

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director



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

July 31, 2014

Mr. Charles Lucasey
Lucasey Manufacturing Corporation
P.O. Box 14023
Oakland, CA 94614-2023

Subject: Case Closure for SCP Case RO0002902 and GeoTracker Global ID T0600133151, Lucasey Manufacturing, 2744 East 11th Street, Oakland, CA 94601.

Dear Mr. Lucasey:

This letter confirms the completion of site investigation and remedial actions for the Site Cleanup Program (SCP) case at the above referenced site. We are also transmitting the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported releases at the subject site with the provision that the information provided to this agency was accurate and representative of existing conditions. The subject SCP case is closed. This case closure letter and the case closure summary can also be viewed on the State Water Resources Control Board's Geotracker website (<http://geotracker.swrcb.ca.gov>) and the Alameda County Environmental Health website (<http://www.acgov.org/aceh/index.htm>).

If you have any questions, please call Jerry Wickham at (510) 567-6791. Thank you.

Sincerely,

Dilan Roe, P.E.
LOP and SCP Program Manager

Enclosure: Case Closure Summary

Cc: Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032 2032 (*Sent via E-mail to: lgriffin@oaklandnet.com*)

John Moe, ERM, 1777 Botelho Drive, Suite 260, Walnut Creek, CA 94596 (*Sent via E-mail to: John.Moe@erm.com*)

Jerry Wickham, ACEH
GeoTracker, eFile

**CASE CLOSURE SUMMARY
SITE CLEANUP PROGRAM**

I. AGENCY INFORMATION

Date: March 12, 2014

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 567-6791
Responsible Staff Person: Jerry Wickham	Title: Senior Hazardous Materials Specialist

II. CASE INFORMATION

Site Facility Name: Lucasey Manufacturing		
Site Facility Address: 2744 11 th Street, Oakland, CA 94601		
RB Case No.: ---	STID No.: ----	LOP Case No.: RO0002902
URF Filing Date: ----	Geotracker ID: T0600133151	APN: 19-93-13
Current Land Use: Commercial		
Responsible Parties	Addresses	Phone Numbers
Charles Lucasey Lucasey Manufacturing Corporation	P.O. Box 14023 Oakland, CA 94614-2023	No Phone Number

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
---	Unknown	Fuel Oil	Likely Removed	Unknown, suspected to be circa 1970
Piping			Unknown	Unknown

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Releases from underground storage tank		
Primary constituents of concern: Fuel Oil.		
Areas of site investigated for this case: Area surrounding and downgradient from former underground storage tank including downgradient off-site areas		
Remediation attempted or completed: No remediation attempted		
Monitoring wells installed? Yes	Number: 8	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 6.71 feet bgs	Lowest Depth: 13.75 feet bgs	Flow Direction: Northwest to southwest
Most Sensitive Current Groundwater Use: Potential drinking water source		

Summary of Production Wells in Vicinity: No active water supply wells appear to be located within 1,000 feet of the site. Four industrial water supply wells were previously located at the former Del Monte plant which included the current site and additional facilities to the east. One of the four industrial supply wells (2S/3W 7B2) was located approximately 140 feet southwest of the site on the southeast side of Lisbon Street. Well records indicate that well 2S/3W 7B2, which was 655 feet deep, was properly destroyed in 1977. No information is available on the locations and status of the remaining three industrial supply wells at the former Del Monte plant.	
Are drinking water wells affected? No	Aquifer Name: East Bay Plain
Is surface water affected? No	Nearest Surface Water Name: Brooklyn Basin Tidal Canal is approximately 2,200 feet southwest of the site
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Free Product	----	----	----
Soil	----	----	----
Groundwater	----	----	----

LTCP GROUNDWATER SPECIFIC CRITERIA

LTCP Groundwater Specific Scenario under which case was closed: Scenario 4

Site Data		LTCP Scenario 1 Criteria (ppb)	LTCP Scenario 2 Criteria (ppb)	LTCP Scenario 3 Criteria (ppb)	LTCP Scenario 4 Criteria (ppb)
Plume Length	Estimated 265 feet	<100 feet	<250 feet	<250 feet	<1,000 feet
Free Product	No free product	No free product	No free product	Removed to maximum extent practicable	No free product
Plume Stable or Decreasing	Stable for minimum of 5 years	Stable or decreasing	Stable or decreasing	Stable or decreasing for minimum of 5 Years	Stable or decreasing
Distance to Nearest Water Supply Well	>1,000 feet	>250 feet	>1,000 feet	>1,000 feet	>1,000 feet
Distance to Nearest Surface Water and Direction	2,200 feet downgradient	>250 feet	>1,000 feet	>1,000 feet	>1,000 feet
Property Owner Willing to Accept a Land Use Restriction?	----	Not applicable	Not applicable	Yes	Not applicable

GROUNDWATER CONCENTRATIONS

Constituent	Historic Site Maximum (ppb)	Current Site Maximum (ppb)	LTCP Scenario 1 Criteria (ppb)	LTCP Scenario 2 Criteria (ppb)	LTCP Scenario 3 Criteria (ppb)	LTCP Scenario 4 Criteria (ppb)
Benzene	<0.5	<0.5	No criteria	3,000	No criteria	1,000
MTBE	----	----	No criteria	1,000	No criteria	1,000

Scenario 5: If the site does not meet scenarios 1 through 4, has a determination been made that under current and reasonably expected future scenarios, the contaminant plume 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?

LTCP VAPOR SPECIFIC CRITERIA

LTCP Vapor Specific Scenario under which case was closed: Scenario 4 with Bioattenuation Zone

Active Fueling Station No

Site Data		LTCP Scenario 1 Criteria	LTCP Scenario 2 Criteria	LTCP Scenario 3A Criteria	LTCP Scenario 3B Criteria	LTCP Scenario 3C Criteria	LTCP Scenario 4 Criteria
Unweathered NAPL	Weathered NAPL below a depth of 11 feet bgs	LNAPL in groundwater	LNAPL in soil	No NAPL	No NAPL	No NAPL	No criteria
Thickness of Bioattenuation Zone Beneath Foundation	>8 feet	≥30 feet	≥30 feet	≥5 feet	≥10 feet	≥5 feet	≥5 feet
Total TPH in Bioattenuation Zone	<100 ppm	<100 ppm	<100 ppm	<100 ppm	<100 ppm	<100 ppm	<100 ppm
Maximum Current Benzene Concentration in Groundwater	<0.5 ppb	No criteria	No criteria	<100 ppb	≥100 and <1,000 ppb	<1,000 ppb	No criteria
Oxygen Data within Bioattenuation Zone	15%	No criteria	No criteria	No oxygen data or <4%	No oxygen data or <4%	≥4% at lower end of zone	≥4% at lower end of zone
Depth of soil vapor measurement beneath foundation	5 feet	No criteria	No criteria	No criteria	No criteria	No criteria	≥5 feet

SCENARIO 4 DIRECT MEASUREMENT OF SOIL VAPOR CONCENTRATIONS

Site Soil Vapor Data			No Bioattenuation Zone		Bioattenuation Zone	
Constituent	Historic Maximum (µg/m ³)	Current Maximum (µg/m ³)	Residential	Commercial	Residential	Commercial
Benzene	740	740	<85	<280	<85,000	<280,000
Ethylbenzene	2,600	2,600	<1,100	<3,600	<1,100,000	<3,600,000
Naphthalene	<470	<470	<93	<310	<93,000	<310,000

If the site does not meet scenarios 1 through 4, does a site-specific risk assessment for the vapor intrusion pathway demonstrate that human health is protected?

If the site does not meet scenarios 1 through 4, has a determination been made that petroleum vapors from soil or groundwater will have no significant risk of adversely affecting human health as a result of controlling exposure through the use of mitigation measures or through the use of institutional controls?

LTCP DIRECT CONTACT AND OUTDOOR AIR EXPOSURE CRITERIA

LTCP Direct Contact and Outdoor Air Exposure Specific Scenario under which case was closed: Maximum concentrations of petroleum hydrocarbons are less than or equal to those in Table 1 below

Are maximum concentrations less than those in Table 1 below?

Yes

Constituent		Residential		Commercial/Industrial		Utility Worker
		0 to 5 feet bgs (ppm)	Volatilization to outdoor air (5 to 10 feet bgs) ppm	0 to 5 feet bgs (ppm)	Volatilization to outdoor air (5 to 10 feet bgs) ppm	0 to 10 feet bgs (ppm)
Site Maximum	Benzene	<0.005	<0.005	<0.005	<0.005	<0.005
LTCP Criteria	Benzene	≤1.9	≤2.8	≤8.2	≤12	≤14
Site Maximum	Ethylbenzene	<0.005	<0.005	<0.005	<0.005	<0.005
LTCP Criteria	Ethylbenzene	≤21	≤32	≤89	≤134	≤314
Site Maximum	Naphthalene	----	----	----	----	----
LTCP Criteria	Naphthalene	≤9.7	≤9.7	≤45	≤45	≤219
Site Maximum	PAHs	----	----	----	----	----
LTCP Criteria	PAHs	≤0.063	NA	≤0.68	NA	≤4.5

If maximum concentrations are greater than those in Table 1, are they less than levels from a site-specific risk assessment?

If maximum concentrations are greater than those in Table 1, has a determination been made that the concentrations of petroleum in soil will have no significant risk of adversely affecting human health as a result of controlling exposure through the use of mitigation measures or through the use of institutional controls?

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, it does not appear that the release would present a risk to human health based upon current land use and conditions.		
Site Management Requirements:		
<p>This case has been evaluated for closure consistent with the State Water Resources Control Board Low-Threat Underground Storage Tank Closure Policy (LTCP). Residual soil and groundwater contamination is present below a depth of approximately 11 feet below ground surface throughout the area surrounding and downgradient from a former underground storage tank. The residual contamination appears to consist of weathered petroleum hydrocarbons in the diesel and motor oil range. Based on the depth and type of petroleum hydrocarbons, the potential for exposure is low and the contamination does not appear to present a risk unless exposed by excavation. Therefore, case closure is granted for the current commercial land use.</p> <p>If any excavation below a depth of 8 feet occurs, Alameda County Environmental Health (ACEH) must be notified as required by Government Code Section 65850.2.2. ACEH will re-evaluate the case upon receipt of approved development/excavation plans.</p> <p>Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party prior to and during excavation and construction activities.</p> <p>This site is to be entered into the City of Oakland Permit Tracking System due to the residual contamination on site.</p>		
Should corrective action be reviewed if land use changes? Yes		
Was a deed restriction or deed notification filed? No		Date Recorded: ----
Monitoring Wells Decommissioned: No	Number Decommissioned: 0	Number Retained: 8

V. ADDITIONAL COMMENTS AND CONCLUSION

Additional Comments:

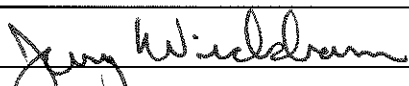
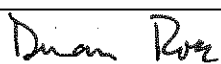
Petroleum hydrocarbons were observed in soil borings from depths of approximately 11 feet bgs to depths of as much as 25 feet bgs. The residual contamination appears to be highly weathered fuel oil. The petroleum hydrocarbons were described as visible product in several soil borings advanced at the site. The product appears to be immobile and did not accumulate in product recovery wells that were installed in areas of the site where visible product was observed. The residual contamination extends from the area of the former fuel oil UST downgradient beneath East 11th Street and likely further south beyond East 11th Street. Based on the depth, immobility, and type of petroleum hydrocarbons, the potential for exposure is low and the contamination does not appear to pose a risk unless exposed by excavation.

Naphthalene was not an analyte in shallow soil samples. However, since the residual contamination is typically encountered below a depth of 11 feet bgs, naphthalene is not likely to be present in shallow soil.

Conclusion:

Alameda County Environmental Health staff believe that the site meets the conditions for case closure under the State Water Resources Control Board Low-Threat Underground Storage Tank Closure Policy. Based upon the information available in our files to date, no further investigation or cleanup for the fuel leak case is necessary at this time. However, as specified in the Site Management Requirements, re-evaluation of this case is required if any excavation takes place below a depth of 8 feet bgs.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Jerry Wickham, P.G.	Title: Senior Hazardous Materials Specialist
Signature: 	Date: 03/13/14
Approved by: Dilan Roe	Title: LOP and SCP Program Manager
Signature: 	Date: MARCH 13, 2014

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VII. REGIONAL BOARD AND PUBLIC NOTIFICATION

Regional Board Staff Name: Cherié McCaulou	Title: Engineering Geologist
Regional Board Notification Date: 12/31/2013	
Public Notification Date: 12/31/2013	

VIII. MONITORING WELL DECOMMISSIONING

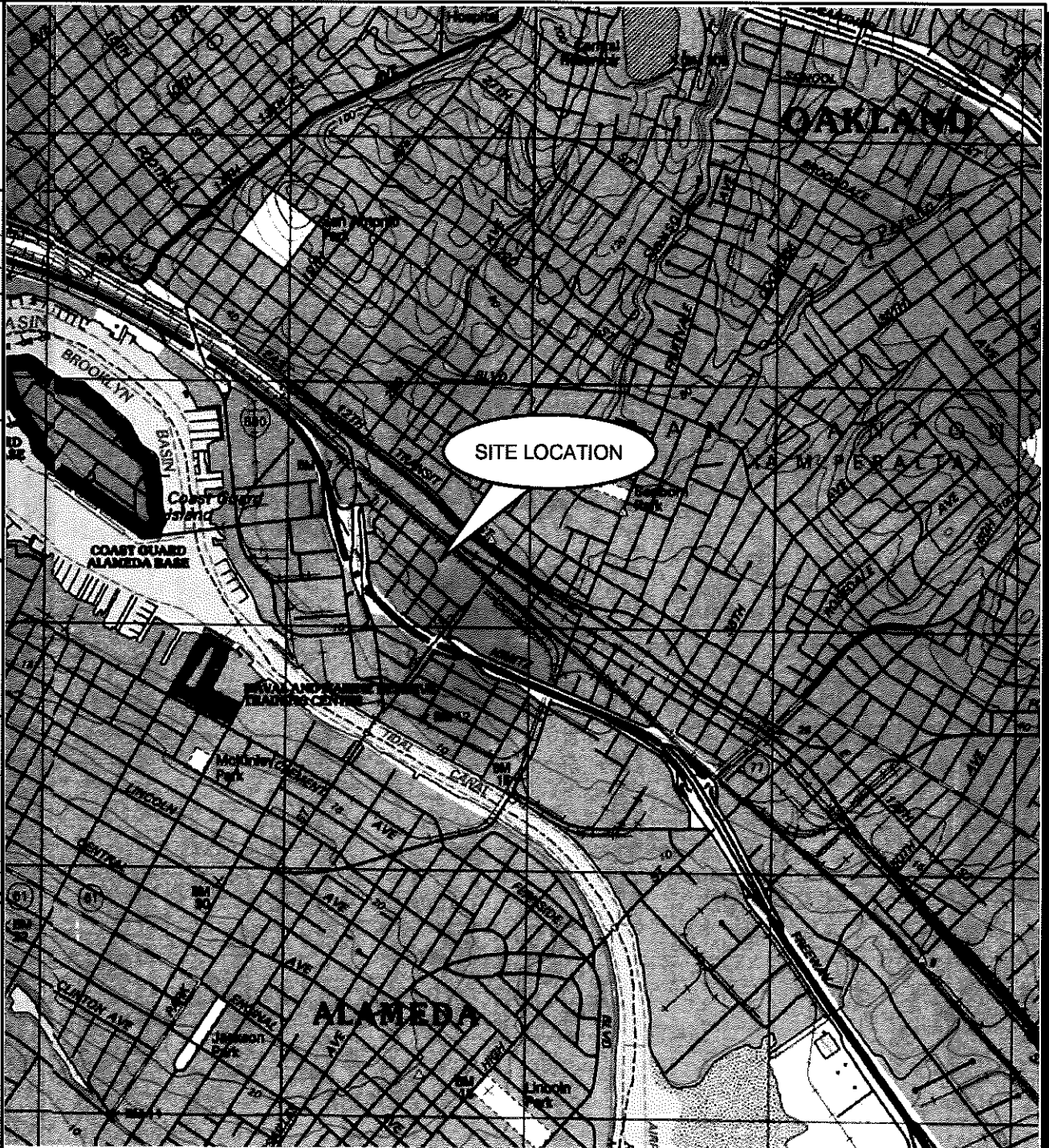
Date Requested by ACEH: 03/13/14	Date of Well Decommissioning Report: 07/26/14	
All Monitoring Wells Decommissioned: Yes	Number Decommissioned: 8	Number Retained: 0
Reason Wells Retained: NA		
Additional requirements for submittal of groundwater data from retained wells: None		
ACEH Concurrence - Signature: <i>Jerry Wickham</i>		Date: 07/31/14

Attachments:

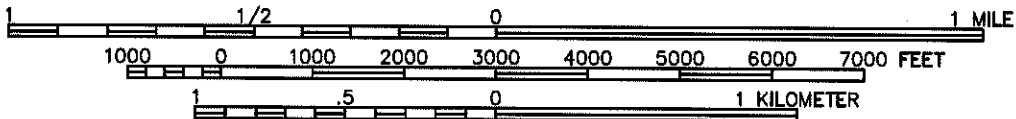
1. Site Vicinity Map and Site Plan (2 pp)
2. Sampling Location Map and Cross Sections (5 p)
3. Potentiometric Surface Map (1 p)
4. Soil Analytical Data (2 pp)
5. Soil Vapor Analytical Data (1 p)
6. Groundwater Analytical Data and Product Monitoring (4 pp)

This document and the related CASE CLOSURE LETTER & REMEDIAL ACTION COMPLETION CERTIFICATE shall be retained by the lead agency as part of the official site file.

CAD File: g:\0097888\Lucasey site location.dwg
Drawn By: J. Estrada
Date: 03/21/11
Project No. 0097888.00



SCALE 1:24,000



References:
TOP01@Software
U.S.G.S. 7.5 Minute Series (Topographic) Quadrangle,
Oakland East, California
Dated: 1997

Figure 1
Site Location Map
Lucasey Manufacturing
2744 East 11th Street
Oakland, California

ERM 03/11

LUCASEY MANUFACTURING
2744 EAST 11TH STREET

OFFICES & MANUFACTURING AREA

FORMER MACHINE
SHOP AREA

LOADING DOCK

⊕ SB-3

⊕ SB-4

FORMER UST
LOCATION

⊕ SB-6

⊕ SB-2

OIL STORAGE
HOUSE AREA

⊕ SB-1

OAKLAND ANIMAL SHELTER
1101 29TH AVENUE

OAKLAND ANIMAL SHELTER

SIDEWALK

EAST 11TH STREET

RESIDENCE

PAVED
PARKING AREA

RESIDENCE

ENTRANCE

⊕ SOIL BORINGS 8/31/04



..... FENCE LINE

AEI CONSULTANTS
2500 CAMINO DIABLO, SUITE 200 WALNUT CREEK, CA

SITE PLAN

2774 EAST 11TH STREET
OAKLAND, CA

FIGURE 2
PROJECT No. 9440

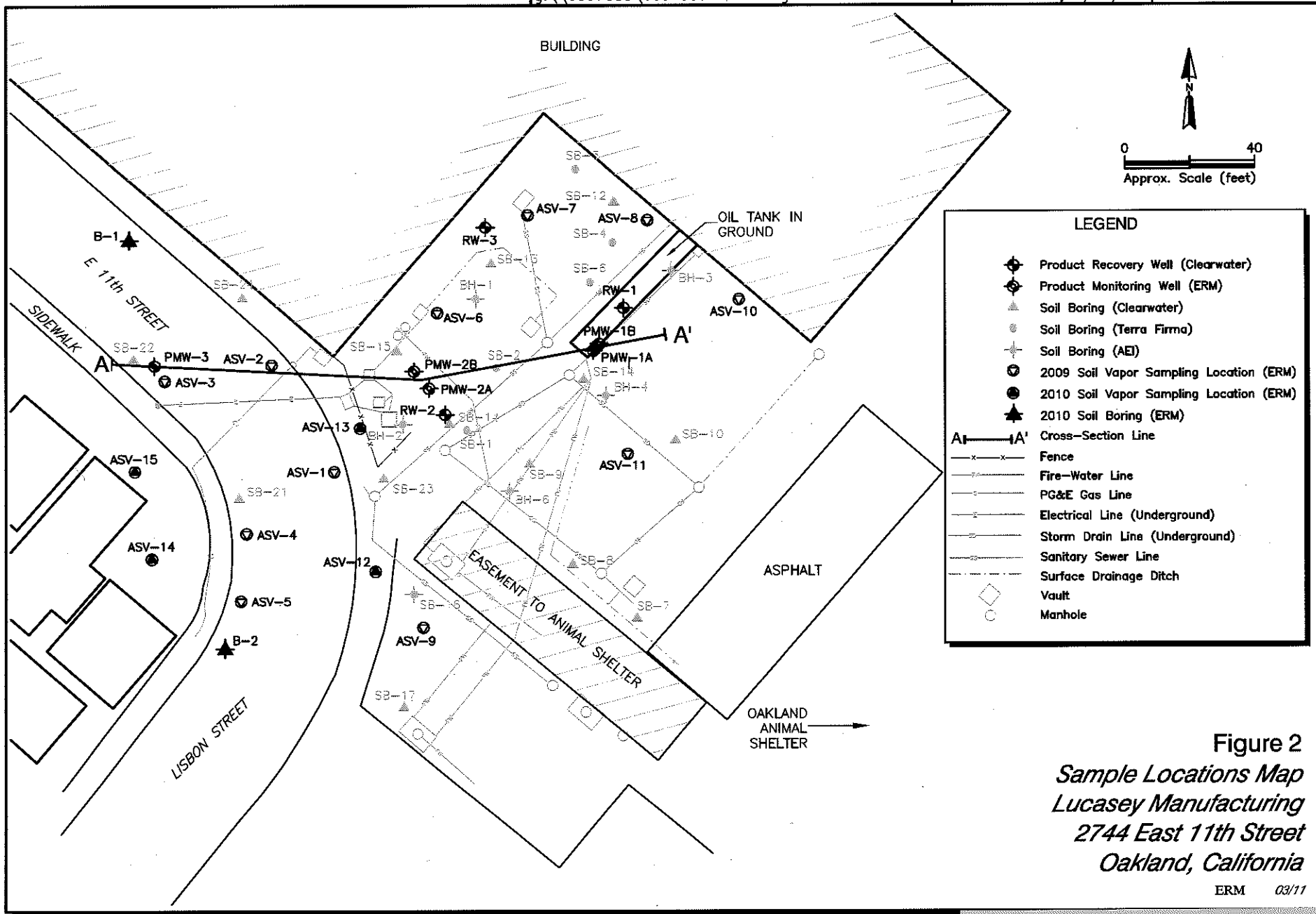


Figure 2
Sample Locations Map
Lucasey Manufacturing
2744 East 11th Street
Oakland, California

ERM 03/11

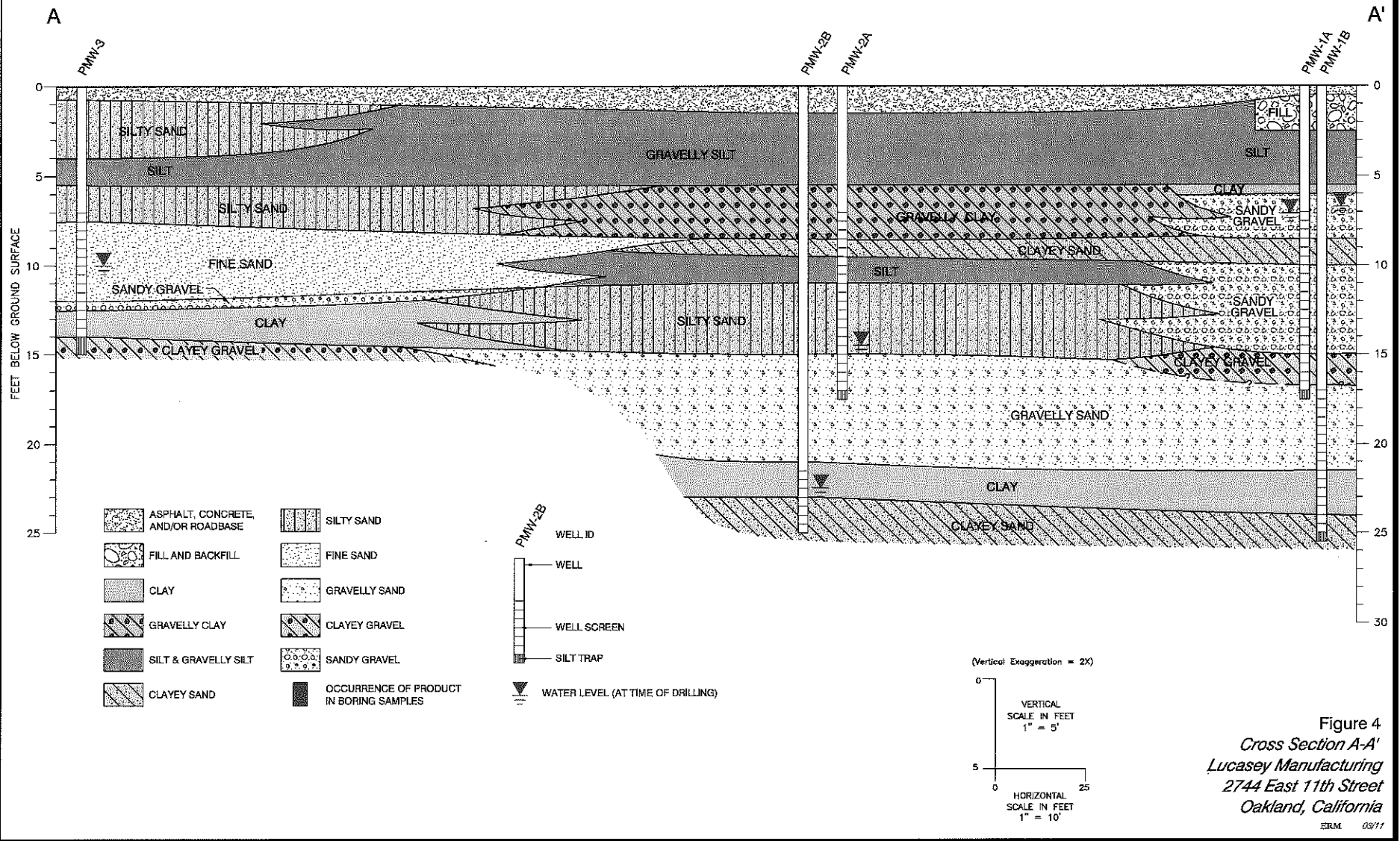


Figure 4
 Cross Section A-A'
 Lucasey Manufacturing
 2744 East 11th Street
 Oakland, California

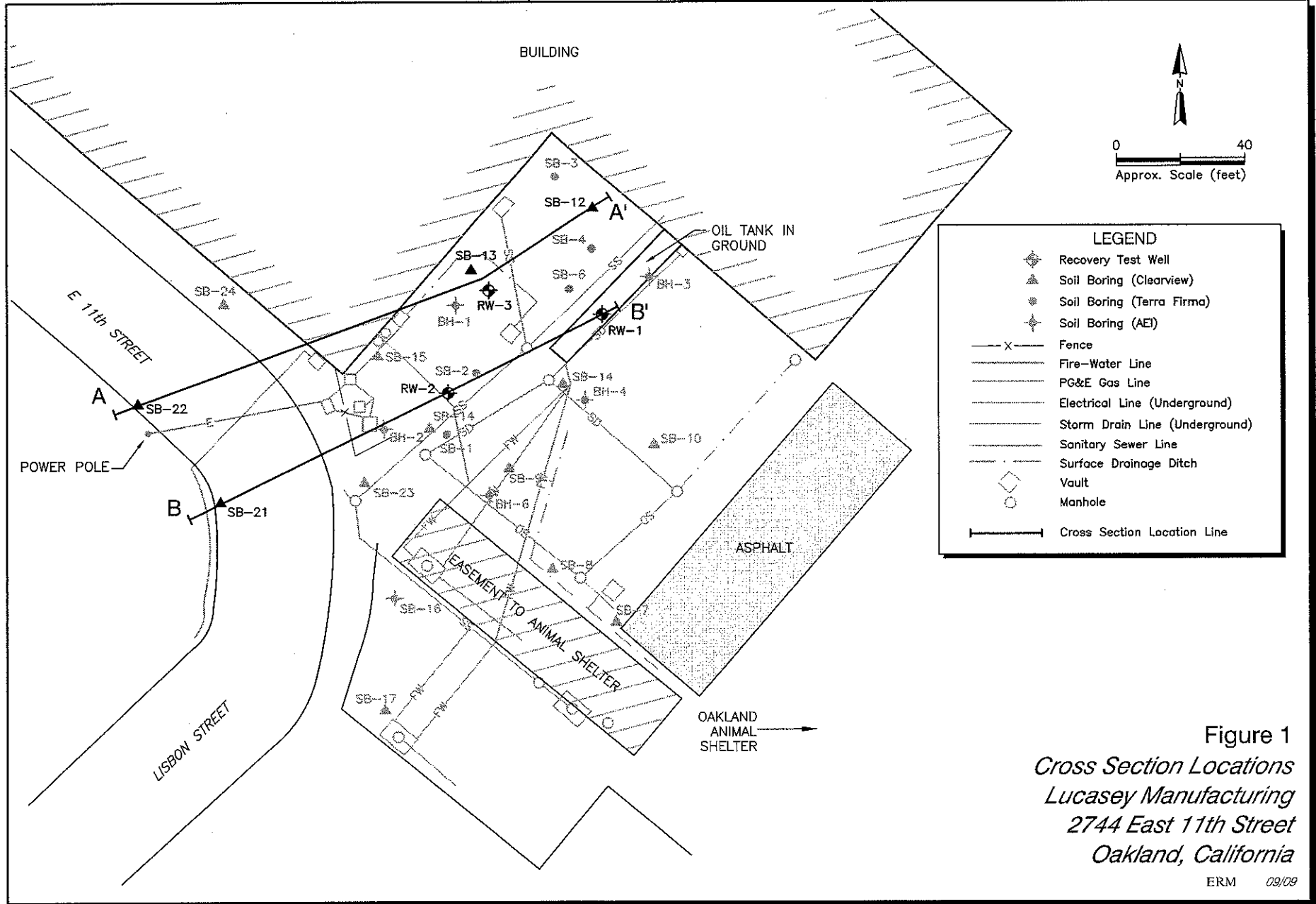


Figure 1
Cross Section Locations
Lucasey Manufacturing
2744 East 11th Street
Oakland, California

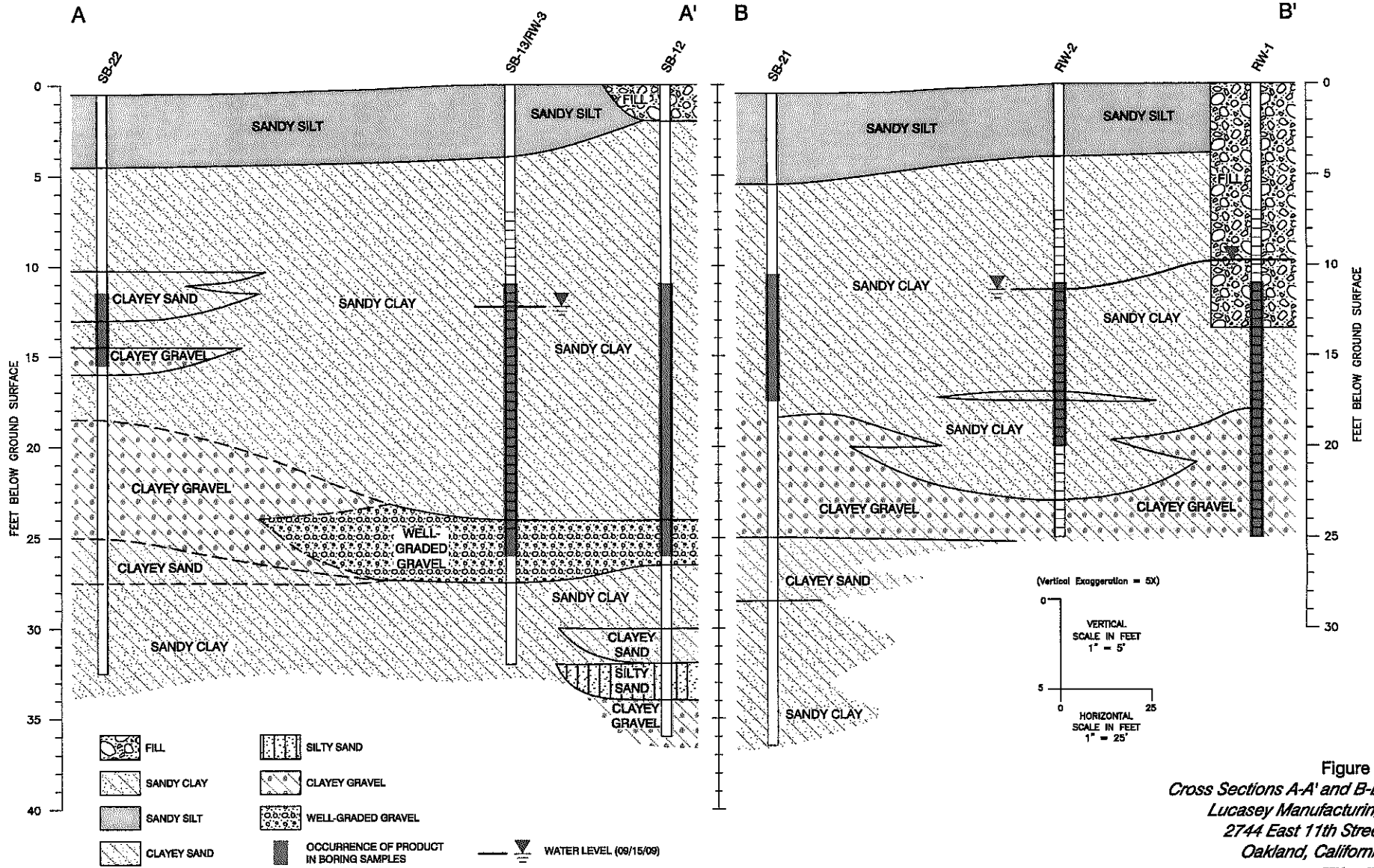
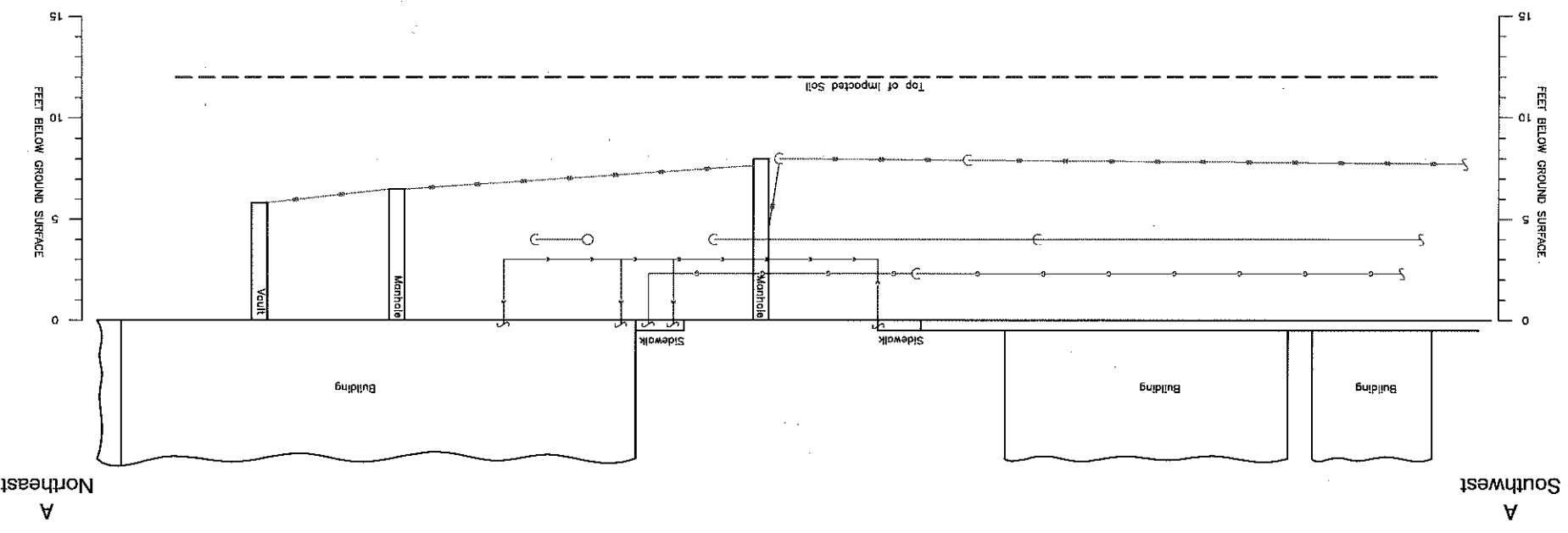


Figure 2
 Cross Sections A-A' and B-B'
 Lucasey Manufacturing
 2744 East 11th Street
 Oakland, California
 ERM 09/19

Figure 2
 Cross Section A-A'
 Lucasey Manufacturing
 2744 East 11th Street
 Oakland, California
 ERM 03/13



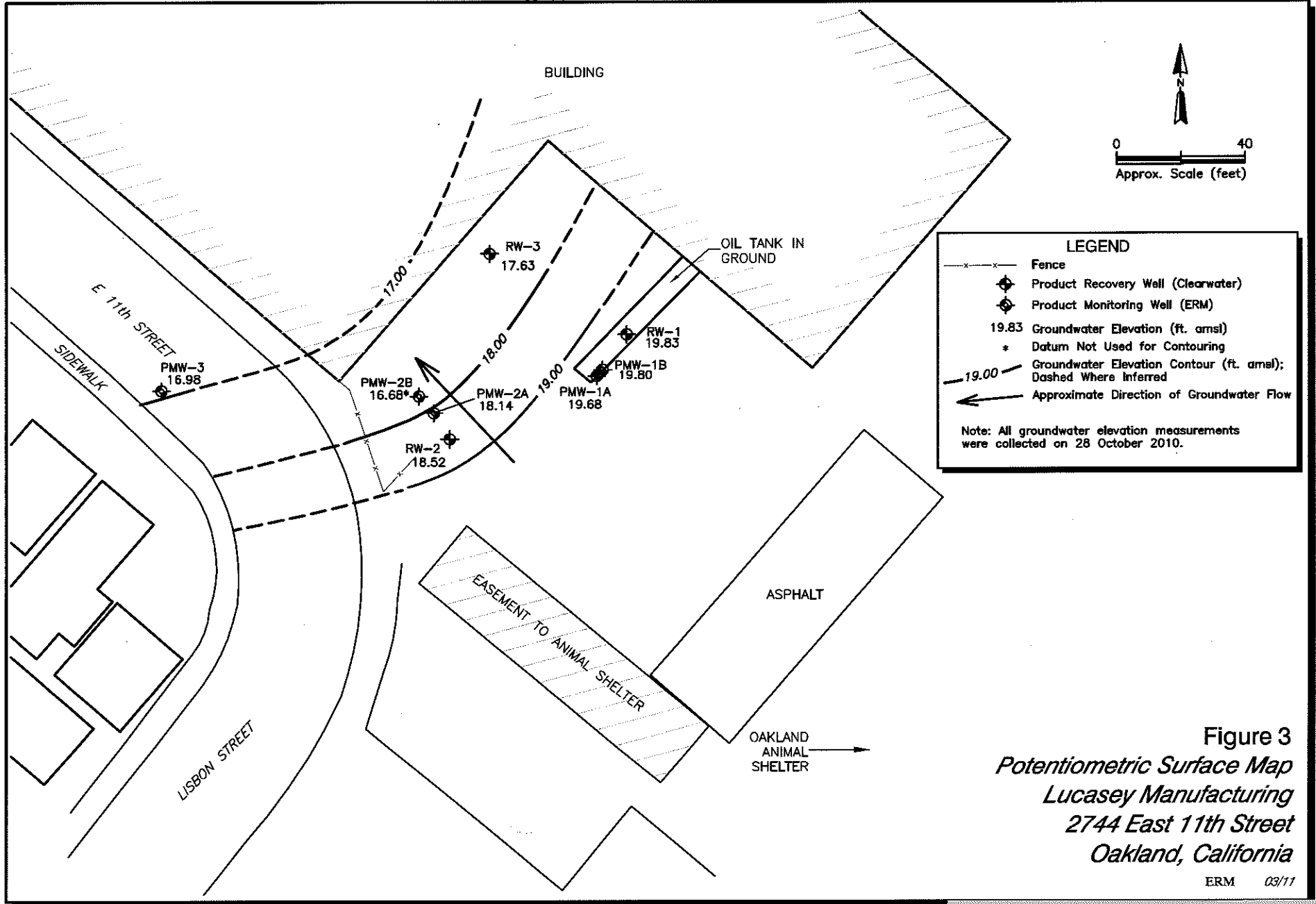


Figure 3
Potentiometric Surface Map
Lucasey Manufacturing
2744 East 11th Street
Oakland, California

ERM 03/11

Table 1
Soil Sampling Data
Lucasey Site - 2744 E. 11th Street
Oakland, California

Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds								Total Petroleum Hydrocarbons			
			Benzene	Toluene	Ethylbenzene	Xylenes (Total)	MTBE	EDB	1,2-DCA	TCE	PCE	TPH (as Gasoline)	TPH (as Diesel)	TPH (as Motor Oil)
ESL*			0.044	2.9	3.3	2.3	0.023	NA	0.0045	0.46	0.7	83	5000**	5000**
BH-1	12	07/09/05	<0.005	<0.005	<0.005	<0.005	<0.05	-	-	-	-	<1	22	83
BH-1	16	07/09/05	<0.005	<0.005	<0.005	<0.005	<0.05	-	-	-	-	4.8	48	46
BH-2	12	07/09/05	<0.5	<0.5	<0.5	<0.5	<5	-	-	-	-	700	8,900	7,500
BH-3	7.5	07/09/05	<0.005	<0.005	<0.005	<0.005	<0.05	-	-	-	-	7.4	50	79
BH-4	12	07/09/05	<0.02	<0.02	<0.02	0.23	2	-	-	-	-	89	2,800	3,000
BH-6	12	07/09/05	<0.005	<0.005	<0.005	<0.005	<0.05	-	-	-	-	<1	41	53
BH-6	16	07/09/05	<0.05	<0.05	<0.05	<0.05	<0.5	-	-	-	<0.50	73	1,800	1,700
SB7-5	5	01/10/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<1	<10	<50
SB7-17.5	17.5	01/11/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<1	<10	<50
SB7-23	23	01/11/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<1	<10	<50
SB8-5	5	01/10/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50
SB8-15	15	01/10/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50
SB8-23.5	23.5	01/10/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50
SB8-26.5	26.5	01/10/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50
SB9-5	5	01/09/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50
SB9-10	10	01/09/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50
SB9-11.5	11.5	01/09/07	VP	-	-	-	-	-	-	-	-	-	-	-
SB9-16	16	01/22/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	140	93
SB9-18	18	01/09/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	18	<50
SB9-22	22	01/09/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50
SB10-5	5	01/10/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50
SB10-12	12	01/10/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50
SB10-23	23	01/10/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50
SB11-5	5	01/09/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50
SB11-12	12	01/10/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	11	3,300	2,500
SB11-22	22	01/09/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50
SB11-23.5	23.5	01/09/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50
SB12-5	5	01/08/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50
SB12-11	11	01/08/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	370	85
SB12-14	14	01/19/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	470	270
SB12-26	26	01/08/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50
SB12-34	34	01/08/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	1.4	170	<50
SB13-5	5	01/08/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50
SB13-10	10	01/08/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50

Table 1
Soil Sampling Data
Lucasey Site - 2744 E. 11th Street
Oakland, California

Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds									Total Petroleum Hydrocarbons			
			Benzene	Toluene	Ethyl-benzene	Xylenes (Total)	MTBE	EDB	1,2-DCA	TCE	PCE	TPH (as Gasoline)	TPH (as Diesel)	TPH (as Motor Oil)	
SB13-14	14	01/08/07	VP	-	-	-	-	-	-	-	-	-	-	-	-
SB13-18	18	01/08/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50	
SB13-26	26	01/22/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	170	110	
SB13-30	30	01/08/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50	
SB14-10.5	10.5	01/12/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50	
SB14-11.5	11.5	01/12/07	VP	-	-	-	-	-	-	-	-	-	-	-	
SB14-13.5	13.5	01/12/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50	
SB14-17	17	01/12/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	14	3,800	2,500	
SB14-23	23	01/12/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50	
SB15-5	5	01/09/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50	
SB15-15	15	01/19/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	21	5,300	3,400	
SB15-19.5	19.5	01/22/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	36	20	
SB15-23	23	01/19/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	18	1,800	1,100	
SB15-27	27	01/09/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50	
SB21-5	5	01/11/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50	
SB21-10	10	01/11/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50	
SB21-11	11	01/19/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	1.0	770	800	
SB21-13.5	13.5	01/19/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	520	630	
SB21-22	22	01/11/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50	
SB22-10	10	01/12/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50	
SB22-11.5	11.5	01/24/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	4.3	2,600	3,800	
SB22-15	15	01/12/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50	
SB23-5	5	01/11/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<1	<10	<50	
SB23-15	15	01/11/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<1	<10	<50	
SB23-23	23	01/11/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<1	<10	<50	
SB23-29	29	01/11/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50	
SB24-5	5	01/12/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	23	<50	
SB24-11.5	11.5	01/19/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	29.0	2,300	3,600	
SB24-18	18	01/12/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	<1	<10	<50	
B-1 - 4.5 - 5	4.5 - 5	03/04/10	<0.005	<0.005	<0.005	<0.010	-	-	-	-	-	<0.1	<9.5	<19	
B-1 - 9.5 - 10	9.5-10	03/04/10	<0.0049	<0.0049	<0.0049	<0.0098	-	-	-	-	-	<0.098	<9.9	<20	
B-1 - 15.5 - 16	15.5-16	03/04/10	<0.005	<0.005	<0.005	<0.099	-	-	-	-	-	<0.099	<10	<20	
B-1 - 19.5 - 20	19.5-20	03/04/10	<0.005	<0.005	<0.005	<0.010	-	-	-	-	-	<0.1	<19	<38	
B-2 - 4.5 - 5	4.5 - 5	03/04/10	<0.005	<0.005	<0.005	<0.099	-	-	-	-	-	<0.099	<10	<20	
B-2 - 9.5 - 10	9.5-10	03/04/10	<0.005	<0.005	<0.005	<0.099	-	-	-	-	-	<0.099	<9.9	<20	
B-2 - 15.5 - 16	15.5-16	03/04/10	<0.0049	<0.0049	<0.0049	<0.0098	-	-	-	-	-	<0.098	<9.9	<20	
B-2 - 20 - 20.5	20-20.5	03/04/10	<0.005	<0.005	<0.005	<0.099	-	-	-	-	-	<0.099	<10	<20	

Key:

Concentrations reported in milligrams per kilogram (mg/kg)

Bold results exceed the ESL

- Not analyzed for this compound

<= less than; compound not detected at the laboratory reporting limit

VP = Consultant reported sample contained visible product, therefore not run for analysis at laboratory

* San Francisco Regional Water Quality Control Board Environmental Screening Levels for deep soils (>3 meters), ground water potentially used for drinking water, commercial/industrial land use

** review of chromatograms indicates the TPH quantified is highly weathered heavy fuel oil, therefore the ESL for TPH residual fuels is applied

Table 3
Soil Vapor Sampling Results
Lucasey Site - 2744 E. 11th Street
Oakland, California

Sample ID	Sample Date	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	Naphthalene	TPHg	TPHd	Methylene Chloride	Acetone	1,2,4-Trimethyl benzene	Carbon Disulfide	2-Butanone	Ethanol
CHHSL-residential		36.2	135,000	-	319,000	315,000	31.9	-	-	-	-	-	-	-	-
CHHSL-commercial		122	378,000	-	887,000	879,000	106	-	-	-	-	-	-	-	-
ESL-residential		84	63,000	980	21,000	21,000	72	10,000	10,000	5,200	660,000	-	-	1,000,000	-
ESL-commercial		280	180,000	3,300	58,000	58,000	240	29,000	29,000	17,000	1,800,000	-	-	2,900,000	-
ASV-1	06/17/09	150	2,100	130	280	47	<48	NA	NA	NA	NA	NA	NA	NA	NA
ASV-1 duplicate	06/17/09	170	2,200	140	310	52	<97	NA	NA	NA	NA	NA	NA	NA	NA
ASV-2	06/17/09	110	2,900	250	810	180	<46	NA	NA	NA	NA	NA	NA	NA	NA
ASV-3	06/17/09	740	20,000	1,900	7,000	1,800	<460	NA	NA	NA	NA	NA	NA	NA	NA
ASV-4	06/17/09	570	22,000	2,600	10,000	2,900	<470	NA	NA	NA	NA	NA	NA	NA	NA
ASV-5	06/17/09	33	690	62	230	69	<31	NA	NA	NA	NA	NA	NA	NA	NA
ASV-6	06/18/09	14	470	44	180	55	<24	NA	NA	NA	NA	NA	NA	NA	NA
ASV-7	06/18/09	21	700	70	290	90	<25	NA	NA	NA	NA	NA	NA	NA	NA
ASV-7 duplicate	06/18/09	22	720	71	290	88	<25	NA	NA	NA	NA	NA	NA	NA	NA
ASV-8	06/18/09	18	690	54	220	72	<25	NA	NA	NA	NA	NA	NA	NA	NA
ASV-9	06/18/09	12	500	55	230	70	<24	NA	NA	NA	NA	NA	NA	NA	NA
ASV-10	06/18/09	12	370	40	160	54	<23	NA	NA	NA	NA	NA	NA	NA	NA
ASV-11	06/18/09	15	480	49	200	65	<23	NA	NA	NA	NA	NA	NA	NA	NA
Ambient air	06/18/09	4	7	<4.7	<4.7	<4.7	<23	NA	NA	NA	NA	NA	NA	NA	NA
Ambient air	05/10/10	<36	<43	<50	<50	<50	<25	<940	<5,000	<40	50J	<56	<36	<34	12J
ASV-12	05/10/10	<36	39J	<49	37J	<49	<25	<920	<5,000	<39	72J	<27J	<35	<33	290
ASV-12 duplicate	05/10/10	<36	38J	<49	39J	<49	<25	<920	<5,000	<39	79J	27J	<35	<33	230
ASV-13	05/10/10	<36	<42	<49	<49	<49	<25	<920	<5,000	<40	<110	<56	<36	<34	100
ASV-14	05/24/10	<42	<50	<58	<58	<58	<25	<1,100	<5,000	<46	510	77	71	71	<100
ASV-14 duplicate	05/24/10	<42	<49	<57	<57	<57	<270	<1,100	<5,000	<46	340	74	83	70	<99
ASV-15	05/24/10	<42	<50	<58	<58	<58	<25	<1,100	<5,000	1,800	<130	<65	<41	<39	150
Lab Blank	05/19/10	<16	<19	<22	<22	<22	35J	<410	<5,000	<17	<48	23J	<16	<15	6J

Key:
 CHHSL = OEHHA California Human Health Screening Levels for Soil Gas
 ESL = SF Bay Regional Water Quality Control Board Environmental Screening Levels
 NA = Not analyzed
 - = No numerical value established
 Concentrations reported in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)
 Bold values exceed one or more of ESL or CHHSL criteria
 < = Less than; compound not detected at the laboratory reporting limit
 J = Estimated value

Table 2
Ground Water Sampling Data
Lucasey Site - 2744 E. 11th Street
Oakland, California

Sample ID	Sample Date	Volatile Organic Compounds					Total Petroleum Hydrocarbons				
		Benzene	Toluene	Ethylbenzene	Xylenes (Total)	MTBE	TPH (as Gasoline)	TPH (as Diesel)	TPH (as Motor Oil)	TPH (as mineral spirits)	TPH (as kerosene)
BSL*		1	40	30	20	5	100	100	100	100	100
Grab Ground Water Samples											
SB-1W	08/31/04	<0.5	<0.5	<0.5	<0.5	<0.5	650	520,000	520,000	-	-
SB-2W	08/31/04	<0.5	<0.5	<0.5	<0.5	<0.5	2,200	110,000	89,000	-	-
SB-3W	08/31/04	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<50	<250	-	-
SB-4W	08/31/04	<0.5	<0.5	<0.5	<0.5	<0.5	3,800	560,000	410,000	-	-
SB-6W	08/31/04	<0.5	<0.5	<0.5	<0.5	<0.5	130	8,700	6,900	-	-
BH-2	07/09/06	<0.5	<0.5	<0.5	<0.5	<0.5	310	580,000	510,000	-	-
BH-4	07/09/06	<0.5	<0.5	<0.5	<0.5	<0.5	<50	160,000	150,000	-	-
BH-5	07/09/06	<0.5	<0.5	<0.5	<0.5	<0.5	<50	670	2,800	-	-
SB7-W	01/11/07	<0.5	<0.5	<0.5	<0.5	<0.5	<25	<50	<500	-	-
SBS-W	01/10/07	<0.5	<0.5	<0.5	<0.5	<0.5	<25	3	<500	-	-
SB9-W	01/09/07	VP	-	-	-	-	-	-	-	-	-
SB8-W23.5	01/10/07	<0.5	<0.5	<0.5	<0.5	<0.5	<25	390	<500	-	-
SB10-W16	01/10/07	<0.5	<0.5	<0.5	<0.5	<0.5	<25	<50	<500	-	-
SB10-W23	01/10/07	<0.5	<0.5	<0.5	<0.5	<0.5	<25	340	<500	-	-
SB11-W	01/09/07	VP	-	-	-	-	-	-	-	-	-
SB12-W	01/09/07	VP	-	-	-	-	-	-	-	-	-
SB13W (18')	01/22/07	<0.5	<0.5	<0.5	0.84	<0.5	560	5,800,000	3,000,000	-	-
SB13W2 (26')	01/22/07	<0.5	<0.5	<0.5	<0.5	0.56	150	140,000	70,000	-	-
SB14-W	01/12/07	<0.5	<0.5	<0.5	<0.5	<0.5	<25	11,000	4,500	-	-
SB15W	01/09/07	VP	-	-	-	-	-	-	-	-	-
SB21-W17	01/11/07	<0.5	<0.5	<0.5	<0.5	<0.5	<25	730	<500	-	-
SB21-W26	01/11/07	<0.5	0.54	<0.5	1.7	1.2	<25	1,500	580	-	-
SB22-W12	01/12/07	VP	-	-	-	-	-	-	-	-	-
SB23-W	01/11/07	<0.5	<0.5	<0.5	<0.5	<0.5	<25	2,800	1,500	-	-
SB23-W23	01/11/07	<0.5	<0.5	<0.5	<0.5	<0.5	<25	630	<500	-	-
SB24-W	01/23/07	<0.5	<0.5	<0.5	<0.5	<0.5	1400	430,000	210,000	-	-
B-1-15-25	03/04/10	<1	<1	<1	<2	-	<50	<97	<190	<97	<97
B-2-15-25	03/04/10	<1	<1	<1	<2	-	<50	<98	<200	<98	<98
Product Recovery Well Samples											
RW-1	06/08/09	-	-	-	-	-	-	58 / <50 ¹	-	-	-
RW-2	06/08/09	-	-	-	-	-	-	140 / <50 ¹	-	-	-
RW-3	06/08/09	-	-	-	-	-	-	210 / 88 ¹	-	-	-

Key:

Concentrations reported in micrograms per liter (µg/L)

* San Francisco Regional Water Quality Control Board Environmental Screening Levels, ground water potentially used for drinking water

Bolded results exceed the ESL

VP - visible product reportedly observed in sample

- Not analyzed for this compound

< = Less than; compound not detected at the laboratory reporting limit

¹ 1st value without silica gel cleanup, 2nd value with silica gel cleanup

Table 4
Product Monitoring - Product Monitoring Wells
Lucasey Site - 2744 E. 11th Street
Oakland, California

Well	Date	Measuring Point Elevation (feet-msl)	Construction Depth (feet-bgs)	Screen Interval (feet-bgs)	Depth to Water (feet)	Depth to Product (feet)	Water Elevation (feet msl)	Product thickness (feet)	Notes
PMW-1A	03/03/10	30.18	17.5	7-17	7.12	NA	23.06	0.00	day of well installation
"	03/04/10	30.18	17.5	7-17	6.82	6.81	23.36	0.01	day after well installation
"	03/08/10	30.18	17.5	7-17	7.46	NA	22.72	0.00	prior to development
"	03/18/10	30.18	17.5	7-17	7.95	NA	22.23	0.00	product staining on probe
"	03/24/10	30.18	17.5	7-17	8.50	NA	21.68	0.00	no staining on probe
"	04/01/10	30.18	17.5	7-17	8.60	NA	21.58	0.00	no staining on probe
"	04/08/10	30.18	17.5	7-17	8.01	NA	22.17	0.00	no staining on probe
"	05/10/10	30.18	17.5	7-17	9.00	NA	21.18	0.00	no staining on probe
"	06/15/10	30.18	17.5	7-17	9.59	NA	20.59	0.00	no staining on probe
"	07/08/10	30.18	17.5	7-17	9.83	NA	20.35	0.00	no staining on probe
"	07/15/10	30.18	17.5	7-17	9.89	NA	20.29	0.00	product staining on probe
"	07/22/10	30.18	17.5	7-17	9.94	NA	20.24	0.00	product staining on probe
"	07/29/10	30.18	17.5	7-17	10.03	NA	20.15	0.00	product staining on probe
"	08/23/10	30.18	17.5	7-17	10.19	NA	19.99	0.00	product staining on probe
"	09/29/10	30.18	17.5	7-17	10.47	NA	19.71	0.00	product staining on probe
"	10/28/10	30.18	17.5	7-17	10.50	NA	19.68	0.00	product staining on probe
PMW-1B	03/03/10	30.20	25.5	17-25	6.99	6.98	23.21	0.01	day of well installation
"	03/04/10	30.20	25.5	17-25	6.71	6.70	23.49	0.01	day after well installation
"	03/08/10	30.20	25.5	17-25	7.42	7.40	22.78	0.02	prior to development
"	03/18/10	30.20	25.5	17-25	7.91	NA	22.29	0.00	no staining on probe
"	03/24/10	30.20	25.5	17-25	8.46	NA	21.74	0.00	product staining on probe
"	04/01/10	30.20	25.5	17-25	8.58	NA	21.62	0.00	no staining on probe
"	04/08/10	30.20	25.5	17-25	8.02	NA	22.18	0.00	no staining on probe
"	05/10/10	30.20	25.5	17-25	8.89	NA	21.31	0.00	no staining on probe
"	06/15/10	30.20	25.5	17-25	9.51	NA	20.69	0.00	no staining on probe
"	07/08/10	30.20	25.5	17-25	9.76	NA	20.44	0.00	no staining on probe
"	07/15/10	30.20	25.5	17-25	9.82	NA	20.38	0.00	product staining on probe
"	07/22/10	30.20	25.5	17-25	9.90	NA	20.30	0.00	product staining on probe
"	07/29/10	30.20	25.5	17-25	9.96	NA	20.24	0.00	product staining on probe
"	08/23/10	30.20	25.5	17-25	10.09	NA	20.11	0.00	product staining on probe
"	09/29/10	30.20	25.5	17-25	10.39	NA	19.81	0.00	product staining on probe
"	10/28/10	30.20	25.5	17-25	10.40	NA	19.80	0.00	product staining on probe
PMW-2A	03/04/10	30.12	17.5	7-17	8.44	NA	21.68	0.00	day of well installation
"	03/08/10	30.12	17.5	7-17	8.05	NA	22.07	0.00	prior to development
"	03/18/10	30.12	17.5	7-17	9.50	NA	20.62	0.00	no staining on probe
"	03/24/10	30.12	17.5	7-17	10.02	NA	20.10	0.00	no staining on probe
"	04/01/10	30.12	17.5	7-17	10.00	NA	20.12	0.00	no staining on probe
"	04/08/10	30.12	17.5	7-17	9.40	NA	20.72	0.00	no staining on probe
"	05/10/10	30.12	17.5	7-17	10.55	NA	19.57	0.00	no staining on probe
"	06/15/10	30.12	17.5	7-17	11.20	NA	18.92	0.00	no staining on probe
"	07/08/10	30.12	17.5	7-17	11.45	NA	18.67	0.00	no staining on probe
"	07/15/10	30.12	17.5	7-17	11.51	NA	18.61	0.00	product staining on probe
"	07/22/10	30.12	17.5	7-17	11.54	NA	18.58	0.00	product staining on probe
"	07/29/10	30.12	17.5	7-17	11.64	NA	18.48	0.00	product staining on probe
"	08/23/10	30.12	17.5	7-17	11.77	NA	18.35	0.00	product staining on probe
"	09/29/10	30.12	17.5	7-17	12.03	NA	18.09	0.00	product staining on probe
"	10/28/10	30.12	17.5	7-17	11.98	NA	18.14	0.00	product staining on probe

Table 4
Product Monitoring - Product Monitoring Wells
Lucasey Site - 2744 E. 11th Street
Oakland, California

Well	Date	Measuring Point Elevation (feet-msl)	Construction Depth (feet-bgs)	Screen Interval (feet-bgs)	Depth to Water (feet)	Depth to Product (feet)	Water Elevation (feet msl)	Product thickness (feet)	Notes
PMW-2B	03/04/10	30.42	25	21.5-25	9.44	NA	20.98	0.00	day of well installation
"	03/08/10	30.42	25	21.5-25	10.35	NA	20.07	0.00	prior to development
"	03/18/10	30.42	25	21.5-25	10.95	NA	19.47	0.00	no staining on probe
"	03/24/10	30.42	25	21.5-25	11.48	NA	18.94	0.00	product staining on probe
"	04/01/10	30.42	25	21.5-25	11.56	NA	18.86	0.00	no staining on probe
"	04/08/10	30.42	25	21.5-25	11.11	NA	19.31	0.00	no staining on probe
"	05/10/10	30.42	25	21.5-25	12.00	NA	18.42	0.00	no staining on probe
"	06/15/10	30.42	25	21.5-25	12.69	NA	17.73	0.00	no staining on probe
"	07/08/10	30.42	25	21.5-25	13.11	NA	17.31	0.00	no staining on probe
"	07/15/10	30.42	25	21.5-25	13.13	NA	17.29	0.00	no staining on probe
"	07/22/10	30.42	25	21.5-25	13.20	NA	17.22	0.00	no staining on probe
"	07/29/10	30.42	25	21.5-25	13.29	NA	17.13	0.00	no staining on probe
"	08/23/10	30.42	25	21.5-25	13.44	NA	16.98	0.00	no staining on probe
"	09/29/10	30.42	25	21.5-25	13.75	NA	16.67	0.00	no staining on probe
"	10/28/10	30.42	25	21.5-25	13.74	NA	16.68	0.00	no staining on probe
PMW-3	06/25/10	27.59	15	7-14	10.10	10.00	17.49	0.10	day of well installation
"	06/30/10	27.59	15	7-14	9.98	9.96	17.61	0.02	prior to development
"	07/08/10	27.59	15	7-14	10.06	NA	17.53	0.00	no staining on probe
"	7/15/2010	27.59	15	7-14	10.08	NA	17.51	0.00	no staining on probe
"	7/22/2010	27.59	15	7-14	10.13	NA	17.46	0.00	no staining on probe
"	07/29/10	27.59	15	7-14	10.22	NA	17.37	0.00	no staining on probe
"	08/23/10	27.59	15	7-14	10.35	NA	17.24	0.00	no staining on probe
"	09/29/10	27.59	15	7-14	10.62	NA	16.97	0.00	no staining on probe
"	10/28/10	27.59	15	7-14	10.61	NA	16.98	0.00	no staining on probe

Key:

msl = mean sea level

bgs = below ground surface

Table 5
Product Monitoring - Product Recovery Wells
Lucasey Site - 2744 E. 11th Street
Oakland, California

Well	Date	Measuring Point Elevation (feet-msl)	Construction Depth (feet-bgs)	Screen Interval (feet -bgs)	Depth to Water (feet)	Depth to Product (feet)	Water Elevation (feet msl)	Product thickness	Notes
RW-1	06/05/09	29.88	25	7-25	9.50	NA	20.38	0	no staining on probe
"	03/18/10	29.88	25	7-25	7.60	NA	22.28	0	no staining on probe
"	03/24/10	29.88	25	7-25	8.15	NA	21.73	0	no staining on probe
"	04/01/10	29.88	25	7-25	8.25	NA	21.63	0	no staining on probe
"	04/08/10	29.88	25	7-25	7.70	NA	22.18	0	no staining on probe
"	05/10/10	29.88	25	7-25	8.66	NA	21.22	0	no staining on probe
"	06/15/10	29.88	25	7-25	9.20	NA	20.68	0	no staining on probe
"	07/08/10	29.88	25	7-25	9.43	NA	20.45	0	no staining on probe
"	07/15/10	29.88	25	7-25	9.50	NA	20.38	0	staining on probe
"	07/22/10	29.88	25	7-25	9.54	NA	20.34	0	no staining on probe
"	08/23/10	29.88	25	7-25	9.77	NA	20.11	0	no staining on probe
"	09/29/10	29.88	25	7-25	10.03	NA	19.85	0	no staining on probe
"	10/28/10	29.88	25	7-25	10.05	NA	19.83	0	no staining on probe
RW-2	06/05/09	29.96	25	7-25	11.90	NA	18.06	0	no staining on probe
"	03/18/10	29.96	25	7-25	9.35	NA	20.61	0	no staining on probe
"	03/24/10	29.96	25	7-25	9.89	NA	20.07	0	no staining on probe
"	04/01/10	29.96	25	7-25	9.90	NA	20.06	0	no staining on probe
"	04/08/10	29.96	25	7-25	9.42	NA	20.54	0	no staining on probe
"	05/10/10	29.96	25	7-25	10.35	NA	19.61	0	no staining on probe
"	06/15/10	29.96	25	7-25	10.95	NA	19.01	0	no staining on probe
"	07/08/10	29.96	25	7-25	11.20	NA	18.76	0	no staining on probe
"	07/15/10	29.96	25	7-25	11.26	NA	18.70	0	no staining on probe
"	07/22/10	29.96	25	7-25	11.31	NA	18.65	0	no staining on probe
"	08/23/10	29.96	25	7-25	11.52	NA	18.44	0	no staining on probe
"	09/29/10	29.96	25	7-25	11.77	NA	18.19	0	no staining on probe
"	10/28/10	29.96	25	7-25	11.44	NA	18.52	0	no staining on probe
RW-3	06/05/09	30.19	25	7-25	11.40	NA	18.79	0	no staining on probe
"	04/01/10	30.19	25	7-25	10.62	NA	19.57	0	no staining on probe
"	04/08/10	30.19	25	7-25	10.08	NA	20.11	0	no staining on probe
"	05/10/10	30.19	25	7-25	11.06	NA	19.13	0	no staining on probe
"	06/15/10	30.19	25	7-25	11.75	NA	18.44	0	no staining on probe
"	07/08/10	30.19	25	7-25	11.97	NA	18.22	0	no staining on probe
"	07/15/10	30.19	25	7-25	12.04	NA	18.15	0	no staining on probe
"	07/22/10	30.19	25	7-25	12.15	NA	18.04	0	no staining on probe
"	08/23/10	30.19	25	7-25	12.31	NA	17.88	0	no staining on probe
"	09/29/10	30.19	25	7-25	12.55	NA	17.64	0	no staining on probe
"	10/28/10	30.19	25	7-25	12.56	NA	17.63	0	no staining on probe

Notes:

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bgs = below ground surface