

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



June 1, 2010

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

Francis Rush (Sent via E-mail to: francis@rushproperty.com)
Rush Property Group
2200 Adeline Street, Suite 350
Oakland, CA 94607

Subject: Fuel Leak Case No. RO0002562 and GeoTracker Global ID T0600194544, Rush Property 28th Street, 1173 28th Street, Oakland, CA 94608

Dear Mr. Rush:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Health (ACEH) is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- Residual soil contamination of TPH-g and TPH-d at maximum concentrations of 110 mg/kg and 1,200 mg/kg, respectively, were left in place at the site. The residual contamination does not appear to pose a significant risk to the current commercial use of the site or to groundwater resources in the area. Additionally, petroleum hydrocarbons were not detected above the laboratory detection limit in soil vapor samples collected at the site. However, benzene was detected at a concentration of 110 $\mu\text{g}/\text{m}^3$, above the benzene ESL of 85 $\mu\text{g}/\text{m}^3$.
- Residual concentrations of TPH-d and TPH-g were detected in a grab groundwater samples at concentrations of up to 900 $\mu\text{g}/\text{L}$ and 5,900 $\mu\text{g}/\text{L}$, respectively, which exceed the ESLs for groundwater. The concentrations of TPH-d and TPH-g are expected to decrease over time as a result of biodegradation and natural attenuation processes. Solvent contamination from a potential off-site source was also detected at the site at concentrations of 3,100 $\mu\text{g}/\text{L}$ cis-1,2-DCE, 170 $\mu\text{g}/\text{L}$ TCE, and 130 $\mu\text{g}/\text{L}$ vinyl chloride east of the site on Adeline Street and just beyond the sidewalk onto the subject site. Soil vapor sampling analytical results for VOCs, which included Trichloroethylene, Tetrachloroethylene, cis-1,2-Dichloroethene, and Vinyl Chloride, were not detected above the laboratory detection limit. However, the detection limit of 100 $\mu\text{g}/\text{m}^3$ for Vinyl Chloride is above the residential exposure ESL of 31 $\mu\text{g}/\text{m}^3$, but does not exceed the commercial/industrial ESL of 100 $\mu\text{g}/\text{m}^3$.

If you have any questions, please call Paresh Khatri at (510) 777-2478. Thank you.

Sincerely,

Donna L. Drogos, P.E.
Division Chief

Mr. Rush
June 1, 2010
Page 2

Enclosures:

1. Remedial Action Completion Certificate
2. Case Closure Summary

cc:

Ms. Cherie McCaulou (w/enc)
SF- Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Closure Unit (w/enc)
State Water Resources Control Board
UST Cleanup Fund
P.O. Box 944212
Sacramento, CA 94244-2120

Paresh Khatri (w/orig enc), D. Drogos (w/enc), R. Garcia (w/enc)

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June 1, 2010

Francis Rush (*Sent via E-mail to: francis@rushproperty.com*)
Rush Property Group
2200 Adeline Street, Suite 350
Oakland, CA 94607

REMEDIAL ACTION COMPLETION CERTIFICATE

Subject: Fuel Leak Case No. RO0002562 and GeoTracker Global ID T0600194544, Rush Property 28th Street, 1173 28th Street, Oakland, CA 94608

Dear Mr. Rush:

This letter confirms the completion of a site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank(s) are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25296.10 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code.

Please contact our office if you have any questions regarding this matter.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ariu Levi', is written over a horizontal line. The signature is fluid and cursive.

Ariu Levi
Director

Alameda County Environmental Health

**CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK - LOCAL OVERSIGHT PROGRAM**

I. AGENCY INFORMATION

Date: April 28, 2010

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 777-2478
Responsible Staff Person: Paresh Khatri	Title: Hazardous Materials Specialist

II. CASE INFORMATION

Site Facility Name: Rush Property 28 th Street		
Site Facility Address: 1173 28 th Street, Oakland, California 94608		
RB Case No.: ---	StID No.: ---	LOP Case No.: RO0002562
URF Filing Date: Unknown	Global ID No.: T0600194544	APN: 5-446-1-1
Responsible Parties	Addresses	Phone Numbers
Francis Rush Rush Property Group	2200 Adeline Street, # 350 Oakland, CA 94607-2346	(510) 763-7165
Francis Rush 2700 Magnolia & Oakland Lofts LLC	2200 Adeline Street, # 350 Oakland, CA 94607-2346	(510) 763-7165

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1	550-gallon	Gasoline	Removed	1/7/2003
2	350-gallon	Gasoline	Removed	1/7/2003
---	---	---	---	---
---	---	---	---	---
Piping			Removed	1/7/2003

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Unknown, USTs approximately 70 years old, but mostly likely USTs since holes were identified at time of removal.		
Site characterization complete? Yes	Date Approved By Oversight Agency: ---	
Monitoring wells installed? No	Number: 0	Proper screened interval? N/A
Highest GW Depth Below Ground Surface: 8 ft bgs	Lowest Depth: 8 ft bgs	Flow Direction: Assumed West to Northwesterly based on topography
Most Sensitive Current Use: Potential drinking water source.		

Summary of Production Wells in Vicinity: Results of the well survey identified one driller's report within a 0.25 mile radius from the site that may have been used as a water supply well. The report was for a well boring drilled at "28th and Magnolia Street, Oakland". The subject property adjoins the southeast corner of the identified intersection. The report, which is not dated, provides lithologic logging of a boring to a depth of 215 feet below surface grade but does not provide well construction details. From the report it is unclear whether a well was constructed in the boring. Should a well exist, it does not appear to be a receptor for the site due to its location and distance from the source area at the site.

Are drinking water wells affected? No	Aquifer Name: East Bay Plain Groundwater Basin
Is surface water affected? No	Nearest SW Name: San Francisco Bay located approximately 1 mile northwest of the site.
Off-Site Beneficial Use Impacts (Addresses/Locations): None	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health & Oakland Fire Prevention Bureau

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	One 550-gallon One 350-gallon	Ecology Control Industries, Richmond, CA	1/7/2003
Piping	Not reported	Assumed to be disposed with USTs	1/7/2003
Free Product	---	---	---
Soil	---	---	---
Groundwater	---	---	---

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP
(Please see Attachments for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	110 (SB-3, 6/12/02)	110 (SB-3, 6/12/2002)	5,900 (SB-3, 6/12/2002)	5,900 (SB-3, 6/12/2002)
TPH (Diesel)	1,200 (GA-5-7.5, 07/2006)	1,200 (GA-5-7.5, 07/2006)	900 (SB-3, 6/12/2002)	900 (SB-3, 6/12/2002)
TPH (Motor Oil)	NA	NA	NA	NA
TOG	NA	NA	NA	NA
Benzene	0.008 (350@9', 1/7/2003)	0.008 (350@9', 1/7/2003)	6.0 (GA-9, 7/2006)	6.0 (GA-9, 7/2006)
Toluene	0.134 (350@9', 1/7/2003)	0.134 (350@9', 1/7/2003)	0.77 (B-3, 12/06/2001)	0.77 (B-3, 12/06/2001)
Ethylbenzene	0.210 (GA-8-11), 07/2006)	0.210 (GA-8-11), 07/2006)	1.1 (GA-9, 7/2006)	1.1 (GA-9, 7/2006)
Xylenes	0.160 (GA-8-11), 07/2006)	0.160 (GA-8-11), 07/2006)	1.6 (B-4, 7/2006)	1.6 (B-4, 7/2006)
MTBE	<0.005 ⁵	<0.005 ⁴	<0.1 ³	<0.1 ²
Heavy Metals (Cd, Cr, Pb, Ni, Zn)	42.8 ¹ (350@9', 1/7/2003)	42.8 ¹ (350@9', 1/7/2003)	1,600 ⁶ (500@GW, 1/7/2003)	1,600 ⁶ (500@GW, 1/7/2003)

NA Not Analyzed

¹ All other Pb concentrations on-site ranged from 38.9 to 42.8 mg/kg.

² Other VOCs (groundwater µg/L after cleanup): <1.0 µg/L MtBE, NA µg/L TBA, NA µg/L DIPE, NA µg/L ETBE, NA µg/L TAME, <0.5 µg/L EDB, <0.5 µg/L 1,2-DCA, NA µg/L EtOH, 170 µg/L PCE, 3,100 µg/L cis-1,2-DCE, 130 µg/L Vinyl Chloride

³ Other VOCs (groundwater ppb before cleanup): <1.0 µg/L MtBE, NA µg/L TBA, NA µg/L DIPE, NA µg/L ETBE, NA µg/L TAME, <0.5 µg/L EDB, <0.5 µg/L 1,2-DCA, NA µg/L EtOH, 170 µg/L PCE, 3,100 µg/L cis-1,2-DCE, 130 µg/L Vinyl Chloride

⁴ Other VOCs (Soil mg/kg after cleanup): <0.005 mg/kg MtBE NA mg/kg TBA, NA mg/kg DIPE, NA mg/kg ETBE, NA mg/kg TAME, NA mg/kg EtOH, <0.002 mg/kg PCE, 0.069 mg/kg cis-1,2-DCE, <0.002 mg/kg Vinyl Chloride

⁵ Other VOCs (Soil mg/kg before cleanup): <0.98 mg/kg MtBE, NA mg/kg TBA, NA mg/kg TAME, NA mg/kg DIPE, NA mg/kg EtOH, <0.002 mg/kg PCE, 0.069 mg/kg cis-1,2-DCE, <0.002 mg/kg Vinyl Chloride

⁶ Pb concentrations in groundwater

Site History and Description of Corrective Actions:

The site is located in a mixed commercial and residential area of west Oakland (**Figure 1 and Figure 2**). The site currently includes a fire-damaged remnant portion of the former Coast Sausage building on the east side, the concrete slab for the demolished portion of the former site building on the northwest side, and a concrete and asphalt paved former parking area on the southwest side of the site. Soils in the immediate site area generally consist of clays, with occasional thin interbedded silts, sands, and gravels. Groundwater is encountered at a depth of approximately 8 feet below the ground surface, based on subsurface investigations conducted at the site to date.

In December 2001, Treadwell & Rollo (T&R) drilled and sampled four soil borings (B-1 through B-4 at the site (see **Figures 3 and 4**). The results of the investigation generally identified halogenated volatile organic compound (HVOC) and petroleum hydrocarbon impacts in groundwater at boring locations B-1, B-3, and B-4. Groundwater collected from boring B-2, located inside the southeast corner of the site building, detected HVOC impacts with reported concentrations of 47 micrograms per liter (µg/L) trichloroethene (TCE) and 990 µg/L cis-1,2 dichloroethene (cis-1,2 DCE). Analytical results are summarized on **Tables 1 and 2**.

In June 2002, ERAS Environmental installed and sampled five borings (SB-1 through SB-5) at the site (see **Figure 3 and 4**). Boring locations SB-1 and SB-2, which were located in close proximity to T&R boring B-2, were reported to contain no detectable HVOCs or petroleum hydrocarbons in soil samples collected at depths of 3.0 feet and 4.0 feet below surface grade. A grab groundwater sample collected at SB-4, located approximately 10 feet west from the 350-gallon gasoline underground storage tank (UST) along Magnolia Street, was reported to contain detectable concentrations of petroleum hydrocarbon concentrations. A grab groundwater sample collected at SB-5, located

approximately 55 feet northwest from the 500-gallon gasoline UST along Adeline street, was reported to contain no HVOC or petroleum hydrocarbon concentrations above laboratory detection limits. Groundwater collected from boring SB-3, located approximately 10 feet east from a former 550-gallon underground storage tank, detected elevated levels of petroleum hydrocarbons, with reported concentrations of 5,900 µg/L TPH-G, 900 µg/L TPH-D, and 1.7 µg/L benzene.

In January 2003, the two site USTs were removed by Environmental Restoration Services, under the oversight by Mr. Leroy Griffith of the Oakland Fire Department and sampling by ERAS Environmental (see **Figure 4 & 5**). Two soil samples and one grab groundwater sample were collected from the 550-gallon Adeline Street UST excavation cavity, which were reported to contain no detectable hydrocarbon concentrations in soil and 1,170 ug/L TPH-g with minor benzene, toluene, ethylbenzene, and xylenes (BTEX) concentrations in groundwater. One soil sample collected from the 350-gallon Magnolia Street UST excavation cavity was reported to contain minor concentrations of petroleum hydrocarbons. Analytical results are summarized on **Table A**.

In July 2006, in an attempt to identify a source of and further characterize observed HVOC groundwater impacts at the site, Gribi Associates completed an additional site investigation. The investigation consisted of drilling and sampling eleven soil borings (GA-1 through GA-11), and the collection and analysis of eight shallow soil gas samples (SG-1 through SG-8) at the site (see **Figure 3, 4, 5, 6, and 7**). Analytical results for this and the subsequent Gribi Associates investigation are included in **Tables 1, 2, and 3**. Soil and groundwater results for six of the eleven soil boring locations (GA-1, GA-4, GA-7, GA-10, and GA-11) reported no concentrations of HVOCs or petroleum hydrocarbons above their respective laboratory detection limits.

A soil sample collected from a depth of 7.5 feet below surface at boring GA-5, located approximately 20 feet south from the southwest corner of the site building, was reported to contain 1,200 milligrams per kilogram (mg/kg) TPH-d with no detectable concentrations of gasoline range hydrocarbons. A soil sample collected from 15 feet below surface grade and a grab groundwater sample collected from the same boring were reported to contain no HVOCs or petroleum hydrocarbons above laboratory detection limits.

Samples collected from boring GA-8, located approximately 40 feet west and in an expected down-gradient direction from the former 500-gallon UST, were reported to contain minor levels of gasoline range hydrocarbons, in a soil sample collected at 7.5 feet below surface grade, but did not contain detectable concentrations of HVOCs or petroleum hydrocarbons in a soil sample collected from 15 feet below surface grade and a grab groundwater sample. Samples collected from boring GA-9, located approximately 15 feet west-southwest in an expected down-gradient direction from the former 500-gallon UST, were reported to contain no detectable concentrations of HVOCs or petroleum hydrocarbons in a soil sample collected from 9 feet below surface grade and contained 440 ug/L TPH-g. Analytical results are summarized on **Tables 1 and 2**.

Samples collected from boring GA-3, located approximately 40 feet northeast and in an expected up-gradient to cross-gradient groundwater direction from boring B-2, were reported to contain no detectable concentrations of HVOCs or petroleum hydrocarbons in soil samples collected from depths of 7 feet and 9 feet below surface grade, but reported 3.3 ug/L cis-1,2 DCE in a grab groundwater sample from the boring. Samples collected from boring GA-2, located approximately 40 feet southeast and in an expected up-gradient direction from boring B-2, were reported to contain no detectable concentrations of HVOCs or petroleum hydrocarbons in a soil sample collected at a depth of 6.5 feet below grade and 0.069 mg/kg cis-1,2 DCE in a soil sample collected from a depth of 23 feet below surface grade. A grab groundwater sample from GA-2 was reported to contain 170 ug/L TCE, 3,100 ug/L cis-1,2 DCE, 130 ug/L vinyl chloride, 2,400 ug/L TPH-G and 3.0 ug/L benzene.

Laboratory results for soil vapor samples collected from five of the eight soil gas sampling locations (SG-2, SG-4, SG-6, SG-7, and SG-8) reported no concentrations of volatile organic compounds (VOCs) above the laboratory detection limit. The following VOC detections in soil gas samples were reported: (1) 0.15 micrograms per liter (µg/L) of ethylbenzene and 1.04 µg/L of xylenes in soil gas sample SG-1, located in the former compressor room on the south side of the site; (2) 5.0 µg/L of Trichlorofluoromethane in soil gas sample SG-3, located immediately west of the former 500-gallon Adeline Street gasoline UST; and (3) 0.11 µg/L of benzene in soil gas sample SG-5, located in a former holding room on the south-middle side of the site.

In April 2007, Gribi Associates installed and sampled five borings (GA-12 through GA-16) at the site in order to further assess HVOC impacts detected at GA-2. Soil samples from four of the five boring locations (GA-12 through GA-15) were reported to contain no detectable concentrations of HVOCs above their respective laboratory detection limits. A soil sample collected from boring GA-16 at depth of 4 feet below surface grade was reported to contain 0.0056 mg/kg cis-1,2 DCE. A soil sample collected from the same boring at a depth of 13.5 feet below grade was reported to contain no HVOCs above laboratory detection limits. Grab groundwater samples from borings GA-12 and GA-13 were reported to contain no HVOCs above laboratory detection limits. Cis-1,2 DCE groundwater concentrations of 1.2 µg/L, 5.9 µg/L, and 1.9 µg/L were reported in grab groundwater samples from GA-14, GA-15, and GA-16, respectively. A concentration of 2.1 µg/L vinyl chloride was reported in a grab groundwater sample from

GA-14.

Analytical results from several borings installed at the site have delineated the solvent contamination to a localized area on the west side of Adeline Street approximately 100 feet south of the former 500-gallon gasoline UST excavation. Based on the analytical data presented to date, it appears that the solvent impact detected at the site may be attributed to a potential up-gradient off-site source, which does not appear to extend much further down-gradient passed the sidewalk on to the subject site.

As mentioned above, Treadwell and Rollo conducted a Phase I/II site investigation in 2001. A boring installed during the investigation was never properly decommissioned by Treadwell and Rollo at the conclusion of their investigation and left as an open borehole. The boring was re-sampled as part of Gribi Associates July 2006 Phase II investigation. The boring was re-sampled again on November 24, 2008, prior to complying with ACEH request to properly decommission the site boring.

Boring B-2 was decommissioned on January 5, 2009 by drilling out using 8-inch diameter auger and filling the resulting borehole with neat cement. Drilling activities were conducted by Gregg Drilling of Martinez, California (C-57 No. 485165) under the direction of Gribi Associates personnel. Mr. James Yoo of Alameda County Public Works was onsite to inspect and document the well abandonment.

Risk Evaluation

In order to evaluate site-specific vapor intrusion risk, Gribi Associates conducted soil vapor sampling at the site in July 2006. Of these results, only the $110 \mu\text{g}/\text{m}^3$ Benzene result for SG-5 is above the SFBRWQCB's Environmental Screening Levels (ESLs) of $85 \mu\text{g}/\text{m}^3$ (Shallow Soil Gas Environmental Screening Levels for Evaluation of Potential Vapor Intrusion Concerns (residential land use), Table E-2, as contained in *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, San Francisco Bay Regional Water Quality Control Board, Interim Final, February 2008). However, Gribi does not believe that this result is meaningful, given: (1) It is only $25 \mu\text{g}/\text{m}^3$ above the laboratory detection level of $100 \mu\text{g}/\text{m}^3$; (2) This area of the site has been covered by the former sausage factory building for several decades, with no expected nearby Benzene source; and (3) Soil and groundwater samples from nearby borings GA-4 and GA-6 showed no evidence of hydrocarbons, providing further evidence of no hydrocarbon source in this area of the site.

Since potential off-site source solvent contamination has also migrated onto the site, solvent analyses were also performed. Soil vapor sampling analytical results for VOCs, which included Trichloroethylene, Tetrachloroethylene, cis-1,2-Dichloroethene, and Vinyl Chloride, were not detected above the laboratory detection limit. However, the detection limit of $100 \mu\text{g}/\text{m}^3$ for Vinyl Chloride is above the residential exposure ESL of $31 \mu\text{g}/\text{m}^3$, but does not exceed the commercial/industrial ESL of $100 \mu\text{g}/\text{m}^3$.

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 significant risk to human health based upon current land use and conditions.		
<p>Site Management Requirements: Case closure for this fuel leak site is granted for the current commercial land use only. If a change in land use to any residential or other conservative land use scenario is proposed at this site, 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/construction plans.</p> <p>This closure applies to the former 350-gallon and 500-gallon underground storage tanks only. Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party (or current property owner/developer) 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: N/A	Number Decommissioned: 0	Number Retained: 0
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: --		

V. ADDITIONAL COMMENTS, DATA, ETC.

<p>Considerations and/or Variances:</p> <p>Currently, residual soil contamination of TPH-g and TPH-d at maximum concentrations of 110 mg/kg and 1,200 mg/kg, respectively, were left in place at the site. The residual contamination does not appear to pose a significant risk to the current commercial use of the site or to groundwater resources in the area. Additionally, petroleum hydrocarbons were not detected above the laboratory detection limit in soil vapor samples collected at the site. However, benzene was detected at a concentration of 110 µg/m³, above the benzene ESL of 85 µg/m³.</p> <p>Residual concentrations of TPH-d and TPH-g were detected in a grab groundwater samples at concentrations of up to 900 µg/L and 5,900 µg/L, respectively, which exceed the ESLs for groundwater. The concentrations of TPH-d and TPH-g are expected to decrease over time as a result of biodegradation and natural attenuation processes. Solvent contamination from a potential off-site source was also detected at the site at concentrations of 3,100 µg/L cis-1,2-DCE, 170 µg/L TCE, and 130 µg/L vinyl chloride east of the site on Adeline Street and just beyond the sidewalk onto the subject site. Soil vapor sampling analytical results for VOCs, which included Trichloroethylene, Tetrachloroethylene, cis-1,2-Dichloroethene, and Vinyl Chloride, were not detected above the laboratory detection limit. However, the detection limit of 100 µg/m³ for Vinyl Chloride is above the residential exposure ESL of 31 µg/m³, but does not exceed the commercial/industrial ESL of 100 µg/m³.</p> <p>Conclusion:</p> <p>Alameda County Environmental Health staff believe that the levels of residual contamination do not pose a significant threat to water resources, public health and safety, and the environment under the current commercial land use based upon the information available in our files to date. No further investigation or cleanup for the fuel leak case is necessary unless a change in land use to any residential or other conservative land use scenario occurs at the site. ACEH staff recommend case closure for the site.</p>
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VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Paresh Khatri	Title: Hazardous Materials Specialist
Signature: <i>Paresh Khatri</i>	Date: April 28, 2010
Approved by: Donna L. Drogos, P.E.	Title: Supervising Hazardous Materials Specialist
Signature: <i>Donna L. Drogos</i>	Date: 05/05/10

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 NOTIFICATION

Regional Board Staff Name: Cherie McCaulou	Title: Engineering Geologist
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB: 5/13/10
Signature: <i>Cherie McCaulou</i>	Date: 5/18/10

VIII. MONITORING WELL DECOMMISSIONING

Date Requested by ACEH: --	Date of Well Decommissioning Report: --	
All Monitoring Wells Decommissioned: --	Number Decommissioned: --	Number Retained: --
Reason Wells Retained: No monitoring wells installed or retained.		
Additional requirements for submittal of groundwater data from retained wells: None		
ACEH Concurrence - Signature: <i>Paresh Khatri</i>		Date: 6/1/2010

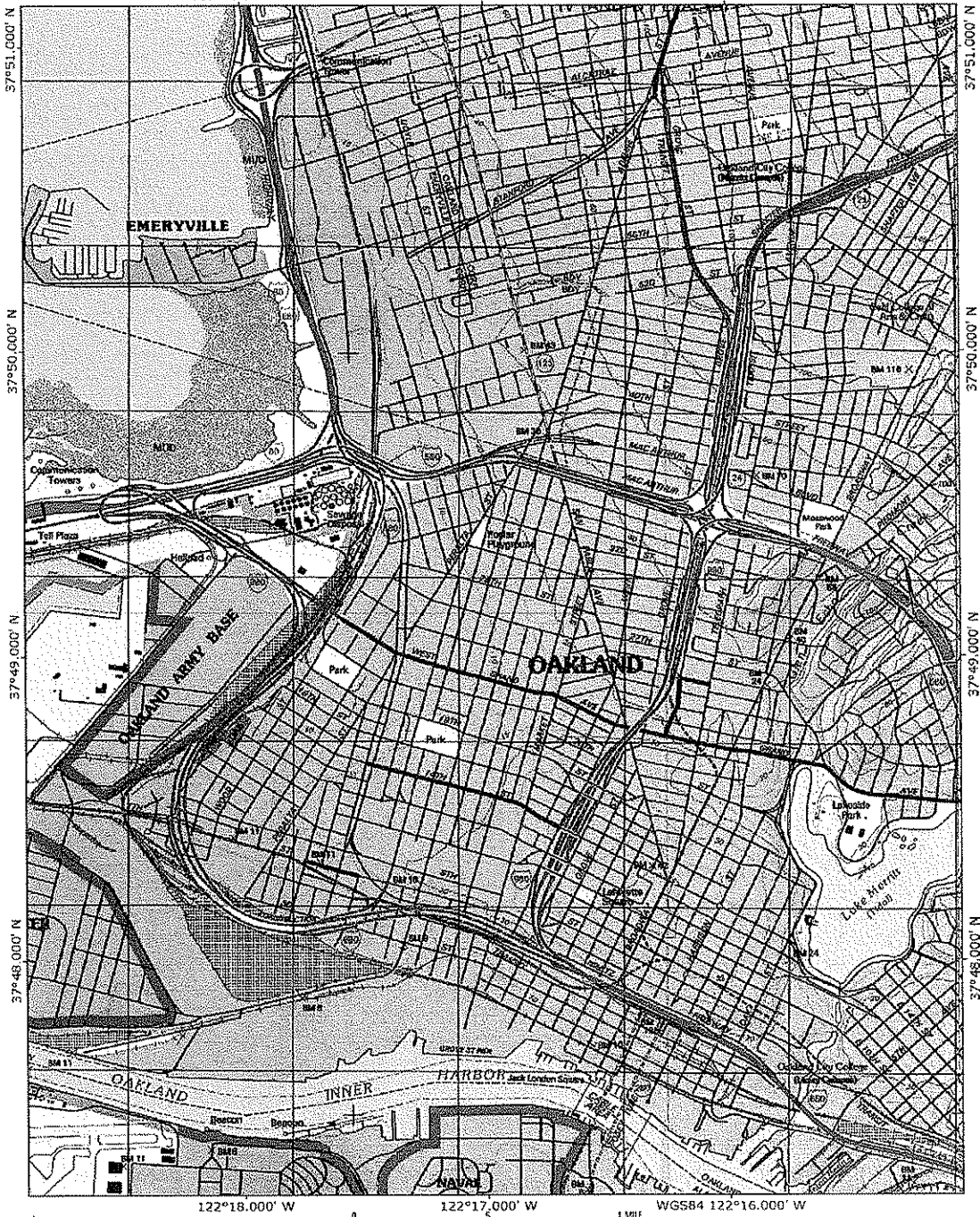
Attachments:

1. Figures 1 through 7.
2. Tables A, 1, 2, & 3
3. Boring Logs

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.

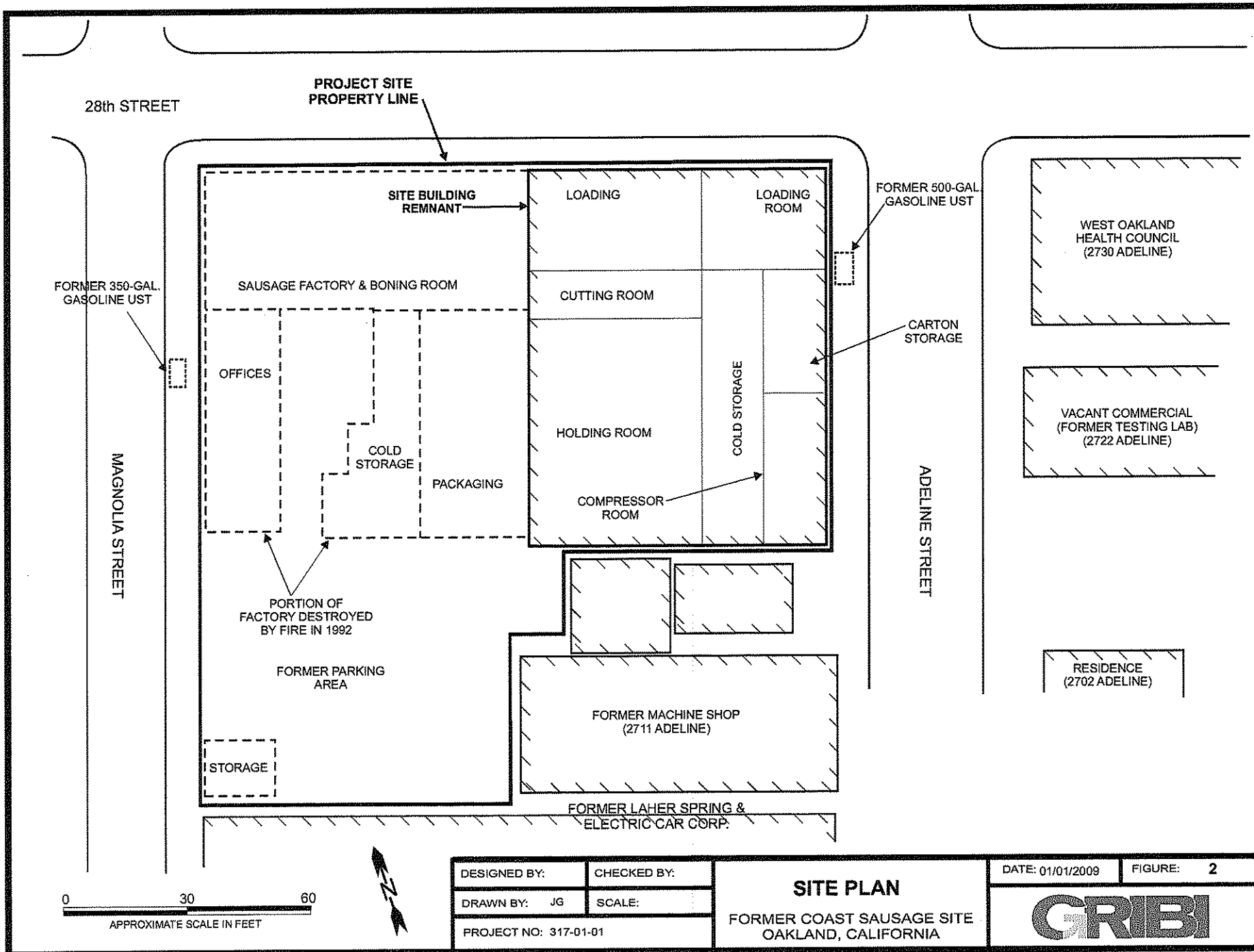
Alameda County
MAY 18 2010
Environmental Health

TOPO! map printed on 05/17/06 from "California.tpo" and "Untitled.tpg"
 122°18.000' W 122°17.000' W WGS84 122°16.000' W



Printed from TOPO! ©2000 Wildflower Productions (www.topo.com)

DESIGNED BY:	CHECKED BY:	SITE VICINITY MAP	DATE: 01/05/2009	FIGURE: 1
DRAWN BY: JG	SCALE:		GRIBI	
PROJECT NO: 317-01-01				



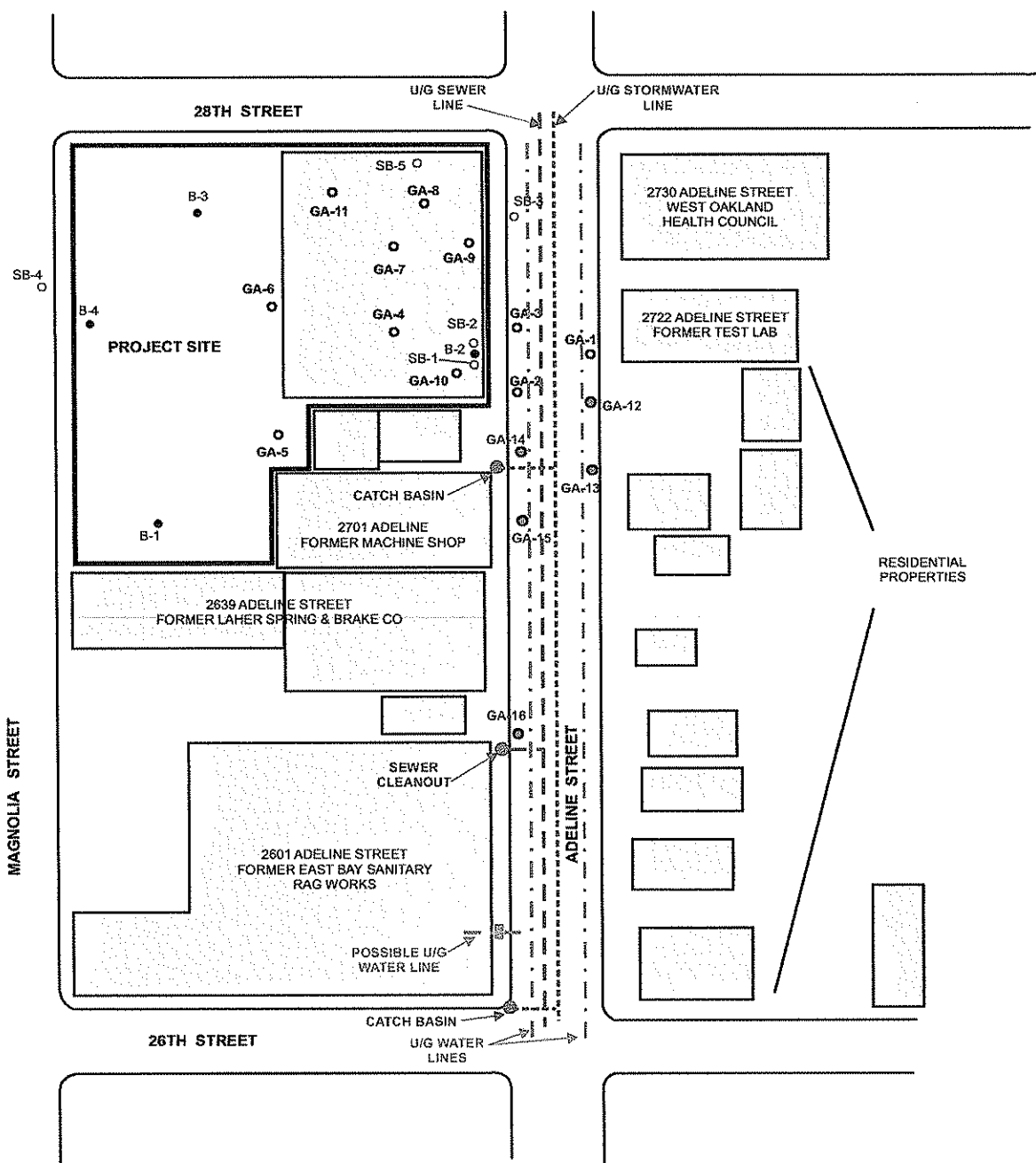
DESIGNED BY:	CHECKED BY:
DRAWN BY: JG	SCALE:
PROJECT NO: 317-01-01	

SITE PLAN
 FORMER COAST SAUSAGE SITE
 OAKLAND, CALIFORNIA

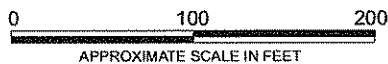
DATE: 01/01/2009 FIGURE: 2



FIGURE 2

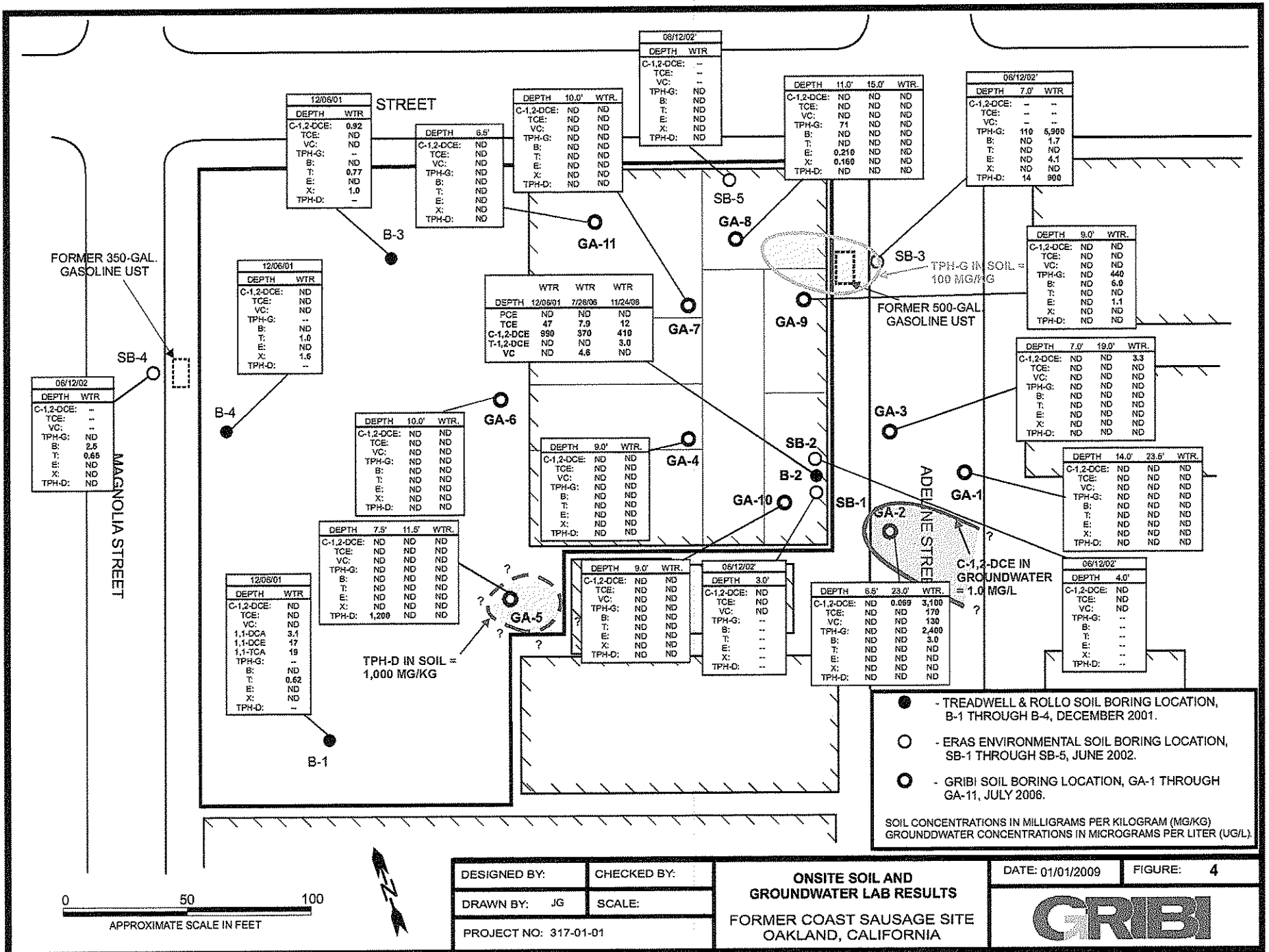


- - GRIBI SOIL BORING LOCATION, GA-12 THROUGH GA-16, APRIL 2007.
- - GRIBI SOIL BORING LOCATION, GA-1 THROUGH GA-11, JULY 2006.
- - ERAS ENVIRONMENTAL SOIL BORING LOCATION, SB-1 THROUGH SB-5, JUNE 2002.
- - TREADWELL & ROLLO SOIL BORING LOCATION, B-1 THROUGH B-4, DECEMBER 2001.



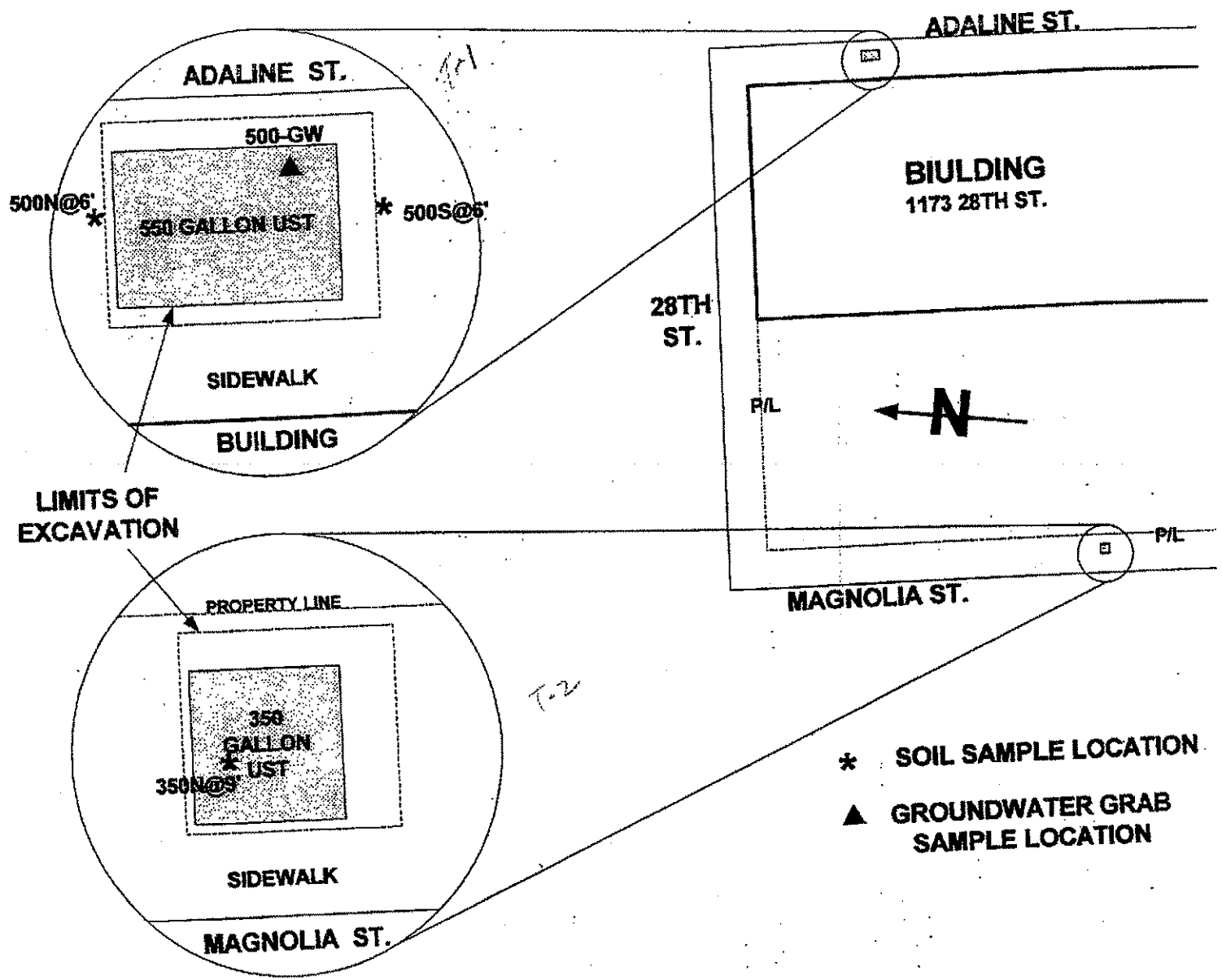
DESIGNED BY:	CHECKED BY:	SITE AREA PLAN	DATE: 01/05/2009	FIGURE: 3
DRAWN BY: JG	SCALE:		GRIBI	
PROJECT NO: 317-01-01		FORMER COAST SAUSAGE SITE OAKLAND, CALIFORNIA		

FIGURE 4



UNDERGROUND TANK TECHNICAL CLOSURE REPORT

SITE PLAN



- * SOIL SAMPLE LOCATION
- ▲ GROUNDWATER GRAB SAMPLE LOCATION

SECTION VIEW of EXCAVATION

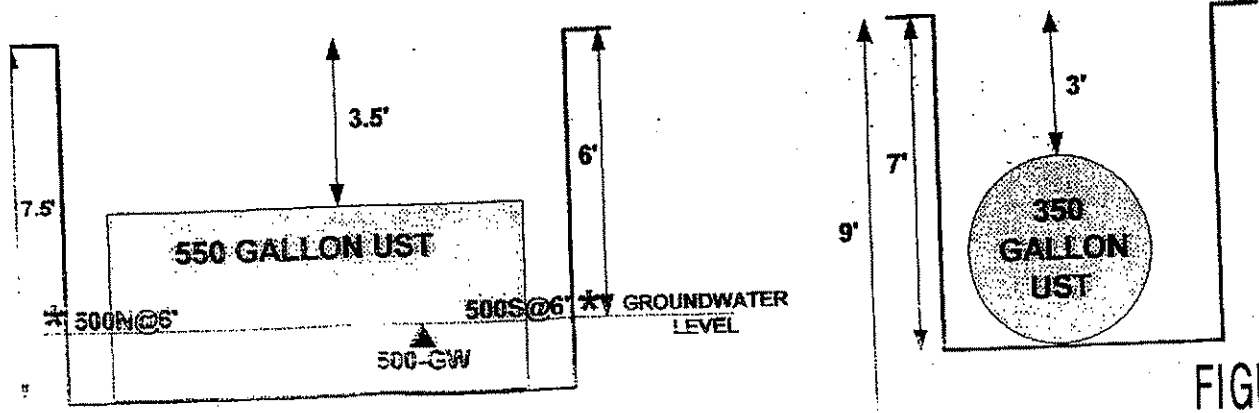


FIGURE 5

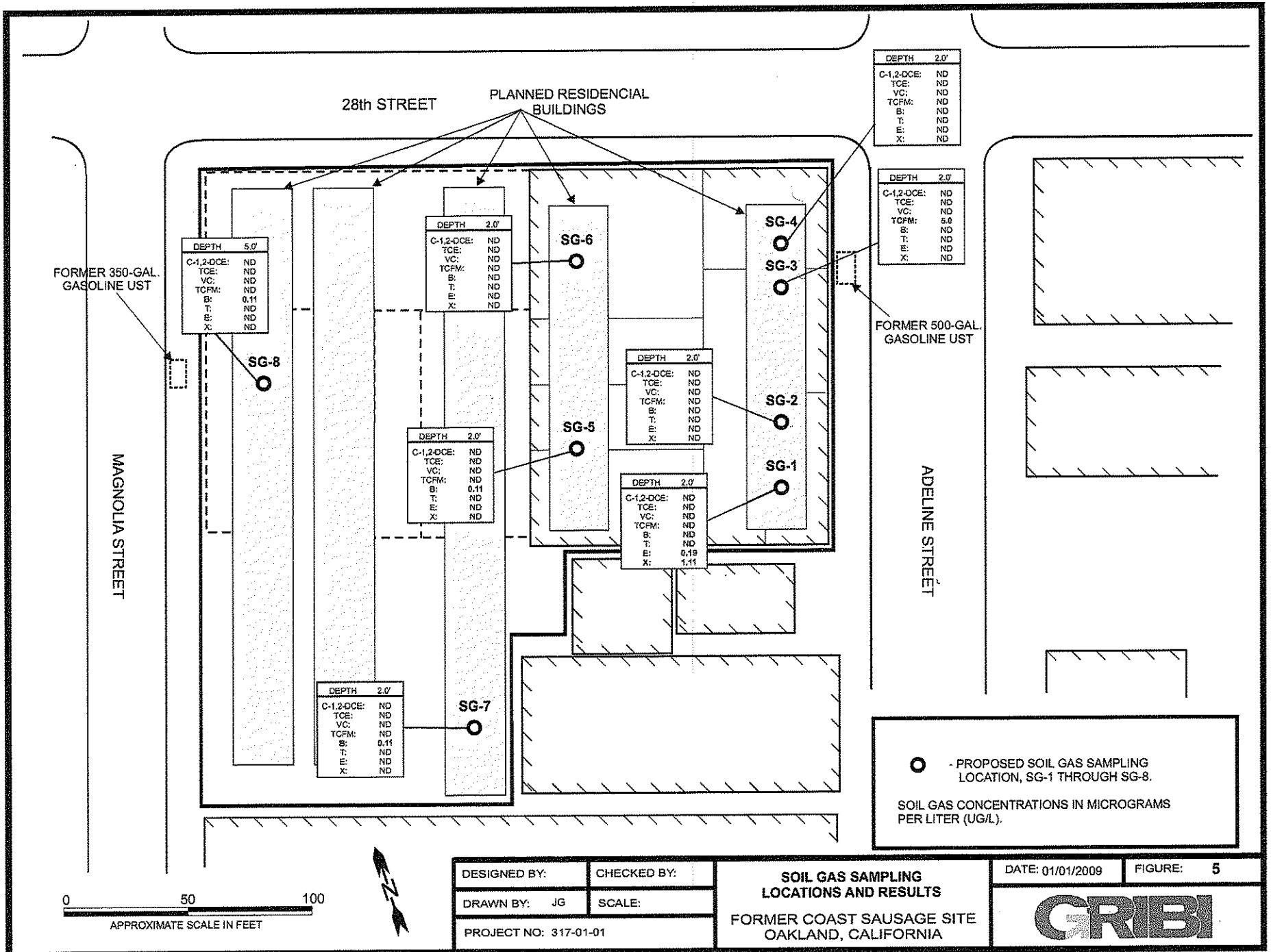
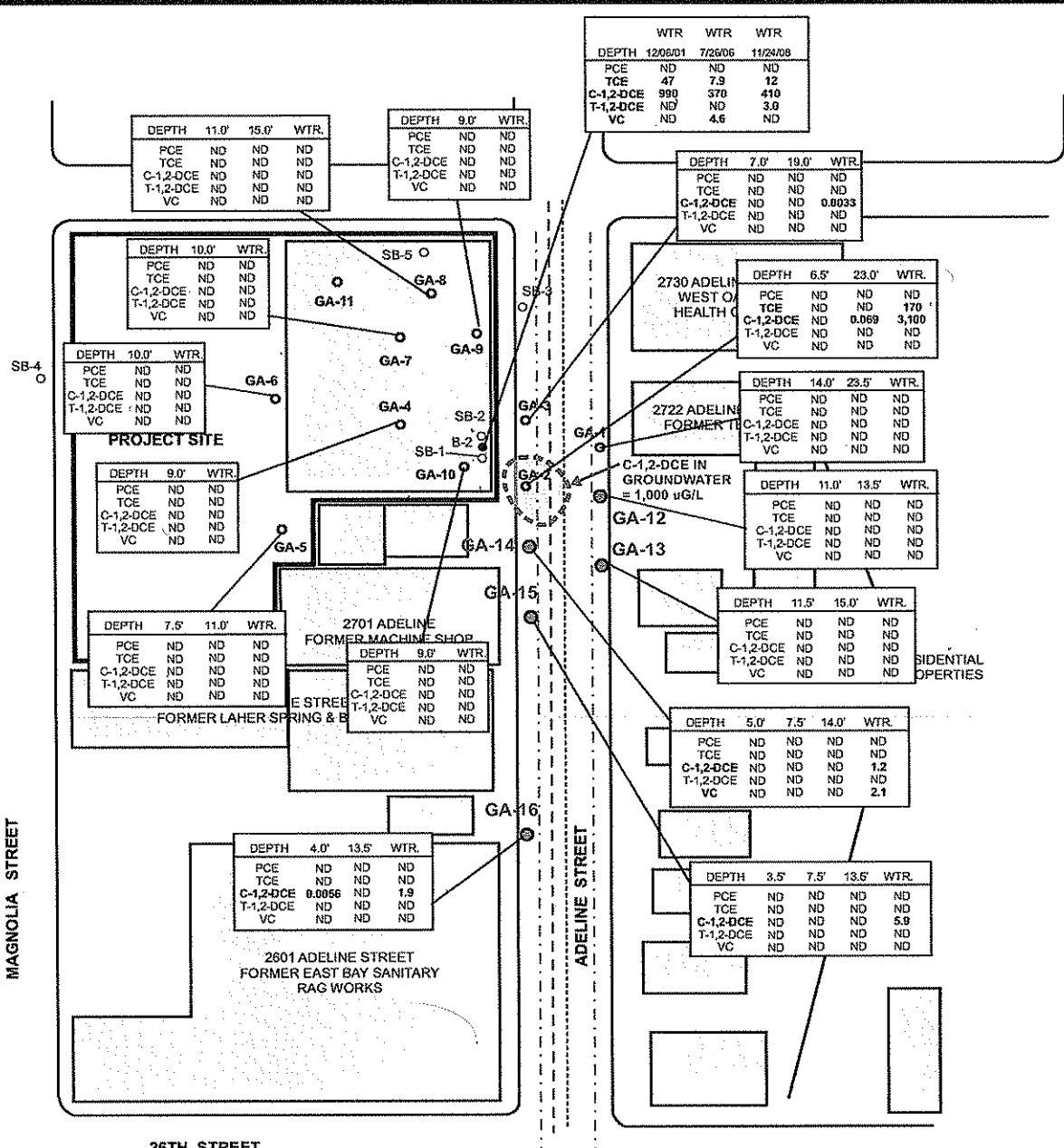


FIGURE 6



- - GRIBI SOIL BORING LOCATION, GA-12 THROUGH GA-12, APRIL 2007.
- - GRIBI SOIL BORING LOCATION, GA-1 THROUGH GA-11, JULY 2006.
- - ERAS ENVIRONMENTAL SOIL BORING LOCATION, SB-1 THROUGH SB-5, JUNE 2002.
- - TREADWELL & ROLLO SOIL BORING LOCATION, B-1 THROUGH B-4, DECEMBER 2001.

SOIL CONCENTRATIONS IN MILLIGRAMS PER KILOGRAM (MG/KG)
 GROUNDWATER CONCENTRATIONS IN MICROGRAMS PER LITER (UG/L).



DESIGNED BY:	CHECKED BY:	SOIL AND GROUNDWATER HVOC RESULTS	DATE: 01/05/2009	FIGURE: 6
DRAWN BY: JG	SCALE:		GRIBI	
PROJECT NO: 317-01-01				

FIGURE 7

Table 1
SUMMARY OF SOIL ANALYTICAL RESULTS
Former Coast Sausage Site

Sample ID	Sample Type	Sample Depth	Concentration: milligrams per kilogram (mg/kg); parts per million (ppm)											
			TPH-D	TPH-G	B	T	E	X	MTBE	PCE	TCE	c-1,2-DCE	t-1,2-DCE	VC
GA-1-14.0	Soil	14.0 ft	<5.0	<0.500	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
GA-1-23.5	Soil	23.5 ft	<5.0	<0.500	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
GA-2-6.5	Soil	6.5 ft	<5.0	<0.500	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
GA-2-23.0	Soil	23.0 ft	<5.0	<0.500	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0020	<0.0020	69	<0.0020	<0.0020
GA-3-7.0	Soil	7.5 ft	<5.0	<0.500	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
GA-3-19.0	Soil	19.0 ft	<5.0	<0.500	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
GA-4-9.0	Soil	9.0 ft	<5.0	<0.500	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
GA-5-7.5	Soil	7.5 ft	1,200	<0.500	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
GA-5-11.5	Soil	11.5 ft	<5.0	<0.500	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
GA-6-10.0	Soil	10.0 ft	<5.0	<0.500	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
GA-7-10.0	Soil	10.0 ft	<5.0	<0.500	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
GA-8-11.0	Soil	11.0 ft	<5.0	71	<0.0020	<0.0020	0.210	0.160	<0.0050	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
GA-8-15.0	Soil	15.0 ft	<5.0	<0.500	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
GA-9-8.0	Soil	8.0 ft	<5.0	<0.500	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
GA-10-10.0	Soil	10.0 ft	<5.0	<0.500	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
GA-11-6.5	Soil	6.5 ft	<5.0	<0.500	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
GA-12-11.0	Soil	11.0 ft	-	-	-	-	-	-	-	<0.004	<0.004	<0.004	<0.004	<0.004
GA-12-13.5	Soil	13.5 ft	-	-	-	-	-	-	-	<0.004	<0.004	<0.004	<0.004	<0.004
GA-13-11.5	Soil	11.5 ft	-	-	-	-	-	-	-	<0.004	<0.004	<0.004	<0.004	<0.004
GA-13-15.0	Soil	15.0 ft	-	-	-	-	-	-	-	<0.004	<0.004	<0.004	<0.004	<0.004
GA-14-5.0	Soil	5.0 ft	-	-	-	-	-	-	-	<0.004	<0.004	<0.004	<0.004	<0.004
GA-14-7.5	Soil	7.5 ft	-	-	-	-	-	-	-	<0.004	<0.004	<0.004	<0.004	<0.004
GA-14-14	Soil	14.0 ft	-	-	-	-	-	-	-	<0.004	<0.004	<0.004	<0.004	<0.004

Table 1
SUMMARY OF SOIL ANALYTICAL RESULTS
Former Coast Sausage Site

Sample ID	Sample Type	Sample Depth	Concentration: milligrams per kilogram (mg/kg); parts per million (ppm)												
			TPH-D	TPH-G	B	T	E	X	MTBE	PCE	TCE	c-1,2-DCE	t-1,2-DCE	VC	
GA-15-3.5	Soil	5.0 ft	-	-	-	-	-	-	-	-	<0.004	<0.004	<0.004	<0.004	<0.004
GA-15-7.5	Soil	7.5 ft	-	-	-	-	-	-	-	-	<0.004	<0.004	<0.004	<0.004	<0.004
GA-15-13.5	Soil	13.5 ft	-	-	-	-	-	-	-	-	<0.004	<0.004	<0.004	<0.004	<0.004
GA-16-4.0	Soil	4.0 ft	-	-	-	-	-	-	-	-	<0.004	<0.004	0.0056	<0.004	<0.004
GA-16-13.5	Soil	13.5 ft	-	-	-	-	-	-	-	-	<0.004	<0.004	<0.004	<0.004	<0.004
Soil ESL (Drinking Water)			83	83	0.044	2.9	2.3	2.3	0.023	0.37	0.46	0.19	0.67	0.022	
Soil ESL (Non-Drinking Water)			100	100	0.12	9.3	2.3	11	8.4	0.37	1.9	6.5	10	0.022	

Table Notes

Sample Depth = Depth below ground surface, in feet.
PCE = Tetrachloroethene
TCE = Tetrachloroethene
c-1,2-DCE = Cis-1,2-Dichloroethene
t-1,2-DCE = Trans-1,2-Dichloroethene
VC = Vinyl Chloride
<5.0 = Not detected above the expressed value.

Groundwater ESL = Soil Environmental Screening Levels for Evaluation of Potential Vapor Intrusion Concerns (residential land use), Tables A and B, as contained in *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, San Francisco Bay Regional Water Quality Control Board, Interim Final, May 2008.

Table 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
Former Coast Sausage Site

Concentration: micrograms per liter (ug/L); parts per billion (ppb)

<i>Sample ID</i>	<i>Sample Type</i>	<i>Sample Depth</i>	<i>TPH-D</i>	<i>TPH-G</i>	<i>B</i>	<i>T</i>	<i>E</i>	<i>X</i>	<i>MTBE</i>	<i>PCE</i>	<i>TCE</i>	<i>c-1,2-DCE</i>	<i>t-1,2-DCE</i>	<i>VC</i>
GA-1-GW	Water	(9.0 ft)	<0.050	<0.050	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	ND	ND	ND	ND	ND
GA-2-GW	Water	(6.1 ft)	<0.050	2.4	0.0030	<0.0005	<0.0005	<0.0010	<0.0010		170	3100	4.3	130
GA-3-GW	Water	(12.8 ft)	<0.050	<0.050	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	ND	ND	3.3	ND	ND
GA-4-GW	Water	(7.5 ft)	<0.050	<0.050	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	ND	ND	ND	ND	ND
GA-5-GW	Water	(12.4 ft)	<0.050	<0.050	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	ND	ND	ND	ND	ND
GA-6-GW	Water	(26.5 ft)	<0.050	<0.050	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	ND	ND	ND	ND	ND
GA-7-GW	Water	(7.2 ft)	<0.050	<0.050	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	ND	ND	ND	ND	ND
GA-8-GW	Water	(19.5 ft)	<0.050	<0.050	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	ND	ND	ND	ND	ND
GA-9-GW	Water	(6.8 ft)	<0.050	0.440	0.0060	<0.0005	0.0011	<0.0010	<0.0010	ND	ND	ND	ND	ND
GA-10-GW	Water	(7.0 ft)	<0.050	<0.050	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	ND	ND	ND	ND	ND
GA-12-GW	Water	11.0 ft	-	-	-	-	-	-	-	<1.0	<1.0	<0.50	<0.50	<0.50
GA-13-GW	Water	7.1	-	-	-	-	-	-	-	<1.0	<1.0	<0.50	<0.50	<0.50
GA-14-GW	Water	13.0 ft	-	-	-	-	-	-	-	<1.0	<1.0	1.2	2.1	<0.50
GA-15-GW	Water	7.4 ft	-	-	-	-	-	-	-	<1.0	<1.0	5.9	<0.50	<0.50
GA-16-GW	Water	7.2 ft	-	-	-	-	-	-	-	<1.0	<1.0	1.9	<0.50	<0.50
B-2 ^A	Water	(6.5 ft)	-	0.360	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	<1.0	7.9	370	<0.50	4.6
B-2 ^B	Water	-	-	-	-	-	-	-	-	<1.0	12	410	3.0	<0.5
Groundwater ESL (Drinking Water)			100	100	1.0	40	30	20	5.0	5.0	5.0	6.0	10	0.5
Groundwater ESL (Non-Drinking Water)			210	210	46	130	43	100	1,800	120	360	590	590	3.8

Table 3
SUMMARY OF SOIL GAS ANALYTICAL RESULTS
Former Coast Sausage Site

Sample ID	Sample Depth	Purge Volume	Concentration, micrograms per liter (ug/l)					
			Benzene	Toluene	Ethylbenzene	Xxlenes	Trichlorofluoromethane	Other VOCs
SG-1	2.0 ft	3 liters	<0.10	<0.20	0.19	1.11	<0.10	ND
SG-1	2.0 ft	1 liters	<0.10	<0.20	0.11	0.74	<0.10	ND
SG-1	2.0 ft	7 liters	<0.10	<0.20	0.15	1.04	<0.10	ND
SG-2	2.0 ft	3 liters	<0.10	<0.20	<0.10	<0.20	<0.10	ND
SG-3	2.0 ft	3 liters	<0.10	<0.20	<0.10	<0.20	5.0	ND
SG-4	2.0 ft	3 liters	<0.10	<0.20	<0.10	<0.20	<0.10	ND
SG-4	2.0 ft	3 liters	<0.10	<0.20	<0.10	<0.20	<0.10	ND
SG-4	2.0 ft	3 liters	<0.10	<0.20	<0.10	<0.20	<0.10	ND
SG-5	2.0 ft	3 liters	0.11	<0.20	<0.10	<0.20	<0.10	ND
SG-6	2.0 ft	3 liters	<0.10	<0.20	<0.10	<0.20	<0.10	ND
SG-6 dup	2.0 ft	3 liters	<0.10	<0.20	<0.10	<0.20	<0.10	ND
SG-7	2.0 ft	3 liters	<0.10	<0.20	<0.10	<0.20	<0.10	ND
SG-8	5.0 ft	3 liters	<0.10	<0.20	<0.10	<0.20	<0.10	ND
Probe Blank	--	--	<0.10	<0.20	<0.10	<0.20	<0.10	ND
Soil Gas ESL-Residential, ug/m3			84	63,000	980	21,000	NE	Variable
Soil Gas ESL-Residential, ug/l			0.084	63	0.98	21	NE	Variable

Sample Depth = Depth below concrete slab, in feet.
Purge Volume = Volume purged before sampling, in liters.
Other VOCs = Includes 19 other Volatile Organic Compounds (excluding BTEX and Trichlorofluoromethane; does include chlorinated solvents).
<0.10 = Not detected above the expressed value.
ND = No detectable concentrations of 19 individual VOC constituents.

Probe Blank = Equipment blank vapor sample taken from air purged from sampling probe.
Soil Gas ESL = Shallow Soil Gas Environmental Screening Levels for Evaluation of Potential Vapor Intrusion Concerns (residential land use), Table E-2, as contained in *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, San Francisco Bay Regional Water Quality Control Board, Interim Final, May 2008

Table Notes

Sample Depth = Depth below ground surface, in feet.

PCE = Tetrachloroethene

TCE = Trichloroethene

c-1,2-DCE = Cis-1,2-Dichloroethene

t-1,2-DCE = Trans-1,2-Dichloroethene

VC = Vinyl Chloride

Other HVOCs = Includes 23 other Halogenated Volatile Organic Compounds

<4.0 = Not detected above the expressed value.

ND = No detectable concentrations of 23 individual VOC constituents.

^a = collected on 7/26/2006

^b = collected on 11/24/2008

Groundwater ESL = Soil Environmental Screening Levels for Evaluation of Potential Vapor Intrusion Concerns (residential land use), Tables A and B, as contained in *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, San Francisco Bay Regional Water Quality Control Board, Interim Final, May 2008.

CLIENT	SITE NUMBER	LOCATION
	SB-1	1172 28th street
DRILLING AND SAMPLING METHODS		
Direct push / Uironex		
WATER LEVEL	N/A	
TIME		DRILLING START FINISH
DATE		TIME 11:40 TIME 11:50
REFERENCE		DATE DATE

LOG OF SOIL BORING

Coordinates:
 3' south of old boring #2
 Elevation top of casing:
 Casing below surface:

Inches Driven Recover	Blow/6" Sampler	OVA Reading	WELL DETAIL	DEPTH (Feet)	GRAPHIC LOG	SURFACE CONDITIONS
						DESCRIPTION by:
				0		8" Concrete w/ gravel base
				1		0-8 concrete
				2	GM	8-12 Gravel fill < HAND AUGERED 1 FOOT
				3	GM	1' - 2 1/2 Feet SILTY GRAVEL (GM) damp
				4	GM SB-1 3-4'	GRAVEL 65% SAND 10% SILT 25%, medium brown
						2 1/2 - 4' SILTY GRAVEL (GM)
						Gravel 50% SAND 25% SILT 25% damp
						No clay. Light brown -
						TD = 4' STIFF
				5		liquid coating acrylic liner
				6		feels too slick to be just water -
				7		No color - no odor.
				8		
				9		
				10		
				11		
				12		
				13		
				14		
				15		
				16		
				17		
				18		
				19		
				20		

CLIENT		SITE NUMBER		LOCATION	
		SB-2		1173 28 th St.	
DRILLING AND SAMPLING METHODS					
direct push / VIRONEX					
WATER LEVEL		N/A		DRILLING	
TIME				START	FINISH
DATE				TIME	TIME
REFERENCE				6/12/02	12:10
				DATE	DATE

LOG OF SOIL BORING

Coordinates:
3' North of old boring
Elevation top of casing: # 2.
Casing below surface:

Inches		WELL DETAIL	DEPTH (Feet)	GRAPHIC LOG	SURFACE CONDITIONS
Driven	Recover				
			0		8" concrete + 4" Gravel (no fines)
100			1		DESCRIPTION by: WKM
100			2	GM	0-8" concrete (HAND DRILLED 1 FOOT)
0			3		8-12" coarse gravel (loosewashed fill)
0			4		1'-8" GM silty gravel
100			5	SB-2-4-5	well graded, subangular gravel 65%
100			6		sand 10% SILT 25%, medium
0			7		brown to dark brown. damp
0			8		no clay
			9		8' TD.
			10		Note - moisture on outside
			11		of acrylic casing feels too
			12		slip to be water - no
			13		color or odor noted.
			14		
			15		
			16		
			17		
			18		
			19		
			20		

CLIENT	1172 28 th Street (Map location 4)	SITE NUMBER	SB-3
LOCATION			
DRILLING AND SAMPLING METHODS	direct push / VIRONEX		
WATER LEVEL			
TIME			
DATE			
REFERENCE			
		DRILLING START TIME	11:07
		DRILLING FINISH TIME	
		DATE	6/2/02
		DATE	

LOG OF SOIL BORING SB-3

Coordinates:
On Adeline street 2' from curb
Elevation top of casing:
Casing below surface:

Inches	Blow 28" Sampler	OVA Reading	WELL DETAIL	DEPTH (Feet)	GRAPHIC LOG	SURFACE CONDITIONS
				20		DESCRIPTION by: WKM
100				1	GW	8" concrete (HAND Augered 1 Foot)
100				2		SILTY GRAVEL yellow brown
100				3		to light brown, locally gravelly silt.
0				4		dry 0-6' little FRAGMENT
100				5		to 1 inch angular, 30-40% of
100				6		soil, 60-70% silt and sand
100				7	GW	SOIL COLOR CHANGE to greenish gray
100				8	Sample SB3-7-8'	mottled - Lithology same
100				9		moist at 6' PETROLEUM odor
100				10		- wet soil (saturated in shoe)
100				11	GW	10' color change to hydro would not open - yellow brown
100				12		core to 12 / bad sample
			13		12' EOH	
			14			
			15			
			16			
			17			
			18			
			19			
			20			

0113-01

CLIENT <i>map location 3</i>	SITE NUMBER <i>SB-4</i>	LOCATION <i>1173 28th St</i>
DRILLING AND SAMPLING METHODS <i>direct push - VIROTEX</i>		
WATER LEVEL <i>10.9'</i>		DRILLING START TIME <i>13:00</i>
TIME <i>13:18</i>		DRILLING FINISH TIME <i>13:45</i>
DATE <i>6/12/02</i>		DATE <i>6/12/02</i>
REFERENCE		

LOG OF SOIL BORING

Coordinates:
Magnetic Street side of property
Elevation top of casing:
Casing below surface:

Inches Driven	Recover	Blow/B Sampler	OVA Reading	WELL DETAIL	DEPTH (Feet)	GRAPHIC LOG	SURFACE CONDITIONS	DESCRIPTION by:
					0		<i>3" asphalt, 3" Gravel</i>	<i>0-0.5' asphalt over gravel</i>
<i>100</i>					1	<i>GM</i>		<i>0-2' gray colored SILTY Gravel</i>
<i>100</i>					2			<i>55% gravel 10% SAND, 35% SILT -</i>
<i>100</i>					3			<i>dry - stiff. clasts WEATHERED -</i>
<i>75</i>				<i>NR</i>	4			<i>disintegrate when cone is broken,</i>
<i>100</i>					5			<i>slight organic odor (not petroleum)</i>
					6			<i>2-12' mottled yellow brown</i>
					7			<i>silty gravel w/ gray and medium</i>
					8			<i>brown mottling. damp to 10', stiff.</i>
					9			<i>10-12' wet, loose silty</i>
					10			<i>gravel.</i>
<i>100</i>					11	<i>▽</i>		<i>10.9 GW level immediately</i>
<i>80</i>				<i>NR</i>	12			<i>after cone was recovered -</i>
					13			<i>water level rising slowly.</i>
					14			<i>dewatered after 1 Liter GW</i>
					15			<i>sampled. waited for recharge</i>
					16			<i>10 min - produced about</i>
					17			<i>1 liter per 5 minutes after the wait</i>
					18			<i>period.</i>
					19			
					20			

CLIENT

SITE NUMBER

LOCATION

SB-5

1173 28th Street

LOG OF SOIL BORING

Coordinates:

EAST of office truck Bldg on
Elevation top of casing 28th ST

Casing below surface: SIDE (NOR)

DRILLING AND SAMPLING METHODS

WATER LEVEL	2.9'			DRILLING	
TIME	12:45			START	FINISH
DATE	6/12/02			TIME 12:30	TIME 1:30
REFERENCE				DATE 6/12/02	DATE

Inches	Driven	Recover	BLOW/B* Sampler	OVA Reading	WELL DETAIL	DEPTH (Feet)	GRAPHIC LOG	SURFACE CONDITIONS	DESCRIPTION by:
						0		8" concrete, 4" gravel	WKM
100						1		0-8" concrete (HAND ASSESS)	
100						2	GIM	8-12" coarse gravel	
100						3		0-8 FEET SILT GRAVEL, 60% gravel (finer size) 30% SILT and minor sand, 5% CLAY PLASTIC - damp	
50						4		0-3 DARK earth color nodules	
100						5		3-4.5 mottled medium brown and greenish gray (15%) plastic	
100						6		4-5-6 medium brown GIM	
100						7		WET Saturated, Loose.	
100						8		Increase in gravel content 7-8' to 75%.	
						9		GW level measured after cone pulled from 8', GW @ 2.9'	
						10			
						11			
						12			
						13			
						14			
						15			
						16			
						17			
						18			
						19			
						20			

BORING NUMBER : **GA-1**

BORING LOCATION: 1173 28th Street
Oakland, Ca

BORING TYPE: Soil

PROJECT NAME: Coast Sausage

PROJECT NUMBER:

LOG OF SOIL BORING

GRIBI ASSOCIATES

SHEET 1 OF 1

DRILLING CONTRACTOR: TEG

DRILLING METHOD: Direct Push

BOREHOLE DIAMETER: 2.0"

COMPLETION METHOD: Grout

BORING TOTAL DEPTH: 24.0 ft.

GROUNDWATER DEPTH: 9.0 ft.

START DATE: 07/13/2006

COMPLETION DATE: 07/13/2006

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS ▽ - INITIAL ◄ - FINAL	USCS	LOG OF MATERIAL	
						0.0 - 1.0 ft. Concrete.	
	GA-1	3.5 ft			ML	1.0 - 3.0 ft. Gravel & Silt Dark gray, loose fill	
	GA-1	7.5 FT.			CL	3.0 - 6.5 ft. Clay (CL) Dark Olive gray clay, slight silty soft, firm ,moist no odors or staining.	
10					ML	6.5 - 8.0 ft. Sandy Silt (ML) Light red brown, very fine, soft to firm, clayey, moist to wet No odors or staining	
	GA-1	14.0 FT.			CL	8.0 - 18.5 ft. Clay (CL) Olive gray brown, firm dense, moist to wet, no odors or staining.	
20	GA-1	18.5 ft.			GC	18.5 - 20.5 ft. Clayey Gravel (GC) Olive gray, sandy silty, loose-firm, moist-wet, gravel to 1/2" subrounded sandy, no odors or staining.	
	GA-1	23.5 ft.			CL	20.5 - 21.5 ft. Clay (CL) Gray brown, firm dense, moist-wet, occ silty, no odors or staining.	
					SC	21.5 - 23.5 ft. Clay Sand (SC) Gray brown, silty, soft, wet, no odors or staining	
30					ML	23.5 - 24.0 ft. Clay Silt (ML) Olive gray, soft - firm, moist, no odors or staining	

LOG OF SOIL BORING

SHEET 1 OF 1

BORING NUMBER : GA-2

BORING LOCATION: 1173 28th Street
Oakland, Ca

BORING TYPE: Soil

PROJECT NAME: Coast Sausage

PROJECT NUMBER:

GRIBI ASSOCIATES

START DATE: 07/13/2006

COMPLETION DATE: 07/13/2006

DRILLING CONTRACTOR: TEG





DRILLING METHOD: Direct Push

BOREHOLE DIAMETER: 2.0"

COMPLETION METHOD: Grout

BORING TOTAL DEPTH: 28.0 ft.

GROUNDWATER DEPTH: 6.1 ft.

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS  - INITIAL  - FINAL	USCS	LOG OF MATERIAL	
						0.0 - 1.0 ft. Concrete.	
						1.0 - 4.0 ft. No Recovery	
	GA-2	6.5 ft.				4.0 - 8.0 Clay Olive brown, moist, medium stiff to stiff, no odors or staining	
10						8.0 - 12.0 ft. Clay (CL) Brown, moist, slight silty, very stiff.	
						12.0 - 16.0 ft. Silty Clay (CL) Brown, moist, wet from 13 - 15', very fine grain sands from 14 - 15'	
						16.0 - 20.0 ft. Clay (CL) Olive gray, slight silty, moist, stiff to very stiff, 18'-19' soft, increased silt content, some fine gravel	
20						20.0 - 24.0 ft. Silty Clay (CL) Gray, moist, soft	
	GA-2	23.0 ft.				24.0 - 28.0 ft. Clay (CL) Gray, moist, very stiff - very hard	
30							

LOG OF SOIL BORING

SHEET 1 OF 1

BORING NUMBER : **GA-3**

BORING LOCATION: 1173 28th Street
Oakland, Ca

BORING TYPE: Soil

PROJECT NAME: Coast Sausage

PROJECT NUMBER:

GRIBI ASSOCIATES

DRILLING CONTRACTOR: TEG

DRILLING METHOD: Direct Push

BOREHOLE DIAMETER: 2.0"

COMPLETION METHOD: Grout

START DATE: 07/13/2006

BORING TOTAL DEPTH: 28.0 ft.

COMPLETION DATE: 07/13/2006

GROUNDWATER DEPTH: 12.8 ft.

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS - INITIAL - FINAL	USCS	LOG OF MATERIAL	
						DEPTH (ft)	DESCRIPTION
						0.0 - 1.0 ft.	Concrete
						1.0 - 4.0 ft.	No Recovery
	GA-3	7.0 ft				4.0 - 6.0 ft.	Gravel (Fill) Silty, sandy, clayey
					ML	6.0 - 8.0 ft.	Silt (ML) Brown, moist, soft, slight clayey
10						8.0 - 12.0 ft.	Clay (CL) Olive brown, moist, 8'-10' slight silty, soft, 10'-12' stiff to very stiff >silt.
						12.0 - 16.0 ft.	Silty Clay (CL) Brown, moist, stiff, 13.5' - 14.5' slight higher silt content
						16.0 - 17.0 ft.	Silty Clay (CL) Brown, moist, stiff
					ML	17.0 - 19.0 ft.	Clayey Silt (ML) Olive green, moist, soft, some coarse sand.
20	GA-3	19.0 ft.				19.0 - 20.0 ft.	Clayey Silt (ML) Gray, moist, soft, some coarse sand.
						20.0 - 24.0 ft.	Silty Clay (CL) Gray, moist, soft, becoming stiff
						24.0 - 27.0 ft.	Silty Clay (CL) Gray, moist, soft, becoming stiff
30						27.0 - 28.0 ft.	Clay (CL) Brown gray, moist, hard

LOG OF SOIL BORING

SHEET 1 OF 1

BORING NUMBER : GA-4

BORING LOCATION: 1173 28th Street
Oakland, Ca

BORING TYPE: Soil

PROJECT NAME: Coast Sausage

PROJECT NUMBER:

GRIBI ASSOCIATES

START DATE: 07/14/2006

COMPLETION DATE: 07/14/2006

DRILLING CONTRACTOR: TEG



DRILLING METHOD: Hand Auger

BOREHOLE DIAMETER: 3.5"

COMPLETION METHOD: Grout

BORING TOTAL DEPTH: 10.0 ft.

GROUNDWATER DEPTH: 7.5 ft.

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS  - INITIAL  - FINAL	USCS	LOG OF MATERIAL	
						0.0 - 1.5 ft.	Concrete & Cork
						1.5 - 4.0 ft.	Clay (CL) Olive brown, moist, stiff to unstiff
						4.0 - 6.0 ft.	Silty Clay (CL) Olive, gray, moist
10						6.0 - 9.5 ft.	Silty Clay / Clayey Silt Brown, moist, increasing sand content with depth
20							
30							

LOG OF SOIL BORING

SHEET 1 OF 1

BORING NUMBER : GA-5

BORING LOCATION: 1173 28th Street
Oakland, Ca

BORING TYPE: Soil

PROJECT NAME: Coast Sausage

PROJECT NUMBER:

GRIBI ASSOCIATES

DRILLING CONTRACTOR: TEG

DRILLING METHOD: Direct Push

BOREHOLE DIAMETER: 2.0"



COMPLETION METHOD: Grout

START DATE: 07/14/2006

BORING TOTAL DEPTH: 24.0 ft

COMPLETION DATE: 07/14/2006

GROUNDWATER DEPTH: 12.4 ft.

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS  - INITIAL  - FINAL	USCS	LOG OF MATERIAL	
						0.0 - 1.0 ft.	Concrete
						1.0 - 4.0 ft.	No Recovery
						4.0 - 7.0 ft.	Silty Clay (CL) Gray silty, firm dense, moist, no odors or staining
	GA-5	7.5 ft.				7.0 - 9.0 ft.	Sandy Gravel (GP) Dark gray, loose, moist - wet, gravel = ang-sang to 1/2", strong HC (diesel) odor
10						9.0 - 11.0 ft.	Clay Silt (ML) Gray brown, moist - wet, soft, no odors or staining
	GA-5	11.5 ft.				11.0 - 13.0 ft.	Silty Sand (SC) Gray, very fine, clayey, moist, no odors or staining
						13.0 - 15.0 ft.	Silty Clay (CL) Light brown, firm dense, moist, no odors or staining
						15.0 - 18.0 ft.	Gravel (GC) Red brown, clayey, sandy, moist-wet, loose-firm, no odors or staining
20						18.0 - 23.5 ft.	Silty Clay (CL) Gray brown, firm, dense, moist, no odors or staining
						23.5 - 24.0 ft.	Silty Sand (SC) Gray, very fine, soft, wet, no odors or staining
30							

LOG OF SOIL BORING

SHEET 1 OF 1

BORING NUMBER : GA-6

BORING LOCATION: 1173 28th Street
Oakland, Ca

BORING TYPE: Soil

PROJECT NAME: Coast Sausage

PROJECT NUMBER:

GRIBI ASSOCIATES

DRILLING CONTRACTOR: TEG

DRILLING METHOD: Direct Push

BOREHOLE DIAMETER: 2.0"

COMPLETION METHOD: Grout

BORING TOTAL DEPTH: 28.0 ft.

GROUNDWATER DEPTH: 26.5 ft.

START DATE: 07/14/2006

COMPLETION DATE: 07/14/2006

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS - INITIAL - FINAL	USCS	LOG OF MATERIAL	
						0.0 - 1.0 ft. Concrete	
						0.0 - 8.0 ft. No Recovery	
10	GA-6	10.0 ft.				8.0 - 12.5 ft. Gravelly Clay (CL) Gray brown, firm, pea sized clasts, moist- wet, no odors or staining	
						12.5 - 14.0 ft. Clay (CL) Gray brown, silty, firm, moist, no odors or staining	
						14.0 - 17.0 ft. Gravelly Clay (CL) Red brown, sandy, firm - loose, moist, no odors or staining	
						17.0 - 18.0 ft. Silty Sand (SC) Red brown, slight clayey, soft, moist-wet, no odors or staining	
20						18.0 - 21.0 ft. Clay (CL) Gray brown, slight gravelly, firm, no odors or staining	
						21.0 - 23.0 ft. Clay Silt (ML) Gray, sandy, dense firm, moist-wet, no odors or staining	
						23.0 - 28.0 ft. Clay (CL) Olive gray, dense, firm, moist, no odors or staining	
30							

LOG OF SOIL BORING

SHEET 1 OF 1

BORING NUMBER : GA-7

BORING LOCATION: 1173 28th Street
Oakland, Ca

BORING TYPE: Soil

PROJECT NAME: Coast Sausage

PROJECT NUMBER:

GRIPI ASSOCIATES

DRILLING CONTRACTOR: TEG

DRILLING METHOD: Hand Auger

BOREHOLE DIAMETER: 3.5 "

COMPLETION METHOD: Grout

BORING TOTAL DEPTH: 10.0 ft.

GROUNDWATER DEPTH: 7.2 ft

START DATE: 07/13/2006

COMPLETION DATE: 07/13/2006

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS - INITIAL - FINAL	USCS	LOG OF MATERIAL	
						0.0 - 1.0 ft.	Concrete
						1.0 - 4.0 ft.	Gravelly Clay (CL) Brown, loose, moist, no odors or staining
						4.0 - 8.0 ft.	Sandy Gravel (GP) Dark brown, loose, moist-wet, no odors or staining
10						8.0 - 10.0 ft.	Silty Sand (SC) Red brown, clayey, moist, fine, no odors or staining
						10.0 - 16.0 ft.	Clay (CL) Gray, moist-wet, no odors or staining
20							
30							

LOG OF SOIL BORING

GRIBI ASSOCIATES

SHEET 1 OF 1

BORING NUMBER : GA-8

BORING LOCATION: 1173 28th Street
Oakland, Ca

BORING TYPE: Soil

PROJECT NAME: Coast Sausage

PROJECT NUMBER:

DRILLING CONTRACTOR: TEG

DRILLING METHOD: Direct Push

BOREHOLE DIAMETER: 2.0"

COMPLETION METHOD: Grout

BORING TOTAL DEPTH: 28.0 ft.

GROUNDWATER DEPTH: 19.5 ft.

START DATE: 07/13/2006

COMPLETION DATE: 07/13/2006

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS - INITIAL - FINAL	USCS	LOG OF MATERIAL
10	GA-8	11.0 ft.			Concrete	0.0 - 1.0 ft. Concrete
					Clay (CL)	1.0 - 4.0 ft. Clay (CL) Dark olive brown, moist, slight odor
					Clay (CL)	4.0 - 8.0 ft. Clay (CL) Olive green clay, moist, no odors or staining
					Clay (CL)	8.0 - 12.0 ft. Clay (CL) Olive green to brown, odor around 11 ft.
					Clay (CL)	12.0 - 16.0 ft. Clay (CL) Green to brown clay, moist, no odors or staining
					Clay (CL)	16.0 - 20.0 ft. Clay (CL) Brown, moist, no odors or staining
20					Clay Sand (SC)	20.0 - 24.0 ft. Clay Sand (SC) Brown, wet, no odors or staining
30					Clay (CL)	24.0 - 28.0 ft. Clay (CL) Gray, stiff to very stiff, no odors or staining

LOG OF SOIL BORING

SHEET 1 OF 1

BORING NUMBER : GA-9

BORING LOCATION: 1173 28th Street
Oakland, Ca

BORING TYPE: Soil

PROJECT NAME: Coast Sausage

PROJECT NUMBER:

GRIBI ASSOCIATES

DRILLING CONTRACTOR: TEG

DRILLING METHOD: Hand Auger

BOREHOLE DIAMETER: 3.5 "

COMPLETION METHOD: Grout

BORING TOTAL DEPTH: 10.0 ft.

GROUNDWATER DEPTH: 6.8 ft

START DATE: 07/14/2006

COMPLETION DATE: 07/14/2006

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS - INITIAL - FINAL	USCS	LOG OF MATERIAL
10						<p>0.0 - 1.5 ft. Concrete & Cork</p> <p>1.5 - 6.0 Clay (CL) Olive brown, stiff to unstiff, slight moist, no odors or staining</p> <p>6.0 - 8.0 ft. Silty Gravelly Sand (SP) Brown, moist, fine - coarse sand, fine gravel, no odors or staining, stopped due to rock at depth of boring</p>
20						
30						

LOG OF SOIL BORING

SHEET 1 OF 1

BORING NUMBER : GA-10

BORING LOCATION: 1173 28th Street
Oakland, Ca

BORING TYPE: Soil

PROJECT NAME: Coast Sausage

PROJECT NUMBER:

GRIBI ASSOCIATES

START DATE: 07/14/2006

COMPLETION DATE: 07/14/2006

DRILLING CONTRACTOR: TEG

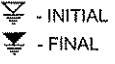
DRILLING METHOD: Hand Auger

BOREHOLE DIAMETER: 3.5 "

COMPLETION METHOD: Grout

BORING TOTAL DEPTH: 10.0 ft.

GROUNDWATER DEPTH: 7.0 ft

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS 	USCS	LOG OF MATERIAL	
						0.0 - 1.5 ft.	Concrete
						1.5 - 5.0 ft.	Clay (CL) Olive, brown, moist, very stiff
						5.0 - 8.0 ft.	Gravelly Sand (SP) Silty, clayey, moist
10						8.0 - 10.0 ft.	Silty Clay (CL) Brown, moist, stiff
20							
30							

LOG OF SOIL BORING

SHEET 1 OF 1

BORING NUMBER :

BORING LOCATION: 1173 28th Street
Oakland, Ca

BORING TYPE: Soil

PROJECT NAME: Coast Sausage

PROJECT NUMBER:

GRIBI ASSOCIATES

START DATE: 07/14/2006

COMPLETION DATE: 07/14/2006

DRILLING CONTRACTOR: TEG






DRILLING METHOD: Hand Auger

BOREHOLE DIAMETER: 3.5 "

COMPLETION METHOD: Grout

BORING TOTAL DEPTH: 7.0 ft

GROUNDWATER DEPTH:

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS  - INITIAL  - FINAL	USCS	LOG OF MATERIAL	
						0.0 - 1.0 ft	Concrete
						1.0 - 5.0 ft	Clay (CL) Olive, brown, moist, very stiff
						5.0 - 7.0 ft	Clayey Silt (ML) Gray, moist, soft, slight odor, some gravel at bottom Stopped due to rock at bottom of boring
10							
20							
30							

BORING NUMBER : GA-12

BORING LOCATION: 1173 28th Street
Oakland, California

BORING TYPE: Soil

PROJECT NAME: Coast Sausage

PROJECT NUMBER: 307-01-01

LOG OF SOIL BORING

GRIBI ASSOCIATES

SHEET 1 OF 1

DRILLING CONTRACTOR: Gregg Drilling

DRILLING METHOD: Direct Push

BOREHOLE DIAMETER: 2.25"

COMPLETION METHOD: Grout

BORING TOTAL DEPTH: 14.0 ft.

GROUNDWATER DEPTH: 11.0 ft.

START DATE: 04/16/2007

COMPLETION DATE: 04/16/2007

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS ▽ - INITIAL ▽ - FINAL	USCS	LOG OF MATERIAL	
						0.0 - 2.0 ft.	Concrete and base rock.
5					CL	2.0 - 6.5 ft.	Clay (CL) Dark gray, stiff, dense, moist, no odors or staining
10					CL	6.5 - 13.0 ft.	Clay (CL) Grey-brown, soft to medium stiff, localized silt, moist, wet at 11.0', no odor or staining.
	GA-12-11.0	11.0 ft.		▽			
	GA-12-13.5	13.5 ft.			SC	13.0 - 14.0 ft.	Clayey Sand (SC) Grey-brown, soft, very fine to fine grain, wet, no odor or staining
15						Total Depth: 14.0 Feet.	
						GROUNDWATER DEPTH = 11.0 FT. INITIAL, ? FINAL(SLOW RECHARGE)	
						WATER SAMPLE GA-12-W COLLECTED.	
20							

BORING NUMBER : **GA-13**

BORING LOCATION: 1173 28th Street
Oakland, California

BORING TYPE: Soil

PROJECT NAME: Coast Sausage

PROJECT NUMBER: 307-01-01

LOG OF SOIL BORING

GRIBI ASSOCIATES

SHEET 1 OF 1

DRILLING CONTRACTOR: Gregg Drilling

DRILLING METHOD: Direct Push

BOREHOLE DIAMETER: 2.25"

COMPLETION METHOD: Grout

START DATE: 04/16/2007

BORING TOTAL DEPTH: 15.0 ft.

COMPLETION DATE: 04/16/2007

GROUNDWATER DEPTH: 7.1 ft.

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS ▽ - INITIAL ▽ - FINAL	USCS	LOG OF MATERIAL	
						0.0 - 2.0 ft.	Concrete and base rock.
5					CL	2.0 - 6.0 ft.	Clay (CL) Dark grey to black, stiff, moist, no odor or staining.
10					CL	6.0 - 13.0 ft.	Clay (CL) Grey-brown, localized silt/sand, moist to wet, no odor or staining.
	GA-13-11.5	11.5 ft.					
15	GA-13-15.0	15.0 ft.			SC	13.0 - 15.0 ft.	Sand (SP) Grey-brown, fine to medium grain, very gravelly at 14.5' -15.0' wet, no odor or staining.
						Total Depth: 15.0 Feet.	
						GROUNDWATER DEPTH = 11.0 FT. INITIAL, 7.1 FINAL WATER SAMPLE GA-13-W COLLECTED.	
20							

BORING NUMBER : **GA-14**

BORING LOCATION: 1173 28th Street
Oakland, California

BORING TYPE: Soil

PROJECT NAME: Coast Sausage

PROJECT NUMBER: 307-01-01

LOG OF SOIL BORING

GRIBI ASSOCIATES

SHEET 1 OF 1

DRILLING CONTRACTOR: Gregg Drilling

DRILLING METHOD: Direct Push

BOREHOLE DIAMETER: 2.25"

COMPLETION METHOD: Grout

BORING TOTAL DEPTH: 16.0 ft.

GROUNDWATER DEPTH: 13.0 ft.

START DATE: 04/16/2007

COMPLETION DATE: 04/16/2007

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS ▽ - INITIAL ▽ - FINAL	USCS	LOG OF MATERIAL	
						DESCRIPTION	REMARKS
						0.0 - 1.0 ft. Concrete	
						1.0 - 4.0 ft. No Recovery	
5	GA-14-5.0	5.0 ft.			CL	4.0 - 6.5 ft. Clay (CL) Olive gray, stiff, moist, slight hydrocarbon odor	
	GA-14-7.5	7.5 ft.			SP	6.5 - 10.0 ft. Sand (SP) Dark olive-grey, gravelly sand, loose to firm, moist, slightly clayey, slight hydrocarbon odor.	
10				▽	CL	10.0 - 12.5 ft. Clay (CL) Light olive-grey, slight sandy, soft - medium stiff, wet at 11.0', no odor or staining.	
				▽	GP	12.5 - 14.5 ft. Sandy Gravel (GP) Dark olive-grey, clasts to 1", wet, friable, loose, slight hydrocarbon odor.	
15	GA-14-14.0	14.0 ft.			SM	14.5 - 16.0 ft. Silty Sand (SM) Olive becoming light brown, very fine grain, wet, soft, no odor or staining.	
						Total Depth: 16.0 Feet.	
						GROUNDWATER DEPTH = 11.0 FT. INITIAL, 13.0 FINAL	
						WATER SAMPLE GA-14-W COLLECTED.	
20							

BORING NUMBER : **GA-15**

BORING LOCATION: 1173 28th Street
Oakland, California

BORING TYPE: Soil

PROJECT NAME: Coast Sausage

PROJECT NUMBER: 307-01-01

LOG OF SOIL BORING

GRIBI ASSOCIATES

SHEET 1 OF 1

DRILLING CONTRACTOR: Gregg Drilling

DRILLING METHOD: Direct Push

BOREHOLE DIAMETER: 2.25"

COMPLETION METHOD: Grout

BORING TOTAL DEPTH: 15.0 ft.

GROUNDWATER DEPTH: 7.4 ft.

START DATE: 04/16/2007

COMPLETION DATE: 04/16/2007

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS ▽ - INITIAL ▽ - FINAL	USCS	LOG OF MATERIAL	
						0.0 - 2.0 ft.	Concrete and base rock.
5	GA-15-3.5	3.5 ft.			CL	2.0 - 5.5 ft.	Clay (CL) Dark gray, stiff, moist no odor or staining.
10	GA-15-7.5	7.5 ft.		▽	CL	5.5 - 12.5 ft.	Clay (CL) Olive-grey, stiff, moist, wet at 11.5', no to slight hydrocarbon odor.
				▽	GP	12.5 - 14.5 ft.	Sandy Gravel (GP) Dark olive-grey, clasts to 1", wet, slight to moderate hydrocarbon (?) Odor.
15	GA-15-13.5	13.5 ft.			GP/SP	14.5 - 15.0 ft.	Sandy Gravel/Gravelly Sand (GP-SP) Red-brown, loose to firm, gravel to 1", wet, no odor or staining.
20	Total Depth: 15.0 Feet.						
						GROUNDWATER DEPTH = 11.5 FT. INITIAL, 7.4 FINAL	
						WATER SAMPLE GA-14-W COLLECTED.	

LOG OF SOIL BORING

SHEET 1 OF 1

BORING NUMBER : **GA-16**

BORING LOCATION: 1173 28th Street
Oakland, California

BORING TYPE: Soil

PROJECT NAME: Coast Sausage

PROJECT NUMBER: 307-01-01

GRIBI ASSOCIATES

START DATE: 04/16/2007

COMPLETION DATE: 04/16/2007

DRILLING CONTRACTOR: Gregg Drilling

DRILLING METHOD: Direct Push

BOREHOLE DIAMETER: 2.25"

COMPLETION METHOD: Grout

BORING TOTAL DEPTH: 16.0 ft

GROUNDWATER DEPTH: 7.2 ft.

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS ▽ - INITIAL ▽ - FINAL	USCS	LOG OF MATERIAL	
						DESCRIPTION	NOTES
						0.0 - 2.0 ft.	Concrete and base rock.
5	GA-16-4.0	4.0 ft.			CL	2.0 - 4.0 ft.	Clay (CL) Dark grey, stiff, moist, no odor or staining.
10					CL	4.0 - 13.0 ft.	Clay (CL) Light olive-grey, stiff, moist, no odor or staining.
15	GA-16-13.5	13.5 ft.			SP	13.0 - 16.0 ft.	Sand (SP) Light brown, very fine to fine grain, wet, loose, no odor or staining.
20						Total Depth: 16.0 Feet. GROUNDWATER DEPTH = 13.0 FT. INITIAL, 7.2 FINAL WATER SAMPLE GA-16-W COLLECTED.	