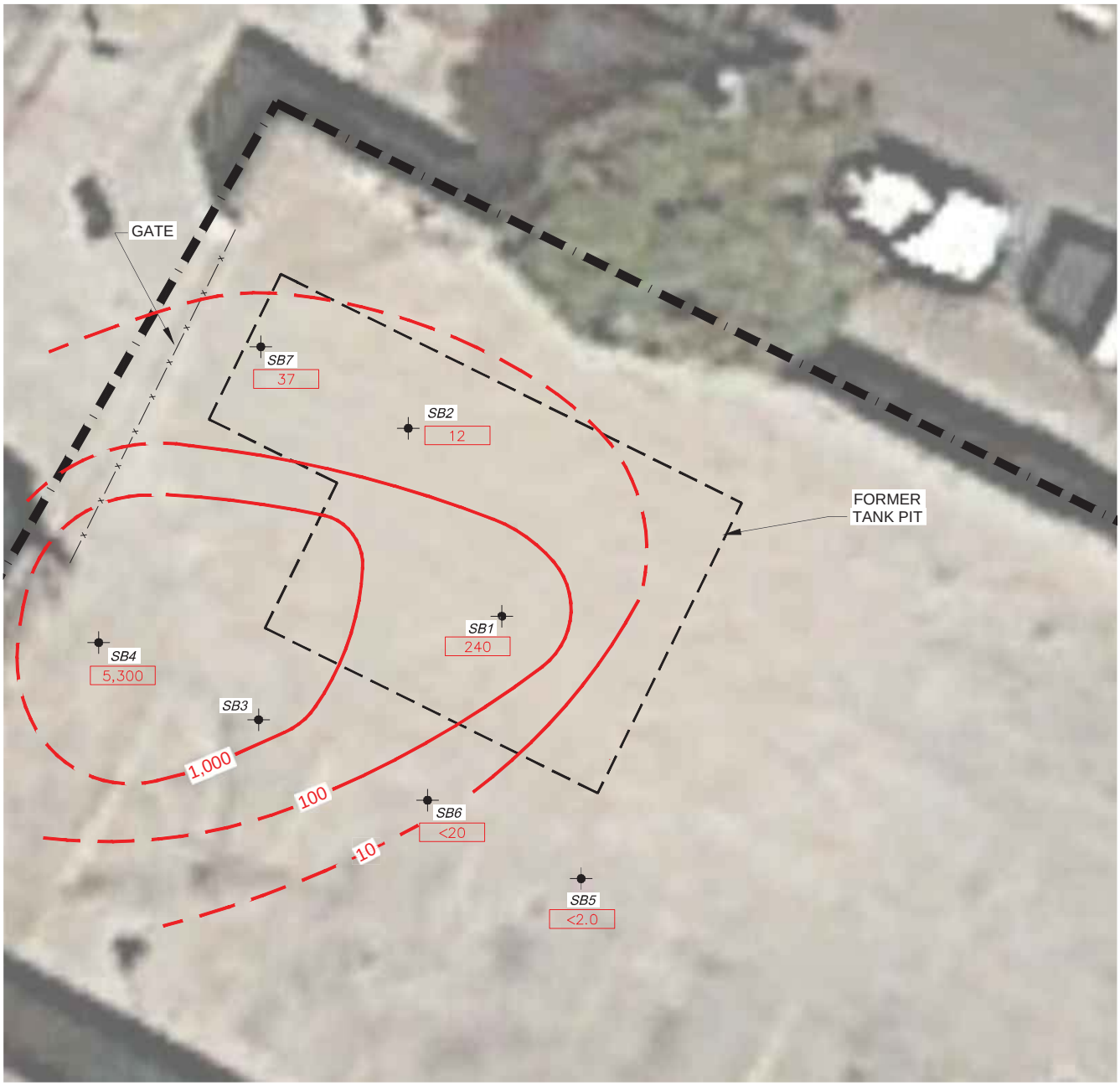

LEGEND

- APPROXIMATE FACILITY BOUNDARY
- SOIL BORING
- FORMER EXCAVATION
- 5,300 MTBE CONCENTRATION IN µg/L
- MTBE ISOCONTOUR

0 10 20

SCALE, FT

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

ISOCONCENTRATION MAP - MTBE IN WATER

THE SALVATION ARMY
601 WEBSTER STREET
OAKLAND, CA

PROJECT NUMBER: 54.25026.0001		DATE: 1/12/14	FIGURE 17
APPROVED BY: JK		DRAWN BY: BK	

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APPENDIX A

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LOG OF BORING SB1

PROJECT SALVATION ARMY | LOCATION 601 WEBSTER STREET, OAKLAND, CALIFORNIA | PROJECT NO. 54.25026.0001
DATE DRILLED 07/29/2013 | LOGGED BY JIM KUNDERT | REVIEWED BY JEANNE HOMSEY C47410
DRILLING COMPANY VIRONEX | DRILLER JOEL | METHOD DIRECT PUSH
BORE HOLE DIAMETER 2 IN | DEPTH DRILLED 25 FT | DEPTH TO WATER : INITIAL 24 FT | STATIC ____ FT
CASING TYPE NA | DIAMETER ____ IN | SCHEDULE ____ | INTERVAL ____ FT TO ____ FT
SCREEN TYPE NA | DIAMETER ____ IN | SLOT SIZE ____ IN | INTERVAL ____ FT TO ____ FT
FILTER PACK TYPE NA | INTERVAL ____ FT TO ____ FT
SURFACE SEAL TYPE NEAT CEMENT | INTERVAL ____ FT TO ____ FT
COMMENTS: | PAGE 1 OF 1

WELL DETAIL	DEPTH (FT.)	PID (PPM)	SAMPLE ID BLOWCOUNT	LITHOLOGIC LOG		DESCRIPTION
	2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40	0.1		SP	0' – 10'	INSUFFICIENT RECOVERY FOR ANALYSIS
		0.1			0' – 14'	IMPORTED FILL (SP): 60% FINE TO MEDIUM, POORLY GRADED SAND; 35% FINE TO COARSE GRAVEL; 5% FINES; GREY–BROWN, NO ODOR, NO ORGANICS, DRY, HOMOGENOUS.
		29.7	SB1–15'	SP	14' – 15'	SAND (SP): 100% FINE, POORLY GRADED SAND; NO DRY STRENGTH, SLOW DILATANCY, OLIVE GREY, MODERATE ODOR (FUEL), NO ORGANICS, MOIST, HOMOGENOUS.
				SM	15' – 25'	SILTY SAND (SM): 90% FINE, POORLY GRADED SAND; 10% FINES; NO DRY STRENGTH, NO DILATANCY, LOW TOUGHNESS, NON–PLASTIC, MEDIUM STIFF, RED–BROWN TO OLIVE GREY, SLIGHT ODOR (FUEL), NO ORGANICS, MOIST, WEAK TO MODERATE CEMENTATION, HOMOGENOUS.
		3519	SB1–20'			OLIVE GREY
		2065	SB1–W		▽	

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LOG OF BORING SB2

PROJECT SALVATION ARMY | LOCATION 601 WEBSTER STREET, OAKLAND, CALIFORNIA | PROJECT NO. 54.25026.0001
DATE DRILLED 07/29/2013 | LOGGED BY JIM KUNDERT | REVIEWED BY JEANNE HOMSEY C47410
DRILLING COMPANY VIRONEX | DRILLER JOEL | METHOD DIRECT PUSH
BORE HOLE DIAMETER 2 IN | DEPTH DRILLED 26 FT | DEPTH TO WATER : INITIAL 24 FT | STATIC ____ FT
CASING TYPE NA | DIAMETER ____ IN | SCHEDULE ____ | INTERVAL ____ FT TO ____ FT
SCREEN TYPE NA | DIAMETER ____ IN | SLOT SIZE ____ IN | INTERVAL ____ FT TO ____ FT
FILTER PACK TYPE NA | INTERVAL ____ FT TO ____ FT
SURFACE SEAL TYPE NEAT CEMENT | INTERVAL ____ FT TO ____ FT
COMMENTS: | PAGE 1 OF 1

WELL DETAIL	DEPTH (FT.)	PID (PPM)	SAMPLE ID BLOWCOUNT	LITHOLOGIC LOG		DESCRIPTION
	2					
	4	0.1			0' – 10'	INSUFFICIENT RECOVERY FOR ANALYSIS
	6					
	8					
	10	0.4			0' – 13'	IMPORTED FILL (SP): 60% FINE TO MEDIUM, POORLY GRADED SAND; 35% FINE TO COARSE GRAVEL; 5% FINES; GREY–BROWN, NO ODOR, NO ORGANICS, DRY, HOMOGENOUS.
	12					
	14	1578	SB2–15'	SP	13' – 15'	SAND (SP): 100% FINE, POORLY GRADED SAND; NO DRY STRENGTH, SLOW DILATANCY, BROWN TO OLIVE GREY, MODERATE ODOR (FUEL), NO ORGANICS, MOIST, HOMOGENOUS.
	16				15' – 20'	SILTY SAND (SM): 90% FINE, POORLY GRADED SAND; 10% FINES; NO DRY STRENGTH, NO DILATANCY, LOW TOUGHNESS, NON–PLASTIC, MEDIUM STIFF, OLIVE GREY, SLIGHT TO MODERATE ODOR (FUEL), NO ORGANICS, MOIST, HOMOGENOUS.
	18			SM		
	20	1624	SB2–20'			
	22					
	24				▽	
	26		SB2–W			HYDROPUNCH TO 26' FOR WATER SAMPLE
	28					
	30					
	32					
	34					
	36					
	38					
	40					

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LOG OF BORING SB3

PROJECT SALVATION ARMY | LOCATION 601 WEBSTER STREET, OAKLAND, CALIFORNIA | PROJECT NO. 54.25026.0001
DATE DRILLED 07/29/2013 | LOGGED BY JIM KUNDERT | REVIEWED BY JEANNE HOMSEY C47410
DRILLING COMPANY VIRONEX | DRILLER JOEL | METHOD DIRECT PUSH
BORE HOLE DIAMETER 2 IN | DEPTH DRILLED 20 FT | DEPTH TO WATER : INITIAL ____ FT STATIC ____ FT
CASING TYPE NA | DIAMETER ____ IN | SCHEDULE ____ | INTERVAL ____ FT TO ____ FT
SCREEN TYPE NA | DIAMETER ____ IN | SLOT SIZE ____ IN | INTERVAL ____ FT TO ____ FT
FILTER PACK TYPE NA | INTERVAL ____ FT TO ____ FT
SURFACE SEAL TYPE NEAT CEMENT | INTERVAL ____ FT TO ____ FT
COMMENTS: | PAGE 1 OF 1

WELL DETAIL	DEPTH (FT.)	PID (PPM)	SAMPLE ID BLOWCOUNT	LITHOLOGIC LOG		DESCRIPTION
					0 – 4"	CONCRETE
					4" – 16"	FILL AND BURNT WOOD
	2				16" – 5'	SANDY CLAY (CL): 10% FINE, POORLY GRADED SAND; 10% FINE GRAVEL; 80% FINES; MEDIUM DRY STRENGTH, NO DILATANCY, MEDIUM TOUGHNESS, MEDIUM TO HIGH PLASTICITY, SOFT, OLIVE GREY TO RED–BROWN, NO ODOR, NO ORGANICS, DRY TO MOIST, WEAK CEMENTATION, HOMOGENOUS.
		1.2		CL		
	4					
		4.4			5' – 7'	SANDY CLAY (CL): <5% FINE, POORLY GRADED SAND; >95% FINES; MEDIUM DRY STRENGTH, NO DILATANCY, MEDIUM TOUGHNESS, MEDIUM PLASTICITY, MEDIUM STIFF, OLIVE GREY, MODERATE ODOR (FUEL), NO ORGANICS, MOIST, WEAK CEMENTATION, HOMOGENOUS.
	6					
	8			SP	7' – 15'	FINE SAND (SP): 100% FINE, POORLY GRADED SAND; NO DRY STRENGTH, SLOW DILATANCY, OLIVE GREY TO RED–BROWN, SLIGHT TO MODERATE ODOR (FUEL), NO ORGANICS, MOIST, HOMOGENOUS.
		76.7				
	10					
	12					
					15' – 16'	SILTY SAND (SM): 80% FINE, POORLY GRADED SAND; 20% FINES; NO TO LOW DRY STRENGTH, SLOW DILATANCY, LOW TOUGHNESS, NON–PLASTIC, MEDIUM STIFF, BROWN TO OLIVE GREY, SLIGHT ODOR (FUEL), NO ORGANICS, WET, HOMOGENOUS.
	14	2060	SB3–15'			
				SM		
	16			CL	16' – 18'	SANDY CLAY (CL): 10% FINE, POORLY GRADED SAND; 90% FINES; MEDIUM DRY STRENGTH, NO DILATANCY, LOW TOUGHNESS, MEDIUM TO HIGH PLASTICITY, SOFT, GREY–BROWN, SLIGHT TO MODERATE ODOR (FUEL), NO ORGANICS, MOIST, HOMOGENOUS.
	18					
	20	2122	SB3–20'	SM	18' – 20'	MIXED SAND (SM): 90% FINE TO COARSE, POORLY GRADED SAND; 10% FINES; NO DRY STRENGTH, SLOW TO RAPID DILATANCY, LOW TOUGHNESS, NON–PLASTIC, STIFF, BROWN, MODERATE ODOR (FUEL), NO ORGANICS, MOIST TO WET, HOMOGENOUS.
	22					
	24					
	26					
	28					HYDROPUNCH TO 27 FEET; NO RECOVERABLE GROUNDWATER ENCOUNTERED.
	30					
	32					
	34					
	36					
	38					
	40					

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LOG OF BORING SB4

PROJECT SALVATION ARMY | LOCATION 601 WEBSTER STREET, OAKLAND, CALIFORNIA | PROJECT NO. 54.25026.0001
DATE DRILLED 07/29/2013 | LOGGED BY JIM KUNDERT | REVIEWED BY JEANNE HOMSEY C47410
DRILLING COMPANY VIRONEX | DRILLER JOEL | METHOD DIRECT PUSH
BORE HOLE DIAMETER 2 IN | DEPTH DRILLED 25 FT | DEPTH TO WATER : INITIAL 24 FT | STATIC ____ FT
CASING TYPE NA | DIAMETER ____ IN | SCHEDULE ____ | INTERVAL ____ FT TO ____ FT
SCREEN TYPE NA | DIAMETER ____ IN | SLOT SIZE ____ IN | INTERVAL ____ FT TO ____ FT
FILTER PACK TYPE NA | INTERVAL ____ FT TO ____ FT
SURFACE SEAL TYPE NEAT CEMENT | INTERVAL ____ FT TO ____ FT
COMMENTS: | PAGE 1 OF 1

WELL DETAIL	DEPTH (FT.)	PID (PPM)	SAMPLE ID BLOWCOUNT	LITHOLOGIC LOG	DESCRIPTION
	0				0 – 4" CONCRETE
					4" – 16" FILL AND BURNT WOOD
	2	9.2		CL	16" – 5' SANDY CLAY (CL): 10% FINE, POORLY GRADED SAND; 10% FINE GRAVEL; 80% FINES; MEDIUM DRY STRENGTH, NO DILATANCY, MEDIUM TOUGHNESS, MEDIUM TO HIGH PLASTICITY, SOFT, OLIVE GREY TO RED–BROWN, NO ODOR, NO ORGANICS, DRY TO MOIST, WEAK CEMENTATION, HOMOGENOUS.
	4				
		67.5			5' – 7.5' SANDY CLAY (CL): 10% FINE, POORLY GRADED SAND; 90% FINES; MEDIUM DRY STRENGTH, NO DILATANCY, MEDIUM TOUGHNESS, MEDIUM PLASTICITY, MEDIUM STIFF, DARK BROWN TO OLIVE GREY, SLIGHT TO MEDIUM ODOR, NO ORGANICS, MOIST, WEAK CEMENTATION, HOMOGENOUS.
	6				
	8			SP	7.5' – 10' FINE SAND (SP): 100% FINE, POORLY GRADED SAND; NO DRY STRENGTH, STIFF, OLIVE GREY TO RED–BROWN, MODERATE ODOR (FUEL), NO ORGANICS, DRY TO MOIST, HOMOGENOUS.
	10	2562	SB4–10'		
	12			SP	10' – 15' FINE SAND (SP): 95% FINE, POORLY GRADED SAND; 5% FINES; NO DRY STRENGTH, SLOW DILATANCY, LOW TOUGHNESS, NON–PLASTIC, MEDIUM STIFF, RED–BROWN TO OLIVE GREY, MODERATE ODOR (FUEL), NO ORGANICS, MOIST, HOMOGENOUS.
	14		SB4–15'		
	16	1840		ML	15' – 16' SANDY SILT (ML): 20% FINE, POORLY GRADED SAND; 80% FINES; MEDIUM DRY STRENGTH, NO DILATANCY, MEDIUM TOUGHNESS, NON–PLASTIC, GREY–BROWN, SLIGHT TO MODERATE ODOR (FUEL), NO ORGANICS, MOIST TO WET, HOMOGENOUS.
	18				
	20	1332	SB4–20'	SM	16' – 20' SILTY SAND (SM): 90% FINE, POORLY GRADED SAND; 10% FINES; NO DRY STRENGTH, SLOW TO RAPID DILATANCY, LOW TOUGHNESS, NON–PLASTIC, MEDIUM STIFF, BROWN, SLIGHT TO MODERATE ODOR (FUEL), NO ORGANICS, WET, HOMOGENOUS.
	22				
	24		SB4–W		▽ HYDROPUNCH TO 25' FOR WATER SAMPLE
	26				
	28				
	30				
	32				
	34				
	36				
	38				
	40				

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LOG OF BORING SB5

PROJECT SALVATION ARMY | LOCATION 601 WEBSTER STREET, OAKLAND, CALIFORNIA | PROJECT NO. 54.25026.0001
DATE DRILLED 07/30/2013 | LOGGED BY JIM KUNDERT | REVIEWED BY JEANNE HOMSEY C47410
DRILLING COMPANY VIRONEX | DRILLER MATT | METHOD DIRECT PUSH
BORE HOLE DIAMETER 2 IN | DEPTH DRILLED 30 FT | DEPTH TO WATER : INITIAL 27 FT | STATIC ____ FT
CASING TYPE NA | DIAMETER ____ IN | SCHEDULE ____ | INTERVAL ____ FT TO ____ FT
SCREEN TYPE NA | DIAMETER ____ IN | SLOT SIZE ____ IN | INTERVAL ____ FT TO ____ FT
FILTER PACK TYPE NA | INTERVAL ____ FT TO ____ FT
SURFACE SEAL TYPE NEAT CEMENT | INTERVAL ____ FT TO ____ FT
COMMENTS: | PAGE 1 OF 1

WELL DETAIL	DEPTH (FT.)	PID (PPM)	SAMPLE ID BLOWCOUNT	LITHOLOGIC LOG		DESCRIPTION
					0 – 4"	CONCRETE
					4" – 16"	FILL
	2	0.1		SC	16" – 5'	SAND–CLAY MIX (SC): 50% FINE, POORLY GRADED SAND; 50% FINES; MEDIUM DRY STRENGTH, NO DILATANCY, MEDIUM TOUGHNESS, MEDIUM PLASTICITY, MEDIUM STIFF, RED–BROWN, SLIGHT ODOR (FUEL), NO ORGANICS, DRY TO MOIST, WEAK CEMENTATION, HOMOGENOUS.
	4					
		0.1				
	6					
				SP	5' – 10'	FINE SAND (SP): 100% FINE, POORLY GRADED SAND; BROWN WITH OLIVE GREY AREAS, SLIGHT ODOR (FUEL), NO ORGANICS, MOIST.
	8					
		20.4				
	10					
	12				10' – 17'	SILTY SAND (SM): 90% FINE, POORLY GRADED SAND; 10% FINES; NO DRY STRENGTH, SLOW DILATANCY, LOW TOUGHNESS, NON–PLASTIC, MEDIUM STIFF, BROWN, SLIGHT ODOR (FUEL), NO ORGANICS, MOIST, HOMOGENOUS.
		85.4	SB5–13'			
	14					
				SM		
	16					
		2807				
	18				17' – 20'	SILTY SAND (SM): 80% FINE, POORLY GRADED SAND; 20% FINES; NO DRY STRENGTH, RAPID DILATANCY, LOW TOUGHNESS, NON–PLASTIC, SOFT, GREY–BROWN, MODERATE ODOR (FUEL), NO ORGANICS, WET, HOMOGENOUS.
			SB5–20'			
	20	3044				
	22					
	24					
	26					
					▽	
	28					
			SB5–W			HYDROPUNCH TO 30' FOR WATER SAMPLE
	30					
	32					
	34					
	36					
	38					
	40					

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LOG OF BORING SB6

PROJECT SALVATION ARMY | LOCATION 601 WEBSTER STREET, OAKLAND, CALIFORNIA | PROJECT NO. 54.25026.0001
DATE DRILLED 07/30/2013 | LOGGED BY JIM KUNDERT | REVIEWED BY JEANNE HOMSEY C47410
DRILLING COMPANY VIRONEX | DRILLER MATT | METHOD DIRECT PUSH
BORE HOLE DIAMETER 2 IN | DEPTH DRILLED 30 FT | DEPTH TO WATER : INITIAL 27 FT | STATIC ____ FT
CASING TYPE NA | DIAMETER ____ IN | SCHEDULE ____ | INTERVAL ____ FT TO ____ FT
SCREEN TYPE NA | DIAMETER ____ IN | SLOT SIZE ____ IN | INTERVAL ____ FT TO ____ FT
FILTER PACK TYPE NA | INTERVAL ____ FT TO ____ FT
SURFACE SEAL TYPE NEAT CEMENT | INTERVAL ____ FT TO ____ FT
COMMENTS: | PAGE 1 OF 1

WELL DETAIL	DEPTH (FT.)	PID (PPM)	SAMPLE ID BLOWCOUNT	LITHOLOGIC LOG	DESCRIPTION
					0 – 4" CONCRETE
					4" – 16" FILL
	2	0.2		SM	16" – 5' SILTY SAND (SM): 80% FINE, POORLY GRADED SAND; 20% FINES; LOW DRY STRENGTH, SLOW DILATANCY, NON-PLASTIC, OLIVE GREY TO RED-BROWN, NO ODOR, NO ORGANICS, DRY.
	4				
		5.7			
	6				
	8				5' – 10' FINE SAND (SP): 100% FINE, POORLY GRADED SAND; MEDIUM STIFF, OLIVE GREY, SLIGHT TO MEDIUM ODOR (FUEL), NO ORGANICS, MOIST.
		63.2		SP	
	10				
	12				
					13' – 15' RED-BROWN
	14	3607	SB6-15'		
	16				15' – 20' SILTY SAND (SM): 95% FINE, POORLY GRADED SAND; 5% FINES; NO DRY STRENGTH, SLOW TO RAPID DILATANCY, LOW TOUGHNESS, NON-PLASTIC, RED-BROWN TO OLIVE GREY, MODERATE ODOR (FUEL), NO ORGANICS, WET, HOMOGENOUS ASIDE FROM COLOR CHANGE.
	18			SM	
		2063	SB6-20'		
	20				
	22				
	24				
	26				
	28				▽
			SB6-W		HYDROPUNCH TO 30' FOR WATER SAMPLE
	30				
	32				
	34				
	36				
	38				
	40				

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LOG OF BORING SB7

PROJECT SALVATION ARMY | LOCATION 601 WEBSTER STREET, OAKLAND, CALIFORNIA | PROJECT NO. 54.25026.0001
DATE DRILLED 07/30/2013 | LOGGED BY JIM KUNDERT | REVIEWED BY JEANNE HOMSEY C47410
DRILLING COMPANY VIRONEX | DRILLER MATT | METHOD DIRECT PUSH
BORE HOLE DIAMETER 2 IN | DEPTH DRILLED 30 FT | DEPTH TO WATER : INITIAL 28 FT | STATIC ____ FT
CASING TYPE NA | DIAMETER ____ IN | SCHEDULE ____ | INTERVAL ____ FT TO ____ FT
SCREEN TYPE NA | DIAMETER ____ IN | SLOT SIZE ____ IN | INTERVAL ____ FT TO ____ FT
FILTER PACK TYPE NA | INTERVAL ____ FT TO ____ FT
SURFACE SEAL TYPE NEAT CEMENT | INTERVAL ____ FT TO ____ FT
COMMENTS: | PAGE 1 OF 1

WELL DETAIL	DEPTH (FT.)	PID (PPM)	SAMPLE ID BLOWCOUNT	LITHOLOGIC LOG		DESCRIPTION
	2			SP	0' – 10'	INSUFFICIENT RECOVERY FOR ANALYSIS
	4	0.1				
	6					
	8					
	10	0.2			0' – 13'	IMPORTED FILL (SP): 60% FINE TO MEDIUM, POORLY GRADED SAND; 35% FINE TO COARSE GRAVEL; 5% FINES; GREY–BROWN, NO ODOR, NO ORGANICS, DRY, HOMOGENOUS.
	12					
	14	3380	SB7–15'	SP	13' – 15'	FINE SAND (SP): 100% FINE, POORLY GRADED SAND; OLIVE GREY, SLIGHT ODOR (FUEL), NO ORGANICS, MOIST, HOMOGENOUS.
	16	3309	SB7–17'		15' – 20'	SILTY SAND (SM): 95% FINE, POORLY GRADED SAND; 5% FINES; LOW DRY STRENGTH, SLOW DILATANCY, LOW TOUGHNESS, NON–PLASTIC, MEDIUM STIFF, BROWN TO DARK BROWN, SLIGHT ODOR (FUEL), NO ORGANICS, MOIST, HOMOGENOUS.
	18			SM		
	20	3014	SB7–20'			
	22					
	24					
	26					
	28				▽	
	30		SB7–W			HYDROPUNCH TO 30 FEET FOR WATER SAMPLE
	32					
	34					
	36					
	38					
	40					

APPENDIX B

argon laboratories

09 August 2013

Jeanne Homsey
Cardno ATC
1117 Lone Palm Ave., Suite B
Modesto, CA 95351

RE: Salvation Army Project Data

Enclosed are the results for sample(s) received on 08/02/13 09:57 by Argon Laboratories. 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,

Hiram Cueto
Lab Manager

2905 Railroad Avenue, Ceres, CA 95307 • Phone (209) 581-9280 • Fax (209) 581-9282
email: main@argonlabs.com

ATC ASSOCIATES, INC.

CHAIN OF CUSTODY

Project Information:	Report To:	Samples Submitted To:
Project No: 54.25026.0001	Consultant: ATC Associates Inc.	Laboratory: Argon Labs
Project Title: Salvation Army	Address: 1117 Lone Palm Avenue, Suite B	Address: 3037 5th Street
Location: Oakland, CA	Modesto, California 95351	Ceres, CA 95307
Sampler's Name: (print) Jim Kundat	Contact:	Contact:
Sampler's Signature:	Phone: (209) 579-2221	Phone: (209)581-9280
	Fax: (209) 579-2225	Fax: (209)581-9282
	Bill To:	Date Results Required:
	Client: Same	Date Report Required:
	Address:	

TURN AROUND TIME				
RUSH	24 Hour	48 Hour	Standard (5 Day)	Special (10 Day)
☐	☐	☐	☐	☒

Sample ID.	Date	Time	# Containers	Matrix	TPH-g/BTXE (8260)	TPH-Diesel	TEPH	8260B-Oxygenates	8260B- Full Scan	Total Lead	COMMENTS
											Preservative
SB 1-15'	7-29-13	1005	1	Soil	X	Hold		X			Ice
SB 1-20'		1023	1	↓	↓	↓		↓		X	↓
SB 2-15'		1330	1								
SB 2-20'		1405	1								
SB 3-15'		1325	1								
SB 3-20'		1338	1								
SB 4-10'		1410	1								
SB 4-15'		1415	1								
SB 4-20'		1430	1	↓	↓	↓		↓			↓

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
	8-2-13	9:57	Sherry Hoffman	8-2-13	9:57
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

SPECIAL INSTRUCTIONS:
Oxys: MTBE, ETBE, TAME, DIPE
EDB, 1,2-DCA, TBA
Hold diesel for water results
Global ID: T1000000 3428

Argon Laboratories Sample Receipt Checklist

Client Name: Cardno ATC Date & Time Received: 08/02/13 9:57

Project Name: Salvation Army Client Project Number: 59.25026.0001

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

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

Argon Labs Project Number: N308006

Shipper Container in good condition? N/A____	Yes ☑	No ☐		Samples received in proper containers?	Yes ☑	No ☐	
				Samples received intact?	Yes ☑	No ☐	
Samples received under refrigeration?	Yes ☑	No ☐		Sufficient sample volume for requested tests?	Yes ☑	No ☐	
Chain of custody present?	Yes ☑	No ☐		Samples received within holding time?	Yes ☑	No ☐	
Chain of Custody signed by all parties?	Yes ☑	No ☐		Do samples contain proper preservative?	N/A ☑	Yes ☐	No ☐
Chain of Custody matches all sample labels?	Yes ☑	No ☐		Do VOA vials contain zero headspace?	(None submitted ☑)	Yes ☐	No ☐

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

Date Client Contacted: _____ Person Contacted: _____

Contacted By: _____ Subject: _____

Comments:

Action Taken:

ADDITIONAL TEST(S) REQUEST / OTHER

Contacted By: _____ Date: _____ Time: _____

Call Received By: _____

Comments:

♥ ♣ ♦ ♠

argon laboratories 2905 Railroad Ave. Ceres, CA 95307 (209)581-9280 Fax (209)581-9282

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

Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308006

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB1-15'	N308006-01	Soil	07/29/13 10:05	08/02/13 09:57
SB1-20'	N308006-02	Soil	07/29/13 10:23	08/02/13 09:57
SB2-15'	N308006-03	Soil	07/29/13 13:30	08/02/13 09:57
SB2-20'	N308006-04	Soil	07/29/13 14:05	08/02/13 09:57
SB3-15'	N308006-05	Soil	07/29/13 13:25	08/02/13 09:57
SB3-20'	N308006-06	Soil	07/29/13 13:38	08/02/13 09:57
SB4-10'	N308006-07	Soil	07/29/13 14:10	08/02/13 09:57
SB4-15'	N308006-08	Soil	07/29/13 14:15	08/02/13 09:57
SB4-20'	N308006-09	Soil	07/29/13 14:30	08/02/13 09:57

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Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.: N308006

Total Metals

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB1-20' (N308006-02) Soil Sampled: 29-Jul-13 10:23 Received: 02-Aug-13 09:57							
Lead	**6.3**	1.0	mg/kg	1	09-Aug-13	EPA 6020	

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Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.: N308006

Total Petroleum Hydrocarbons @ Diesel

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB1-15' (N308006-01) Soil Sampled: 29-Jul-13 10:05 Received: 02-Aug-13 09:57							
Diesel	ND	15	mg/kg	3	06-Aug-13	EPA 8015Mod	
Surr. Rec.:		*89 %*			"	"	
SB1-20' (N308006-02) Soil Sampled: 29-Jul-13 10:23 Received: 02-Aug-13 09:57							
Diesel	ND	15	mg/kg	3	06-Aug-13	EPA 8015Mod	
Surr. Rec.:		*102 %*			"	"	
SB2-15' (N308006-03) Soil Sampled: 29-Jul-13 13:30 Received: 02-Aug-13 09:57							
Diesel	ND	15	mg/kg	3	06-Aug-13	EPA 8015Mod	
Surr. Rec.:		*87 %*			"	"	
SB2-20' (N308006-04) Soil Sampled: 29-Jul-13 14:05 Received: 02-Aug-13 09:57							
Diesel	ND	5.0	mg/kg	1	06-Aug-13	EPA 8015Mod	
Surr. Rec.:		*101 %*			"	"	
SB3-15' (N308006-05) Soil Sampled: 29-Jul-13 13:25 Received: 02-Aug-13 09:57							
Diesel	**97**	25	mg/kg	5	06-Aug-13	EPA 8015Mod	
Surr. Rec.:		*92 %*			"	"	
SB3-20' (N308006-06) Soil Sampled: 29-Jul-13 13:38 Received: 02-Aug-13 09:57							
Diesel	**120**	25	mg/kg	5	06-Aug-13	EPA 8015Mod	
Surr. Rec.:		*87 %*			"	"	
SB4-10' (N308006-07) Soil Sampled: 29-Jul-13 14:10 Received: 02-Aug-13 09:57							
Diesel	ND	25	mg/kg	5	06-Aug-13	EPA 8015Mod	
Surr. Rec.:		*88 %*			"	"	

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Project Manager: Jeanne Homsey

Work Order No.: N308006

Total Petroleum Hydrocarbons @ Diesel

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB4-15' (N308006-08) Soil Sampled: 29-Jul-13 14:15 Received: 02-Aug-13 09:57							
Diesel	ND	25	mg/kg	5	06-Aug-13	EPA 8015Mod	
Surr. Rec.:		*85 %*			"	"	
SB4-20' (N308006-09) Soil Sampled: 29-Jul-13 14:30 Received: 02-Aug-13 09:57							
Diesel	**56**	25	mg/kg	5	06-Aug-13	EPA 8015Mod	
Surr. Rec.:		*89 %*			"	"	

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

Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.: N308006

TPH-gas & Volatile Organic Compounds by GC/MS

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB1-15' (N308006-01) Soil Sampled: 29-Jul-13 10:05 Received: 02-Aug-13 09:57							
Total Petroleum Hydrocarbons @ Gasoline	**1.6**	1.0	mg/kg	1	07-Aug-13	8260B	
Benzene	**0.018**	0.005	"	"	"	"	
Toluene	**0.016**	0.005	"	"	"	"	
Xylenes, total	**0.034**	0.010	"	"	"	"	
Ethyl Benzene	ND	0.005	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	
Methyl tert-Butyl Ether	ND	0.005	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	
Surr. Rec.:		*96 %*			"	"	
SB1-20' (N308006-02) Soil Sampled: 29-Jul-13 10:23 Received: 02-Aug-13 09:57							
Total Petroleum Hydrocarbons @ Gasoline	**4.0**	1.0	mg/kg	1	07-Aug-13	8260B	
Benzene	ND	0.005	"	"	"	"	
Toluene	**0.029**	0.005	"	"	"	"	
Xylenes, total	**0.12**	0.010	"	"	"	"	
Ethyl Benzene	**0.024**	0.005	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	
Methyl tert-Butyl Ether	ND	0.005	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	
Surr. Rec.:		*90 %*			"	"	

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Modesto, CA 95351

Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.: N308006

TPH-gas & Volatile Organic Compounds by GC/MS

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB2-15' (N308006-03) Soil Sampled: 29-Jul-13 13:30 Received: 02-Aug-13 09:57							
Total Petroleum Hydrocarbons @ Gasoline	**360**	100	mg/kg	100	07-Aug-13	8260B	
Benzene	**0.80**	0.50	"	"	"	"	
Toluene	**2.3**	0.50	"	"	"	"	
Xylenes, total	**19**	1.0	"	"	"	"	
Ethyl Benzene	**6.2**	0.50	"	"	"	"	
t-Butanol	ND	5.0	"	"	"	"	
Methyl tert-Butyl Ether	ND	0.50	"	"	"	"	
Di-Isopropyl Ether	ND	0.50	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.50	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.50	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	
Surr. Rec.:		*101 %*			"	"	
SB2-20' (N308006-04) Soil Sampled: 29-Jul-13 14:05 Received: 02-Aug-13 09:57							
Total Petroleum Hydrocarbons @ Gasoline	**1.9**	1.0	mg/kg	1	07-Aug-13	8260B	
Benzene	**0.036**	0.005	"	"	"	"	
Toluene	**0.048**	0.005	"	"	"	"	
Xylenes, total	**0.14**	0.010	"	"	"	"	
Ethyl Benzene	**0.049**	0.005	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	
Methyl tert-Butyl Ether	ND	0.005	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	
Surr. Rec.:		*88 %*			"	"	

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Modesto, CA 95351

Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.: N308006

TPH-gas & Volatile Organic Compounds by GC/MS

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB3-15' (N308006-05) Soil Sampled: 29-Jul-13 13:25 Received: 02-Aug-13 09:57							
Total Petroleum Hydrocarbons @ Gasoline	**8100**	400	mg/kg	400	07-Aug-13	8260B	
Benzene	**60**	2.0	"	"	"	"	
Toluene	**320**	2.0	"	"	"	"	
Xylenes, total	**810**	4.0	"	"	"	"	
Ethyl Benzene	**210**	2.0	"	"	"	"	
t-Butanol	ND	20	"	"	"	"	
Methyl tert-Butyl Ether	ND	2.0	"	"	"	"	
Di-Isopropyl Ether	ND	2.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	2.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	2.0	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	2.0	"	"	"	"	
Surr. Rec.:		*106 %*			"	"	
SB3-20' (N308006-06) Soil Sampled: 29-Jul-13 13:38 Received: 02-Aug-13 09:57							
Total Petroleum Hydrocarbons @ Gasoline	**9400**	400	mg/kg	400	07-Aug-13	8260B	
Benzene	**110**	2.0	"	"	"	"	
Toluene	**380**	2.0	"	"	"	"	
Xylenes, total	**890**	4.0	"	"	"	"	
Ethyl Benzene	**240**	2.0	"	"	"	"	
t-Butanol	ND	20	"	"	"	"	
Methyl tert-Butyl Ether	ND	2.0	"	"	"	"	
Di-Isopropyl Ether	ND	2.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	2.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	2.0	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	2.0	"	"	"	"	
Surr. Rec.:		*114 %*			"	"	

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Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.: N308006

TPH-gas & Volatile Organic Compounds by GC/MS

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB4-10' (N308006-07) Soil Sampled: 29-Jul-13 14:10 Received: 02-Aug-13 09:57							
Total Petroleum Hydrocarbons @ Gasoline	**2400**	200	mg/kg	200	07-Aug-13	8260B	
Benzene	**7.6**	1.0	"	"	"	"	
Toluene	**42**	1.0	"	"	"	"	
Xylenes, total	**190**	2.0	"	"	"	"	
Ethyl Benzene	**53**	1.0	"	"	"	"	
t-Butanol	ND	10	"	"	"	"	
Methyl tert-Butyl Ether	ND	1.0	"	"	"	"	
Di-Isopropyl Ether	ND	1.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	1.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	1.0	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	
Naphthalene	**47**	1.0	"	"	"	"	
Surr. Rec.:		*117 %*			"	"	
SB4-15' (N308006-08) Soil Sampled: 29-Jul-13 14:15 Received: 02-Aug-13 09:57							
Total Petroleum Hydrocarbons @ Gasoline	**1500**	100	mg/kg	100	07-Aug-13	8260B	
Benzene	**0.67**	0.50	"	"	"	"	
Toluene	**2.2**	0.50	"	"	"	"	
Xylenes, total	**91**	1.0	"	"	"	"	
Ethyl Benzene	**25**	0.50	"	"	"	"	
t-Butanol	ND	5.0	"	"	"	"	
Methyl tert-Butyl Ether	ND	0.50	"	"	"	"	
Di-Isopropyl Ether	ND	0.50	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.50	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.50	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	
Surr. Rec.:		*112 %*			"	"	

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Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.: N308006

TPH-gas & Volatile Organic Compounds by GC/MS

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB4-20' (N308006-09) Soil Sampled: 29-Jul-13 14:30 Received: 02-Aug-13 09:57							
Total Petroleum Hydrocarbons @ Gasoline	**5700**	200	mg/kg	200	07-Aug-13	8260B	
Benzene	**52**	1.0	"	"	"	"	
Toluene	**200**	1.0	"	"	"	"	
Xylenes, total	**460**	2.0	"	"	"	"	
Ethyl Benzene	**130**	1.0	"	"	"	"	
t-Butanol	ND	10	"	"	"	"	
Methyl tert-Butyl Ether	ND	1.0	"	"	"	"	
Di-Isopropyl Ether	ND	1.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	1.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	1.0	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	
Surr. Rec.:		*109 %*			"	"	

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Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.: N308006

Total Metals - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch N300884 - EPA 3050B										
Blank (N300884-BLK1)				Prepared & Analyzed: 08/09/13						
Lead	ND	1.0	mg/kg							
LCS (N300884-BS1)				Prepared & Analyzed: 08/09/13						
Lead	9.1		mg/kg	10		91	80-120			
LCS Dup (N300884-BSD1)				Prepared & Analyzed: 08/09/13						
Lead	9.5		mg/kg	10		95	80-120	4	20	

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Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.: N308006

Total Petroleum Hydrocarbons @ Diesel - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch N300887 - EPA 3550B										
Blank (N300887-BLK1)				Prepared & Analyzed: 08/06/13						
Surrogate: p-Terphenyl	*0.0930*		*mg/kg*	*0.10*		*93*	*70-130*			
Diesel	ND	5.0	"							
LCS (N300887-BS1)				Prepared & Analyzed: 08/06/13						
Diesel	200		mg/kg	200		100	80-120			
LCS Dup (N300887-BSD1)				Prepared & Analyzed: 08/06/13						
Diesel	205		mg/kg	200		102	80-120	2	20	
Matrix Spike (N300887-MS1)	**Source: N308012-02**			Prepared & Analyzed: 08/06/13						
Diesel	152		mg/kg	200	ND	76	70-130			
Matrix Spike Dup (N300887-MSD1)	**Source: N308012-02**			Prepared & Analyzed: 08/06/13						
Diesel	158		mg/kg	200	ND	79	70-130	4	20	

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Cardno ATC
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Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.: N308006

TPH-gas & Volatile Organic Compounds by GC/MS - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch N300883 - EPA 5030B										
Blank (N300883-BLK1)				Prepared: 08/02/13 Analyzed: 08/07/13						
Surrogate: Fluorobenzene	*0.0455*		*mg/kg*	*0.050*		*91*	*70-130*			
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	"							
Benzene	ND	0.005	"							
Toluene	ND	0.005	"							
Xylenes, total	ND	0.010	"							
Ethyl Benzene	ND	0.005	"							
t-Butanol	ND	0.050	"							
Methyl tert-Butyl Ether	ND	0.005	"							
Di-Isopropyl Ether	ND	0.005	"							
Ethyl tert-Butyl Ether	ND	0.005	"							
tert-Amyl Methyl Ether	ND	0.005	"							
1,2-Dichloroethane	ND	0.005	"							
1,2-Dibromoethane (EDB)	ND	0.005	"							
Naphthalene	ND	0.005	"							
LCS (N300883-BS1)				Prepared: 08/02/13 Analyzed: 08/07/13						
t-Butanol	0.138		mg/kg	0.12		115	80-120			
LCS Dup (N300883-BSD1)				Prepared: 08/02/13 Analyzed: 08/07/13						
t-Butanol	0.116		mg/kg	0.12		97	80-120	17	20	
Matrix Spike (N300883-MS1)		**Source: N308006-01**		Prepared: 08/02/13 Analyzed: 08/07/13						
Total Petroleum Hydrocarbons @ Gasoline	3.30		mg/kg	2.0	1.60	85	70-130			
Matrix Spike Dup (N300883-MSD1)		**Source: N308006-01**		Prepared: 08/02/13 Analyzed: 08/07/13						
Total Petroleum Hydrocarbons @ Gasoline	3.45		mg/kg	2.0	1.60	92	70-130	4	20	

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Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308006

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

Approved By

Argon Laboratories, Inc. California D.O.H.S. Cert. #2359

argon laboratories

09 August 2013

Jeanne Homsey
Cardno ATC
1117 Lone Palm Ave., Suite B
Modesto, CA 95351

RE: Salvation Army Project Data

Enclosed are the results for sample(s) received on 08/02/13 09:57 by Argon Laboratories. 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,

Hiram Cueto
Lab Manager

2905 Railroad Avenue, Ceres, CA 95307 • Phone (209) 581-9280 • Fax (209) 581-9282
email: main@argonlabs.com

ATC ASSOCIATES, INC.
CHAIN OF CUSTODY

Project Information:	Report To:	Samples Submitted To:
Project No: 54.25026.0001 Project Title: Alameda Army Location: Oakland, CA Sampler's Name: (print) Jim Kunkel Sampler's Signature:	Consultant: ATC Associates Inc. Address: 1117 Lone Palm Avenue, Suite B Modesto, California 95351 Contact: Phone: (209) 579-2221 Fax: (209) 579-2225 **Bill To:** Client: Same Address:	Laboratory: Argon Labs Address: 3037 5th Street Ceres, CA 95307 Contact: Phone: (209)581-9280 Fax: (209)581-9282 Date Results Required: Date Report Required:

TURN AROUND TIME: RUSH ☐ | 24 Hour ☐ | 48 Hour ☐ | Standard (5 Day) ☐ | Special (10 Day) ☒

Sample ID.	Date	Time	# Containers	Matrix	TPH-g/BTXE (8260)	TPH-Diesel	TEPH	8260B-Oxygenates	8260B- Full Scan	Total Lead	COMMENTS: Preservative
SB5 - 15'	7-30-13	1000	1	Soil	X	Hold		X			ice
SB5 - 20'	↓	1015	1	↓	↓	↓		↓			↓
SB6 - 15'		1155	1								
SB6 - 20'		1200	1							X	
SB7 - 15'		1325	1								
SB7 - 17'		1335	1								
SB7 - 20	↓	1335	1	↓	↓	↓		↓			↓

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
	8-2-13	9:57	Sherry Hoffman	8-2-13	9:57
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

SPECIAL INSTRUCTIONS:
Oxys: MTBE, ETBE, TAME, DIPE, TBA
EDB, 1,2-DCA
Hold diesel for water results

Global ID: T10000003428

Argon Laboratories Sample Receipt Checklist

Client Name: Cardno ATC Date & Time Received: 08/02/13 9:57

Project Name: Salvation Army Client Project Number: 59.25026.0001

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

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

Argon Labs Project Number: N308007

Shipper Container in good condition? N/A_____	Yes ☑	No ☐		Samples received in proper containers?	Yes ☑	No ☐	
				Samples received intact?	Yes ☑	No ☐	
Samples received under refrigeration?	Yes ☑	No ☐		Sufficient sample volume for requested tests?	Yes ☑	No ☐	
Chain of custody present?	Yes ☑	No ☐		Samples received within holding time?	Yes ☑	No ☐	
Chain of Custody signed by all parties?	Yes ☑	No ☐		Do samples contain proper preservative? N/A ☑	Yes ☐	No ☐	
Chain of Custody matches all sample labels?	Yes ☑	No ☐		Do VOA vials contain zero headspace? (None submitted ☑)	Yes ☐	No ☐	

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

Date Client Contacted: _____ Person Contacted: _____

Contacted By: _____ Subject: _____

Comments:

Action Taken:

ADDITIONAL TEST(S) REQUEST / OTHER

Contacted By: _____ Date: _____ Time: _____

Call Received By: _____

Comments:

♥ ♣ ♦ ♠

argon laboratories 2905 Railroad Ave. Ceres, CA 95307 (209)581-9280 Fax (209)581-9282

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

Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308007

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB5-13'	N308007-01	Soil	07/30/13 10:00	08/02/13 09:57
SB5-20'	N308007-02	Soil	07/30/13 10:15	08/02/13 09:57
SB6-15'	N308007-03	Soil	07/30/13 11:55	08/02/13 09:57
SB6-20'	N308007-04	Soil	07/30/13 12:00	08/02/13 09:57
SB7-15'	N308007-05	Soil	07/30/13 13:25	08/02/13 09:57
SB7-17'	N308007-06	Soil	07/30/13 13:35	08/02/13 09:57
SB7-20'	N308007-07	Soil	07/30/13 13:35	08/02/13 09:57

Approved By

Argon Laboratories, Inc. California D.O.H.S. Cert. #2359

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

Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308007

Total Metals

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB1-20' (N308006-0) : Soil Sampled 30-Jul-13 09:00 Received 02-Aug-13 07:16							
Lead	**High**	1.0	mg/kg	1	09-Aug-13	EPA 6020	

Approved By

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

Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308007

Total Petroleum n ydrocarbo@s 4 Diesel

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB. -g3' (N308006-0g: Soil Sampled930-Jul-g3 g0900 Received902-Au5-g3 079. 6							
Diesel	ND	15	mg/kg	3	06-Aug-13	EPA 8015Mod	
Surr. Rec.:		*889*			"	"	
SB. -20' (N308006-02: Soil Sampled930-Jul-g3 g09g. Received902-Au5-g3 079. 6							
Diesel	ND	15	mg/kg	3	06-Aug-13	EPA 8015Mod	
Surr. Rec.:		*%19*			"	"	
SB1-g. ' (N308006-03: Soil Sampled930-Jul-g3 gg9. . Received902-Au5-g3 079. 6							
Diesel	**)6**	15	mg/kg	3	06-Aug-13	EPA 8015Mod	
Surr. Rec.:		*809*			"	"	
SB1-20' (N308006-0) : Soil Sampled930-Jul-g3 g2900 Received902-Au5-g3 079. 6							
Diesel	ND	15	mg/kg	3	06-Aug-13	EPA 8015Mod	
Surr. Rec.:		*%29*			"	"	
SB6-g. ' (N308006-0. : Soil Sampled930-Jul-g3 g392. Received902-Au5-g3 079. 6							
Diesel	ND	15	mg/kg	3	06-Aug-13	EPA 8015Mod	
Surr. Rec.:		*%79*			"	"	
SB6-g6' (N308006-01: Soil Sampled930-Jul-g3 g393. Received902-Au5-g3 079. 6							
Diesel	**36**	15	mg/kg	3	06-Aug-13	EPA 8015Mod	
Surr. Rec.:		*%59*			"	"	
SB6-20' (N308006-06: Soil Sampled930-Jul-g3 g393. Received902-Au5-g3 079. 6							
Diesel	**)g**	15	mg/kg	3	06-Aug-13	EPA 8015Mod	
Surr. Rec.:		*%19*			"	"	

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

Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308007

TPn -5as & Volatile Or5a@c Compou@ds by GC/MS

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB. -g3' (N308006-0g: Soil Sampled9 30-Jul-g3 g09 00 Received9 02-Au5-g3 079. 6							
Total Petroleum n ydrocarbo@s 4 Gasoli@e	**1. 0**	50	mg/kg	50	07-Aug-13	8260B	
Be@e@e	**1 J**	0.25	"	"	"	"	
Tolue@e	**27**	0.25	"	"	"	"	
Xyle@es, total	**) 7**	0.50	"	"	"	"	
Ethyl Be@e@e	**2.**	0.25	"	"	"	"	
t-Butanol	ND	2.5	"	"	"	"	
Methyl tert-Butyl Ether	**0 H2**	0.25	"	"	"	"	
Di-Isopropyl Ether	ND	0.25	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.25	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.25	"	"	"	"	
1,2-Dichloroethane	ND	0.25	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.25	"	"	"	"	
Naphthale@e	**gg**	0.25	"	"	"	"	
Surr. Rec.:		*1759*			"	"	
SB. -20' (N308006-02: Soil Sampled9 30-Jul-g3 g09g. Received9 02-Au5-g3 079. 6							
Total Petroleum n ydrocarbo@s 4 Gasoli@e	**3H**	1.0	mg/kg	1	07-Aug-13	8260B	
Be@e@e	**0 I23**	0.005	"	"	"	"	
Tolue@e	**0 I3.**	0.005	"	"	"	"	
Xyle@es, total	**0 H1**	0.010	"	"	"	"	
Ethyl Be@e@e	**0 g)**	0.005	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	
Methyl tert-Butyl Ether	**0 I28**	0.005	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	
Surr. Rec.:		*889*			"	"	

Approved By

Argon Laboratories, Inc. California D.O.H.S. Cert. #2359

argon laboratories 2905 Railroad Ave. Ceres, CA 95307 (209)581-9280 Fax (209)581-9282

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

Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308007

TPn -5as & Volatile Or5a@c Compou@ds by GC/MS

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB1-g. ' (N308006-03: Soil Sampled930-Jul-g3 gg9. . Received902-Au5-g3 079. 6							
Total Petroleum n ydrocarbo@s 4 Gasoli@e	**3600**	200	mg/kg	200	07-Aug-13	8260B	
Be@e@e	**27**	1.0	"	"	"	"	
Tolue@e	**g. 0**	1.0	"	"	"	"	
Xyle@es, total	**370**	2.0	"	"	"	"	
Ethyl Be@e@e	**g00**	1.0	"	"	"	"	
t-Butanol	ND	10	"	"	"	"	
Methyl tert-Butyl Ether	ND	1.0	"	"	"	"	
Di-Isopropyl Ether	ND	1.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	1.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	1.0	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	
Surr. Rec.:		*1769*			"	"	
SB1-20' (N308006-0) : Soil Sampled930-Jul-g3 g2900 Received902-Au5-g3 079. 6							
Total Petroleum n ydrocarbo@s 4 Gasoli@e	**g700**	100	mg/kg	100	07-Aug-13	8260B	
Be@e@e	**. 3**	0.50	"	"	"	"	
Tolue@e	**g) 0**	0.50	"	"	"	"	
Xyle@es, total	**280**	1.0	"	"	"	"	
Ethyl Be@e@e	**62**	0.50	"	"	"	"	
t-Butanol	ND	5.0	"	"	"	"	
Methyl tert-Butyl Ether	ND	0.50	"	"	"	"	
Di-Isopropyl Ether	ND	0.50	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.50	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.50	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	
Surr. Rec.:		*1149*			"	"	

Approved By

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argon laboratories 2905 Railroad Ave. Ceres, CA 95307 (209)581-9280 Fax (209)581-9282

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

Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308007

TPn -5as & Volatile Or5a@c Compou@ds by GC/MS

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB6-g. ' (N308006-0. : Soil Sampled9 30-Jul-g3 g39 2. Received9 02-Au5-g3 079. 6							
Total Petroleum n ydrocarbo@s 4 Gasoli@e	**g000**	1.0	mg/kg	1	07-Aug-13	8260B	
Be@e@e	**1H**	0.005	"	"	"	"	
Tolue@e	**38**	0.005	"	"	"	"	
Xyle@es, total	**61**	0.010	"	"	"	"	
Ethyl Be@e@e	**3g**	0.005	"	"	"	"	
t-Butanol	ND	0.050	"	"	"	"	
Methyl tert-Butyl Ether	**gkg**	0.005	"	"	"	"	
Di-Isopropyl Ether	ND	0.005	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.005	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.005	"	"	"	"	
1,2-Dichloroethane	ND	0.005	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.005	"	"	"	"	
Surr. Rec.:		*1179*			"	"	
SB6-g6' (N308006-01: Soil Sampled9 30-Jul-g3 g39 3. Received9 02-Au5-g3 079. 6							
Total Petroleum n ydrocarbo@s 4 Gasoli@e	**)300**	200	mg/kg	200	07-Aug-13	8260B	
Be@e@e	**g6**	1.0	"	"	"	"	
Tolue@e	**g00**	1.0	"	"	"	"	
Xyle@es, total	**320**	2.0	"	"	"	"	
Ethyl Be@e@e	**1.**	1.0	"	"	"	"	
t-Butanol	ND	10	"	"	"	"	
Methyl tert-Butyl Ether	**. H**	1.0	"	"	"	"	
Di-Isopropyl Ether	ND	1.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	1.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	1.0	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	
Surr. Rec.:		*17%9*			"	"	

Approved By

Argon Laboratories, Inc. California D.O.H.S. Cert. #2359

argon laboratories 2905 Railroad Ave. Ceres, CA 95307 (209)581-9280 Fax (209)581-9282

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

Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308007

TPn -5as & Volatile Or5a@c Compou@ds by GC/MS

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB6-20' (N308006-06: Soil Sampled930-Jul-g3 g39B. Received902-Au5-g3 079. 6							
Total Petroleum n ydrocarbo@s 4 Gasoli@e	**8700**	400	mg/kg	400	07-Aug-13	8260B	
Be@ze@e	**1)**	2.0	"	"	"	"	
Tolue@e	**210**	2.0	"	"	"	"	
Xyle@es, total	**1g0**	4.0	"	"	"	"	
Ethyl Be@ze@e	**g60**	2.0	"	"	"	"	
t-Butanol	ND	20	"	"	"	"	
Methyl tert-Butyl Ether	**g2**	2.0	"	"	"	"	
Di-Isopropyl Ether	ND	2.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	2.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	2.0	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	2.0	"	"	"	"	
Surr. Rec.:		*1709*			"	"	

Approved By

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

Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308007

Total Metals - Quality Co@rol

Ar5o@Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch N30088) - EPA 30. 0B										
Bla@k (N30088) -BLKg:				Prepared & Analyzed: 08/09/13						
Lead	ND	1.0	mg/kg							
LCS (N30088) -BSg:				Prepared & Analyzed: 08/09/13						
Lead	9.1		mg/kg	10		91	80-120			
LCS Dup (N30088) -BSDg:				Prepared & Analyzed: 08/09/13						
Lead	9.5		mg/kg	10		95	80-120	4	20	

Approved By

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

Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308007

Total Petroleum n ydrocarbo@s 4 Diesel - Quality Co@trol

Ar5o@Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch N300886 - EPA 3. . 0B										
Bla@k (N300886-BLKg:				Prepared & Analyzed: 08/06/13						
Surrogate:9p3Terphenyl	*7.7%47*		*mg/kg*	*7.17*		*%4*	*- 73l47*			
Diesel	ND	5.0	"							
LCS (N300886-BSg:				Prepared & Analyzed: 08/06/13						
Diesel	200		mg/kg	200		100	80-120			
LCS Dup (N300886-BSDg:				Prepared & Analyzed: 08/06/13						
Diesel	205		mg/kg	200		102	80-120	2	20	
Matrix Spike (N300886-MSg:		**Source9N3080g2-02**		Prepared & Analyzed: 08/06/13						
Diesel	152		mg/kg	200	ND	76	70-130			
Matrix Spike Dup (N300886-MSDg:		**Source9N3080g2-02**		Prepared & Analyzed: 08/06/13						
Diesel	158		mg/kg	200	ND	79	70-130	4	20	

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1117 Lone Palm Ave., Suite B
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Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308007

TPn -5as & Volatile Or5a@c Compou@ds by GC/MS - Quality Co@trol

Ar5o@Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch N300883 - EPA . 030B										
Bla@k (N300883-BLKg:				Prepared: 08/02/13 Analyzed: 08/07/13						
Surrogate:9Fluorobenzene	*7.7655*		*mg/kg*	*7.757*		*%1*	*-73147*			
Total Petroleum Hydrocarbons @ Gasoline	ND	1.0	"							
Benzene	ND	0.005	"							
Toluene	ND	0.005	"							
Xylenes, total	ND	0.010	"							
Ethyl Benzene	ND	0.005	"							
t-Butanol	ND	0.050	"							
Methyl tert-Butyl Ether	ND	0.005	"							
Di-Isopropyl Ether	ND	0.005	"							
Ethyl tert-Butyl Ether	ND	0.005	"							
tert-Amyl Methyl Ether	ND	0.005	"							
1,2-Dichloroethane	ND	0.005	"							
1,2-Dibromoethane (EDB)	ND	0.005	"							
Naphthalene	ND	0.005	"							
LCS (N300883-BSg:				Prepared: 08/02/13 Analyzed: 08/07/13						
t-Butanol	0.138		mg/kg	0.12		115	80-120			
LCS Dup (N300883-BSDg:				Prepared: 08/02/13 Analyzed: 08/07/13						
t-Butanol	0.116		mg/kg	0.12		97	80-120	17	20	
Matrix Spike (N300883-MSg:		**Source9N308001-0g**		Prepared: 08/02/13 Analyzed: 08/07/13						
Total Petroleum Hydrocarbons @ Gasoline	3.30		mg/kg	2.0	1.60	85	70-130			
Matrix Spike Dup (N300883-MSDg:		**Source9N308001-0g**		Prepared: 08/02/13 Analyzed: 08/07/13						
Total Petroleum Hydrocarbons @ Gasoline	3.45		mg/kg	2.0	1.60	92	70-130	4	20	

Approved By

Argon Laboratories, Inc. California D.O.H.S. Cert. #2359

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

Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308007

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

Approved By

Argon Laboratories, Inc. California D.O.H.S. Cert. #2359

APPENDIX C

argon laboratories

13 August 2013

Jeanne Homsey
Cardno ATC
1117 Lone Palm Ave., Suite B
Modesto, CA 95351

RE: Salvation Army Project Data

Enclosed are the results for sample(s) received on 08/01/13 09:24 by Argon Laboratories. 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,

Hiram Cueto
Lab Manager

ATC ASSOCIATES, INC.

CHAIN OF CUSTODY

Project Information:	Report To:	Samples Submitted To:
Project No: 57.25026.0001	Consultant: ATC Associates Inc.	Laboratory: Argon Labs
Project Title: Induction Army	Address: 1117 Lone Palm Avenue, Suite B	Address: 3037 5th Street
Location: Oakland, CA	Modesto, California 95351	Ceres, CA 95307
Sampler's Name: (print) Kim Kunkel	Contact:	Contact:
Sampler's Signature:	Phone: (209) 579-2221	Phone: (209)581-9280
	Fax: (209) 579-2225	Fax: (209)581-9282
	Bill To:	Date Results Required:
	Client: Same	Date Report Required:
	Address:	

TURN AROUND TIME

RUSH	24 Hour	48 Hour	Standard (5 Day)	Special (10 Day)
☐	☐	☐	☐	☒

Sample ID.	Date	Time	# Containers	Matrix	TPH-g/BTXE	TPH-Diesel	TEPH	8260B-Oxygenates	8260B- Full Scan	Total Lead						COMMENTS: Preservative
SB1-W	7-29-13	1105	3	water	X			X								HCl, ice (shut one, dilute as needed)
SB2-W	7-29-13	1425	4													
SB4-W	7-30-13	1105	4													
SB5-W		1030	5			X										
SB6-W		1225	5													48hr for Diesel
SB7-W		1415	5													

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
	8-1-13	9:24	Sharyl L. Hoffman	8-6-13	9:24
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

SPECIAL INSTRUCTIONS:
Oxys (include): MTBE, ETBE, TBA
EDB, 1,2-DCA, TAME, DIPE

Gotracker
Global ID: T1000 0003428

Argon Laboratories Sample Receipt Checklist

Client Name: Cardno ATC Date & Time Received: 08/01/13 9:24

Project Name: Salvation Army Client Project Number: 59.25026.0001

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

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

Argon Labs Project Number: N308001

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:

♥ ♣ ♦ ♠

argon laboratories 2905 Railroad Ave. Ceres, CA 95307 (209)581-9280 Fax (209)581-9282

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

Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308001

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB1-W	N308001-01	Water	07/29/13 11:05	08/01/13 09:24
SB2-W	N308001-02	Water	07/29/13 14:25	08/01/13 09:24
SB4-W	N308001-03	Water	07/30/13 11:05	08/01/13 09:24
SB5-W	N308001-04	Water	07/30/13 10:30	08/01/13 09:24
SB6-W	N308001-05	Water	07/30/13 12:25	08/01/13 09:24
SB7-W	N308001-06	Water	07/30/13 14:15	08/01/13 09:24

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Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308001

Oxygenates - Method: EPA 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB1-W (N308001-01) Water Sampled: 29-Jul-13 11:05 Received: 01-Aug-13 09:24							
t-Butanol	ND	500	ug/L	100	09-Aug-13	EPA 8260B	
Methyl tert-Butyl Ether	**240**	50	"	"	"	"	
Di-Isopropyl Ether	ND	50	"	"	"	"	
Ethyl tert-Butyl Ether	ND	50	"	"	"	"	
tert-Amyl Methyl Ether	ND	50	"	"	"	"	
1,2-Dichloroethane	ND	50	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	50	"	"	"	"	
Surr. Rec.:		*86 %*			"	"	
SB2-W (N308001-02) Water Sampled: 29-Jul-13 14:25 Received: 01-Aug-13 09:24							
t-Butanol	ND	5.0	ug/L	1	09-Aug-13	EPA 8260B	
Methyl tert-Butyl Ether	**12**	0.5	"	"	"	"	
Di-Isopropyl Ether	ND	0.5	"	"	"	"	
Ethyl tert-Butyl Ether	ND	0.5	"	"	"	"	
tert-Amyl Methyl Ether	ND	0.5	"	"	"	"	
1,2-Dichloroethane	ND	0.5	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.5	"	"	"	"	
Surr. Rec.:		*86 %*			"	"	
SB4-W (N308001-03) Water Sampled: 30-Jul-13 11:05 Received: 01-Aug-13 09:24							
t-Butanol	ND	500	ug/L	100	09-Aug-13	EPA 8260B	
Methyl tert-Butyl Ether	**5300**	50	"	"	"	"	
Di-Isopropyl Ether	ND	50	"	"	"	"	
Ethyl tert-Butyl Ether	ND	50	"	"	"	"	
tert-Amyl Methyl Ether	ND	50	"	"	"	"	
1,2-Dichloroethane	ND	50	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	50	"	"	"	"	
Surr. Rec.:		*81 %*			"	"	

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

Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.: N308001

Oxygenates - Method: EPA 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB5-W (N308001-04) Water Sampled: 30-Jul-13 10:30 Received: 01-Aug-13 09:24							
t-Butanol	ND	20	ug/L	4	09-Aug-13	EPA 8260B	
Methyl tert-Butyl Ether	ND	2.0	"	"	"	"	
Di-Isopropyl Ether	ND	2.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	2.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	2.0	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	2.0	"	"	"	"	
Surr. Rec.:		*92 %*			"	"	
SB6-W (N308001-05) Water Sampled: 30-Jul-13 12:25 Received: 01-Aug-13 09:24							
t-Butanol	ND	200	ug/L	40	09-Aug-13	EPA 8260B	
Methyl tert-Butyl Ether	ND	20	"	"	"	"	
Di-Isopropyl Ether	ND	20	"	"	"	"	
Ethyl tert-Butyl Ether	ND	20	"	"	"	"	
tert-Amyl Methyl Ether	ND	20	"	"	"	"	
1,2-Dichloroethane	ND	20	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	20	"	"	"	"	
Surr. Rec.:		*87 %*			"	"	
SB7-W (N308001-06) Water Sampled: 30-Jul-13 14:15 Received: 01-Aug-13 09:24							
t-Butanol	ND	10	ug/L	2	09-Aug-13	EPA 8260B	
Methyl tert-Butyl Ether	**37**	1.0	"	"	"	"	
Di-Isopropyl Ether	ND	1.0	"	"	"	"	
Ethyl tert-Butyl Ether	ND	1.0	"	"	"	"	
tert-Amyl Methyl Ether	ND	1.0	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	
Surr. Rec.:		*81 %*			"	"	

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Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308001

Total Petroleum Hydrocarbons @ Diesel

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB5-W (N308001-04) Water Sampled: 30-Jul-13 10:30 Received: 01-Aug-13 09:24							
Diesel	ND	50	ug/L	1	05-Aug-13	EPA 8015Mod	
Surr. Rec.:		*75 %*			"	"	
SB6-W (N308001-05) Water Sampled: 30-Jul-13 12:25 Received: 01-Aug-13 09:24							
Diesel	**4500**	200	ug/L	4	05-Aug-13	EPA 8015Mod	A-03
Surr. Rec.:		*110 %*			"	"	
SB7-W (N308001-06) Water Sampled: 30-Jul-13 14:15 Received: 01-Aug-13 09:24							
Diesel	ND	50	ug/L	1	05-Aug-13	EPA 8015Mod	
Surr. Rec.:		*96 %*			"	"	

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

Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308001

TPH-gas /BTX&E EPA Method 8015M / 8021B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB1-W (N308001-01) Water Sampled: 29-Jul-13 11:05 Received: 01-Aug-13 09:24							
Total Petroleum Hydrocarbons @ Gasoline	**210000**	12000	ug/L	250	08-Aug-13	8015M / 8021B	
Benzene	**35000**	120	"	"	"	"	
Toluene	**47000**	120	"	"	"	"	
Xylenes (total)	**16000**	250	"	"	"	"	
Ethylbenzene	**3000**	120	"	"	"	"	
Surr. Rec.:		*104 %*			"	"	
SB2-W (N308001-02) Water Sampled: 29-Jul-13 14:25 Received: 01-Aug-13 09:24							
Total Petroleum Hydrocarbons @ Gasoline	**350**	50	ug/L	1	08-Aug-13	8015M / 8021B	
Benzene	**70**	0.5	"	"	"	"	
Toluene	**26**	0.5	"	"	"	"	
Xylenes (total)	**15**	1.0	"	"	"	"	
Ethylbenzene	**7.9**	0.5	"	"	"	"	
Surr. Rec.:		*101 %*			"	"	
SB4-W (N308001-03) Water Sampled: 30-Jul-13 11:05 Received: 01-Aug-13 09:24							
Total Petroleum Hydrocarbons @ Gasoline	**280000**	12000	ug/L	250	08-Aug-13	8015M / 8021B	
Benzene	**35000**	120	"	"	"	"	
Toluene	**30000**	120	"	"	"	"	
Xylenes (total)	**20000**	250	"	"	"	"	
Ethylbenzene	**3900**	120	"	"	"	"	
Surr. Rec.:		*80 %*			"	"	
SB5-W (N308001-04) Water Sampled: 30-Jul-13 10:30 Received: 01-Aug-13 09:24							
Total Petroleum Hydrocarbons @ Gasoline	**3200**	500	ug/L	10	08-Aug-13	8015M / 8021B	
Benzene	**370**	5.0	"	"	"	"	
Toluene	**470**	5.0	"	"	"	"	
Xylenes (total)	**200**	10	"	"	"	"	
Ethylbenzene	**42**	5.0	"	"	"	"	
Surr. Rec.:		*107 %*			"	"	

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

Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308001

TPH-gas /BTX&E EPA Method 8015M / 8021B

Analyte	Result	Reporting Limit	Units	Dilution	Analyzed	Method	Notes
SB6-W (N308001-05) Water Sampled: 30-Jul-13 12:25 Received: 01-Aug-13 09:24							
Total Petroleum Hydrocarbons @ Gasoline	**64000**	5000	ug/L	100	08-Aug-13	8015M / 8021B	
Benzene	**6000**	50	"	"	"	"	
Toluene	**10000**	50	"	"	"	"	
Xylenes (total)	**8600**	100	"	"	"	"	
Ethylbenzene	**1700**	50	"	"	"	"	
Surr. Rec.:		*95 %*			"	"	
SB7-W (N308001-06) Water Sampled: 30-Jul-13 14:15 Received: 01-Aug-13 09:24							
Total Petroleum Hydrocarbons @ Gasoline	**1100**	200	ug/L	4	08-Aug-13	8015M / 8021B	
Benzene	**100**	2.0	"	"	"	"	
Toluene	**170**	2.0	"	"	"	"	
Xylenes (total)	**120**	4.0	"	"	"	"	
Ethylbenzene	**22**	2.0	"	"	"	"	
Surr. Rec.:		*81 %*			"	"	

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Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308001

Oxygenates - Method: EPA 8260B - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch N300890 - EPA 5030B										
Blank (N300890-BLK1)				Prepared & Analyzed: 08/09/13						
Surrogate: Fluorobenzene	*53.0*		*ug/L*	*50*		*106*	*70-130*			
t-Butanol	ND	5.0	"							
Methyl tert-Butyl Ether	ND	0.5	"							
Di-Isopropyl Ether	ND	0.5	"							
Ethyl tert-Butyl Ether	ND	0.5	"							
tert-Amyl Methyl Ether	ND	0.5	"							
1,2-Dichloroethane	ND	0.5	"							
1,2-Dibromoethane (EDB)	ND	0.5	"							
LCS (N300890-BS1)				Prepared & Analyzed: 08/09/13						
t-Butanol	136		ug/L	120		113	80-120			
LCS Dup (N300890-BSD1)				Prepared & Analyzed: 08/09/13						
t-Butanol	120		ug/L	120		100	80-120	12	20	

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

Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308001

Total Petroleum Hydrocarbons @ Diesel - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch N300888 - EPA 3510C										
Blank (N300888-BLK1)				Prepared & Analyzed: 08/05/13						
Surrogate: p-Terphenyl	*0.00*		*ug/L*	*100*			*70-130*			
Diesel	ND	50	"							
LCS (N300888-BS1)				Prepared & Analyzed: 08/05/13						
Diesel	197		ug/L	200		98	80-120			
LCS Dup (N300888-BSD1)				Prepared & Analyzed: 08/05/13						
Diesel	187		ug/L	200		94	80-120	5	20	
Matrix Spike (N300888-MS1)	**Source: N308001-06**			Prepared & Analyzed: 08/05/13						
Diesel	193		ug/L	200	ND	96	70-130			
Matrix Spike Dup (N300888-MSD1)	**Source: N308001-06**			Prepared & Analyzed: 08/05/13						
Diesel	184		ug/L	200	ND	92	70-130	5	20	

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Cardno ATC
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Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308001

TPH-gas /BTX&E EPA Method 8015M / 8021B - Quality Control

Argon Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch N300889 - EPA 5030B										
Blank (N300889-BLK1)				Prepared & Analyzed: 08/08/13						
Surrogate: a,a,a-Trifluorotoluene	*43.5*		*ug/L*	*50*		*87*	*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	"							
LCS (N300889-BS1)				Prepared & Analyzed: 08/08/13						
Total Petroleum Hydrocarbons @ Gasoline	891		ug/L	1000		89	80-120			
LCS Dup (N300889-BSD1)				Prepared & Analyzed: 08/08/13						
Total Petroleum Hydrocarbons @ Gasoline	927		ug/L	1000		93	80-120	4	20	

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Project Number: 59.25026.0001
Project Name: Salvation Army
Project Manager: Jeanne Homsey

Work Order No.:
N308001

Notes and Definitions

A-03	Diesel concentration is approximate due to interfering/overlapping peaks from gasoline range organics.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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APPENDIX D

Low Threat Closure Policy
Site Specific Evaluation and Data Gap Analysis
The Salvation Army
Oakland, California
(Page 1 of 6)

LTCP Element	LTCP Secondary Element	LTCP Tertiary Element	Description	Data Gap	How to Address
General Criteria	Public Water System	-	The site is serviced by the public water system owned and operated by the City of Oakland.	None	Adequately addressed
	Petroleum Only Release	-	No additional anaytes have been identifed.	None	Adequately addressed
	Primary Release Stopped	-	The UST system was removed in 2010 include all USTs, product piping and dispensers	None	Adequately addressed
	CSM Developed and Complete	-	CSM is being developed	Continuing	See CSM Tables
	Secondary Source Removal	Free product removed	Presense/absense of free product not confirmed	Not currently applicable - Existence of free product not yet determined	Installation of MW
		AND			
		Abatement of free product migration primary objective of FPR system design	Presense/absense of free product not confirmed	Not currently applicable - Existence of free product not yet determined	Installation of MW
		AND			
		Proper flammable product storage	Presense/absense of free product not confirmed	Not currently applicable - Existence of free product not yet determined	Installation of MW
	Secondary Source Removal	Human health risk been establish to exist?	Human health risk(s) have not been evaluated	To be determined	Additional Investigation Indicated
	Secondary Source Removal	Unnecessary Actions	The groundwater plume does not meet the definition of low threat as described in this policy.	To be determined	Additional Investigation Indicated, and installation of monitoring wells.
	MTBE Investigated and Reported	-	MTBE has been sampled and analyzed for in groundwater and soil.	None	Adequately addressed

Low Threat Closure Policy
Site Specific Evaluation and Data Gap Analysis
The Salvation Army
Oakland, California
(Page 2 of 6)

LTCP Element	LTCP Secondary Element	LTCP Tertiary Element	Description	Data Gap	How to Address
	Nuisance Condition	**Injurious to Health**	The determination of the affect on health has not been determined	**To be determined**	**Additional Investigation Indicated**
			OR		
		Indecent or Offending	No indication that the release being indecent or offending	None	Adequately addressed
			OR		
		Offensive to senses	No indication that the release being offensive to senses	None	Adequately addressed
			OR		
		Obstructs free property use	No indication that the release obstruct free use of the property	None	Adequately addressed
			OR		
		Affects the community unequally	The effects the community has not been assessed	**To be determined**	**Additional Investigation Indicated**
MSC - Groundwater	**Case 1**	**Plume < 100 feet in length**	A determination of the plume length has not been completed	**To be determined**	**Additional Investigation Indicated**
			AND		
		No free product	Presense/absense of free product not confirmed	**To be determined**	**Installation of MW**
			AND		
		Nearest water supply well or surface water body < 250 ft.	Existence of nearest water supply well or surface water body not determined	**To be determined**	**1.Complete Receptor Survey 2. Establish plume boundary**

Low Threat Closure Policy
Site Specific Evaluation and Data Gap Analysis
The Salvation Army
Oakland, California
(Page 3 of 6)

LTCP Element	LTCP Secondary Element	LTCP Tertiary Element	Description	Data Gap	How to Address
MSC - Groundwater	Case 2	WQO Plume length < 1,000 ft	A determination of the plume length has not been completed	To be determined	Additional Investigation Indicated
		AND			
		No free product	Presense/absense of free product not confirmed	Presence of free product not determined	Additional Investigation Indicated
		AND			
		Nearest water supply well or surface water body < 250 ft.	Existence of nearest water supply well or surface water body not determined	To be determined	1.Complete Receptor Survey 2. Establish plume boundary
		AND			
		All of the above plus benzene < 3,000µg/l and MTBE< 1,000 µg/l	Highest benzene concentration in groundwater is 35,000 µg/L. Highest MTBE concentration in groundwater is 5,300 µg/L.	None	Adequately addressed
MSC - Groundwater	Case 3	Plume < 250 feet long	A determination of the plume length has not been completed	To be determined	Additional Investigation Indicated
		AND			
		free product removed	Presense/absense of free product not confirmed	Presence of free product not determined	Additional Investigation Indicated
		AND			
		Plume = or ↓ ≥ 5 yrs	Plume extent and stability have not been determined.	Plume extent and stability have not been determined.	Additional Investigation Indicated
		AND			
		Nearest water supply well or surface water body < 1,000 ft.	Existence of nearest water supply well or surface water body not determined	To be determined	1.Complete Receptor Survey 2. Establish plume boundary
		AND			
		Land-use Restriction Acceptable	Site property is fully developed for commercial/industrial usage.	Unknown	Ask Client

Low Threat Closure Policy
Site Specific Evaluation and Data Gap Analysis
The Salvation Army
Oakland, California
(Page 4 of 6)

LTCP Element	LTCP Secondary Element	LTCP Tertiary Element	Description	Data Gap	How to Address
MSC - Groundwater	Case 4	**Plume ↓ WQO < 1,000 ft**	A determination of the plume length has not been completed	**Plume extent and stability have not been determined.**	**Establish plume boundary**
		AND			
		No free product	Presense/absense of free product not confirmed	**Presence of free product not determined**	**Installation of MW**
		AND			
		Nearest water supply well or surface water body < 1,000 ft.	Determine if nearest water supply well or surface water body < 1,000 ft.	**To be determined**	**1.Complete Receptor Survey 2. Establish plume boundary**
		AND			
		Benzene < 1,000 µg/l and MTBE < 1,000 µg/l	Highest benzene concentration in groundwater is 35,000 µg/L. Highest MTBE concentration in groundwater is 5,300 µg/L.	Fail	Consider Remediation
MSC - Groundwater	Case 5	**Regulatory Agency's Determination**	The regulatory agency has not yet determined whether or not the release poses a low threat to human health and safety and to the environment and water quality objectives will be achieved within a reasonable time frame.	**To be determined**	**Additional Investigation Indicated**
MSC - Groundwater	Case 6	**No Groundwater Impact**	Groundwater impact established	None	Adequately addressed

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LTCP Element	LTCP Secondary Element	LTCP Tertiary Element	Description	Data Gap	How to Address
MSC - Vapor Petroleum to Air	Active Fuel Station Exception	-	UST system removed - No longer an active fuel station.	None	Adequately addressed
	Situation a. Scenarios 1 through 3 or Scenario 4	Scenario 1 - Unweathered LNAPL in GW	Presense/absense of LNAPL in GW not confirmed	Presence of free product not determined	Installation of MW
		AND			
		Scenario 2 - Unweathered LNAPL in Soil	Presense/absense of LNAPL in soil not confirmed	Presence of free product not determined	Installation of MW
		AND			
		Scenario 3 - Dissolved Phase Benzene in GW	Benzene concentrations in groundwater exceed 1,000 µg/L, the upper limit for this scenario.	Fail	Consider Remediation
		OR			
		Scenario 4a - Direct Measurement of Soil Gas Conc. No Bioattenuation Zone	Soil gas samples have not been collected	Vapor intrusion has not been evaluated.	Conduct Vapor Intrusion Study
		OR			
		Scenario 4b - Direct Measurement of Soil Gas Conc. Bioattenuation Zone	Soil gas samples have not been collected	Vapor intrusion has not been evaluated.	Conduct Vapor Intrusion Study
	OR				
	Situation b.	Site Specific Risk Assesment	Vapor intrusion has not been evaluated.	Vapor intrusion has not been evaluated.	Conduct Vapor Intrusion Study
	OR				
	Situation c.	Existing or installed Institutional or Engineering Controls	No exposure reducing institutional or engineering controls were observed.	A property assessment for the evaluation of institutional or engineering controls has not been performed.	Explore if exposure reducing institutional or engineering controls exist

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LTCP Element	LTCP Secondary Element	LTCP Tertiary Element	Description	Data Gap	How to Address
MSC - Direct Contact and Outdoor Air Exposure	Situation a.	Soil Concentrations > than TCLP Table 1.	Naphthalene at 10 feet bgs exceeds Commercial/Industrial threshold value in Table 1 of LTCP.	Risk attenuation factors have not been determined.	Additional Investigation Indicated
			OR		
	Situation b.	Soil Concentrations > than ESLs	Site specific risk assessment is under way.	Total risk attenuation factors have not been determined.	Additional Investigation Indicated
			OR		
	Situation c.	The 5 to 10 feet bgs concentration protective	Naphthalene at 10 feet bgs exceeds Commercial/Industrial threshold value in Table 1 of LTCP.	Point data source. Additional data points called for.	Additional Investigation Indicated

LTCP Table 1.
Volatilization of Adsorbed Phase PHC to Outdoor Air
The Salvation Army
Oakland, California

Table 1a Residential

	Actual	Depth	Actual	Depth	Data Gap	How to Address
Upper (bgs)	NA	0	NA	5	Not or Likely to become Residential - No Gap	Not Applicable
Lower (bgs)		5		10		
	mg/kg	mg/kg	mg/kg	mg/kg		
Benzene	NA	1.9	NA	2.8		
Ethylbenzene	NA	21	NA	32		
Naphthalene	NA	9.7	NA	9.7		
PAH_1	NA	0.063	NA	NA		

Table 1b. Commercial/ Industrial

	Actual	Depth	Actual	Depth	Data Gap	How to Address
Upper (bgs)	Gap	0	10	5	Fail	Additional soil data or remediation needed
Lower (bgs)		5		10		
	mg/kg	mg/kg	mg/kg	mg/kg		
Benzene	Gap	8.2	7.6	12		
Ethylbenzene	Gap	89	53	134		
Naphthalene	Gap	45	47	45		
PAH_1	NA	0.68	N/A	NA		

Table 1c. Utility Worker

	Actual	Depth	Data Gap	How to Address
Upper (bgs)	10	0	No Gap - Pass	Not Applicable
Lower (bgs)		10		
	mg/kg	mg/kg		
Benzene	7.6	14		
Ethylbenzene	53	314		
Naphthalene	47	219		
PAH_1	N/A	4.5		

APPENDIX E

STATE WATER RESOURCES CONTROL BOARD

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Report Type:	Soil and Water Investigation Report
Facility Global ID:	T10000003428
Facility Name:	SALVATION ARMY
File Name:	EDF 2013 Q3 Aug SB water.zip
Organization Name:	ATC Associates, Inc.
Username:	ATCMGEN
IP Address:	208.92.188.14
Submittal Date/Time:	1/13/2014 10:59:52 AM
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Facility Global ID:	**T10000003428**
Facility Name:	**SALVATION ARMY**
File Name:	**EDF 2013 Aug SB1-4 soil.zip**
Organization Name:	**ATC Associates, Inc.**
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Facility Global ID:	**T10000003428**
Facility Name:	**SALVATION ARMY**
File Name:	**EDF 2013 Q3 Aug SB5-7 soil.zip**
Organization Name:	**ATC Associates, Inc.**
Username:	**ATCMGEN**
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