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January 9, 2015

Mr. Mark Detterman, RG, CEG
Senior Hazardous Materials Specialist
Alameda County Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

RECEIVED
By Alameda County Environmental Health at 3:10 pm, Jan 12, 2015

Re: **Perjury Statement-**
Data Gap Investigation Work Plan and Focused Site Conceptual Model (SCM)
ABF Freight System Facility (SLIC Case Nos. RO#0003133 and #0003134)
4575 Tidewater Avenue
Oakland, California

Dear Mr. Detterman:

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

Sincerely,

Michael K. Rogers
Director, Real Estate
ArcBest Corporation

January 9, 2015
Project 154.009.001

Mr. Mark Detterman, RG, CEG
Senior Hazardous Materials Specialist
Alameda County Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: *Data Gap Investigation Work Plan and Focused Site Conceptual Model (SCM)*
ABF Freight System Facility
4575 Tidewater Avenue
Oakland, California
RO#0003033 and RO#0003134

Dear Mr. Detterman:

This letter, prepared by Trinity Source Group, Inc. (Trinity) on behalf of ABF Freight System, Inc. (ABF), presents a *Data Gap Investigation Work Plan and SCM (Work Plan)* for the referenced site (Figures 1 and 2). This *Work Plan* was requested by Alameda County Environmental Health Department (ACEH) in letters dated October 23, 2014. This *Work Plan* focuses on further delineating and assessing the presence of light non-aqueous phased liquid (LNAPL), which was encountered during previous soil and groundwater investigation delineating the presence of tetrachloroethene (PCE) and trichloroethene (TCE), as requested by ACEH. The ACEH issued a letter dated October 29, 2014, regarding the HVOC detections in the soil gas at the site (RO# 3134), and no HVOCs were detected in soil or groundwater samples in any of the recent borings drilled at the site, including boring SB-4 which had the LNAPL. Based on the subsequent discussion with ACEH staff, Trinity is first addressing the LNAPL at the site, and will address the HVOCs later if warranted. The ACEH letters are included in Attachment A of this *Work Plan*.

BACKGROUND

The site encompasses approximately 6.7 acres situated between Tidewater Avenue and the water channel extending north from San Leandro Bay, separating the cities of Alameda and Oakland (Figures 1 and 2). Land-use in the area is industrial.

Currently the site is in use as a trucking terminal, with a maintenance building located near the western property boundary. One aboveground storage tank that existed adjacent to the maintenance building, and is labeled with “Diesel Fuel”, “Not in Use”, and “Permanently Closed Jan. 1995”, was removed by

ABF on August 13, 2014. An underground clarifier is in use near the maintenance building. The underground storage tanks (USTs) at the site were also located near the maintenance building.

Previous environmental activities have evaluated soil and groundwater conditions, and are described in the *Soil Vapor Work Plan.* The most recent groundwater monitoring was the first semi-annual 2014 event, reported on March 12, 2014. The groundwater flow direction from this event was primarily to the south, southwest, and southeast.

Trinity installed two sub-slab vapor probes (SVP-1 and SVP-2) inside the maintenance building (Figure 2), and sampled these probes on two occasions. Tetrachloroethene (PCE) was detected at concentrations exceeding the Environmental Screening Level (ESL)[1] for commercial land use indoor air, with a maximum of 901 to 971 micrograms per meter cubed (µg/m^3) in Probe SVP-2. The applicable ESL for PCE is 42 µg/m^3. Probe SVP-2 also had very low but detectable concentrations of several other halogenated volatile organic compounds (HVOCs). Table 1 summarizes the sub-slab vapor data. Because the source and extent of PCE is unknown, ACEH requested additional delineation of the PCE.

Trinity conducted a passive soil gas survey inside and around the maintenance building from January 22, 2014 to February 5, 2014. The results of the survey are detailed in the *Passive Soil Gas Survey Report (Report)*, dated March 19, 2014. PCE and TCE and were the only HVOCs detected in multiple probes. The passive soil gas survey indicated non-detectable to relatively low concentrations across the area surveyed, with the maximum detections being PCE in two samples located near a sewer trench beneath the maintenance building. Passive soil gas analytical data is presented in Table 2 and Figure 3.

Trinity recommended drilling two soil borings to provide source evaluation and delineation of PCE beneath the maintenance building. In its April 9, 2014 *Letter*, ACEH requested additional soil borings be drilled.

On August 26, 2014 Trinity drilled six soil borings to evaluate potential soil contamination and delineate HVOC contamination beneath the maintenance building. The boring locations were selected to delineate HVOC contamination based off previous investigation results. Also, the floor drains were evaluated as potential contamination sources, and no sign of a release near the floors drains was observed. During the HVOC delineation in Boring SB-4, approximately three inches of LNAPL was encountered. The boring locations are shown on Figure 4, and the soil and groundwater analytical data are presented in Tables 3 and 4. The findings from this investigation were submitted to ACEH in a letter report dated September 24, 2014.

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[1] *Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater* (November 2007), San Francisco Bay Regional Water Quality Control Board, California EPA, http://www.waterboards.ca.gov/sanfranciscobay/esl.htm, updated December, 2013. ESLs are conservative risk-based numbers used to evaluate detections of chemicals in soil, groundwater and soil gas. Detections less than ESLs generally do not warrant further evaluation. Detections greater than ESLs may warrant further evaluation based on site-specific conditions.

During Trinity's recent fieldwork, Trinity staff observed some metal trench plates over what appears to be an underground work bay used for vehicle maintenance in the northwestern section of the maintenance building. The approximate location is shown on Figure 2. Mr. Mike Rogers with ABF confirmed that underneath the metal trench plates is an underground work bay for vehicle maintenance, and provided photos. From the photos, the underground work bay is approximately 2-3 feet wide and 3-4 feet deep and extends approximately 15-25 feet in length, and is constructed of concrete. From the photos, the floor and sidewalls of the underground work bay look to be in good condition without obvious signs of cracks and/or breaks in the floor and sidewalls. Example photos are presented below:

The underground work bay may act as a barrier for potential shallow contaminant migration to the northwest.

SITE CONCEPTUAL MODEL

The SCM focusing on the presence of LNAPL is outlined below and presented as Table 5. Table 5 summarizes the elements of the SCM including the hydrogeologic setting and potential exposure pathways.

The primary data gap to be addressed in the SCM is the presence of LNAPL beneath the maintenance building. The source of the LNAPL is unknown. The extent is generally constrained by Borings SB-1 through SB-6 (Figure 2); however, the actual size of the LNAPL plume is not defined. Typical sources of LNAPL at similar industrial sites include intermittent spills, on-site waste oil underground storage tanks (UST), and/or sewer/drain lines. At this site the LNAPL was found in close proximity to a sewer line. Therefore, the sewer appears to be the most likely source.

If a source of the LNAPL is identified onsite through the assessment proposed below, additional soil and groundwater assessment may be warranted.

SCOPE OF WORK

Trinity presents the following scope of work to assess the source and extent of LNAPL. The following tasks are proposed:

Prefield

Prefield tasks will include obtaining any necessary permits, preparing a site-specific health and safety plan, scheduling sub-contractors, and notifying inspectors as needed. In addition, Trinity staff will mark the proposed soil boring locations, as determined and notify Underground Service Alert for utility clearance.

Video Survey- Sewer/Drain Pipes

Trinity will perform a video survey of the sewer/drain lines near Boring SB-4 to assess overall sewer conditions, and to identify areas that could represent release points. If the sewer/drain lines are found to be in poor condition with multiple possible release locations, Trinity will halt further assessment and will evaluate replacing and/or repairing the sewer/drain lines. Trnity recommends that ACEH staff visit the site during the video survey to observe the results and note other site features, and to discuss potential soil boring locations.

Underground Work Bay Inspection

During the video survey fieldwork, the underground work bay will be inspected for cracks or breaks in the side walls and floor for evidence of potential spills, and/or releases.

Hand-Auger Soil Borings

If the sewer/drain video survey indicates only a few potential release locations, or no release locations, hand-auger borings will be advanced to further evaluate possible release locations along the sewer/drain pipes. If possible, soil and grab-groundwater samples will be collected from the soil borings.

Soil Borings

Depending on the hand-auger soil boring results, four additional soil borings will be drilled using a direct-push drill rig to delineate the western extent of LNAPL if needed. Borings will be advanced using a direct-push rig to two feet below first encountered water. Soils will be logged by Trinity staff and screened for volatile organic compounds (VOCs) at two-foot intervals using a photoionization detector (PID). At least one soil sample will be collected per borehole; additional soil samples will be collected based on PID readings. Grab-groundwater samples will be collected from each boring at the observed water-bearing zone. Complete soil and groundwater assessment field procedures are presented in Attachment B. Boring locations will be selected based on the video survey and hand-auger borings. This fieldwork will not be performed, if the previous fieldwork sufficiently delineates the LNAPL.

Laboratory Analysis

Trinity will ship the soil and grab-groundwater samples to ESC Lab Sciences (ESC) for analysis. Samples will be analyzed for:

- PCE plus five breakdown compounds including TCE, 1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dicholoroethene, and vinyl chloride by EPA Method 8260B,
- Benzene, toluene, ethyl benzene, and total xylenes (collectively BTEX compounds) by EPA Method 8260B,
- Total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8260B,
- Total petroleum hydrocarbons as diesel (TPHd) and total peteroleum hydrocarbons as motor oil (TPHmo) by EPA Method 8015 with Silica Gel Cleanup.

Reporting

Following receipt of initial sampling analytical results, Trinity will prepare a summary report of the procedures and findings of this LNAPL assessment, along with recommendations regarding LNAPL removal. The report will include a map showing sample collection locations, field sampling data, and analytical data, along with certified analytical data and chain-of-custody documentation.

SCHEDULE

Trinity will initiate the proposed scope of work after ACEH approval of this *Work Plan.* Upon approval to proceed and under normal circumstances, the investigation will take approximately 8 to 10 weeks to complete. The final comprehensive report will be submitted within 8 to 12 weeks after receipt of all analytical data.

Should you have any questions regarding this letter, please call Trinity at (831) 426-5600.

Sincerely,

TRINITY SOURCE GROUP, INC.

Information, conclusions, and recommendations made by Trinity in this document regarding this site have been prepared under the supervision of and reviewed by the licensed professional whose signature appears below.

Debra J. Moser, PG, CEG, CHG
Senior Geologist

Eric J. Choi
Project Scientist

Attachments:

Table 1:	Sub-Slab Vapor Analytical Data
Table 2:	Passive Soil Gas Analytical Data
Table 3:	Soil Analytical Data
Table 4:	Grab-Groundwater Analytical Data
Table 5:	Site Conceptual Model for LNAPL
Figure 1:	Site Location Map
Figure 2:	Soil Borings, Soil Vapor Probes, and Utilities Location Map
Figure 3:	Soil Boring, Sub-Slab Vapor Probe and Monitoring Well Location Map
Figure 4:	Soil and Grab-Groundwater Analytical Data Map
Attachment A:	Regulatory Correspondence
Attachment B:	Soil and Grab-Groundwater Sampling Field Procedures

DISTRIBUTION

A copy of this report has been forwarded to:

Mr. Mike Rogers (via email to mkrogers@arkbest.com)

Leroy Griffin (via email to lgriffin@oaklandnet.com)

TABLES

Table 1
Sub-Slab Vapor Analytical Data

ABF Freight System Facility
4575 Tidewater Avenue
Oakland, California

Sample ID	Sample Date	Analytical Test Methods																
		ASTM D-1946				EPA TO-15											EPA TO-17	
		Carbon Dioxide (%)	Methane (%)	Oxygen (%)	Helium (%)	PCE (µg/m^3)	1,1,2-TCA (µg/m^3)	1,2,4 - TMB (µg/m3)	TPHg (µg/m^3)	Benzene (µg/m^3)	Toluene (µg/m^3)	Ethyl Benzene (µg/m^3)	Ethyl Acetate (µg/m^3)	Total Xylenes (µg/m^3)	Ethanol (µg/m^3)	Other VOCs	(µg/m^3)	Naphthalene (µg/m^3)	TPHd (µg/m3)
SVP-1	6/20/2012	2.2	<0.0001	16	0.049	**60**	<11	<10	<1,800	<2.8	<7.7	<8.8	**20**	<27	**180**	ND		<2.0	
SVP-1	12/17/2012				8.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			<0.6	<125
SVP-1	1/17/2013	0.8	<0.0002	20	0.23	**16**	<11	<10	**1,300**	<6.5	<7.7	**9.6**	**33**	**77**	**290**	**Acetone, 340**		**2.0**	
SVP-2	6/20/2012	0.22	0.00018	18	<0.005	**530**	**38**	**13**	**1,900**	**2.9**	**11**	**20**	**19**	**160**	**100**	**Acetone, 230**		**3.4**	
SVP-2	12/17/2012				1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			<0.6	<125
SVP-2	1/17/2013				40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
SVP-2	2/5/2013	1.21	<0.0009	17.1	NA	**901**	<0.03	**0.02**	NA	**0.03**	**0.02**	<0.02	<0.02	**0.04**	NA	**Acetone, 20.4 1,1-DFE, 12.5 (leak check) Others as listed on Certified Analytical Report**			
SVP-2 (QC Sample)	2/5/2013	1.22	<0.001	17.3	NA	**971**	<0.03	**0.064**	**450***	**0.15**	**0.21**	<0.02	<0.02	**0**	**NA**	**Acetone, 67.1 1,1-DFE, 426 (leak check) Others as listed on Certified Analytical Report**			
ESLs for Commercial Indoor Air		2.1	0.77	NA	100	0.42	1,300	4.9	NA	440	NA	NA		0.36	570				
Attenuated Commercial Indoor Air[a]		42	15.4	NA	2,000	8.4	26,000	98	NA	8,800	NA	NA		7.2	11,400				

Notes:

ID = Identification
% = Percentage
µg/m^3 = micrograms per meter cubed
PCE = Tetracholoroethene
1,1,2-TCA = 1,1,2 - Trichloroethane
1,2,4-TMB = 1,2,4 - Trimethylbenzene
TPHg = Total Petroleum Hydrcarbons as Gasoline
1,1-DFE = 1,1-Difluoroethane
ASTM = American Society for Testing Materials

Table 1
Sub-Slab Vapor Analytical Data

ABF Freight System Facility
4575 Tidewater Avenue
Oakland, California

< =	Not detected at or above detection limit
ND =	Not detected
NA =	Not applicable
Bold =	data detected above laboratory detection limits
*	Duplicate sampled was analyzed for TPHg; result of 450 (µg/m^3) was attributed to single discrete peak (PCE).
ESLs =	Environmental Screening Levels (February 2013)
SFRWQCB =	San Francisco Bay Regional Water Quality Control Board, California EPA
	http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/esl.shtml (May 2013)
a=	Attenuation factor for existing commercial building sub-slab from the DTSC-CEPA Vapor Intrusion Guidance (2011) is 0.05

Table 2
Passive Soil Gas Analytical Data

ABF Freight System Facility
4575 Tidewater Avenue
Oakland, California

Sample ID	Sample Deployment Date	Sample Retrieval Date	EPA Method 8260C							
			Vinyl Chloride (ng)	Trichloro-fluoro-ethane (ng)	1,1-Dichloro-ethene (ng)	1,1-Dichloro-ethane (ng)	1,2-Dibromo-ethane (ng)	PCE (ng)	TCE (ng)	Other VOCs (ng)
SG-1	1/22/2014	2/5/2014	<10	<25	<10	<25	<25	<10	<10	A
SG-2	1/22/2014	2/5/2014	<10	<25	<10	<25	<25	**8 J**	<10	ND
SG-3	1/22/2014	2/5/2014	<10	<25	<10	<25	<25	<10	<10	ND
SG-4	1/22/2014	2/5/2014	<10	<25	<10	<25	<25	<10	<10	ND
SG-5	1/22/2014	2/5/2014	<10	<25	<10	<25	<25	**545**	**55**	ND
SG-6	1/22/2014	2/5/2014	<10	<25	<10	<25	<25	**540**	**<10**	ND
SG-6 DUP	1/22/2014	2/5/2014	<10	<25	<10	<25	<25	**834**	**7 J**	ND
SG-7	1/22/2014	2/5/2014	<10	<25	<10	<25	<25	**150**	<10	ND
SG-8	1/22/2014	2/5/2014	<10	<25	<10	<25	<25	**51**	<10	ND
SG-9	1/22/2014	2/5/2014	<10	<25	<10	<25	<25	**7 J**	<10	ND
SG-10	1/22/2014	2/5/2014	<10	<25	<10	<25	<25	**118**	**8 J**	ND

Notes:

ID = Identification
PCE = Tetrachloroethene
TCE = Trichloroethene
ND = Not detected
< = Not detected at or above detection limit
ng = Nanograms
Bold = data detected above laboratory detection limits
A = Chloroform was detected at a concentration of 54 ng
J = Values below limit of quantitation (LOQ) but above the limit of detection (LOD)

Table 3
Soil Analytical Data

ABF Freight System, Inc.
4575 Tidewater Avenue
Oakland, California

Sample ID	Sample Date	Sample Depth (Feet)	EPA Analytical Test Method												
			8260B (mg/kg)											8015 (mg/kg)	
			TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	1,1-DCE	cis-1,2-DCE	PCE	TCE	Vinyl Chloride	Carbon Tetrachloride	TPHd	TPHmo
SB-1	8/26/2014	3.5	<0.57	0.00051[A]	<0.0057	<0.0011	<0.0034	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<4.5	0.69[A]
SB-2	8/26/2014	3.5	<0.58	<0.0012	<0.0058	<0.0012	<0.0035	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<46	20[A]
SB-3	8/26/2014	3.5	<0.60	<0.0012	0.00066[A]	<0.0012	<0.0036	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	3.2[A]	5.3
SB-4	8/26/2014	3.5	<0.57	<0.0011	<0.0057	<0.0011	<0.0034	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<46	5.6[A]
SB-5	8/26/2014	3.5	<0.56	<0.0011	<0.0056	<0.0011	<0.0034	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<45	87
SB-6	8/26/2014	3.5	<0.56	0.00042[A]	<0.0056	<0.0011	<0.0034	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<4.5	3.6[A]
Commercial SFRWQCB ESLs - Shallow Soil Screening Levels - Not a Current or Potential Drinking Water Resource															
			500	1.2	9.3	4.7	11	1.9	18	2.6	8.3	0.16	0.58	110	500

Notes:

EPA = Environmental Protecton Agency
SB = Soil Boring
TPHg = Total Petroleum Hydrocarbons - Gasoline Range
1,1-DCE = 1,1-dichloroethene
cis-1,2-DCE = cis-1,2-dichloroethene
PCE = Tetrachloroethene
TCE = Trichloroethene
TPHd = Total Petroleum Hydrocarbons - Diesel Range (C10-C28)
TPHmo = Total Petroleum Hydrocarbons - Motor Oil Range (C28-C40)
mg/kg = Milligrams per kilogram
< = Not detected at or above detection limit
NA = Not analyzed
A = (EPA) Estimated value below the lowest calibration point. Confidence correlates with concentration.
SFRWQCB = San Francisco Bay Regional Water Quality Control Board, California EPA, December 2013, http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/esl.shtml.
ESLs = Environmental Screening Levels (Updated December 2013)
Bold = Exceeds ESL concentration

Table 4
Grab-Groundwater Analytical Data

ABF Freight System, Inc.
4575 Tidewater Avenue
Oakland, California

Sample ID	Sample Date	EPA Analytical Test Method												
		8260B (µg/L)											8015 (µg/L)	
		TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	1,1-DCE	cis-1,2-DCE	PCE	TCE	Vinyl Chloride	Carbon Tetrachloride	TPHd	TPHmo
Grab Groundwater Samples Collected From Soil Borings														
SB-1	8/26/2014	<500	<1.0	<5.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	460	160
SB-2	8/26/2014	<500	<1.0	<5.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	580	210
SB-3	8/26/2014	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA
SB-4	8/26/2014	**810**	0.61[A]	0.79[A]	3.8	9.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**6200**	**1200**
SB-5	8/26/2014	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA
SB-6	8/26/2014	<500	<1.0	<5.0[B,C]	<1.0[C]	<3.0[B,C]	<1.0[B,C]	<1.0	<1.0[C]	<1.0[B]	<1.0	<1.0[B]	170	110
Commercial SFRWQCB ESLs - Groundwater Screening Levels - Aquatic Receptor, Not a Current or Potential Drinking Water Resource														
		500	46	130	43	100	25	590	120	360	780	9.8	640	640

Notes:

EPA = Environmental Protecton Agency
SB = Soil Boring
TPHg = Total Petroleum Hydrocarbons - Gasoline Range
1,1-DCE = 1,1-dichloroethene
cis-1,2-DCE = cis-1,2-dichloroethene
PCE = Tetrachloroethene
TCE = Trichloroethene
TPHd = Total Petroleum Hydrocarbons - Diesel Range (C10-C28)
TPHmo = Total Petroleum Hydrocarbons - Motor Oil Range (C28-C40)
µg/L = Micrograms per liter
< = Not detected at or above detection limit
NA = Not analyzed
A = (EPA) Estimated value below the lowest calibration point. Confidence correlates with concentration.
B = The associated batch QC was outside the established quality control range for precision.
C = The sample matrix interfered with the ability to make any accurate determination; spike value is high
SFRWQCB = San Francisco Bay Regional Water Quality Control Board, California EPA, December 2013, http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/esl.shtml.
ESLs = Environmental Screening Levels (Updated December 2013)
Bold = Exceeds ESL concentration

TABLE 5
SITE CONCEPTUAL MODEL FOR LNAPL

ABF Freight System Facility
4575 Tidewater Avenue
Oakland, California

SCM Element	SCM Sub-Element	Description	Data Gap	How to Address
Geology and Hydrogeology	Regional	Site is located in the Oakland Harbor area, within the South Bay Hydrologic Planning Area, Santa Clara Valley, East Bay Plain Groundwater Basin.	none	
	Site	Site is underlain by up to 10 feet of compacted fill materials, underlain by tidal marsh deposits and Bay mud. Nearest surface water is the channel extending northerly from San Leandro Bay, separating the island of Alameda and the city of Oakland.	none	
Hydraulic Flow System	Site	Shallow groundwater flow is generally to south and southeast, based on one groundwater monitoring event conducted in 2014. Depth to groundwater is 4 to 5 feet bgs based on 2014 monitoring.	none	
Release History	Site	Four USTs existed at the site; two 10,000-gallon diesel USTs, one 800-gallon motor oil UST, and one 800-gallon waste oil UST. In 1986, Azonic removed the two 800-gallon tanks, along with sludge beneath one of the tanks. Disposal records for two 10,000-gallon tanks show that both diesel tanks have been removed. Release was attributed to overfilling and incidental leaks. LNAPL was identified in one boring inside the maintenance building. This area is not near the former USTs. The LNAPL source is unknown. In general, LNAPL sources at similar sites may include intermittent spills,	Unknown LNAPL source	Conduct sewer line video survey followed by soil and groundwater sampling as appropriate Site inspection to identify evidence for potential releases

TABLE 5
SITE CONCEPTUAL MODEL FOR LNAPL

ABF Freight System Facility
4575 Tidewater Avenue
Oakland, California

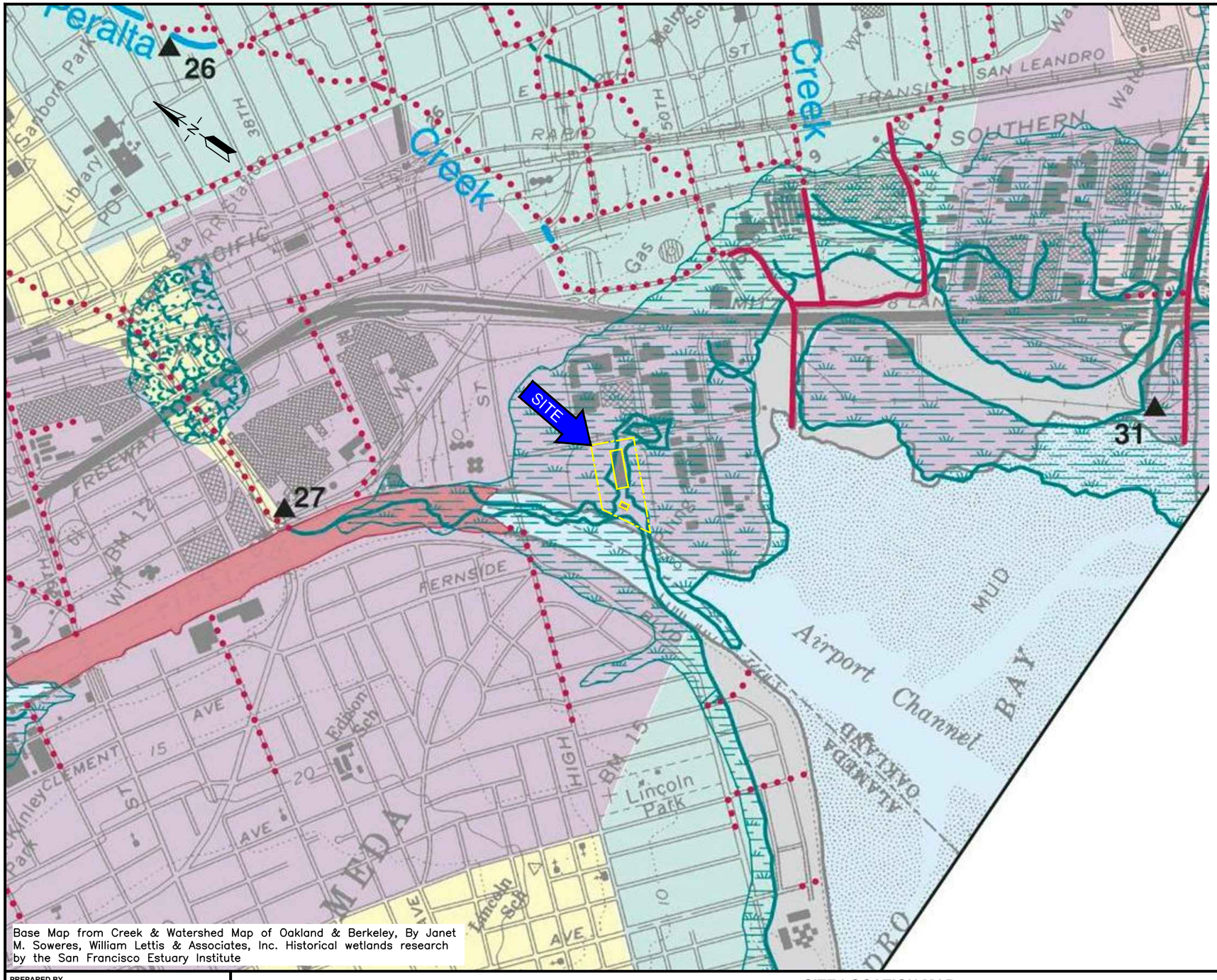
SCM Element	SCM Sub-Element	Description	Data Gap	How to Address
		on-site waste oil USTs, and/or sewer lines.		
Plume	Site	Soils data indicate incomplete delineation to low or non-detectable TPHd. TPHg, benzene and other analytes including VOCs were non-detect. Groundwater concentrations are generally less than ESLs for industrial land use, non-drinking water use, aquatic habitat protection. No HVOCs were detected in groundwater. PCE was found in sub-slab vapor at concentrations exceeding ESLs; no source was identified. The occurrence of PCE may be associated with the same sewer system being evaluated as a potential release mechanism for the LNAPL. Groundwater samples collected at the LNAPL site did not contain HVOCs. The underground work bay is a potential barrier to vapor and shallow groundwater migration to the northwest from the location where LNAPL was found. Soil and groundwater data tables and maps are attached.	LNAPL source and extent in soil	Conduct sewer line video survey followed by soil and groundwater sampling as appropriate Site inspection to identify evidence for potential releases
Site	Site	Site is an active trucking terminal; LNAPL was found	None	

TABLE 5
SITE CONCEPTUAL MODEL FOR LNAPL

ABF Freight System Facility
4575 Tidewater Avenue
Oakland, California

SCM Element	SCM Sub-Element	Description	Data Gap	How to Address
Structures and Operations		inside the maintenance building near western site boundary.		
Other Nearby Releases	Off-site	Tidewater Business Park at 4703 Tidewater is listed in Geotracker as an active case with metals and oils detected; however, no data is posted to Geotracker. This site is approximately 500 feet from the project site. DiSalvo Trucking is listed in Geotracker as an active UST case with diesel impacts to groundwater. This site is located approximately 1,200 feet southeast of the project site.	None – nearby sites have negligible impact on project site based on available data.	
Land Uses and Exposure Scenarios		Industrial land use predominates at the site and vicinity. Soil and groundwater exposure pathways are not complete based on petroleum hydrocarbon conditions. Soil vapor exposures could occur if vapors accumulate in high concentrations beneath existing buildings and if buildings are not well-ventilated	Extent of LNAPL	Conduct sewer line video survey followed by soil and groundwater sampling as appropriate
Specific Data Gaps			Source and extent of LNAPL	Conduct sewer line video survey followed by soil and groundwater sampling as appropriate

FIGURES



EXPLANATION

- Creeks
- Former creeks, buried or drained, and Bay shoreline, circa 1850
- Underground culverts and storm drains
- Engineered channels
- Willow groves, circa 1850
- Beach, circa 1850
- Tidal marsh, circa 1850
- now water
- now fill land
- Bay
- Bay, circa 1850, now fill land
- Artificial bodies of water
- Present watersheds

APPROX. SCALE IN FEET
0 1,000

Base Map from Creek & Watershed Map of Oakland & Berkeley, By Janet M. Soweres, William Lettis & Associates, Inc. Historical wetlands research by the San Francisco Estuary Institute

PREPARED BY

TRINITY source group, inc.
Environmental Consultants
119 Encinal Street
Santa Cruz, California 95060
v: 831.426.5600
f: 831.426.5602

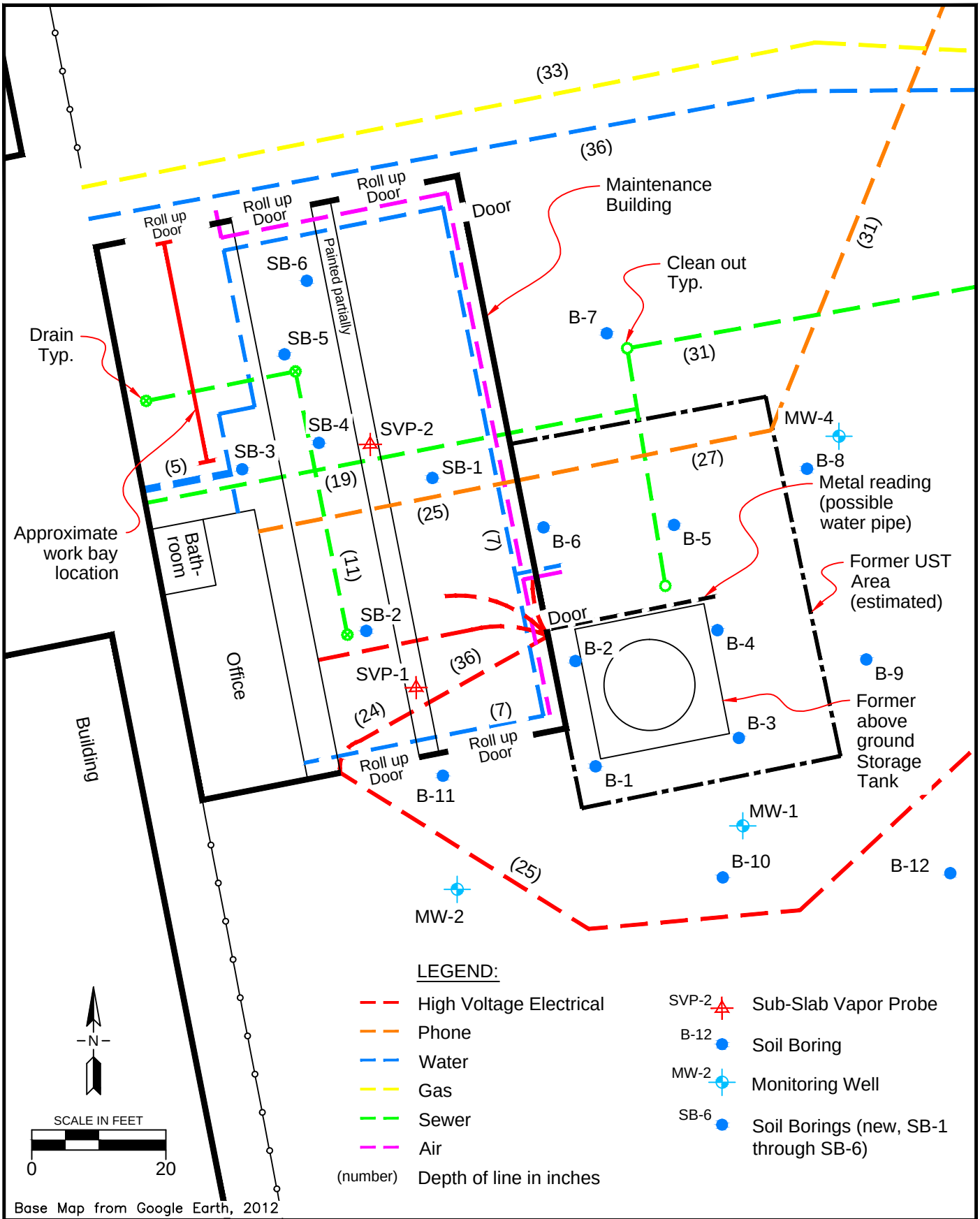
SITE LOCATION MAP

ABF Freight System Facility
4575 Tidewater Ave.
Oakland, California

PROJECT: 154.009.001

FIGURE: 1

REF. 154_001\154.008.001 fig1.dwg



REF. 154_001\154.009.001 figures.dwg

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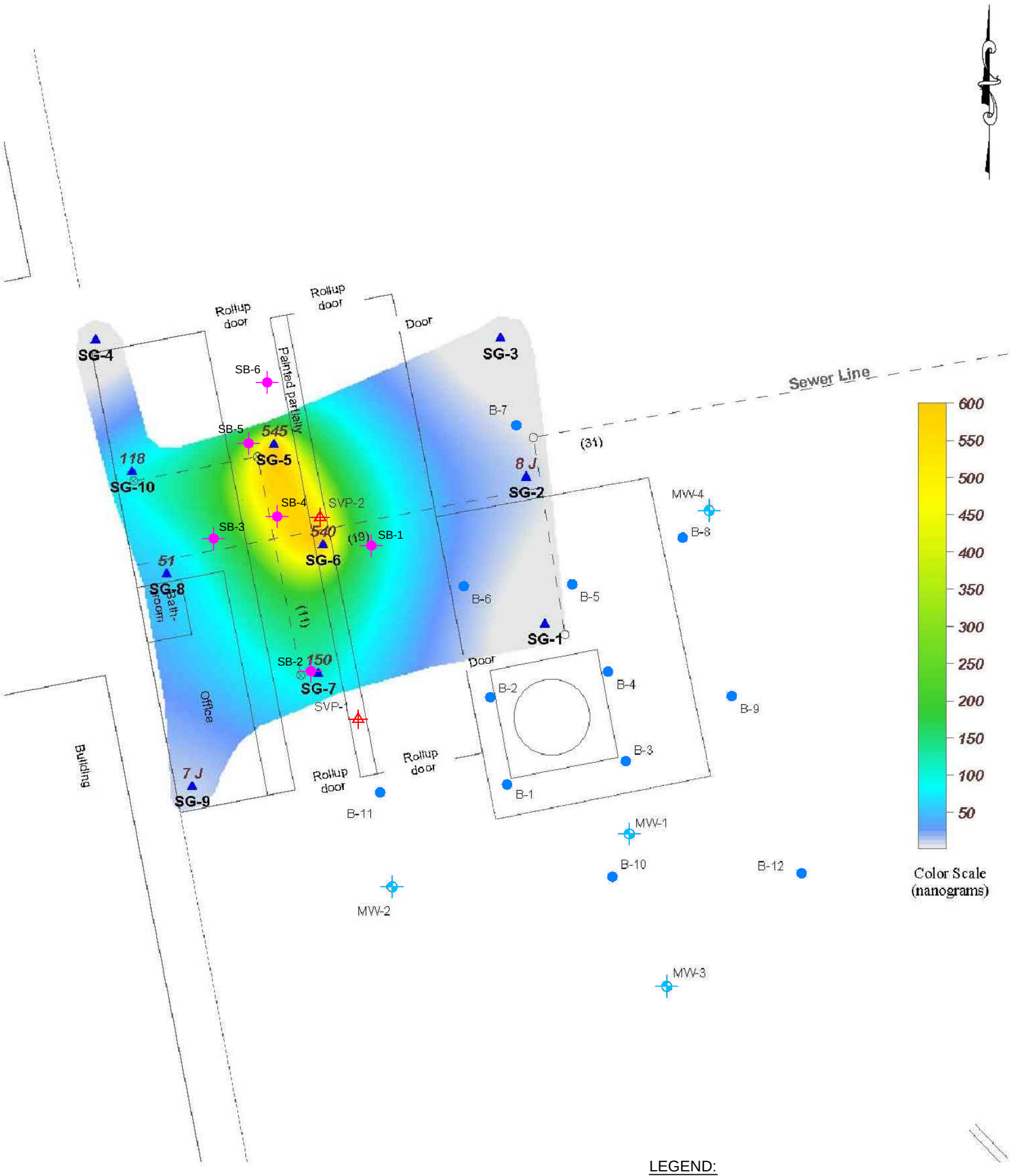
SOIL BORINGS, SUB-SLAB VAPOR PROBE, UTILITIES LOCATION MAP

ABF Freight System Facility
4575 Tidewater Ave.
Oakland, California

PROJECT: 154.009.001

FIGURE: 2



Base Map from Google Earth, Inc. and Beacon Environmental Services, Inc.

REF. 154_001\154.009.001 figures.dwg

PREPARED BY

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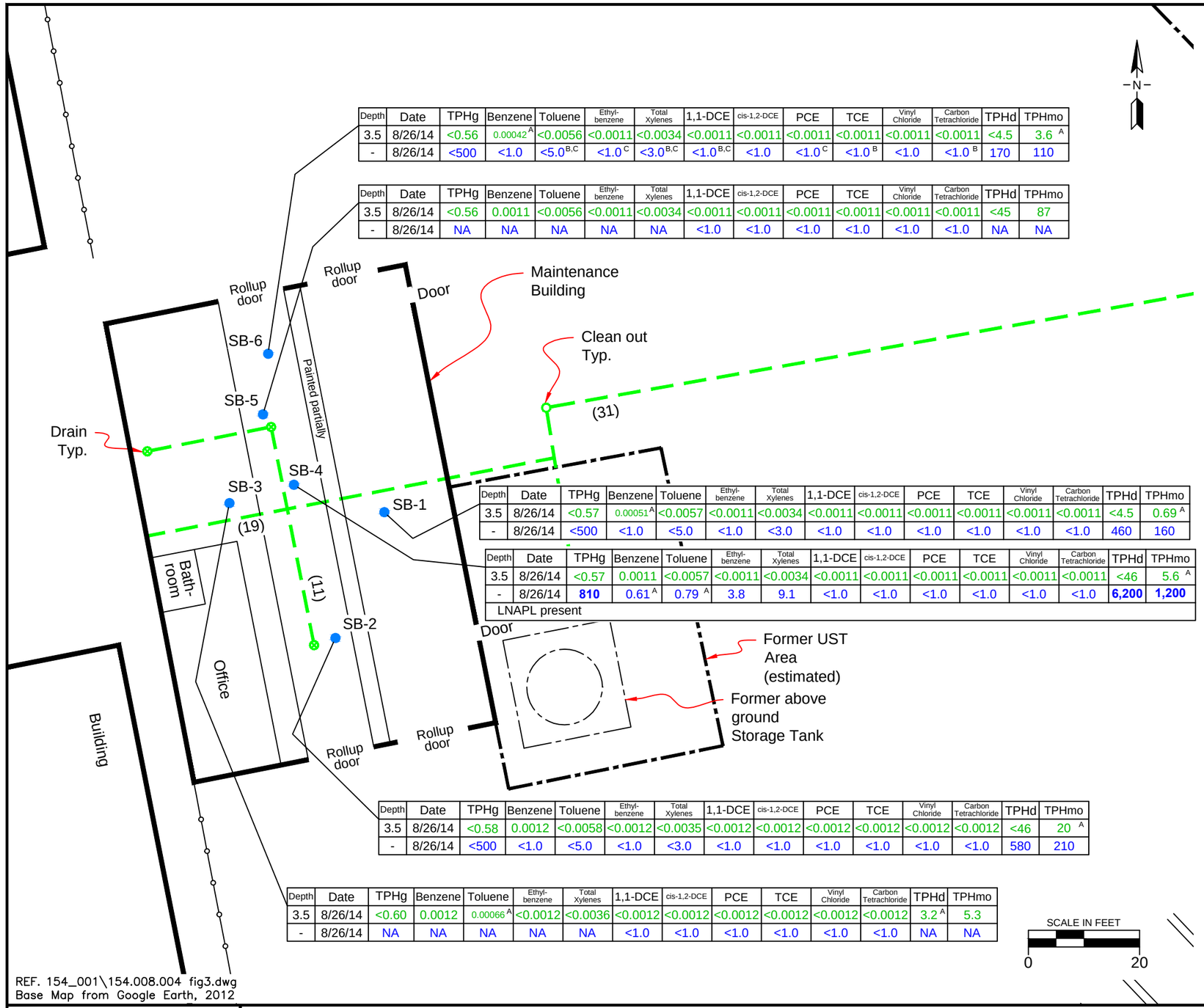
PCE PASSIVE SOIL GAS SURVEY AND PROPOSED BORING LOCATIONS

ABF Freight System Facility
4575 Tidewater Ave.
Oakland, California

PROJECT: 154.009.001

FIGURE: 3



Depth	Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	1,1-DCE	cis-1,2-DCE	PCE	TCE	Vinyl Chloride	Carbon Tetrachloride	TPHd	TPHmo
3.5	8/26/14	<0.56	0.00042 A	<0.0056	<0.0011	<0.0034	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<4.5	3.6 A
-	8/26/14	<500	<1.0	<5.0 B,C	<1.0 C	<3.0 B,C	<1.0 B,C	<1.0	<1.0 C	<1.0 B	<1.0	<1.0 B	170	110

Depth	Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	1,1-DCE	cis-1,2-DCE	PCE	TCE	Vinyl Chloride	Carbon Tetrachloride	TPHd	TPHmo
3.5	8/26/14	<0.56	0.0011	<0.0056	<0.0011	<0.0034	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<45	87
-	8/26/14	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA

Depth	Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	1,1-DCE	cis-1,2-DCE	PCE	TCE	Vinyl Chloride	Carbon Tetrachloride	TPHd	TPHmo
3.5	8/26/14	<0.57	0.00051 A	<0.0057	<0.0011	<0.0034	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<4.5	0.69 A
-	8/26/14	<500	<1.0	<5.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	460	160

Depth	Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	1,1-DCE	cis-1,2-DCE	PCE	TCE	Vinyl Chloride	Carbon Tetrachloride	TPHd	TPHmo
3.5	8/26/14	<0.57	0.0011	<0.0057	<0.0011	<0.0034	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<46	5.6 A
-	8/26/14	**810**	0.61 A	0.79 A	3.8	9.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**6,200**	**1,200**
LNAPL present														

Depth	Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	1,1-DCE	cis-1,2-DCE	PCE	TCE	Vinyl Chloride	Carbon Tetrachloride	TPHd	TPHmo
3.5	8/26/14	<0.58	0.0012	<0.0058	<0.0012	<0.0035	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<46	20 A
-	8/26/14	<500	<1.0	<5.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	580	210

Depth	Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	1,1-DCE	cis-1,2-DCE	PCE	TCE	Vinyl Chloride	Carbon Tetrachloride	TPHd	TPHmo
3.5	8/26/14	<0.60	0.0012	0.00066 A	<0.0012	<0.0036	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	3.2 A	5.3
-	8/26/14	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA

REF. 154_001\154.008.004 fig3.dwg
Base Map from Google Earth, 2012

LEGEND:

- SB-6 — Soil Boring
- Sewer
- (number) — Depth of line in inches
- TPHg — Gasoline Range Total Petroleum Hydrocarbons
- 1,1-DCE — 1,1-Dichloroethene
- cis-1,2-DCE — cis-1,2-Dichloroethene
- PCE — Tetrachloroethene
- TCE — Trichloroethene
- TPHd — Diesel Range Total Petroleum Hydrocarbons
- TPHmo — Motor Oil Range Total Petroleum Hydrocarbons
- < — Not detected at or above detection limit
- GREEN — Soil Sample Data in milligrams per kilogram (mg/kg)
- BLUE — Grab-Groundwater Sample Data in micrograms per liter (µg/L)
- mg/kg — Milligrams per kilogram as in parts per million (ppm)
- µg/L — Micrograms per liter as in parts per billion (ppb)
- **BOLD** — Exceeds ESL concentration
- LNAPL — Light Non-Aqueous Phased Liquid
- A — (EPA) Estimated value below lower calibration point. Confidence correlates with concentration
- B — The associated batch QC was outside the established quality control range for precision
- C — The sample matrix interfered with the ability to make any accurate determination; spike value is high

SFRWQCB ESLs - Commercial, Shallow Soil - Not a Current or Potential Drinking Water Resource (mg/kg)						
TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	1,1-DCE	cis-1,2-DCE
500	1.2	9.3	4.7	11	1.9	18
PCE	TCE	Vinyl Chloride	Carbon Tetrachloride	TPHd	TPHmo	
2.6	8.3	0.16	0.58	110	500	

SFRWQCB ESLs - Commercial, Groundwater - Aquatic Receptor, Not a Current or Potential Drinking Water Resource (µg/L)						
TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	1,1-DCE	cis-1,2-DCE
500	46	130	43	100	25	590
PCE	TCE	Vinyl Chloride	Carbon Tetrachloride	TPHd	TPHmo	
120	360	780	9.8	640	640	

- SFRWQCB — San Francisco Bay Regional Water Quality Control Board, California Environmental Protection Agency
- EPA — Environmental Protection Agency
- ESLs — Environmental Screening Levels (Updated December 2013)

PREPARED BY
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SOIL AND GRAB-GROUNDWATER ANALYTICAL DATA MAP

ABF Freight System Facility
4575 Tidewater Ave.
Oakland, California

PROJECT: 154.009.001

FIGURE: 4

ATTACHMENT A

Regulatory Correspondence

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

October 23, 2014

Arkansas Bandag Corporation
PO Box 10048
Fort Smith AR 72917

Mr. Mike Rogers
ABF Freight Systems, Inc.
PO Box 10048
Fort Smith AR 72917
(sent via electronic mail to mkrogers@arkbest.com)

Subject: Request for Work Plan; Fuel Leak Case No. RO0003033 and GeoTracker Global ID T0600100018, ABF Freight Systems, 4575 Tidewater Avenue, Oakland, CA 94601

Dear Mr. Rogers:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site, including the *HVOC Delineation Investigation Report,* dated September 24, 2014. The report was prepared by the Trinity Source Group, Inc (Trinity). Thank you for the report. While the report was generated to delineate a tetrachloroethene plume in soil and groundwater beneath the maintenance building, soil bore SB-4 encountered 3 inches of a Light Non-Aqueous Phased Liquid (LNAPL) beneath the building. From analytical data, the LNAPL appears to be a mid-ranged hydrocarbon product, such as diesel, which is known to have previously been used at the site.

ACEH has re-evaluated the data and recommendations presented in the above-mentioned reports, in conjunction with the case files, to determine if the site can remain eligible for closure as a low risk site under the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP). Due to the discovery of LNAPL at the site we have determined that the site currently fails to meet the LTCP General Criteria d (Free Product), e (Site Conceptual Model), f (Secondary Source Removal), and the Media-Specific Criteria for Groundwater (see Geotracker). The additional data indicates that it is no longer appropriate to proceed to closure without further site specific work.

Therefore, at this juncture ACEH requests that you prepare a Data Gap Investigation Work Plan that is supported by a focused Site Conceptual Model (SCM) to address the Technical Comments provided below.

TECHNICAL COMMENTS

1. **LTCP General Criteria d (Free Product) –** The LTCP requires free product to be removed to the extent practicable at release sites where investigations indicate the presence of free product by removing in a manner that minimizes the spread of the unauthorized release into previously uncontaminated zones by using recovery and disposal techniques appropriate to the hydrogeologic conditions at the site, and that properly treats, discharges, or disposes of recovery byproducts in compliance with applicable laws. Additionally, the LTCP requires that abatement of free product migration be used as a minimum objective for the design of any free product removal system.

   ACEH's review of the case files indicates that insufficient data and analysis has been presented to assess free product at the site. Specifically, as discussed above, 3 inches of LNAPL was encountered in soil bore SB-4 during the recent subsurface investigation. ACEH is in agreement with the recommendation contained in the report to evaluate options for LNAPL removal to the extent practicable.

   Please present a strategy in the Data Gap Work Plan (described in Technical Comment 5 below) to address the items discussed above. Alternatively, please provide justification of why the site satisfies this general criterion in the focused SCM described in Technical Comment 5 below.

2. **LTCP General Criteria e (Site Conceptual Model) –** According to the LTCP, the SCM is a fundamental element of a comprehensive site investigation. The SCM establishes the source and attributes of the unauthorized release, describes all affected media (including soil, groundwater, and soil vapor as appropriate), describes local geology, hydrogeology and other physical site characteristics that affect contaminant environmental transport and fate, and identifies all confirmed and potential contaminant receptors (including water supply wells, surface water bodies, structures and their inhabitants). The SCM is relied upon by practitioners as a guide for investigative design and data collection. All relevant site characteristics identified by the SCM shall be assessed and supported by data so that the nature, extent and mobility of the release have been established to determine conformance with applicable criteria in this policy.

   Our review of the case files indicates that insufficient data collection and analysis has not been presented to assess the nature, extent, and mobility of the release and to support compliance with General Criteria d as discussed in Technical Comment 1 above and General Criteria f, and the Media Specific Criteria for Groundwater as described in Technical Comments 3 and 4 below, respectively.

3. **General Criteria f – Secondary Source Has Been Removed to the Extent Practicable –** "Secondary source" is defined as petroleum-impacted soil or groundwater located at or immediately beneath the point of release from the primary source. Unless site attributes prevent secondary source removal (e.g. physical or infrastructural constraints exist whose removal or relocation would be technically or economically infeasible), petroleum-release sites are required to undergo secondary source removal to the extent practicable as described in the policy. "To the extent practicable" means implementing a cost-effective corrective action which removes or destroys-in-place the most readily recoverable fraction of source-area mass. It is expected that most secondary mass removal efforts will be completed in one year or less. Following removal or destruction of the secondary source, additional removal or active remedial actions shall not be required by regulatory agencies unless (1) necessary to abate a demonstrated threat to human health or (2) the groundwater plume does not meet the definition of low threat as described in this policy.

   As discussed above, 3 inches of LNAPL was encountered in soil bore SB-4 during the recent subsurface investigation. ACEH is in agreement with the recommendation contained in the report to evaluate options for LNAPL removal to the extent practicable.

   Please present a strategy in the Data Gap Work Plan (described in Technical Comment 5 below) to address the items discussed above. Alternatively, please provide justification of why the site satisfies this general criterion in the focused SCM described in Technical Comment 5 below.

4. **LTCP Media Specific Criteria for Groundwater –** To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites listed in the policy.

   Our review of the case files indicates that insufficient data collection and analysis has been presented to support the requisite characteristics of plume stability or plume classification as follows:

   a. **Lateral Extent of Hydrocarbon Plume –** ACEH is in general agreement that the lateral extent of the LNAPL appears to be defined; however, the lateral extent of the dissolved-phased hydrocarbon plume, generally understood to flow towards the south-southwest along the former filled tidal channel, has not been defined towards the open estuary channel to the west of the site. The presence of LNAPL at SB-4 is of concern due to the proximity of the channel on the west. Please know that San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for surface water bodies (estuarine standards) apply at the site.

   Please present a strategy in the Revised Data Gap Work Plan (described in Technical Comment 5 below) to address the items discussed above. Alternatively, please provide justification of why the site satisfies the Media-Specific Criteria for Groundwater in the focused SCM described in Technical Comment 5 below.

5. **Data Gap Investigation Work Plan and Focused Site Conceptual Model –** Please prepare a Data Gap Investigation Work Plan to address the technical comments listed above. Please support the scope of work in the Revised Data Gap Investigation Work Plan with a focused SCM and Data Quality Objectives (DQOs)

that relate the data collection to each LTCP criteria. For example please clarify which scenario within each Media-Specific Criteria a sampling strategy is intended to apply to.

In order to expedite review, ACEH requests the focused SCM be presented in a tabular format that highlights the major SCM elements and associated data gaps, which need to be addressed to progress the site to case closure under the LTCP. Please see Attachment A "Site Conceptual Model Requisite Elements". Please sequence activities in the proposed revised data gap investigation scope of work to enable efficient data collection in the fewest mobilizations possible.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Mark Detterman), and to the State Water Resources Control Board's Geotracker website, in accordance with the specified file naming convention below, according to the following schedule:

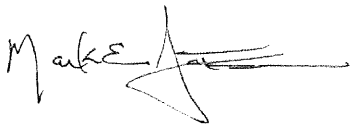
- **January 9, 2015 –** Data Gap Investigation Plan and Focused Site Conceptual Model
  (File to be named: RO3033_WP_SCM_R_yyyy-mm-dd)

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

Online case files are available for review at the following website: http://www.acgov.org/aceh/index.htm. If your email address does not appear on the cover page of this notification, ACEH is requesting you provide your email address so that we can correspond with you quickly and efficiently regarding your case.

If you have any questions, please call me at (510) 567-6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,



Digitally signed by Mark E. Detterman
DN: cn=Mark E. Detterman, o, ou, email, c=US
Date: 2014.10.23 10:50:14 -07'00'

Mark E. Detterman, PG, CEG
Senior Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements/Obligations & Electronic Report Upload (ftp) Instructions

Attachment A – Site Conceptual Model Requisite Elements

cc: Debra Moser, Trinity Source Group, Inc, 500 Chestnut Street, Suite 225, Santa Cruz, CA 95060
(sent via electronic mail to djm@tsgcorp.net)

Leroy Griffin, Oakland Fire Department 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032
(sent via electronic mail to lgriffin@oaklandnet.com)

Dilan Roe (sent via electronic mail to dilan.roe@acgov.org)
Mark Detterman, ACEH, (sent via electronic mail to mark.detterman@acgov.org)
Geotracker, Electronic File

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "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." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	**REVISION DATE:** May 15, 2014
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010, July 25, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to deh.loptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

ATTACHMENT A

Site Conceptual Model Requisite Elements

TABLE 2

DATA GAPS AND PROPOSED INVESTIGATION

Item	Data Gap	Proposed Investigation	Rationale	Analysis
5	Evaluate the possible presence of impacts to deeper groundwater. Evaluate deeper groundwater concentration trends over time. Obtain data regarding the vertical groundwater gradient. Obtain more lithological data below 20 feet bgs.	Install four continuous multichannel tubing (CMT) groundwater monitoring wells (aka multi-port wells) to approximately 65 feet bgs in the northern parking lot with ports at three depths (monitoring well locations may be adjusted pending results of shallow grab groundwater samples; we will discuss any potential changes with ACEH before proceeding). Groundwater monitoring frequency to be determined. Soil samples will be collected only if there are field indications of impacts. Soil lithology will be logged. However, information regarding the moisture content of soil may not be reliable using sonic drilling technology (two borings will be logged using direct push technology; see Item 4, above).	One well is proposed at the western (upgradient) property boundary to confirm that there are no deeper groundwater impacts from upgradient. Two wells are proposed near the center of the northern parking lot to evaluate potential impacts in an area where deeper impacts, if any, would most likely to be found. One well is proposed at the eastern (downgradient) property boundary to confirm that there are no impacts extending off-site. Port depths will be chosen based on the locations of saturated soils (as logged in direct push borings; see Item 4, above), but are expected at approximately 15, 45, and 60 feet bgs.	*Groundwater:* VOCs by EPA Method 8260, dissolved oxygen, oxidation/reduction potential, temperature, pH, and specific conductance.
6	Evaluate possible off-site migration of impacted soil vapor in the downgradient direction (east). Evaluate concentration trends over time.	Install 4 temporary nested soil vapor probes at approximately 4 and 8 feet bgs along the eastern property boundary. Based on the results of the sampling, two sets of nested probes will be converted to vapor monitoring wells to allow for evaluation of VOC concentration trends over time.	Available data indicate that PCE and TCE are present in soil vapor in the eastern portion of the northern parking lot. Samples are proposed on approximately 50-foot intervals along the eastern property boundary to provide a transect of concentrations through the vapor plume. The depths of 4 and 8 feet bgs are chosen to provide data closest to the source (i.e., groundwater) while avoiding saturated soil, and also provide shallower data to help evaluate potential attenuation within the soil column. Two sets of nested vapor probes will be converted into vapor monitoring wells (by installing well boxes at ground surface); the locations of the permanent wells will be chosen based on the results of samples from the temporary probes.	*Soil vapor*: VOCs by EPA Method TO-15.
7	Evaluate potential for off-site migration of impacted groundwater in the downgradient direction (east).	Advance two borings to approximately 20 feet bgs in the parking lot of the property east of the Crown site for collection of grab groundwater samples.	Two borings are proposed off-site, on the property east of the Crown site, just east of the building in the expected area of highest potential VOC concentrations.	*Groundwater:* VOCs by EPA Method 8260, dissolved oxygen, oxidation/reduction potential, temperature, pH, and specific conductance.
8	Evaluate VOC concentrations just north of the highest concentration area.	Advance two borings to approximately 20 feet bgs north of Building A for collection of soil and grab groundwater samples. Soil samples will be collected at two depths in the vadose zone. Soil samples will be collected based on field indications of impacts (PID readings, odor, staining) or, in the absence of field indications of impacts, at 5 and 10 feet bgs.	The highest concentrations of PCE in groundwater were detected at boring NM-B-32, just north of Building A. The nearest available data to the north are approximately 75 feet away. One of the borings will be advanced approximately 20 feet north of NM-B-32 to provide data close to the highest concentration area. A second boring will be advanced approximately halfway between the first boring and former boring NM-B-33 to provide additional spatial data for contouring purposes. These borings will be part of a transect in the highest concentration area.	*Groundwater:* VOCs by EPA Method 8260, dissolved oxygen, oxidation/reduction potential, temperature, pH, and specific conductance. *Soil:* VOCs by EPA Method 8260 (soil samples to be collected using field preservation in accordance with EPA Method 5035).
9	Evaluate VOC concentrations in soil vapor in the south parcel of the site.	Install four temporary soil vapor probes at approximately 5 feet bgs around boring SV-25, where PCE was detected in soil vapor at a low concentration.	PCE was detected in soil vapor sample SV-25 in the southern parcel, although was not detected in groundwater in that area. Three probes will be installed approximately 30 feet from of boring SV-25 to attempt to delineate the extent of impacts. A fourth probe is proposed west of the original sample, close to the property boundary and the location of mapped utility lines, which may be a potential conduit, to evaluate potential impacts from the west.	*Soil vapor*: VOCs by EPA Method TO-15.
10	Obtain additional information regarding subsurface structures and utilities to further evaluate migration pathways and sources.	Ground penetrating radar (GPR) and other utility locating methodologies will be used, as appropriate, to further evaluate the presence of unknown utilities and structures at the site.	Utilities have been identified at the site that include an on-site sewer lateral and drain line, and shallow water, electric, and gas lines. Given the current understanding of the distribution of PCE in groundwater at the site, it is possible that other subsurface utilities, and specifically sewer laterals, exist that may act as a source or migration pathway for distribution of VOCs in the subsurface.	NA

TABLE 1

INITIAL SITE CONCEPTUAL MODEL

CSM Element	CSM Sub-Element	Description	Data Gap	How to Address
Geology and Hydrogeology	Regional	The site is in the northwest portion of the Livermore Valley, which consists of a structural trough within the Diablo Range and contains the Livermore Valley Groundwater Basin (referred to as "the Basin") (DWR, 2006). Several faults traverse the Basin, which act as barriers to groundwater flow, as evidenced by large differences in water levels between the upgradient and downgradient sides of these faults (DWR, 2006). The Basin is divided into 12 groundwater basins, which are defined by faults and non-water-bearing geologic units (DWR, 1974). The hydrogeology of the Basin consists of a thick sequence of fresh-water-bearing continental deposits from alluvial fans, outwash plains, and lacustrine environments to up to approximately 5,000 feet bgs (DWR, 2006). Three defined fresh-water bearing geologic units exist within the Basin: Holocene Valley Fill (up to approximately 400 feet bgs in the central portion of the Basin), the Plio-Pleistocene Livermore Formation (generally between approximately 400 and 4,000 feet bgs in the central portion of the Basin), and the Pliocene Tassajara Formation (generally between approximately 250 and 5,000 or more feet bgs) (DWR, 1974). The Valley Fill units in the western portion of the Basin are capped by up to 40 feet of clay (DWR, 2006).	None	NA
	Site	***Geology:*** Borings advanced at the site indicate that subsurface materials consist primarily of finer-grained deposits (clay, sandy clay, silt and sandy silt) with interbedded sand lenses to 20 feet below ground surface (bgs), the approximate depth to which these borings were advanced. The documented lithology for one on-site boring that was logged to approximately 45 feet bgs indicates that beyond approximately 20 feet bgs, fine-grained soils are present to approximately 45 feet bgs. A cone penetrometer technology test indicated the presence of sandier lenses from approximately 45 to 58 feet bgs and even coarser materials (interbedded with finer-grained materials) from approximately 58 feet to 75 feet bgs, the total depth drilled. The lithology documented at the site is similar to that reported at other nearby sites, specifically the Montgomery Ward site (7575 Dublin Boulevard), the Quest laboratory site (6511 Golden Gate Drive), the Shell-branded Service Station site (11989 Dublin Boulevard), and the Chevron site (7007 San Ramon Road). ***Hydrogeology:*** Shallow groundwater has been encountered at depths of approximately 9 to 15 feet bgs. The hydraulic gradient and groundwater flow direction have not been specifically evaluated at the site.	As noted, most borings at the site have been advanced to approximately 20 feet bgs, and one boring has been advanced and logged to 45 feet bgs; CPT data was collected to 75 feet bgs at one location. Lithologic data will be obtained from additional borings that will be advanced on site to further the understanding of the subsurface, especially with respect to deeper lithology. The on-site shallow groundwater horizontal gradient has not been confirmed. Additionally, it is not known if there may be a vertical component to the hydraulic gradient.	Two direct push borings and four multi-port wells will be advanced to depth (up to approximately 75 feet bgs) and soil lithology will be logged. See items 4 and 5 on Table 2. Shallow and deeper groundwater monitoring wells will be installed to provide information on lateral and vertical gradients. See Items 2 and 5 on Table 2.
Surface Water Bodies		The closest surface water bodies are culverted creeks. Martin Canyon Creek flows from a gully west of the site, enters a culvert north of the site, and then bends to the south, passing approximately 1,000 feet east of the site before flowing into the Alamo Canal. Dublin Creek flows from a gully west of the site, enters a culvert approximately 750 feet south of the site, and then joins Martin Canyon Creek approximately 750 feet southeast of the site.	None	NA
Nearby Wells		The State Water Resources Control Board's GeoTracker GAMA website includes information regarding the approximate locations of water supply wells in California. In the vicinity of the site, the closest water supply wells presented on this website are depicted approximately 2 miles southeast of the site; the locations shown are approximate (within 1 mile of actual location for California Department of Public Health supply wells and 0.5 mile for other supply wells). No water-producing wells were identified within 1/4 mile of the site in the well survey conducted for the Quest Laboratory site (6511 Golden Gate Drive; documented in 2009); information documented in a 2005 report for the Chevron site at 7007 San Ramon Road indicates that a water-producing well may exist within 1/2 mile of the site.	A formal well survey is needed to identify water-producing, monitoring, cathodic protection, and dewatering wells.	Obtain data regarding nearby, permitted wells from the California Department of Water Resources and Zone 7 Water Agency (Item 11 on Table 2).

ATTACHMENT A

Site Conceptual Model

The site conceptual model (SCM) is an essential decision-making and communication tool for all interested parties during the site characterization, remediation planning and implementation, and closure process. A SCM is a set of working hypotheses pertaining to all aspects of the contaminant release, including site geology, hydrogeology, release history, residual and dissolved contamination, attenuation mechanisms, pathways to nearby receptors, and likely magnitude of potential impacts to receptors.

The SCM is initially used to characterize the site and identify data gaps. As the investigation proceeds and the data gaps are filled, the working hypotheses are modified, and the overall SCM is refined and strengthened until it is said to be "validated". At this point, the focus of the SCM shifts from site characterization towards remedial technology evaluation and selection, and later remedy optimization, and forms the foundation for developing the most cost-effective corrective action plan to protect existing and potential receptors.

For ease of review, Alameda County Environmental Health (ACEH) requests utilization of tabular formats to (1) highlight the major SCM elements and their associated data gaps which need to be addressed to progress the site to case closure (see Table 1 of attached example), and (2) highlight the identified data gaps and proposed investigation activities (see Table 2 of the attached example). ACEH requests that the tables presenting the SCM elements, data gaps, and proposed investigation activities be updated as appropriate at each stage of the project and submitted with work plans, feasibility studies, corrective action plans, and requests for closures to support proposed work, conclusions, and/or recommendations.

The SCM should incorporate, but is not limited to, the topics listed below. Please support the SCM with the use of large-scaled maps and graphics, tables, and conceptual diagrams to illustrate key points. Please include an extended site map(s) utilizing an aerial photographic base map with sufficient resolution to show the facility, delineation of streets and property boundaries within the adjacent neighborhood, downgradient irrigation wells, and proposed locations of transects, monitoring wells, and soil vapor probes.

a. Regional and local (on-site and off-site) geology and hydrogeology. Include a discussion of the surface geology (e.g., soil types, soil parameters, outcrops, faulting), subsurface geology (e.g., stratigraphy, continuity, and connectivity), and hydrogeology (e.g., water-bearing zones, hydrologic parameters, impermeable strata). Please include a structural contour map (top of unit) and isopach map for the aquitard that is presumed to separate your release from the deeper aquifer(s), cross sections, soil boring and monitoring well logs and locations, and copies of regional geologic maps.

b. Analysis of the hydraulic flow system in the vicinity of the site. Include rose diagrams for depicting groundwater gradients. The rose diagram shall be plotted on groundwater elevation contour maps and updated in all future reports submitted for your site. Please address changes due to seasonal precipitation and groundwater pumping, and evaluate the potential interconnection between shallow and deep aquifers. Please include an analysis of vertical hydraulic gradients, and effects of pumping rates on hydraulic head from nearby water supply wells, if appropriate. Include hydraulic head in the different water bearing zones and hydrographs of all monitoring wells.

c. Release history, including potential source(s) of releases, potential contaminants of concern (COC) associated with each potential release, confirmed source locations, confirmed release locations, and existing delineation of release areas. Address primary leak source(s) (e.g., a tank, sump, pipeline, etc.) and secondary sources (e.g., high-

concentration contaminants in low-permeability lithologic soil units that sustain groundwater or vapor plumes). Include local and regional plan view maps that illustrate the location of sources (former facilities, piping, tanks, etc.).

d. Plume (soil gas and groundwater) development and dynamics including aging of source(s), phase distribution (NAPL, dissolved, vapor, residual), diving plumes, attenuation mechanisms, migration routes, preferential pathways (geologic and anthropogenic), magnitude of chemicals of concern and spatial and temporal changes in concentrations, and contaminant fate and transport. Please include three-dimensional plume maps for groundwater and two-dimensional soil vapor plume plan view maps to provide an accurate depiction of the contaminant distribution of each COC.

e. Summary tables of chemical concentrations in different media (i.e., soil, groundwater, and soil vapor). Please include applicable environmental screening levels on all tables. Include graphs of contaminant concentrations versus time.

f. Current and historic facility structures (e.g., buildings, drain systems, sewer systems, underground utilities, etc.) and physical features including topographical features (e.g., hills, gradients, surface vegetation, or pavement) and surface water features (e.g. routes of drainage ditches, links to water bodies). Please include current and historic site maps.

g. Current and historic site operations/processes (e.g., parts cleaning, chemical storage areas, manufacturing, etc.).

h. Other contaminant release sites in the vicinity of the site. Hydrogeologic and contaminant data from those sites may prove helpful in testing certain hypotheses for the SCM. Include a summary of work and technical findings from nearby release sites, including the two adjacent closed LUFT sites, (i.e., Montgomery Ward site and the Quest Laboratory site).

i. Land uses and exposure scenarios on the facility and adjacent properties. Include beneficial resources (e.g., groundwater classification, wetlands, natural resources, etc.), resource use locations (e.g., water supply wells, surface water intakes), subpopulation types and locations (e.g., schools, hospitals, day care centers, etc.), exposure scenarios (e.g. residential, industrial, recreational, farming), and exposure pathways, and potential threat to sensitive receptors. Include an analysis of the contaminant volatilization from the subsurface to indoor/outdoor air exposure route (i.e., vapor pathway). Please include copies of Sanborn maps and aerial photographs, as appropriate.

j. Identification and listing of specific data gaps that require further investigation during subsequent phases of work. Proposed activities to investigate and fill data gaps identified.

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

October 29, 2014

Arkansas Bandag Corporation
PO Box 10048
Fort Smith AR 72917

Mr. Mike Rogers
ABF Freight Systems, Inc.
PO Box 10048
Fort Smith AR 72917
(sent via electronic mail to mkrogers@arkbest.com)

Subject: Request for Work Plan; Site Cleanup Program Case No. RO0003134 and GeoTracker Global ID T00000005825, ABF Freight Maintenance Shop, 4575 Tidewater Avenue, Oakland, CA 94601

Dear Mr. Rogers:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site, including the *HVOC Delineation Investigation Report,* dated September 24, 2014. The report was prepared by the Trinity Source Group, Inc (Trinity). Thank you for the report. The results of the investigation yielded non-detectable HVOC concentrations in soil and groundwater and suggest that tetrachloroethene (PCE) is not laterally extensive in soil and groundwater beneath the maintenance building at the site. Although soil and groundwater concentrations appear limited, the source, and extent, of elevated sub-slab PCE vapor has not been defined and these are necessary actions in order to determine the next actions appropriate at the site.

Therefore, based on the review of the case file, ACEH requests that you address the following technical comments and send us the documents requested below.

TECHNICAL COMMENTS

1. **HVOC Data Gap Work Plan** – While the extent of PCE contamination in soil and groundwater appears limited, recent sub-slab vapor sampling beneath the maintenance building detected elevated concentrations of PCE at SVP-2 (up to 901 micrograms per cubic meter [µg/m^3] PCE) that exceed the attenuated (using the default DTSC attenuation factor of 0.05) commercial indoor air Environmental Screening Levels (ESLs) promulgated by the San Francisco Bay Regional Water Quality Control Board (RWQCB). This data sample was confirmed by a passive soil gas sampling event that expanded the area of concern (SG-5 and SG-6). One passive location (SG-6) corresponded to previous subslab vapor point (SVP-2) that detected PCE vapor concentrations substantially above the indoor air ESLs promulgated by the RWQCB, and the Department of Toxic Substance Control (DTSC) modified indoor air screening levels of 2.1 micrograms per cubic meter (µg/m^3). Because the two passive soil vapor samples (SG-5 and SG-6) detected similar results, ACEH assumes that the second location (SG-5) could contain similar PCE concentrations to SVP-2 if a subslab vapor point were to be installed in proximity to SG-5. ACEH noted that passive sample location SG-5 is in the vicinity of a floor drain that could be one potential source of subsurface PCE contamination at the site.

   ACEH also notes that the soil bore which contained 3 inches of Light Non-Aqueous Phased Liquids (LNAPL; SB-4) was installed within what appears to be a PCE contamination core zone. This suggests that the PCE may be associated with the LNAPL, that removal of the LNAPL may assist in the removal of PCE contamination, and that a level of caution should be taken as the LNAPL is further evaluated.

Trinity has also stated that because the building is used for maintenance, and the roll-up doors on opposite sides of the building are generally open, that the potential vapor intrusion threat is considered low. However, because distribution of the PCE source area and extent remains undefined except by a sub-slab vapor cloud, it appears appropriate to undertake additional investigation and analysis.

Please be aware that the additional intent of this work is to collect sufficient additional data to either identify appropriate corrective actions at the site or to gather sufficient data to generate a health risk assessment that may support the general assessment of a low risk. Please also be aware that the DTSC states that all risk assessments and toxicological interpretations, conclusions, and recommendations be conducted by a professional with one of the following credentials:

- Certification as a Diplomat of the American Board of Toxicology, or
- Possession of a Master's Degree in Toxicology, Biochemistry, or Pharmacology, or a closely related specialty from an accredited college or university and three years of experience following the receipt of the Master's Degree in designing and managing toxicological studies, interpreting results, and conducting hazard and safety evaluations, or
- Possession of a Doctoral Degree in Toxicology, Biochemistry, or Pharmacology, or a closely related specialty from an accredited college or university and one years of experience following the receipt of the Master's Degree in designing and managing toxicological studies, interpreting results, and conducting hazard and safety evaluations.

Therefore, please submit a data gap work plan by the date identified below.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Mark Detterman), and to the State Water Resources Control Board's Geotracker website, in accordance with the specified file naming convention below, according to the following schedule:

- **January 9, 2015 –** Data Gap Work Plan
  File to be named: RO3134_WP_R_yyyy-mm-dd

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

Online case files are available for review at the following website: http://www.acgov.org/aceh/index.htm. If your email address does not appear on the cover page of this notification, ACEH is requesting you provide your email address so that we can correspond with you quickly and efficiently regarding your case.

If you have any questions, please call me at (510) 567-6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,

Digitally signed by Mark E. Detterman
DN: cn=Mark E. Detterman, o, ou, email, c=US
Date: 2014.10.29 12:09:29 -07'00'

Mark E. Detterman, PG, CEG
Senior Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations
Electronic Report Upload (ftp) Instructions

cc: Debra Moser, Trinity Source Group, Inc, 119 Encinal Street, Santa Cruz, CA 95060
(sent via electronic mail to djm@tsgcorp.net)

Leroy Griffin, Oakland Fire Department 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032 (sent via electronic mail to lgriffin@oaklandnet.com)

Dilan Roe (sent via electronic mail to dilan.roe@acgov.org)
Mark Detterman (sent via electronic mail to mark.detterman@acgov.org)
Electronic File, GeoTracker

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "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." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	**REVISION DATE:** May 15, 2014
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010, July 25, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to deh.loptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

ATTACHMENT B

Soil and Grab-Groundwater Sampling Field Procedures

ATTACHMENT B

SOIL AND GRAB-GROUNDWATER SAMPLING

FIELD PROCEDURES

Prefield Tasks

Exploratory boreholes are permitted and installed in accordance with state and local guidelines using a subcontracted state licensed driller. Prior to drilling, standard boring clearance procedures are followed to minimize the potential for encountering structures in the subsurface. Standard borehole clearance procedures include: (1) marking boring locations at the site and visually identifying, where possible, existing utilities; (2) notifying Underground Service Alert (USA); (3) obtaining available facility blueprints; (4) reviewing boring locations with former site operators; and (5) performing field review of USA markings. Additional tasks include completing a site-specific health and safety plan and scheduling inspectors.

Hand-Auger Borings

Select boring locations will be advanced to approximately 5 feet below ground surface (bgs) using a hand-auger with a 3 inch diameter bucket. Bag samples will be collected approximately every 1-2 feet for photoionization ionization detector (PID) screening. Soil samples will be collected using clean stainless steel sleeves with a slide hammer. The onsite Trinity geologist will log the soils including a physical description of observed soil characteristics (i.e. moisture content, consistency, obvious odor, color, photoionization detector [PID] readings, etc.), drilling difficulty, and soil type as a function of depth, in accordance with the Unified Soil Classification System (USCS). And all hand-auger and sampling equipment will be decontaminated between bore holes.

After collecting soil samples, the exploratory boring is abandoned by, backfilling the hole with neat cement grout from the bottom to the top of the boring and finishing the surface to match the surrounding material of either asphalt or concrete. After collecting soil samples, the exploratory boring is abandoned by backfilling with neat cement grout from the bottom to the top of the boring and finished to match the surrounding material of unpaved soil, asphalt or concrete.

Exploratory Soil Borings

The boring is hand cleared to a depth of 5 feet bgs. The boring is drilled using Geoprobe® or similar direct-push drilling equipment. A precleaned sampler with a clear acetate liner and drive rods (typically two inches in diameter) is advanced for the purpose of collecting samples and evaluating subsurface conditions. The sampler is advanced in intervals of 3 to 4 feet, then the rods and sampler are retracted and the acetate liner removed from the sampler head for evaluation and sample collection by the onsite Trinity geologist. The sampler head is then cleaned, filled with a new acetate liner, inserted into the borehole, and advanced over the next sampling interval where the sample retrieval process is repeated.

After retrieval, each filled acetate liner is split open for examination of soils. The onsite Trinity geologist logs the soils including a physical description of observed soil characteristics (i.e. moisture content,

consistency, obvious odor, color, photoionization detector [PID] readings, etc.), drilling difficulty, and soil type as a function of depth, in accordance with the Unified Soil Classification System (USCS).

Soils collected at two-foot intervals are screened in the field for volatile organic compounds (VOCs) using a photoionization detector (PID). The PID screening is conducted by placing approximately 30 grams from an undisturbed soil sample into a clean plastic zip-lock bag. The bag is then placed in the ambient air for approximately 20 minutes, pierced, and the head space within the bag tested for total organic vapor measured in parts per million as benzene (ppm; volume/volume). The PID readings represent relative levels of organic vapors for the site conditions at the time of drilling. The PID readings are noted on the field logs.

In general, soil samples are preserved at changes in soil type, elevated PID readings or at a minimum of every 4 feet. Selected soil samples are collected using TerraCore sampling kits, properly labeled and then placed in an ice-filled cooler for transport to the laboratory under chain of custody documentation.

When static groundwater is reached, a grab-groundwater sample will be collected by use of temporary wells that consist of clean slotted PVC casing placed into the borehole. The temporary wells will be left undisturbed until sufficient water has recharged. The wells will then be purged and sampled using a peristaltic pump or clean, disposable bailers. The samples will be placed from the pump or bailer directly into laboratory-supplied containers appropriate for the desired analyses. The samples will be properly labeled and then placed in an ice-filled cooler for transport to the laboratory under chain-of-custody documentation.

After collecting soil and groundwater samples, the exploratory boring is abandoned by removing the PVC casing, backfilling the hole with neat cement grout from the bottom to the top of the boring and finishing the surface to match the surrounding material of either asphalt or concrete. After collecting soil samples, the exploratory boring is abandoned by backfilling with neat cement grout from the bottom to the top of the boring and finished to match the surrounding material of unpaved soil, asphalt or concrete.

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A GEO_REPORT FILE

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Submittal Type:	**GEO_REPORT**
Report Title:	**Data Gap Investigation Work Plan and Site Conceptual Model**
Report Type:	**Other Workplan**
Report Date:	**1/9/2015**
Facility Global ID:	**T0600100018**
Facility Name:	**ABF FREIGHT SYSTEMS**
File Name:	**154-ABF_Data Gap Invest. WP and SCM_Final 1.09.2015.pdf**
Organization Name:	**Trinity Source Group, Inc.**
Username:	**TRINITY SOURCE GROUP**
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